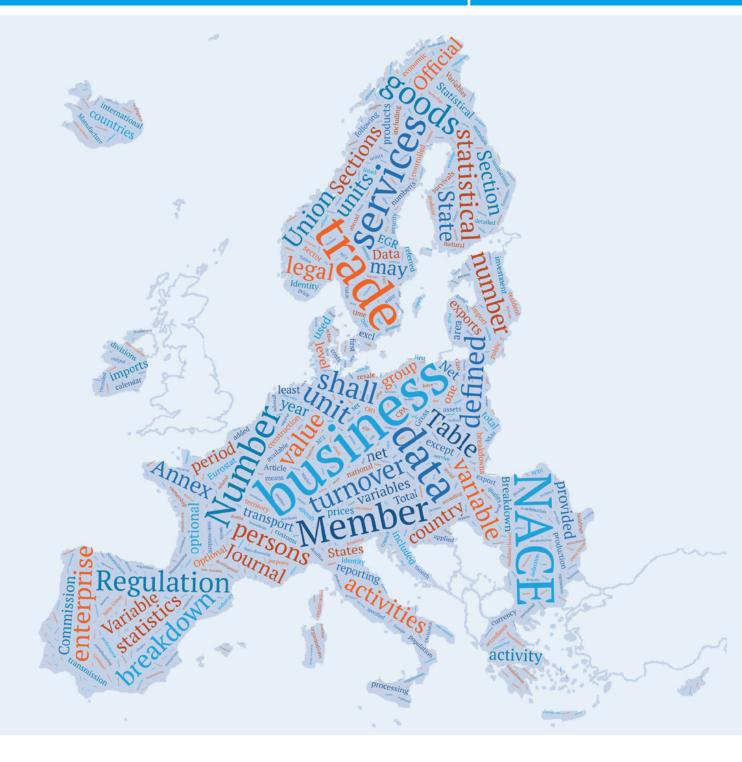
# European Business Statistics Manual

# **Dynamic edition**



MANUALS AND GUIDELINES



# European Business Statistics Manual Dynamic edition

#### Version: March 2021

This dynamic edition of the EBS Manual has the same content as the <u>EBS Manual – 2021 edition</u> published on 16 February 2021.

All future updates compared to the 2021 static edition of the EBS Manual will be listed in the chapter prefaces, where applicable.

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# Foreword

European business statistics (EBS) cover the structure, economic activities and performance of businesses, their research and development as well as innovation activities, their information and communication technologies (ICT) usage and e-commerce, and global value chains. They also comprise statistics on the production of manufactured goods and services and the international trade in goods and services as well as essential statistical infrastructure such as national statistical business registers and the EuroGroups register. EBS provide users and key policymakers with much needed information for decision-making or for analytical purposes.

The consolidation of EBS took a significant leap forward with the adoption of the first encompassing EBS Regulation in November 2019, after many years of hard work aiming to pull together the various statistical domains into a coherent legal framework, facilitating improved consistency and harmonisation across all business statistics.

This manual seeks to serve statistical experts and users alike as a comprehensive reference to the world of EBS by providing an overview of business statistics while highlighting the features introduced by the new regulatory framework. Furthermore, the manual describes the various statistical tools and activities supporting EBS production such as statistical units and profiling, classifications, data processing or statistical disclosure control.

The EBS manual was drafted by a number of Eurostat experts in consultation with national experts. Eurostat appreciates the contributions of all participants.

Sophie Limpach

Director Directorate G — Business and trade statistics

Eurostat

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This manual is the result of close collaboration between Eurostat and national experts in the area of business and trade statistics. The EBS manual builds on an earlier version of the manual disseminated as a series of Statistics Explained articles.

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# European business statistics manual contents and introduction

# Preface

European business statistics (EBS) are governed by a cross-cutting legal framework for the collection, compilation, transmission and dissemination of European statistics on the structure, economic activity, competitiveness, global transactions and performance of businesses. The European Parliament and Council Regulation (EU) 2019/2152 of 27 November 2019 on European business statistics (hereafter, the EBS Regulation), repealing 10 legal acts in the field of business statistics, was adopted on 27 November 2019.

The EBS manual provides a detailed description of EBS, including how they are compiled and the methodologies behind them and is divided into 20 chapters and two annexes, each covering a specific part of the statistical process behind EBS. This is the first official consolidated version of the EBS manual, which was already pre-released before the adoption of the legal act as a dynamic set of Statistics Explained articles. The manual also reflects the developments introduced by the EBS Regulation.

The dynamic version of the manual will be updated periodically, whereas this static methodological publication will only be updated when significant changes are required. Links to the more frequently updated articles are provided throughout the manual.

Last update: January 2021

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### 1.1. Introduction to business statistics

#### 1.1.1. HISTORICAL BACKGROUND

The first official EBS were introduced as part of the *Treaty establishing the European Coal and Steel Community (ECSC)* in 1951. Over the next few decades, statistical information expanded to also cover other domains of business statistics, at first on a voluntary basis or by means of directives. However, the introduction of the European single market in the early 1990s and the increased need for monitoring and policies meant that the majority of these domains became governed by regulations (<sup>1</sup>).The statistical infrastructure was fortified, especially with regulations on statistical units and business registers; also new statistics were introduced and coverage of existing ones expanded. This development continued steadily during the period 2000-2010, which also saw increasing levels of statistical cooperation and dissemination in the European Union (EU).

In 2014, the European Statistical System Committee (ESSC) launched its ESS Vision 2020 (<sup>2</sup>) strategy to make the European Statistical System (ESS) fit for the future and build upon the modernisation activities on European statistics, already undertaken by the European Commission since 2009. The ESS Vision 2020 was a joint strategic response of the ESS to the challenges which official statistics were facing, such as the handling of so-called Big Data, measuring globalisation in official statistics, providing high-quality statistics under tight budgets or addressing emerging policy needs for new statistical indicators while being conscious of burden on businesses and households. The ESS Vision 2020 resulted in three initiatives for framework Regulations: one in the field of agricultural statistics, one in the field of social statistics and one in the field of business and trade statistics.

The key milestones include:

- 1953 the Statistics Division for the Coal and Steel Community established;
- 1958 the European Community founded and the forerunner of Eurostat established;
- 1959 the present name of Eurostat as the Statistical Office of the European Communities adopted; first publication issued — on agricultural statistics;
- 1960 first Community labour force survey;
- 1970 the European system of integrated economic accounts (ESA) published and the general industrial classification of economic activities (NACE) established;
- 1989 the Statistical Programme Committee established and the first statistical programme (1989-1992) adopted by the Council as an instrument for implementing statistical information policy;
- 1990 the Council adopts a directive on transmission of confidential data to Eurostat, previously an obstacle to Community statistical work;
- 1991 Eurostat's role extended as a result of the agreement on establishment of the European Economic Area and adoption of the *Maastricht Treaty*; regulation on PRODCOM enters into force;
- 1993 the European single market extends Eurostat's activities, for example, Intrastat established for statistics on intra-EU trade and the regulations on statistical units and business registers enter into force;
- 1997 regulation on structural business statistics (SBS) enters into force and statistics added for the first time to the *Treaty of Amsterdam* and the statistical law approved by the Council;
- 1998 the 11 countries included at the start of EMU (EUR-11) announced, and Eurostat issues the first indicators specific to the EMU area; regulation on short-term statistics (STS) enters into force;
- 2002 start of the euro on 1 January, Eurostat supplies key statistics for monetary policy;
- 2003 decision adopted on science and technology statistics;
- 2004 Eurostat starts to provide the free dissemination of all statistical data except microdata for research purposes;
- 2005 Commission Recommendation on the independence, integrity and accountability of the national and Community statistical authorities (*European Statistics Code of Practice*);

<sup>(1)</sup> Regulations are directly applicable in all EU Member States, while directives first need to be transposed into national law. Both legal instruments are legally binding and are generally applicable to all Member States.

<sup>(&</sup>lt;sup>2</sup>) ESS Vision 2020 was set up to equip the ESS for the future. The ESS is a partnership between the statistical authorities of the EU Member States and EFTA countries, and the European Commission (Eurostat). ESS Vision 2020 is a joint strategic response by the ESS to the challenges facing official statistics. It was adopted by the ESS Committee in May 2014. The ESS Vision 2020 states that data should be used across statistical domains to be able to better analyse emerging phenomena (for example, globalisation) and to better serve high-impact EU policies. The data output should be based on efficient and robust statistical processes of the ESS.

- 2007 regulation on foreign affiliates statistics enters into force;
- 2008 Commission Decision on a Programme for the Modernisation of European Enterprise and Trade Statistics (MEETS) is adopted;
- 2009 new regulation governing statistical cooperation in the EU is adopted;
- 2014 the ESSC launches its ESS Vision 2020 strategy;
- 2019 EBS Regulation is adopted and will be applicable as of 2021 for most business and trade statistics.

#### 1.1.2. AN INTEGRATED APPROACH FOR BUSINESS STATISTICS

In 2012, Eurostat launched a project aimed at integrating the existing domain-specific regulations on business statistics by drawing up a cross-cutting legal framework for the collection, compilation, transmission and dissemination of EBS on the structure, economic activity, competitiveness, global transactions and performance of businesses.

EBS take into account the objectives of the ESS Vision 2020, the European Statistical Programme 2013-2017, the REFIT Programme (<sup>3</sup>) and the goals set as part of the Juncker Commission's 10 priorities, and builds upon the results of the MEETS programme.

Its main policy objectives include:

- streamlining and rationalising EBS;
- simplifying the respective European legislation;
- modernising and increasing the efficiency of the production and dissemination of high-quality EBS.

The EBS Regulation was adopted by the Council and European Parliament on 27 November 2019. For its implementation a series of implementing and delegated acts were adopted or will be adopted.

Besides its legal basis, the EBS architecture included the development and introduction of the present cross-domain manual for EBS. This manual reflects and clarifies the situation following the adoption of the EBS Regulation. The manual itself is non-binding (in other words, it is not a legal instrument) but is highly recommended as the overarching methodological documentation for European business and trade statistics.

The EBS manual is released as an official Eurostat methodological publication and as a dynamic version on Statistics Explained.

#### 1.1.3. OVERVIEW OF THE STATISTICAL PRODUCTION PROCESS

The content and format of the manual are based on international principles as described in the Common Metadata Framework (UN) and the Generic Statistical Business Process Model (UN).

The manual focuses on the subsequent phases of the statistical production process (<sup>4</sup>) for business statistics, from first inputs to final statistical outputs. Each chapter provides a general overview, with hyperlinks offering statistical experts more detailed information.

<sup>(3)</sup> The REFIT Programme — the Commission's regulatory fitness and performance programme for making EU law simpler and reducing unnecessary regulatory costs — identified statistics as one of the priority areas, for example, for Intrastat and for some other business statistics. Its action plan mentions the EBS Regulation and its counterpart IESS (social statistics) as key pillars of this reform agenda. The Framework Regulation Integrating Business Statistics (FRIBS) project envisaged the integration of statistical requirements and legal acts in business statistics, streamlining and simplifying them and reducing the burden on businesses.

<sup>(4)</sup> However, the manual does not address issues related to (a) how the process is organised in terms of information technology (IT) or personnel, and (b) the statistical programming process. As such, it does not cover the full Plan-Do-Check-Act (PDCA) cycle for the control and continual improvement of processes and products. In terms of the separate phases and sub-processes of the statistical production process, the PDCA cycle may well apply, and its use is recommended as good practice for ongoing improvements in statistics.

The main inputs can be grouped as follows:

- Scope and main concepts the business population to which EBS refer is broadly defined, and a description of the main subject areas and topics covered is provided. It also addresses concepts of cost-effective production and several key measures for ensuring/improving comparability and data consistency not only across the various domains of business statistics, but also in relation to accounting frameworks such as national accounts. It includes a special section on globalisation given its impact on statistical methodologies.
- Business registers national business registers include information on the active business population (in other words, statistical units). They play a central role in the production of business statistics both in terms of the way that statistics are produced and their content and quality. Besides names and addresses of the statistical units, they also cover other characteristics such as start date / closure date of the unit, economic activity (NACE), employment, turnover, legal form, plus information on control and ownership relations.
- EuroGroups register (EGR) this register focuses on multinational enterprise groups and ensures that they and their underlying units in national business registers are treated in the same way. Thanks to the EGR, the EU Member States can have a harmonised picture of multinational enterprise groups operating in the European market, which increases the quality and comparability of several statistics affected by globalisation.
- Statistical units the statistical unit is the entity for which the relevant statistics are compiled. It could be an observation unit, which has information and for which statistics are compiled, or an analytical unit, which statisticians create by splitting or combining observation units with the help of estimations or imputations in order to supply more detailed and/or homogeneous data than would otherwise be the case. In business statistics, the following types of statistical units are used: enterprise, enterprise group, kind-of-activity unit (KAU) and local unit.
- **Profiling** a method for analysing the legal, operational and accounting structure of an enterprise group at national and global level. Used to establish the statistical units within that group, their links, and the most efficient structures for the collection of statistical data.
- Classifications statistical classifications are used for organising EBS by dimensions such as economic activity, product/commodity or geographical entity.
- Data sources a variety of data sources are used to produce EBS, for example, surveys, administrative data, Big Data, reuse of already collected microdata, and other data sources.

The processing of these inputs in order to produce an output contains the following phases:

- Processing methods at national level for the production of business statistics at national level, various methods are available depending on the steps in the process; from the design, determination and sampling of the business population to data collection, data cleaning, treatment of missing values, and finally the calculation of statistical output aggregates. Methods are also available for improving cross-domain consistency at microdata level between the various domains of business statistics.
- Data validation standards data validation assesses the plausibility of data. It includes a decisional procedure ending with the acceptance or refusal of data. This procedure is generally based on rules expressing the acceptable combinations of values. If refused, the relevant EU Member States are asked to check the data for errors. For efficiency reasons, agreement may be sought at working groups bringing together the statistical offices of the Member States to already include these EU validation checks in advance of their data transmission.
- Data exchange standards SDMX, which stands for statistical data and metadata exchange, is an
  international standard used to describe statistical data and metadata, standardise their exchange and
  improve sharing across organisations; EDAMIS, which stands for electronic data files administration and
  management information system, is the standard tool for data transmission in the ESS. Since 2008, it has
  been compulsory for the transmission of datasets. It has a number of built-in functionalities such as
  encryption, (basic) validation, feedback reporting and automatic reminders.
- Reference metadata reporting reference metadata describe the contents of statistical data in terms of concepts, methodologies and quality. The ESS metadata handler, which uses EDAMIS as the transmission tool, supports the production of the reference metadata at national level.
- Production of European aggregates based on the data transmitted by the national statistical authorities, Eurostat calculates aggregates at European level. These European aggregates are calculated for the EU (currently the EU-27) and — depending on the domain — also for the euro area (currently EA-19).

The specifications of the output are described by:

• Data requirements — these describe the data that are required from the EU Member States and cover both the current requirements of existing regulations as well as new requirements from the EBS Regulation. There are new data requirements for example in relation to services and globalisation.

At the final stage, the outputs are disseminated:

Dissemination of business statistics — this phase covers the process of publishing data produced by data
compilers as an input and the publication of statistics targeted to user needs as an output by means of the
various channels that are available. It also provides an overview of future developments for improving
dissemination in terms of user needs as set out in ESS Vision 2020 and a number of specific topics such as
data revision, cross domain publications and user interfaces.

Besides the dissemination of business statistics in the form of tabular aggregated data, the ESS also offers researchers — in a secure/protected manner — the possibility to analyse output data at micro level:

Microdata service for researchers — access to microdata is limited to scientific purposes in the ESS. Precise
conditions are set out in a Commission regulation, with very strict criteria for eligible research entities and
research proposals and strict rules on confidentiality (see statistical disclosure control below). The chapter
describes the services that are available at Eurostat; it does not include any recommendations for microdata
services at national level.

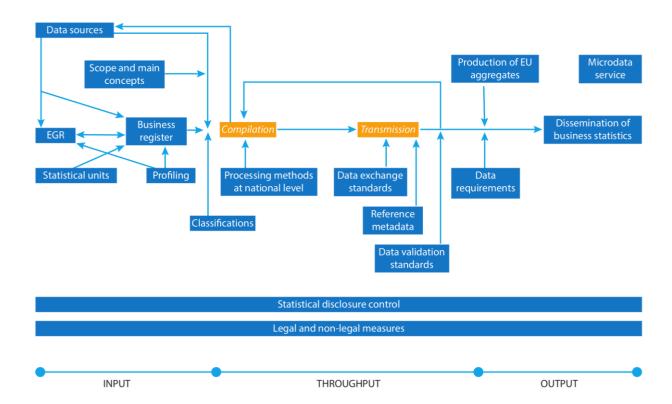
Throughout the entire statistical production chain (from inputs to final statistics) special provisions are in place for safeguarding statistical confidentiality:

• Statistical disclosure control — statistical confidentiality is a fundamental principle of official statistics enshrined in the *Treaty on the functioning of the European Union*. National statistical institutes (NSIs), other national authorities (ONAs) and the European Commission (Eurostat) will take all necessary regulatory, administrative, technical and organisational measures to ensure the physical and logical protection of confidential data.

Legal aspects related to the statistical production process are described in:

• Legal and non-legal measures — this part highlights the legal and non-legal measures in business statistics at European level, covering all stages from inputs to final outputs. Non-legal measures are defined as non-binding agreements outside the legislative scope. These take into account new measures for improving EBS, the majority of which will be applicable from 1 January 2021.

The diagram below displays the various parts of the statistical production process for EBS and how they are connected (<sup>5</sup>).



**EBS** manual

The above-mentioned chapters of the EBS manual encompass methodological information applicable across the various domains of business statistics. In addition to this cross-domain information, the EBS manual also includes a chapter providing a detailed list of hyperlinks to domain-specific methodologies:

• Detailed domain-specific methodologies (<sup>6</sup>) — this chapter includes links to EBS domains from which detailed domain-specific guides, manuals, handbooks and so on can be accessed.

<sup>(&</sup>lt;sup>5</sup>) Please note that the arrow from 'Compilation' to 'Data sources' represents the reuse of already processed statistical data.

<sup>(&</sup>lt;sup>6</sup>) To date, this chapter and its list of links to detailed domain-specific methodologies is more or less 'stand-alone' and is not well integrated with the cross-domain sections of the manual. To achieve a more integrated supply of methodological information, Eurostat plans to create a number of domain-specific chapters that follow the same structure and top-down approach as the EBS manual. A first (partial) prototype has been developed for short-term business statistics (STS). This prototype is, at the time of writing, incomplete and not yet part of the EBS manual. The prototype will be completed once the manual is revised in Statistics Explained.

#### 1.1.4. STAKEHOLDERS

The stakeholders of business statistics can generally be divided into the following categories:

- Enterprises and other data providers of statistical information under the provisions of the EBS Regulation. The
  methodologies described in this manual are aimed at cost-effective production, providing EU Member States
  with effective/efficient data collection processes for assessing enterprises and, in general, data providers in a
  more consolidated way and after other existing sources have been optimised.
- NSIs and ONAs responsible for the collection and compilation of EBS. The processing of business statistics at
  national level benefits from the improved methodological framework on infrastructure, with improved
  business registers, better pre-conditions for making use of existing data and more flexibility at national level;
- Users of EBS. EBS users are very eclectic, with wide-ranging needs and interests. They include for example national and European policymakers, businesses and their national and European associations, researchers, the media and the general public, as well as important 'internal' users given that business statistics largely feed the production of macroeconomic indicators (such as gross domestic product (GDP)), the tracing of imbalances and business cycle analysis.

To improve EBS in the future, Eurostat has consulted these stakeholders, in particular on the changes envisaged by the EBS Regulation. Click here for a report on this consultation.

The metadata and methodologies described in this manual are key to understanding the stakeholders of business statistics, in particular data compilers and data users. As to the end-users of European statistical data, the Eurostat website reveals that one out of every nine users view metadata, with some 100 000 views a month.

The EBS manual is geared to the needs of data compilers and data users. This chapter provides a basic insight into how business statistics are produced and is intended for general data users wanting to gain an impression of the 'statistical melting pot'. The other chapters provide information on a specific phase in the statistical production chain and are intended (more) for expert data users and data compilers. Finally, a set of hyperlinks at the end of each chapter point to more detailed (and more technical) documents primarily aimed at data compilers.

# 1.2. Further information

For the latest information, please check the respective chapters in the dynamic version of the EBS manual on Statistics Explained:

- 1. Introduction to business statistics;
- 2. Scope and main concepts;
- 3. Legal and non-legal measures;
- 4. Business registers;
- 5. EuroGroups register;
- 6. Profiling;

- 7. Statistical units;
- 8. Classifications;
- 9. Data sources;
- 10. Processing methods at national level;
- 11. Data validation;
- 12. Reference metadata;
- **13**. Data exchange EDAMIS;
- 14. Data exchange SDMX;
- 15. Data requirements;
- 16. Production of European aggregates;
- 17. Statistical disclosure control;
- 18. Dissemination;
- 19. Microdata service for researchers;
- 20. Detailed domain-specific methodologies.



## Preface

This chapter describes:

- the scope of EBS in terms of the statistical population and its main topics;
- the main concepts used to produce EBS cost-effectively, while also ensuring that the final results are comparable and consistent.

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# 2.1. Introduction

This chapter broadly defines the business population to which EBS refer and describes the main subject areas and topics covered. It also addresses several key measures for guaranteeing or improving comparability and consistency of data, both across the various domains of business statistics, and also in relation to the frameworks used for national accounts and the balance of payments. The chapter also includes a special topic covering a number of consistency and coverage issues for business statistics in relation to globalisation.

### 2.2. Scope of business statistics

Article 2(1) of the EBS Regulation states that EBS cover:

- (a) the structure, economic activities and performance of the statistical units, their R&D and innovation activities, their information and communication technologies (ICT) usage and e-commerce as well as global value chains;
- (b) the production of manufactured goods and services and the international trade in goods and services.

The structure describes how output, employment and other indicators are distributed among different economic sectors.

The term 'economic activities' is defined by NACE Rev. 2 (paragraph 1.2.11):

An economic activity takes place when resources such as capital goods, labour, manufacturing techniques or intermediary products are combined to produce specific goods or services. Thus, an economic activity is characterised by an input of resources, a production process and an output of products (goods or services).

From an economic point of view, the definition of an economic activity mirrors the production function of output and production factors. Besides current manufacturing techniques as a production factor, the production function ( $^7$ ) also includes technological progress, the drivers of which are also mentioned in paragraph (*a*) above: R&D, innovation, ICT and e-commerce.

Performance, on the other hand, relates to the interaction between a business and other economic actors. Economically relevant interactions recorded in business accounting include sales, purchases, labour costs, wages and prices. Together, they provide a measure of value added, that is, the value created by businesses, and thereby these businesses' contribution to economic growth. The focus is on business performance under market conditions of demand and supply, and price setting.

The global value chains referred to in paragraph (*a*) above represent the impact of globalisation on the economy, and its implications for statistics. Traditional types of statistical units, business and trade statistics give only a limited national (or regional) perspective and do not provide users with a comprehensive analytical framework. For more information, see Section 2.7 on globalisation and potential impacts on consistency and coverage in business statistics.

Naturally, at a more detailed level, the subject areas — the topics covered by business statistics — target the variables that are most relevant to external stakeholders (for example, policymakers, businesses and business associations), but also those that are relevant to internal stakeholders which use these data as building blocks in producing the national accounts and the balance of payments (see Section 2.6.).

For a detailed description of the scope of the various business statistics under the provisions of the EBS Regulation, see Chapter 15 on data requirements (<sup>8</sup>).

<sup>(7)</sup> The production function can be represented in a simplified form as Y = F[K, L, M, t], where Y = output, F = function transforming inputs to outputs (for example, manufacturing techniques), K = capital stock, L = labour, M = material/intermediary products and services, t = technological progress.

<sup>(8)</sup> The stakeholder's interest is apparent not only as regards the variables, but also as regards the degree of granularity of data (in other words, breakdowns). The analytical value for end-users is taken into account as one of the main criteria (see Section 8.2. don classifications in business statistics) when developing classifications (used for these breakdowns).

# 2.3. Target statistical population of business statistics and the business register

The types of statistical units used in EBS are:

- the enterprise;
- enterprise group;
- KAU;
- local unit;
- legal unit (although this is not, strictly speaking, a type of statistical unit).

International trade statistics are an exception. Here, outcomes are based not on a population based on statistical units, but, rather, on any unit that supplies trading data to customs (as regards extra-EU trade) or the national statistical authority (as regards trade within the EU). International trade statistics focus less on economic actors and more on describing all import and export flows in terms of goods and services.

The enterprise is the type of statistical unit used for statistics that rely on a businesses' profit and loss account. However, it is less suitable for regional breakdowns, for which the local unit is used instead. Local units may be considered as regional parts of an enterprise. Statistics on quarterly registrations and bankruptcies, in which the legal unit is the main player for which information is available, are another exception to the use of the enterprise. The fact that a legal unit is bankrupt does not necessarily mean the same is true of the enterprise to which it belongs, and the same applies to registrations. The chief exception to using enterprises is in the domain of STS, in which the KAU is used. The main reason for this is that STS are very strongly linked to national accounts (STS provide early advance indicators for the quarterly national accounts, such as the industrial production index, an indicator of the change in the level of value added in industry).

Statistical units are the units to which business statistics apply and are thus linked to the statistical output. However, different units (reporting units) can be used for collecting inputs into the statistical production process, provided that 'reporting unit-based' inputs can be transformed into 'statistical unit-based' outputs.

The national business register provides key input to defining the total population of statistical units for the purpose of producing business statistics. Article 2(2) states that business register characteristics are required for all types of statistical units listed above, including legal units and enterprise groups. Such information is optional where KAUs are concerned. National business registers should however always provide at least information on the size of the secondary activities, which can be used to identify KAUs. The business register should cover all enterprises conducting economic activities that contribute to GDP, including government and the financial sector, irrespective of whether or not they are market producers.

Within the broad population scope of the business register, smaller subpopulations are defined for the purpose of business statistics. These subpopulations, also known as statistical populations, are specified as part of the data requirements. The statistical population is defined by two dimensions: the scope in terms of economic activities (NACE) and market/non-market scope.

Domain (¹)	NACE Rev. 2 scope ( <sup>2</sup> )	Market/non-market scope
Structural business statistics	B-N, P-R, 95-96	Market producer
Business demography	B-N, P-R, 95-96 Market producer	
Short-term business statistics (3)	B-D, 36, F-J, L-N	Market output
Foreign affiliates statistics	B-N, P-R, 95-96	Market producers
Information society statistics	C-J, L-N, 95.1	Not applicable
R&D	A-U	Not applicable
Innovation	B-E, H, J, K, 46, 71-73	Market producer
International trade in goods	A-U ( <sup>4</sup> )	Not applicable
International trade in services	Not applicable	Not applicable
PRODCOM	B-C ( <sup>5</sup> )	Market output

#### Table 2.1: Overview of statistical populations across various business statistics

(1) For a description of the domains and their datasets: see Section 15.2 on data requirements by domain.

(<sup>2</sup>) Broadest scope within the domain as a whole. Individual datasets may have a more limited scope.

(<sup>3</sup>) For building permits the NACE and market/non-market scope is not applicable.

(<sup>4</sup>) NACE scope only applicable to 'Country-level statistics on importing and exporting enterprises'.

(<sup>5</sup>) Industrial production within Divisions 07 to 33, except military and energy products.

Although most business statistics focus on the activities of industry, construction, trade and services, some cover other activities, such as R&D statistics (which include agriculture and government, for example).

The market/non-market scope is a further refinement in addition to that of NACE. For most business statistics, but again not all, it further limits the target population to market-oriented units. Market/non-market scope is defined in the next section.

### 2.4. Operational rules for the market/non-market delimitation

#### 2.4.1. INTRODUCTION

Business statistics covered by the EBS Regulation are based either on statistical units (enterprises, KAUs, local units) or, in exceptional cases, on legal units which are consistent across statistics, or on units that are specific to the type of statistics concerned.

As regards statistics that focus on business performance under market conditions, the difference between market and non-market must be precisely defined. This market/non-market delimitation in EBS applies only to statistics based on statistical units. There are two basic categories for which different approaches are distinguished: those based on the enterprise and those based on the KAU.

For statistics based on local units or on legal units, the market/non-market division follows entirely the market/nonmarket delimitation of the enterprise to which these units belongs. It implies that if an enterprise is regarded as a market producer, all its legal units and all its local units are also considered market producers. This approach ensures that EBS regional statistics (based on local units) and quarterly demography statistics (based on legal units) are consistent with country-level statistics (based on enterprises) because all units are regarded as market producers. In the operational rules for enterprise-based statistics (Section 2.4.2.) and KAU-based statistics (Section 2.4.3.) the idea of economically significant prices is an important criterion for distinguishing the market from the non-market. ESA 2010 paragraph 3.19 defines economically significant prices as prices with a substantial effect on the amounts of products that producers are willing to supply and the amounts of products that purchasers wish to acquire. Such prices arise when both of the following conditions apply:

- the producer has an incentive to adjust supply, either with the goal of making a profit in the long run or, at a minimum, of covering capital and other costs;
- consumers have the freedom to purchase or refrain from purchasing, and they make the choice on the basis
  of the prices charged.

Economically significant prices are checked using the 50 % criterion: the unit has to cover at least half its costs by sales over several years.

#### 2.4.2. OPERATIONAL RULES FOR THE SCOPE OF BUSINESS STATISTICS BASED ON ENTERPRISES

Many of the EBS Regulation's statistics take the enterprise as a type of statistical unit. These enterprise-based statistics in EBS are limited to market producers as defined by ESA 2010, meaning institutional units classified into the following institutional sectors:

- non-financial corporations (S11)
- financial corporations (S12)
- households as entrepreneurs (S14.1 or S14.2).

They exclude non-market producers, notably the general government (S13) and non-profit institutions serving households (S15). For market producers as defined here, the institutional unit is identical to the enterprise.

For an overview of the type of producers and their main activities or functions and sectors, see the table below (from ESA 2010, page 34):

Type of producer	Principal activity and function	Sector
Market producer	Production of market goods and non- financial services	Non-financial corporations (S.11)
Market producer	Financial intermediation including insurance Auxiliary financial activities	Financial corporations (S.12)
Public non-market producer	Production and supply of non-market output for collective and individual consumption, and carrying out transactions intended to redistribute national income and wealth	General government (S.13)
Market producer or private producer for own final use	Consumption Production of market output and output for own final use	Households (S.14) As consumers As entrepreneurs
Private non-market producer	Production and supply of non-market output for individual consumption	Non-profit institutions serving households (S.15)

Table 2.2: Overview of th	le type of producers	and their main activities	or functions and sectors

The EBS Regulation requires European Union (EU) Member States to provide the sector and subsector code in the business register for each enterprise. It is recommended that the institutional sector code (ISC, S11 to S15) be integrated in the business register with a sufficient quality for it to be used to identify which enterprises can be classified as market producers. The ISC has a vital role to play in determining the population of enterprise-based EBS statistics and the population of general government statistics. These should be mutually exclusive and are thus complementary building blocks of national accounts.

If the ISC within the business register is not sufficiently decisive in terms of S11, S12 or S14.1 or S14.2, the following operational rules can be applied to determine whether the enterprise can at least be classified as a market producer:

- given the mutual exclusiveness of the two categories, an enterprise is by definition a market producer (S11, S12, S14.1/2) if it is not a non-market producer (S13 or S15);
- non-market producers classified under general government (S13) are government-controlled units whose output has no economically significant prices or which have no competitors. The manual on government deficit and debt (Part i: definition of the general government sector) provides detailed operational rules on classifying units in S13;
- non-market producers classified as non-profit institutions serving households (S15) are units as defined by ESA 2010, paragraphs 2.129 and 2.130, meaning separate legal entities, which serve households and which are private non-market producers. Their principal resources are voluntary contributions in cash or in kind from households in their capacity as consumers, from payments made by general government and from property income.

These operational rules can be used to determine whether the enterprise unit is a market producer. If EU Member States wish to subdivide this further into the precise sector code, it is recommended that they:

- determine first whether the unit is a household (S14.1 or S14.2) or a corporation (S11 or S12); and
- secondly, use the NACE code to decide whether the corporation is financial (S12) or non-financial (S11).

Sharing and using the same ISC in producing national accounts, general government statistics and business statistics covered by the EBS Regulation strengthens the business register's role as one of the backbones of economic statistics.

#### 2.4.3. OPERATIONAL RULES FOR THE SCOPE OF BUSINESS STATISTICS BASED ON KAUS

Statistics based on KAUs which are also market producers need to distinguish between market-oriented units and non-market producers, but also between units with economic activities that fall into their scope and activities that are not to be covered (see Table 2.3 below). In this section, the distinction between market and non-market KAUs is first discussed. Afterwards the problem of identifying KAUs with relevant economic activities is briefly presented.

KAU	Market	Non-market
STS activities	Market KAU with an STS relevant activity	Non-market KAU with an STS relevant activity
non-STS activities	Market KAU with an activity not covered by STS	Non-market KAU with an activity not covered by STS

Table 2.3: Distinguishing between market-oriented and non-market producers within business statistics

In the EBS Regulation, STS and PRODCOM are based on KAUs producing market output, meaning that over half the costs are covered by sales. As regards this market/non-market criterion, it is recommended to use the same definitions of costs and sales as those applicable at the level of institutional units, clarified in more detail in paragraph 3.33 and 3.44 of ESA 2010.

Note that the sales used in the market/non-market criterion are valued against basic prices, defined as sales at market prices <u>minus</u> taxes on products <u>plus</u> subsidies on products. Subsidies on products, however, should exclude the part intended *to compensate for persistent losses which they incur on their productive activities as a result of charging prices which are lower than their average costs of production as a matter of deliberate government or <i>European economic and social policy* (see ESA 2010, paragraph 4.35(c)). Moreover, sales should include the goods and services which one local KAU provides to a different local KAU belonging to the same institutional unit (see ESA 2010, paragraphs 3.14, 3.15).

ESA 2010, paragraph 3.16-3.19, clarifies the meaning of market output. According to paragraph 3.17, market output is output that is disposed of on the market or intended to be disposed of on the market.

As regards the classification of institutional units into market and non-market units, paragraph 1.37 of ESA 2010 sets out the following market conditions:

- sellers act to maximise their profits in the long term, and do so by selling goods and services freely on the market to whoever is prepared to pay the asking price;
- buyers act to maximise their utility given their limited resources, by buying according to which products best meet their needs at the offered price;
- effective markets exist where sellers and buyers have access to, and information on, the market. An effective market can operate even if these conditions are not met perfectly.

Economically speaking, this definition of what counts as the market coincides with the definition of economically significant prices (see Section 2.4.1.)

By definition, KAUs belonging to enterprises classified as market producers produce market output. This actually means that they produce no non-market output (apart from output for their own final use). By definition, such enterprises have no non-market KAUs. This implies that all sales between KAUs within a market producer enterprise are, by definition, market output; this also applies under special intercompany price conditions. Section 2.4.2. explains the operational rules for enterprise market producers.

In the case of a non-market enterprise with only one KAU, this KAU by definition produces non-market output. If several KAUs belong to an enterprise classified as a non-market producer, however, one or more of these KAUs may produce market output.

STS and PRODCOM are only interested in market KAUs, meaning units that primarily produce market output; nonmarket KAUs are excluded from their scope.

According to the EBS Regulation basic act, particularly Article 3, paragraph a.iii, only significant and relevant market KAUs need to be identified in national business registers:

- (a) In accordance with the definitions given in the Annex of Regulation (EEC) 696/93 of the Council and subject to the limitations specified in this Article, the national statistical business registers, which shall comprise:
- iii the Kind-of-Activity-Units (KAU) or the NACE code as laid down in Regulation (EC) No 1893/2006 of the European Parliament and of the Council and size of each KAU of which those enterprises consist restricted to those enterprises which because of their size have a significant influence on the aggregated (national) data.

As the aggregated national data refer to market-oriented EBS, the implication for KAU-based statistics is that only those market KAUs of non-market producers need to be identified that have a significant influence on the final aggregated data because of their size. It implies that the KAUs should also be relevant: a market KAU may have a significant size, but if it is classified to an activity that is not covered by KAU-based statistics, it is not relevant and the KAU does not need to be included in the statistical population. These criteria of significance and relevance also apply to the definition of KAUs of market-producers.

For reasons of consistency across KAU-based statistics, and in the light of the broader activity scope of STS, it is recommended that PRODCOM be based on the KAUs identified for STS.

Market KAUs with an activity relevant for STS may be part of an enterprise which is not classified as having an activity that is relevant for STS. One example (taken from the European system of national accounts, paragraph 3.40) might be the sales of reproductions of pictures in a bookshop of a museum.

Theoretically, such cases fall within the scope of STS. In practice, however, the quantitative significance of these cases for the statistical results is small and a systematic collection of data for these cases is generally not called for. If appropriate, the occurrence and significance of such cases should be reported in the national metadata.

### 2.5. Key concepts and cost-effective production

#### 2.5.1. GENERAL PRINCIPLES AND QUALITY FRAMEWORK

Article 2 of the European Statistics Regulation (Regulation (EC) No 223/2009 of 11 March 2009) defines the main statistical principles underpinning the development, production and dissemination of statistics:

(a) 'professional independence' — statistics must be developed, produced and disseminated in an independent manner, particularly as regards the selection of techniques, definitions, methodologies and sources to be

used, and the timing and content of all forms of dissemination, and the performance of those tasks is free from any pressures from political or interest groups or from Union or national authorities;

- (b) 'impartiality' statistics must be developed, produced and disseminated in a neutral manner, and all users must be given equal treatment;
- (c) 'objectivity' statistics must be developed, produced and disseminated in a systematic, reliable and unbiased manner; it implies the use of professional and ethical standards, and that the policies and practices followed are transparent to users and survey respondents;
- (d) 'reliability' statistics must measure as faithfully, accurately and consistently as possible the reality that they are designed to represent and implying that scientific criteria are used for the selection of sources, methods and procedures;
- (e) 'statistical confidentiality' the protection of confidential data related to single statistical units which are obtained directly for statistical purposes or indirectly from administrative or other sources and implying the prohibition of use for non-statistical purposes of the data obtained and of their unlawful disclosure;
- (f) 'cost effectiveness' the costs of producing statistics must be in proportion to the importance of the results and the benefits sought, that resources must be optimally used and the response burden minimised. The information requested shall, where possible, be readily extractable from available records or sources.

These principles are further elaborated by the *European Statistics Code of Practice*, established by Article 11 of the same European Statistics Regulation.

The *European Statistics Code of Practice* is based on 16 principles covering:

- the institutional environment;
- the statistical production processes;
- the output of statistics.

A set of good practice indicators for each principle provides a reference for reviewing the implementation of the code. The quality criteria for European statistics are defined in the European Statistics Regulation. Statistical authorities — the European Commission (Eurostat), NSIs and ONAs responsible for developing, producing and disseminating European statistics — together with governments, ministries and the European Council, commit themselves to abiding by the code. The principles of the code of practice, together with general quality management principles, represent a common quality framework within the ESS.

Together with the code of practice, the ESSC has adopted a quality assurance framework. Together with its detailed quality reporting guidelines/handbooks, it serves as guidance on how to implement the *European Statistics Code of Practice*.

As regards implementing quality reporting on data sent to Eurostat, see reference metadata. The quality reporting focuses on process quality criteria as well as output quality criteria.

#### 2.5.2. THE COST-EFFECTIVENESS PRINCIPLE WHEN COMPILING BUSINESS STATISTICS

Article 2(f) of the European Statistics Regulation defines 'cost effectiveness' as:

meaning that the costs of producing statistics must be in proportion to the importance of the results and the benefits sought, that resources must be optimally used and the response burden minimised. The information requested shall, where possible, be readily extractable from available records or sources.

What is the significance of this principle for the development, production and dissemination of business statistics? It states that producing statistics should be as efficient as possible for both respondents (in other words businesses) and for data compilers (for example, NSIs), which means keeping the costs of producing the desired results as low as possible.

How is this to be achieved? The European Statistics Regulation gives data compilers at national level full responsibility for selecting the best possible mix of data sources and processing methods (based on the subsidiarity principle). It also enables data compilers to reuse as much existing information as possible, thereby minimising the administrative burden on businesses. In reusing information, data compilers are supported by ESS methodological guidelines and by the outcomes of new ESS development projects designed to harness new data sources and promote efficiency in production processes.

Effectiveness, on the other hand, takes account of the fact that users need their statistics to meet high quality standards. In addition to general provisions designed to ensure output quality, business statistics are covered by specific measures designed to consolidate or improve cross-domain consistency; this includes consistency with other statistical domains, such as government statistics and national accounts. Effectiveness can also be boosted by improving dissemination.

A number of projects have been started, as part of the ESS Vision 2020, which are expected to make the development, production and dissemination of business and other statistics more cost-effective.

#### 2.5.3. SUBSIDIARITY IN TERMS OF DATA SOURCES AND NATIONAL PROCESSING

The EBS Regulation does not stipulate how business statistics are to be collected or processed (except for intra-EU exports (<sup>9</sup>)). It is up to data compilers to ensure that statistics are compiled as efficiently as possible, in terms of both costs and the burden on businesses.

One reason for applying the subsidiarity principle is that national institutions are best placed to decide:

- which data sources to use as inputs, in view of the institutional environment and existing administrative information;
- which processing methods to use to transform these inputs into statistical outputs usable both in EBS and for specific national purposes.

Another implication of subsidiarity is that there is no need for EU output requirements to be identical to national input requirements. National input variables, for instance, may be more detailed or even defined slightly differently from output variables, provided that inputs are correctly transformed into EU output variables in the statistical processing phase and that they comply with EU quality reporting requirements.

Subsidiarity with regard to data sources and processing methods at national level must go hand-in-hand with transparency as regards the quality of the processing and output of EBS. Such transparency is essential to ensure that flexibility at national level does not influence high-quality results at European level.

#### 2.5.4. MEASURES TO AVOID AN UNNECESSARY BURDEN ON RESPONDENTS

In view of the subsidiarity principle, the burden on respondents depends mainly on how the statistical production process is organised at national level. However, there are — or there will be — a number of European provisions and guidelines in place to help national data compilers avoid unnecessary burden on business. These include:

- subsidiarity as regards input at national level implies that the national authorities have some leeway to tailor business reporting requirements to national bookkeeping practices and to the specifics of existing sources of administrative data;
- key EU cross-domain variables now take international accounting principles into account more explicitly;
- a number of EU data requirements for small and/or medium-sized businesses or countries have been simplified;
- reuse of existing microdata (administrative data, microdata linking, microdata exchange, Big Data) is being
  promoted and improved (see Section 9.3 on data sources);
- Chapter 10 on processing methods in business statistics at national level provides national authorities with some guidelines on how to alleviate the burden on respondents.

#### 2.5.5. GUARANTEEING OUTPUT QUALITY

The criteria used to define the quality of outputs (in other words, EBS), as set out in the ESS handbook for quality reports (see Section 3.1), are as follows:

- outputs meet users' needs;
- they accurately and reliably depict reality;
- they are released at useful intervals and punctually;

<sup>(&</sup>lt;sup>9</sup>) The EBS Regulation stipulates certain minimum coverage levels for data on intra-EU exports so as to enable data compilers to reuse such data to produce intra-EU import statistics. There are also additional provisions and measures regarding the exchange of microdata between statistical authorities, which is a prerequisite.

- they are presented in a clear and comprehensible form, released in a suitable and convenient manner, and they are made available and accessible on an impartial basis, with supporting metadata and guidance;
- outputs are consistent both internally and over time, and they are comparable between regions and countries; related data from different sources can be combined and used jointly — see Section 2.5.7. for more information on cross-domain consistency measures in business statistics.

The handbook for quality reports lists indicators that are useful in assessing these criteria. In business statistics, these indicators — also referred to as reference metadata — are reported annually by data compilers and are published by Eurostat.

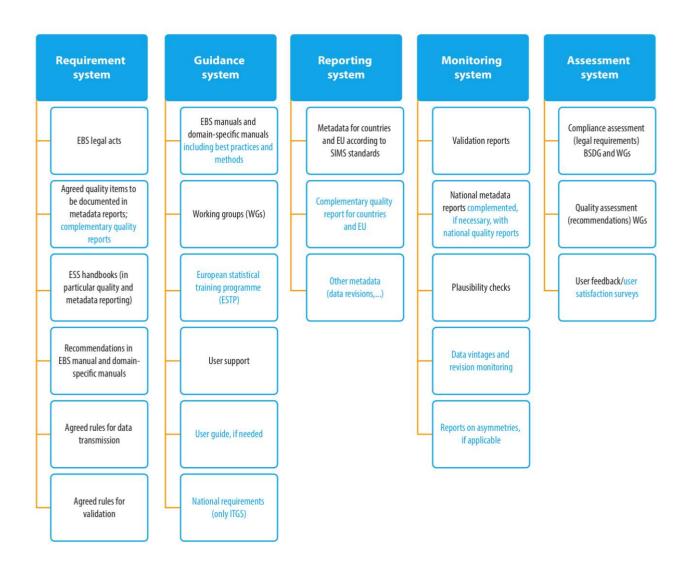
#### 2.5.6. EBS CORE QUALITY FRAMEWORK

Under the provisions of the EBS Regulation, efforts to harmonise the quality framework for the business and trade statistics covered were foreseen. Eurostat proposed a core quality framework with different instruments that would ensure high-quality business and trade statistics and would allow users to understand the quality issues for the statistics concerned. The EBS core quality framework was endorsed by the Business Statistics Directors' Group (BSDG) in its meeting of June 2020.

This section provides a description of the instruments available for evaluating the quality of statistics and indicates which instruments (core framework) should be put in place (if not already available) to allow for a harmonised approach across business and trade statistics.

The instruments in black text form the set of core instruments for ensuring the quality of business and trade statistics which should eventually be in place for all business and trade statistics. The instruments in <u>blue text</u> are deemed optional according to the needs of the individual domains.

2



#### Explanations on the EBS core quality framework systems and elements:

#### Requirement system

The requirements system comprises all legal requirements as well as standards/rules agreed at working group level.

- EBS legal acts the EBS legal acts contain a number of quality targets and set up an annual quality/metadata reporting procedure with, in the case of the EBS Regulation, a deadline for the metadata reporting except for the topic 'ICT-usage and e-commerce' (general implementing act Article 11(2)), as well as an assessment by Eurostat (Article 17(3) of the EBS Regulation).
- Agreed quality items to be documented in metadata reports the single integrated metadata structure (SIMS) was formed by integrating and harmonising two reporting structures, namely the Euro-SDMX metadata structure (ESMS) and the ESS standard for quality reports structure (ESQRS) so that all concepts in these structures are included, appear once only, and are consistent with the statistical standards in the SDMX content-oriented guidelines.

Article 11 of the Commission Implementing Regulation (EU) 2020/1197 of 30 July 2020 of the EBS Regulation (hereafter the EBS general implementing act or EBS GIA) only imposes the transmission of the metadata report. The content of the metadata report is to be agreed in the respective working groups for each domain. It should cover at least all concepts necessary for users to evaluate the quality (ESMS concepts), but can be enriched with elements of the ESQRS. The contents should be based on the guidelines in the ESS handbook on quality and metadata reporting mentioned below. If the metadata report contains sufficient quality elements for Eurostat to evaluate the quality of the statistics concerned, the metadata/quality reporting can be limited to these metadata reports only. However, if the information is not sufficient for Eurostat to evaluate the quality, Article 11(3) of the EBS Regulation foresees the possibility to request additional quality reports containing more detailed quality information necessary to evaluate the quality reports are to be agreed at the working group level. For the domains for which this is considered useful (with complex quality reporting), the specific quality items to be documented can be different for each reporting year and a document should then be made available every year setting out the list of quality items to be documented under the next annual quality reporting and assessment procedure agreed by the working group.

- ESS handbooks, in particular on quality and metadata reporting the ESS handbooks are ESS standards adopted by the ESSC. For the quality and metadata reporting the latest version was adopted in February 2020 and should guide the working groups when agreeing on the elements to be included in the quality and metadata reporting on the basis of the SIMS ESS quality reporting standard.
- EBS manual and domain-specific manuals the legislation can be complemented by recommendations endorsed by the relevant working groups. These recommendations aim to improve the data quality by promoting good practices; they are not legally binding as such, but their application can be assessed. ESS countries are thus strongly encouraged to adjust their practices gradually wherever needed. The manuals include all legal requirements and recommendations.
- Agreed rules for data transmission this document is a gentlemen's agreement between ESS countries and Eurostat established at working group level which describes the rules for data transmission to Eurostat. Although the document is not legally binding, the format and codes defined by this document must be respected. This document may be an annex to the domain-specific manual.
- Agreed rules for validation this document describes the rules to be applied by ESS countries and Eurostat to validate the statistics agreed by the working group. This document may be an annex to the domain-specific manual.

#### Guidance system

The guidance system consists of all further guidance provided helping compilers to improve/ensure the quality of the data.

- EBS manual and domain-specific manuals serving as compilers' guide manuals not only provide clarifications of the EU legislation and recommendations but can also describe, in detail, good practices and methods for domains for which such information is available. They provide an efficient tool to ensure data consistency, harmonisation and quality. Documents containing data transmission and validation rules agreed by working groups are generally annexed. Links with other useful information included in wikis or other webpages can also be provided.
- Working groups the working groups composed of experts from ESS countries are the fora where methodological and quality issues are discussed. The outcome of these discussions can be used to update manuals.
- European statistical training programme for domains for which this is considered useful, training of data compilers on collection, compilation and processing of data can be organised.
- User support to answer any questions from users relating to methodology, data availability, data interpretation or data quality.
- User guide for domains for which the information available in the manuals, dedicated websites and Statistics Explained is considered not sufficient to guide users, the purpose of this guide is to explain the data dissemination (where to find the data, which classifications are used in dissemination, the impact of statistical confidentiality, the compilation of EU/euro area aggregates, and so on) to a wide range of users. The different issues can be tackled in a question and answer format and may be included in dedicated sections for the data collection concerned.
- National requirements for domains for which this is considered useful (for the time being only international trade in goods statistics (ITGS)), this document is primarily intended for use by the providers of statistical information. It gives a detailed overview of how the reporting obligations are managed in the ESS countries.

#### **Reporting system**

The reporting system is used by the data providers to report on the quality of the European business and trade statistics they transmit to Eurostat.

- Metadata all European business and trade statistics published by the ESS should be accompanied by metadata. For their dissemination, the ESMS standards contained in SIMS should be used (they may be enriched with some quality information, if deemed necessary). In general, metadata are limited to the ESMS concepts. Eurostat publishes both European and national metadata on its website.
- Quality report for datasets for which this is deemed necessary, this report provides a tool to further assess the quality of the business and trade statistics published and covers additional quality items compared with the metadata. Eurostat may prepare summary quality reports based on the quality information collected from ESS countries beyond the metadata if deemed necessary and may disseminate this summary with the data through Eurostat's database and may also disseminate the report on its website.
- Other metadata quality and/or metadata reports include information on revisions and other quality issues. For domains for which this is considered necessary, additional metadata in the form of reports or notes attached to the database can be provided to aid both the monitoring of the quality issues (revisions and other) and users' understanding of their impact. With respect to revisions, the reports can show how much the data have changed since their previous publication ('subsequent data publications') as well as since they were first published ('first and last data publications').

#### Monitoring system

The monitoring system comprises all instruments Eurostat uses for monitoring the quality of European business and trade statistics.

- Validation reports generally produced automatically by the data validation system according to the validation rules agreed upon between EU Member States and Eurostat. This report is addressed to the reporting country (ESS countries) for corrections wherever necessary. It covers both format-related and quality issues.
- National quality and metadata reports the EBS legal acts lay down the requirements with respect to quality and metadata reporting. In particular, the EBS Regulation requires the ESS countries to provide Eurostat with annual quality and metadata reports (except for statistics that have a multi-annual frequency). Deadlines for the transmission of the reports under the provisions of the EBS Regulation are laid down in Commission implementing regulations. The set of indicators to be covered in the reports is to be agreed at working group level following the guidelines in the ESS handbook on quality and metadata reporting (see also the section above on the 'Requirement system'). If possible, indicators are linked to a quality target.
- Plausibility checks these checks can be relatively simple (visual checks) or more sophisticated (outlier detection). For each domain it is necessary to evaluate what level of sophistication is necessary for the plausibility checks. In some domains a simple checking of certain time series using visual chart based controls is sufficient. For other domains, it may be considered necessary to put in place a regular procedure for detecting outliers at EU Member State level (at detailed or more aggregated level) that are large enough to affect the EU totals/values. For any such identified outliers, the Member State is contacted to verify the outlying data value.
- Data vintages and revision monitoring for domains for which it is considered useful, especially for principal European economic indicators (PEEIs) and domains that have regular and multiple data revisions, Eurostat can put in place a systematic monitoring of data revisions (see also ESS guidelines on revision policy for PEEIs). ESS countries are requested to pre-announce very large revisions. In case of revisions resulting from changes in methodology, ESS countries should provide updated metadata or quality reports describing the new methodology.
- Reporting on asymmetries for domains for which it is considered necessary (in particular, statistics on international flows), Eurostat can provide ESS countries with reports showing their top-XX intra-EU asymmetries at a detailed level. These reports are used by the ESS countries to react quickly to quality issues and gradually improve the data quality.

#### Assessment system

The assessment system describes the instruments Eurostat uses for assessing the compliance of ESS countries with the legal requirements and for assessing the quality of national data transmitted to Eurostat

- Compliance assessment at least one compliance assessment at the level of each EBS legal act is carried
  out each year (except for statistics that are required with a multi-annual frequency) on the basis of the legal
  requirements and the quantitative and qualitative indicators covered by the national metadata and, where
  appropriate, quality reports. The BSDG and working groups discuss compliance at least once a year.
  Throughout the year, ESS countries should be notified of non-compliance issues arising through the year by
  way of bilateral contacts at a technical level. Persistent non-compliance is addressed at the level of the
  Directors General and could lead to EU pilot actions and infringement procedures.
- Quality assessment at least one quality assessment is carried out each year on the basis of the quantitative and qualitative indicators covered by the national quality reports and presented to the respective working groups. The BSDG is informed of the main quality issues discussed.
- User feedback allows the collection of user feedback on data quality. This can be in the form of normal user requests or where needed, user satisfaction/feedback surveys can be conducted to assess the relevance of the statistics produced and address emerging user needs.

#### 2.5.7. CROSS-DOMAIN CONSISTENCY MEASURES

The EBS manual highlights a series of measures designed to support cross-domain consistency in business statistics:

- uniform definitions of cross-domain variables;
- uniform use of common classifications;
- the coordinating role of business registers and the EuroGroups register, which helps provide consistent statistical populations;
- uniform rules on statistical units;
- uniform rules on the market/non-market scope of business statistics;
- methods for improving cross-domain comparability and consistency, including
  - reusing microdata across domains;
  - microdata integration;
  - cross-domain validation checks;
  - other cross-domain checks at the level of statistical outputs, for instance with national accounts.

L Cross-domain consistency does not imply that the results will be identical, but that they will be comparable. There may be methodological reasons why they are not identical, for example if different samples are used.

# 2.6. Business statistics as building blocks for national accounts (and the balance of payments)

As described in *Building the System of National Accounts* (<sup>10</sup>), the data sources used in compiling national (and regional) accounts are based on statistical sources and administrative sources as direct inputs. Business statistics and their underlying microdata are an important part of these statistical sources, and they are used for both annual and quarterly accounts.

Inputs to national accounts come from a variety of statistical domains, such as agriculture, business and government. The business register and classifications and the harmonised rules for defining types of statistical units and the market/non-market scope play an essential role in producing consistent building blocks, a prerequisite for aggregates such as gross domestic product (GDP).

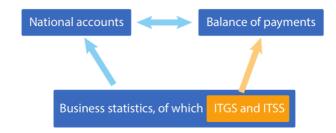
In national accounts, there are three approaches to estimating GDP:

- the production approach GDP is the sum of the value added created by businesses, government and other producers;
- the expenditure approach GDP is the sum of final consumption, investment, the trade balance of goods and services (exports minus imports), and changes in stocks;
- the income approach GDP is the sum of employee benefits and gross operating surpluses and mixed income, plus other taxes on production.

Balancing these approaches is one of the main objectives and challenges in the process of compiling national accounts.

<sup>(10)</sup> The publication on which this Statistics Explained article Building the system of National Accounts is based, is titled Essential SNA: Building the basics. It is aimed primarily at users from the developing world; this is why it refers to the United Nations' system of national accounts (SNA) instead of the ESA.

Business statistics on international trade in goods and services are one of the building blocks for determining GDP based on using the expenditure approach. In parallel, ITGS and international trade in services statistics (ITSS) also feed into the accounting system of the balance of payments, which is another building block of national accounts.



The current methodologies of the two accounting systems, BPM 6 and ESA 2010, have been harmonised and are now uniformly based on the same concept of economic ownership. As explained in a short introductory article on ESA 2010, this harmonisation has caused a change with respect to goods sent abroad for processing. The value of such goods will no longer affect gross export and import figures in the national accounts, as ESA 2010 uses an approach based on the change in economic ownership, rather than on physical movements (as in the past). ESA 2010 just records the export or import of a processing service. This will reduce the level of imports and exports of goods, but will not affect the overall current account balance.

Moreover, a wide range of business statistics provide detailed inputs for calculating GDP by means of the production approach. The value added of businesses is calculated as total output minus intermediate consumption. This approach is based on supply and use tables.

The supply and use framework makes both the production and expenditure approaches to estimating GDP more accurate, as it is consistent not only for the economy in general, but also where products are concerned. Estimating GDP through supply and use tables is the best way to make sure that both results for GDP (estimated by the production approach and by the expenditure approach) are equal, since there is no scope for statistical discrepancy.

The business statistics (for industry, construction, trade and services) used for producing the supply tables, are as follows:

- economic census (in other words, data from business registers), annual enterprise surveys covering all nonagricultural economic activities;
- specific statistical surveys manufacturing industry surveys on turnover and the number of employees and on the production of various products, construction and/or investment surveys, labour force surveys, wholesale and retail trade surveys, price statistics surveys, construction building permits;
- ITGS and ITSS.

For the use tables, the following business statistics sources are used:

- final consumption expenditure: retail trade surveys;
- gross capital formation economic census, annual enterprise surveys covering all non-agricultural economic activities, construction and/or investment surveys, capital expenditure and inventory surveys, construction building permits;
- ITGS and ITSS.

The domain of business statistics also includes two additional sets of variables at the NACE division (2-digit) level, specifically required for the purpose of national accounts.

- The first national accounts-specific package compiled annually comprises: gross margin on goods for resale, change in stock of goods (for resale), expenses of long-term rental and operational leasing, breakdown of gross investment (land, acquisition of existing buildings and structures, construction), sales of tangible investment goods, net turnover from principal activity, and purchases of energy.
- The second package produced multi-annually (every three or five years) covers: the breakdown of net turnover into main NACE aggregates, payments to subcontractors, income from subcontracting, gross investment in intangible non-current assets other than goodwill, and investment in purchased software.

To calculate economic growth (real changes in GDP), price information is needed to transform (in other words deflate) values into volumes. To this end, various price statistics from the domain of business statistics are used as an input, notably producer prices (including price indices for services) and import and export price indices.

For more detailed information on the statistical sources used in national accounts, see sources for annual accounts and sources for quarterly accounts.

It is also worth noting that EBS are based on types of statistical units (see Section 2.3.) that are different from the local KAUs required by ESA 2010 as the relevant type of statistical unit for analysing flows occurring in the process of production and in the use of goods and services. STS and PRODCOM, however, are based on the KAU and are therefore close to the preferred type of statistical unit of national accounts. However, where data sources are based on units other than the local KAU, it is advisable to adjust the data based on supplementary information, to meet the methodological requirements of the supply and use table.

The close link between national accounts and STS is not limited to the use of the latter as a building block within the first. STS also provide monthly production and price indices, which may be regarded as early and partial indicators of quarterly national accounts output and prices. In some EU Member States, the close link between national accounts and STS is also strengthened by the fact that the weighting/aggregation schemes of STS are based on sources including national accounts data.

# 2.7. Special topic — globalisation and potential impacts on consistency and coverage in business statistics

The increasingly global nature of economic transactions and growing interdependence present a challenge to the application of traditional concepts for business statistics at national level. The statistical system of business statistics is based on concepts and, more importantly, on implicit assumptions established mainly before the rapid expansion of globalisation. One of the basic assumptions was that factors of production are mobile within domestic territories only; the international division of labour is based on, but also limited by, the exchange of goods across borders.

Many national borders are no longer an obstacle when it comes to deciding where to invest or produce. Many economic agents are economically active in many countries at the same time. But globalisation is not limited to arms-length and cross-border intra-group trade. As explained in the *Sturgeon report* (pages 4 and 5), today's economic globalisation also includes external 'internal sourcing'. This calls for high levels of explicit coordination and is a largely unmeasured form of trade. One of the more difficult statistical issues concerns the treatment of intra-group cross-border use of intellectual property. For a summary of the typology of global production arrangements and transactions, see *Guide to measuring Global Production* (UNECE, 2015), Table 2.1, p. 9.

Under these changed circumstances, the question arises as to whether existing statistical concepts are still adequate for describing and analysing various phenomena, and which building blocks of the present system of business statistics may be affected. These issues also depend on the extent to which the various domains of business statistics use the concept of economic ownership.

The concept of economic ownership is a national accounts and balance of payments concept. In fact, it is a fundamental principle in both accounting systems to record product transactions on the basis of the change of economic ownership. The United Nations' system of national accounts (SNA) 2008 and ESA 2010 define the economic owner as the economic owner of goods and services, natural resources...[...] the institutional unit entitled to claim the benefits associated with the use of the entity in question in the course of an economic activity by virtue of accepting the associated risks (<sup>11</sup>). In the context of globalisation, the economic ownership principle can have a significant impact on how the output/value added and international trade in goods and services are attributed to individual countries.

<sup>(11)</sup> SNA 2008, paragraph 3.26; ESA 2010, paragraph 15.06.

In business and trade statistics, no explicit reference is made to whether or not the principle of economic ownership is to be applied. When business statistics are used in compiling macroeconomic aggregates such as GDP, these statistics need concepts and definitions from which SNA/ESA concepts can be derived. However, it could also be that it is not the business statistics themselves, but their (detailed) sources which are feeding SNA/ESA-based calculations. Business statisticians can also produce tabulations and indicators based on the intended uses of the business statistics as end products. In all cases, the source statistics should preferably be based on suitable concepts for all their user groups, whether macroeconomic accountants or business statisticians.

Closely related to the principle of economic ownership is the activity classification (NACE) — if a statistical unit outsources part of its production. The basic definitions and rules are described in Annex II of NACE Rev. 2. More detailed operational rules on outsourcing can be found here.

# 2.8. Further information

- Overview of the legal aspects related to this chapter
- Business register and EuroGroups register
- Data sources
- Processing methods in business statistics at national level
- Global value chains
- Data requirements under the provisions of the EBS Regulation
- Statistical units
- Enterprise
- KAU
- Local unit
- Local KAU
- Classifications in business statistics
- Reference metadata
- Building the system of national accounts
- Short introductory article on ESA 2010
- Supply and use tables
- Sources for annual accounts and sources for quarterly accounts
- Manual on government deficit and debt
- Regulation (EC) No 223/2009 of 11 March 2009 European Statistics Regulation
- ESS Vision 2020
- European Statistics Code of Practice
- Quality assurance framework
- Quality reporting guidelines/handbooks
- ESS handbook for quality reports (see Section 3.1.)
- Sturgeon report study on globalisation
- Guide to measuring global production UNECE
- Outsourcing basic rules and definitions: Annex II of NACE Rev. 2
- Outsourcing detailed operational rules

# 2.9. Contacts

For questions or comments on the scope and main concepts of business statistics, please contact ESTAT-EBS-MANUAL@ec.europa.eu.

# **3** Legal and non-legal measures in business statistics

# Preface

This chapter highlights the legal and non-legal measures in business statistics at the European level. Non-legal measures are defined here as non-binding agreements outside the legal and legislative scope.

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# 3.1. Introduction

The statistical production process of EBS in terms of input, throughput and output, is based on an extensive set of legal and non-legal measures between NSIs, ONAs, which may include national central banks (NCBs), and Eurostat, together referred to as the ESS.

The legal setting of these agreements is rooted in the legal framework of European statistics which offers the key provisions that apply for statistical processes within the ESS. The requirements outlined in this framework (based on the European Statistics Regulation as amended by Regulation 2015/759 of 29 April 2015) are fundamental to all statistical sectors and policy indicators, not only business statistics.

The European Statistics Regulation covers various general cross-sectoral topics, for instance on the governance structure within the ESS, the *European Statistics Code of Practice*, the European statistical programme, the reuse of administrative data for reducing the burden on respondents, an extensive set of rules ensuring and safeguarding statistical confidentiality, and the dissemination of statistical end-products and their statistical quality measured by relevance, accuracy, timeliness, punctuality, accessibility and clarity, comparability and coherence.

The code of practice embedded in the general legal framework set the standard for developing, producing and disseminating European statistics. It foresees the solid and transparent organisation of the statistical process ensuring professional independence, impartiality, objectivity, reliability, statistical confidentiality and cost-effectiveness, avoiding as much as possible the administrative burden on businesses. These principles are essential for the organisation of the ESS and as such for the organisation of EBS.

The measures which are specific to each of the statistical sectors specify the requirements of the above-mentioned general legal framework and are described by so-called sectoral legislation. In addition to these legal measures there are also sectorial non-legal (in other words, non-binding) measures.

This chapter focuses on the renewed package of legal and non-legal measures in the field of EBS adopted in 2019 and 2020. Whereas the other chapters in this manual primarily highlight the various elements of the statistical production process in terms of input, throughput and output, this chapter explains (in basic terms) the set of legal and non-legal measures supporting these elements. As such, it is complementary to each of the remaining chapters in the manual.

# 3.2. Legal and non-legal instruments for statistics in general

The instruments for shaping the various sectoral measures can be sub-divided into various categories:

- those that are regulated in a statistical regulation adopted by the co-legislators (the European Parliament and Council) in the ordinary legislative procedure and only modifiable by the co-legislators by a change of this socalled 'basic act';
- those that are regulated in a basic act, and especially its annexes, but amendable (added, modified or detailed) by the Commission by means of delegated acts under conditions which are specified in the basic act;
- those that are regulated in a basic act in general terms only, and further detailed by implementing acts
  adopted by the Commission and are subject to the control of the EU Member States (comitology procedure);
- those that are regulated only in general terms in a legal act, and further detailed in technical standards endorsed by relevant working groups in the ESS;
- those that are outside legal acts, but are endorsed by the ESS-Committee or relevant Directors' or technical groups, also referred to as technical standards;
- other non-legal guidelines.

The three types of legal instruments — basic act, delegated act, implementing act — are defined by the *Treaty on the Functioning of the European Union (TFEU)*, whose provisions regarding these instruments were substantially amended by the *Lisbon Treaty* in 2009. This set of legal instruments has been renewed by the EU and its Member States in the view of making the EU more democratic, more efficient and better able to address global problems, with one voice. In legal terms the 'one voice' means more power for the European Parliament by making the co-decision procedure the standard legislative procedure (Article 294 of the TFEU) and extending the qualified majority voting in the Council as well as a re-weighting of the votes within the Council by taking into account the population of the EU Member States. A comprehensive document detailing the inter-institutional collaboration during the legislative process is provided by the Interinstitutional agreement between the European Parliament, the Council of the European Union and the European Commission on better law-making (2016).

Main features of delegated and implementing acts

The delegated act (based on Article 290 of the *Lisbon Treaty*): implies that the basic act delegates the power to the Commission to supplement or amend non-essential elements of the basic act opening the possibility for minor changes without going through the whole ordinary legislative procedure.

<u>Features:</u> high degree of flexibility and of involvement of Member States' experts. The delegated act includes Member States experts' consultation without vote by the relevant expert group but with a possibility of EP and/or Council veto. The powers delegated to the Commission can be limited in the basic act by including safeguard clauses that describe the maximum extent to which the delegated acts may modify the requirements.

The implementing act (based on Article 291 of the *Lisbon Treaty*): commonly it lies within the power of the EU Member States to adopt all measures of national law necessary to implement basic acts. But where uniform conditions for implementation are needed, those acts shall confer implementing powers on the Commission. The conferring of the implementing powers is controlled by the Member States via the comitology procedure. The Committee vote (carried out by the ESSC in the case of statistics) is needed prior to the Commission adoption and usually includes a consultation of expert groups. For statistical acts the vote is usually preceded by an extensive consultation of expert groups, although from a procedural point of view this is strictly speaking not necessary. Furthermore, the implementing act cannot be used to change any part of the basic act including the annexes.

<u>Features:</u> high degree of flexibility and of involvement of Member States' experts. The implementing act includes a Committee vote prior to the adoption of the implementing act.

#### 3.2.1. REGULATIONS AND NON-LEGAL GUIDES IN BUSINESS STATISTICS

On 27 November 2019, the European Parliament and the Council adopted the EBS Regulation, repealing 10 legal acts in the field of statistics. The following domain-specific legal acts were repealed:

- Regulation (EEC) No 3924/91 of 19 December 1991 and Regulation (EC) No 912/2004 of 29 April 2004 PRODCOM Regulation
- Regulation (EC) No 1165/98 of 19 May 1998 STS Regulation
- Decision (EC) No 1608/2003 of 22 July 2003 Community statistics on science and technology (R&D statistics and the Community innovation survey)
- Annex I (Module 1, enterprises and the information society) of Regulation (EC) No 808/2004 of 21 April 2004

   ICT enterprise statistics
- Regulation (EC) No 48/2004 of 5 December 2003 Steel Statistics Regulation
- Regulation (EC) No 638/2004 of 31 March 2004— Intrastat Regulation intra-EU trade in goods statistics
- Regulation (EC) No 716/2007 of 20 June 2007 FATS Regulation
- Regulation (EC) No 295/2008 of 11 March 2008 SBS Regulation
- Regulation (EC) No 177/2008 of 20 February 2008 Business Registers regulation
- Regulation (EC) No 471/2009 of 6 May 2009 Extrastat Regulation extra-EU trade in goods statistics

A complete list of links to these and other statistical regulations can be found in point 3.2.3 below.

The EBS Regulation also replaces a number of provisions on classifications that are included as part of the repealed regulations, notably the main industrial groupings (MIGs) and special NACE aggregates, the list of PRODCOM industrial products and the geo-nomenclatures of international trade in goods and international transactions. It does not, however, repeal any of the 'standalone' regulations of classifications, such as NACE, the classification of territorial units for statistics (NUTS), the statistical classification of products by activity (CPA) and the combined nomenclature (CN). In addition, Regulation (EEC) No 696/93 of 15 March 1993 — the Statistical Units Regulation — is not affected by the EBS Regulation; moreover, EBS remains based on the Statistical Units Regulation, albeit with a more precise set of operational rules for defining statistical units.

Besides this legal foundation, there are also a number of non-legal standards and guidelines applicable to business statistics that are needed on the operational level. Methodology manuals and compilation guides are a substantial part of these non-legal standards and guidelines and are described and hyperlinked throughout the EBS manual and its Statistics Explained articles. Additionally, there are the results of the joint collaborative research and development program of the ESS which started in September 2002 (also referred to as ESSNet) and which has been complemented with projects implementing the ESS Vision 2020 (also referred to as ESS.VIP projects).

The outcomes of the ESS.VIP projects are predominantly non-legal (in other words non-mandatory). However, some of their outcomes are (or will be) used as an input for defining legal provisions. The outcomes of the ESS.VIP project on building trade statistics in the European single market for instance are considered in the EBS Regulation provisions regarding intra-EU trade in goods statistics, which aim to safeguard secure microdata exchange and ensure a substantial reduction of the response burden, while at the same time maintaining a sound level of quality and responding to changing user needs.

EBS and their production are ruled by provisions set out by: (a) the general legal framework applicable to all official European statistics; (b) the EBS Regulation as sectoral legislation for business statistics; c) other regulations for instance on classifications, statistical units; as well as (d) technical standards and other non-legal guidelines.

#### 3.2.2. LEGAL AND NON-LEGAL MEASURES OF THE PRODUCTION PROCESS FOR BUSINESS STATISTICS

In business statistics, legal instruments described in Section 3.2 typically apply to the input and output elements of the statistical production process, whereas non-legal instruments are more dedicated to throughput and dissemination measures.

Input elements which are essential for the harmonisation of business statistics are, for example, the scope of the observed business population, the business register, the EuroGroups register, statistical units, and classifications. These infrastructural input elements jointly constitute the backbone for setting-up EBS and it is for this reason that they are regulated by law ensuring a harmonised approach across the EU.

The variety of data input sources that potentially can be used for producing data is also enumerated in the legal package, albeit, that the final choice which of these sources will be used in practice at the national level is fully left to the EU Member States, meaning to individual national statistical authorities, based on the principle of subsidiarity.

The output elements included in the legal package are mainly targeting what data needs to be transmitted from the NSIs and ONAs to Eurostat, and by which level of detail, deadlines and definitions. For defining the data, all three legal instruments (basic act, delegated act, and implementing act) are used.

What type of act to use for which part of the data requirements is laid down in the basic act

The domain, topic, periodicity, type of statistical unit, and reference period of the data are considered to be essential elements and therefore fixed by the basic act. They can only be modified by the European Parliament and Council in the ordinary legislative procedure (see the first category of Section 3.2). The topics are further detailed in an Annex of the basic act (the so-called detailed topics) and can be modified — within certain limits laid down in safeguard clauses — by means of a delegated act. First of all, the modifications introduced by delegated acts should aim at cost and burden neutrality and should not significantly increase the costs for NSIs and ONAs or the burden on respondents. Secondly, in order to limit the number of modifications, the number of detailed topics that can be added overall is limited to one, and the number that can be replaced in each domain is limited to one to three (depending on the domain) over a period of five consecutive years. This is ensured by so-called safeguard clauses in the basic act.

For all topics, the other, more technical, elements of the data requirements including the variables are regulated by an implementing act. This concerns the measurement unit, the statistical population, the breakdowns and classifications, transmission deadlines, and first reference period. The number of variables that can be included in the implementing acts is limited to a maximum specified in the basic act for each of the domains with exception of the topics with frequently changing subjects and main characteristics. They are referred to as so-called 'dynamic' business statistics. For these topics, the basic act also lays down a maximum number of variables. For 'stable' business statistics that do not generally change over time, changes to variables are also limited. For all stable business statistics, the total number of variables allowed in each domain can only be exceeded by 10 variables to accommodate new data needs in the future. For dynamic business statistics, the maximum number of variables is also laid down in the basic act, but the number of changes to the variables is without any limits.

Besides these legal instruments, there are also technical standards and guidelines, so-called non-legal instruments, which are not binding. These typically relate to the throughput and dissemination process, and describe: (a) how the inputs are collected, compiled, edited, and aggregated to outputs and related quality reports at the national level; (b) how the resulting outputs are transmitted from the EU Member State to Eurostat, which EU-harmonised validation rules apply; and finally (c) how the data is calculated into European aggregates and how they are disseminated.

The allocation of the elements of the statistical production process into legal and non-legal measures should be treated with some nuance. Some more technical aspects of the input and output elements, such as operational rules, are formulated as technical guidelines outside the legal acts. Also as regards throughput elements, they are not all fully outside the legal scope; some generic less technical provisions on throughputs are included in the legal acts, for instance on quality reporting and data transmission.

Methodological articles/manuals/handbooks that offer descriptive details belong to the category of non-legally binding guidelines.

Although not a legal requirement in itself, the EBS manual aims at clarifying both legal and non-legal elements of the statistical process for business statistics for the purpose of assisting data compilers and providing background information to interested end-users.

The table below provides an overview on how the various elements of the statistical production process — as distinguished by the various chapters in the EBS manual — are embedded in legal acts and non-legal guidelines. The hyperlinks in the right hand column lead to Statistics Explained articles that provide a comprehensive overview of the associated part of the statistical production process; by definition these articles are non-legal.

#### Table 3.1: Mapping of the statistical production process in terms of legal and non-legal instruments

Domain	Legal framework for EU statistics (EC No 223/2009) consolidated version	EBS basic act modifiable by co- decision (European Parliament and Council)	EBS basic act modifiable by delegated act	EBS delegated acts ( <sup>1</sup> )	EBS implementing acts ( <sup>1</sup> )	Other regulations	Non-legal standards, guidelines and clarifications
Scope and main concepts in business statistics	Articles 1-17	Art. 1, Art. 2 and Art. 3					See details
Business registers		Art. 3, Art. 8, Art. 9 and Art. 10, Annex III (part A and part B)	Annex III (part C) — register detailed topics		Variables		See details
EuroGroups register		Art. 3, Art. 8, Art. 9 and Art. 10, Annex III (part A and part B) Annex IV			Technical details of variables Format, security and confidentiality		See details
Profiling							See details
Statistical units for business statistics		Art. 2 and Art. 7				Regulation (EEC) No 6 96/93 (Statistical Units Regulation)	See details
Classifications for business statistics		Art. 7			MIGs and special aggregates	NACE (consolidated)	See details
					PRODCOM list	NUTS (consolidated)	
					GEO nomenclatures	СРА	
						CN (consolidated)	
Data sources for business statistics		Art. 4, Art. 5, Art. 11 Art. 12 and Art. 13					See details
of which, related to reuse of administrative data	Art. 17a	Art. 5, Annex V and VI		Amend and supplement Annex V and VI	Arrangements for data exchanges related to administrative records		
of which related to microdata exchange in Extrastat		Art. 5			Arrangements for data exchange		

Domain	Legal framework for EU statistics (EC No 223/2009) consolidated version	EBS basic act modifiable by co- decision (European Parliament and Council)	EBS basic act modifiable by delegated act	EBS delegated acts (1)	EBS implementing acts (1)	Other regulations	Non-legal standards, guidelines and clarifications
of which related to microdata exchange in Intrastat	Art. 21	Art. 11, Art. 12 and Art. 13		Reduction of coverage rate	Technical specifications of exchange; arrangements for collection respectively compilation of the statistical information exchanged; specification of metadata relevant for the use of the exchanged data in the compilation; specification of statistical data elements contained in the exchanged microdata; modalities of simplification (including maximum value benefitting from simplification)		
Processing methods in business statistics		Art. 4, Art. 5 and Art. 11					See details
Data validation	Art. 12	Art. 17 and Art. 18					See details
Reference metadata reporting	Art. 12	Art. 17 and Art. 18			Quality and metadata reporting		See details
Data exchange (EDAMIS & SDMX)		Art. 17			Data transmission specifications		See details EDAMIS
							See details SDMX
Statistical disclosure control	Articles 20-26	Art. 19 (ITGS), Art. 14 and Art. 15					See details

Domain	Legal framework for EU statistics (EC No 223/2009) consolidated version	EBS basic act modifiable by co- decision (European Parliament and Council)	EBS basic act modifiable by delegated act	EBS delegated acts (1)	EBS implementing acts (1)	Other regulations	Non-legal standards, guidelines and clarifications
of which related to microdata exchange in Intrastat	Art. 21	Art. 14 and Art. 15			Protection of exchanged confidential data		
Production of European aggregates	Art. 16						See details
Data requirements	Art. 13 and Art. 14	Art. 6, Art. 7 and Annex I (insofar domains, topics), Annex II (periodicity, type of statistical unit, reference period)	Annex I (insofar detailed topics)		Definitions of variables		See details
Other elements of the data					Variables and other data specifications		
					Simplifications		
					Additional specifications (ITGS)		
					Additional specifications (STS)		
Dissemination of business statistics	Art. 18 and Art. 20(3)	Art. 19 (ITGS)					See details
Microdata service for researchers	Art. 19 and Art. 23	Art. 15 (ITGS)				Commission Regulation EU 557/2013 (access to confidential data for scientific purposes)	See details
Detailed domain- specific methodologies							See details

(1) The hyperlinks to EBS delegated and implementing acts will become available in the near future.

#### 3.2.3. OVERVIEW OF LEGISLATION FOR EUROPEAN BUSINESS AND TRADE STATISTICS

Legislation in force for European business and trade statistics:

Regulation No 2019/2152 of 27 November 2019 - EBS Regulation

Commission Implementing Regulation (EU) 2020/1197 of 30 July 2020 - EBS GIA

Commission Implementing Regulation (EU) 2020/1030 of 15 July 2020 — implementing act for ICT for enterprises statistics

Commission Implementing Regulation (EU) 2020/1470 of 12 October 2020 — GEONOM and geographical breakdown implementing act

Legislation under discussion at the time of publication for the EBS manual (January 2021):

Commission decision for derogations on the EBS Regulation (basic act) and EBS GIA (expected to be adopted in Q1/2021)

Implementing act and delegated act for exchange of information for ITGS (expected to be adopted in Q2/2021)

Implementing act for innovation statistics (expected to be adopted in Q2/2022)

Implementing act for global value chains statistics (expected to be adopted in Q2/2022)

**Repealed acts** 

Legislation repealed by the EBS Regulation and applicable for reference periods ending before 1 January 2021:

Council Regulation (EEC) No 3924/91 of 19 December 1991 on the establishment of a Community survey of industrial production

Commission Regulation (EC) No 912/2004 of 29 April 2004 implementing Council Regulation (EEC) No 3924/91 on the establishment of a Community survey of industrial production

Decision No 1608/2003/EC of the European Parliament and of the Council of 22 July 2003 concerning the production and development of Community statistics on science and technology

Commission Implementing Regulation (EU) No 995/2012 of 26 October 2012 laying down detailed rules for the implementation of Decision No 1608/2003/EC of the European Parliament and of the Council concerning the production and development of Community statistics on science and technology

Regulation (EC) No 808/2004 of the European Parliament and of the Council of 21 April 2004 concerning Community statistics on the information society

Regulation (EC) No 716/2007 of the European Parliament and of the Council of 20 June 2007 on Community statistics on the structure and activity of foreign affiliates

Commission Regulation (EC) No 364/2008 of 23 April 2008 implementing Regulation (EC) No 716/2007 of the European Parliament and of the Council, as regards the technical format for the transmission of foreign affiliates statistics and the derogations to be granted to Member States

Commission Regulation (EC) No 834/2009 of 11 September 2009 implementing Regulation (EC) No 716/2007 of the European Parliament and of the Council on Community statistics on the structure and activity of foreign affiliates, as regards the quality reports

Regulation (EC) No 177/2008 of the European Parliament and of the Council of 20 February 2008 establishing a common framework for business registers for statistical purposes and repealing Council Regulation (EEC) No 2186/93

Commission Regulation (EC) No 192/2009 of 11 March 2009 implementing Regulation (EC) No 177/2008 of the European Parliament and of the Council establishing a common framework for business registers for statistical purposes, as regards the exchange of confidential data between the Commission (Eurostat) and Member States

Commission Regulation (EU) No 1097/2010 of 26 November 2010 implementing Regulation (EC) No 177/2008 of the European Parliament and of the Council establishing a common framework for business registers for

statistical purposes, as regards the exchange of confidential data between the Commission (Eurostat) and central banks

Regulation (EC) No 295/2008 of the European Parliament and of the Council of 11 March 2008 concerning structural business statistics (recast)

Commission Regulation (EC) No 250/2009 of 11 March 2009 implementing Regulation (EC) No 295/2008 of the European Parliament and of the Council as regards the definitions of characteristics, the technical format for the transmission of data, the double reporting requirements for NACE Rev. 1.1 and NACE Rev. 2 and derogations to be granted for structural business statistics

Commission Regulation (EC) No 251/2009 of 11 March 2009 implementing and amending Regulation (EC) No 295/2008 of the European Parliament and of the Council as regards the series of data to be produced for structural business statistics and the adaptations necessary after the revision of the statistical classification of products by activity (CPA)

Commission Regulation (EU) No 275/2010 of 30 March 2010 implementing Regulation (EC) No 295/2008 of the European Parliament and of the Council, as regards the criteria for the evaluation of the quality of structural business statistics

Legislation repealed by the EBS Regulation and applicable for reference periods ending before 1 January 2022:

Regulation (EC) No 638/2004 of the European Parliament and of the Council of 31 March 2004 on Community statistics relating to the trading of goods between Member States and repealing Council Regulation (EEC) No 3330/91(OJ L 102, 7.4.2004, p. 1)

Commission Regulation (EC) No 1982/2004 of 18 November 2004 implementing Regulation (EC) No 638/2004 of the European Parliament and of the Council on Community statistics relating to the trading of goods between Member States and repealing Commission Regulations (EC) No 1901/2000 and (EEC) No 3590/92

Regulation (EC) No 471/2009 of the European Parliament and of the Council of 6 May 2009 on Community statistics relating to external trade with non-member countries and repealing Council Regulation (EC) No 1172/95

Commission Regulation (EU) No 92/2010 of 2 February 2010 implementing Regulation (EC) No 471/2009 of the European Parliament and of the Council on Community statistics relating to external trade with nonmember countries, as regards data exchange between customs authorities and national statistical authorities, compilation of statistics and quality assessment

Commission Regulation (EU) No 113/2010 of 9 February 2010 implementing Regulation (EC) No 471/2009 of the European Parliament and of the Council on Community statistics relating to external trade with nonmember countries, as regards trade coverage, definition of the data, compilation of statistics on trade by business characteristics and by invoicing currency, and specific goods or movements

Commission Regulation (EU) No 1106/2012 of 27 November 2012 implementing Regulation (EC) No 471/2009 of the European Parliament and of the Council on Community statistics relating to external trade with nonmember countries, as regards the update of the nomenclature of countries and territories (applicable for reference periods ending before 1 January 2021) Legislation repealed by the EBS Regulation and applicable for reference periods ending before 1 January 2024:

Council Regulation (EC) No 1165/98 of 19 May 1998 concerning short-term statistics

Commission Regulation (EC) No 586/2001 of 26 March 2001 on implementing Council Regulation (EC) No 1165/98 concerning short-term statistics as regards the definition of Main Industrial Groupings (MIGS)

Commission Regulation (EC) No 1503/2006 of 28 September 2006 implementing and amending Council Regulation (EC) No 1165/98 concerning short-term statistics as regards definitions of variables, list of variables and frequency of data compilation

Commission Regulation (EC) No 657/2007 of 14 June 2007 implementing Council Regulation (EC) No 1165/98 concerning short-term statistics as regards the establishment of European sample schemes

Commission Regulation (EC) No 472/2008 of 29 May 2008 implementing Council Regulation (EC) No 1165/98 concerning short-term statistics as regards the first base year to be applied for time series in NACE Revision 2 and, for time series prior to 2009 to be transmitted according to NACE Revision 2, the level of detail, the form, the first reference period, and the reference period

# 3.3. Further information

- Legal framework for European statistics
- Regulation (EC) No 223/2009 of 11 March 2009 (consolidated) European Statistics Regulation
- Regulation (EU) 2019/2152 of 27 November 2019 the EBS Regulation
- Lisbon Treaty

# 3.4. Contacts

For questions or comments on legal and non-legal measures in business statistics, please contact ESTAT-EBS-MANUAL@ec.europa.eu.



# Preface

This chapter outlines the scope and uses of statistical business registers in the European Union (EU). These are regularly updated databases of statistical units relevant to business statistics. Each EU Member State manages its own national register. Eurostat, with input from the EU Member States and EFTA countries, manages the EuroGroups register (EGR). Eurostat does not publish national business register data or EGR microdata for the ESS members.

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# 4.1. Population and records

Business registers contain information on the population of the following types of statistical units:

- enterprises performing economic activities that contribute to gross domestic product (GDP);
- their local units;
- the legal units that make up such enterprises;
- their KAUs only for those enterprises which due to their size have a significant influence and whose KAUs
  have a significant influence on aggregated, national data (either the KAU or the secondary activities of the
  enterprise);
- enterprise groups.

## 4.2. Recorded variables

The variables of the statistical units that are recorded in business registers include:

- identification variables ID number, name, address;
- demographic variables date of commencement/cessation of the unit's activity;
- economic/stratification variables economic activity (NACE), employment, turnover, institutional sector code, legal form;
- information on control and ownership relations parent/subsidiary legal unit, minority shareholder information, country of global decision centre;
- links to other registers.

Not all of these variables are recorded for each type of statistical unit. For more information on the variables, see the *European business statistics methodological manual for statistical business registers* — 2021 edition.

## 4.3. Use of national statistical business registers

National statistical business registers are kept up-to-date by the EU Member States or EFTA countries to which they belong. New units, cessations and all substantial changes in the population concerned are registered regularly. National statistical business registers serve to:

- establish links with administrative data sources;
- identify and construct statistical units;
- prepare and coordinate business surveys, for which purpose they periodically provide population frames (at monthly or yearly intervals, for example);
- provide information for statistical analysis of the business population and its demography;
- facilitate microdata linking activities.

#### 4.4. Context

Statistical business registers play a central role in the production of business statistics, both in terms of the way the statistics are produced and in terms of the content and quality of the statistics produced. The availability of statistical business registers is key for statisticians in the compilation of consistent and comparable business statistics.

Statistical business registers are essential for establishing efficient statistical survey frames. A high-quality statistical business register helps make the national statistical system more efficient and helps reduce the reporting burden on businesses.

Together, Eurostat and the EU Member States are constantly improving national statistical business registers and the EGR. The continuous development of statistical business registers has been supported across the ESS by the European system of interoperable business registers (ESBRs) project. Its aim has been to move on from disconnected, stand-alone national registers to an efficient European system of interoperable statistical business registers.

The ESS.VIP.BUS.ESBRs project on the European system of interoperable statistical business registers started in January 2013 on the basis of the ESSC's approval of the ESBRs ex-ante evaluation report (November 2012). It was successfully closed in June 2020 with the unanimous approval of the ESBRs project end-report (registered access) by the BSDG.

The project was based on the inputs of the MEETS programme (2009-2013) and in particular the work of ESSnet on concepts and methods with respect to shortcomings and inconsistencies in EBS.

It successfully covered the 14 distinct success criteria outlined in the business case, including methodological developments (see for example the ESBRs business architecture, the ESBRs interoperability framework, integration between the EGR and profiling), technical and information technology (IT) developments (see for example EGR developments, or interactive profiling tool (IPT) developments), quality (see for example the data quality programme for national registers and the EGR), operations (see for example collaborative profiling of multinational enterprise groups by EU Member States, ESBR interoperability pilots carried out by EU Member States) and design (see for example the ESBRs statistical services). Following guidance from governance bodies during the course of the project, additional distinct deliverables were also developed in the area of governance (see for example the ESBRs interoperability framework implementation plan and the ESBRs organisational model). The deliverables for the project are accessible on the ESBRs wiki (registered access).

The ESBRs project addressed the objectives of the business case (and beyond), as it developed globalised approaches common for all EU Member States such as the ESBRs business architecture, the ESBRs interoperability framework, European profiling methodology and the data quality programme. It also developed common tools and remote access facilities to avoid the duplication of work, such as the four EGR applications and the IPT. Finally, the project tested these ideas in practice during the interoperability pilots and most importantly during five successful annual production cycles for the EGR and four successful annual cycles for the IPT.

Business implementation activities have been planned for the EU Member States and Eurostat during the period 2020-2025 in order to make good use of the project's outputs. In terms of follow-up activities, the testing of the ESBRs organisational model, the implementation of the European profiling programme and the implementation of several of the (more than 50) follow-up recommendations and small projects are the basis for actions in the coming years.

In 2016, Eurostat and the EU Member States launched a data quality programme (DQP) for statistical business registers designed to continuously improve the quality of national statistical business registers and the EGR. The programme's components were gradually implemented with a first full DQP cycle being carried out in 2017, which was further fine-tuned for subsequent cycles. The programme monitors existing data quality of registers ('as is' state) and defines quality criteria ('to be' state). The DQP currently monitors eight compliance and five extended quality targets that drive constant improvements in statistical business registers. Additional recommendations that complement the *European business statistics methodological manual for statistical business registers — 2021 edition* are regularly drawn up with a view to improve constantly the quality of statistical business registers and in particular to increase harmonisation, comparability and the promotion of best practices. Furthermore, Eurostat regularly conducts user surveys for statistical business registers in order to address user needs and to improve quality.

# 4.5. Further information

- EuroGroups register
- Overview of the legal aspects related to this chapter
- Statistical units
- Changes introduced by the EBS Regulation
  - national statistical business registers
    - EuroGroups register

#### 4.5.1. PUBLICATIONS

Eurostat has released a publication on the results of the European system of interoperable statistical business registers project:

• End-report for the ESBRs project (registered access)

Eurostat has published a methodological manual for statistical business registers:

• European business statistics methodological manual for statistical business registers - 2021 edition

This revised methodological manual for statistical business registers (2021 edition) was published at the start of 2021. All revised manuals concerning EBS will be made available as part of a dedicated section on Eurostat's website (RAMON — reference and management of nomenclatures).

#### 4.5.2. LEGISLATION

Legal acts defining the scope and content of national statistical business registers in EU Member States:

- Regulation (EEC) No 696/93 of 15 March 1993 Statistical Units Regulation
- Regulation (EU) 2019/2152 of 27 November 2019 EBS Regulation
- Regulation (EU) 2020/1197 of 30 July 2020 EBS GIA Regulation
   The EBS Regulation repeals Regulation (EC) No 177/2008 of 20 February 2008 the Business Registers
   Regulation which was applicable for reference periods ending on 31/12/2020

#### 4.5.3. INTERNATIONAL COOPERATION

The United Nations Economic Commission for Europe (UNECE) has published guidelines on statistical business registers. They contain practical guidance and recommendations on how to set up and maintain such registers.

• UNECE — Guidelines on Statistical Business Registers

Eurostat also supports the development of national statistical business registers in EU candidate countries and in potential candidates through dedicated projects in the Instrument for Pre-Accession Assistance (IPA) programmes.

#### 4.6. Contacts

For questions or comments on business registers, please contact ESTAT-BUSINESS-REGISTERS@ec.europa.eu.

# 5 EuroGroups register

## Preface

The EuroGroups register is the statistical register of multinational enterprise (MNE) groups operating within the European Union (EU) Member States and EFTA countries; it is managed and compiled by Eurostat. For the establishment of the EuroGroups register, Eurostat created a network of business registers used for statistical purposes in the EU Member States and EFTA countries, focused on multinational enterprise groups.

A multinational enterprise group is defined as an enterprise group comprising at least two enterprises or legal units each of which is located in a different country.

To compile the EuroGroups register, Eurostat collects input information on multinational enterprise groups and their legal structures — including details about their enterprises — from national statistical business registers of EU Member States and EFTA countries and from commercial sources.

After consolidation and validation, the EuroGroups register contains data on the global structure of multinational enterprise groups. National statistical compilers working on business registers across the EU Member States and EFTA countries are given access to data/variables covering all of the units for a particular multinational enterprise group, if at least one of the group's units is within their national territory. These populations can be used for national survey frames, quality checks and the production of official (European) statistics.

The secure exchange of statistical confidential data between national business registers and Eurostat is defined in Article 10 of the EBS Regulation and implemented through Annex IX of the EBS GIA.

To make it easier to identify the relevant statistical entities (in other words, the enterprises) of large and complex multinational enterprise groups, a standardised methodology for 'profiling' was developed.

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# 5.1. Main findings

#### 5.1.1. EUROGROUPS REGISTER PRODUCTION CYCLES

The EuroGroups register (EGR) produces annual data. Its frames for reference year t are available to users 15 months after the end of the reference year, in March t+2. The register's first reference year was 2008, since then a frame has been produced for all reference years.

The first four EGR cycles were implemented using version 1.0 of the EGR system. EGR 1.0 was based on commercial data, which were validated through comparisons with national data.

Work towards developing EGR 2.0 started in 2012, and the new process was fully launched in 2015. The switch to EGR 2.0 improved both the EGR process and its related IT system. EGR 2.0 collects data from NSIs and complements these with commercial data. As a result of the changeover from EGR 1.0 to EGR 2.0, data from NSIs have become the principal source of information for the EGR.

The EGR now covers all significant multinational enterprise groups active in ESS countries and is widely used from many purposes related to the production of official statistics.

#### 5.1.2. DATA

The EGR registers the following types of units of a multinational enterprise group and their detailed topics:

- legal units identification, demographic events, stratification parameters, links with enterprises, with enterprise groups, with other registers, as well as control and ownership;
- enterprises identification and demographic events, links to other units, stratification parameters and economic variables;
- enterprise groups identification, demographic events, stratification parameters and economic variables.

With the EBS Regulation, the EGR has become an authoritative source within the ESS. It provides a register for a subpopulation of business enterprises, based on a coordinated approach that compiles cross-border information on multinational enterprise groups. EGR data help NSIs and NCBs compile statistics (for example on foreign affiliates statistics (FATS) or on foreign direct investment (FDI)) and thereby serve as a basic tool for improving these statistics, while also reducing the reporting burden.

#### 5.1.3. INFORMATION SYSTEM

EGR 2.0 offers online applications to users with remote access. With these applications, users can identify legal units, browse, and provide inputs for the compilation of EGR data. Users and producers alike benefit from the following EGR applications:

•	EGR identification service (EGR IS)	identification, demographic events, stratification parameters, links with enterprises, with enterprise groups, with other registers, as well as
		control and ownership;
•	EGR CORE	identification and demographic events, links to other units, stratification
		parameters and economic variables;
•	EGR interactive module (EGR IM)	identification, demographic events, stratification parameters and
		economic variables.
•	EGR FATS interface	identification, demographic events, stratification parameters and
		economic variables.

Eurostat has set up a wiki platform with extensive information on various topics covered by the EGR project. Access is restricted to EGR data compilers and users working within national statistical authorities. The EGR wiki provides:

- full, detailed EGR process documentation;
- a calendar of EGR activities;
- methodological and metadata files;
- quality indicators;
- a forum for discussing and sharing experiences among platform members.

#### 5.2. Context

The fragmented picture that EU Member States and EFTA countries had of multinational enterprise groups operating within their domestic markets caused growing problems of harmonisation for several types of statistics affected by globalisation (for example foreign affiliates statistics, foreign direct investment statistics and international trade statistics).

EGR 2.0 was developed as part of the European system of interoperable business registers (ESBRs) project, which was undertaken by Eurostat and the EU Member States to develop national statistical business registers and the EGR.

The ESS.VIP.BUS.ESBRs project on the European system of interoperable statistical business registers started in January 2013 on the basis of the ESSC's approval of the *ESBRs ex-ante evaluation report* (November 2012). It was successfully closed in June 2020 with the unanimous approval of the *ESBRs project end-report* (registered access) by the Business Statistics Directors' Group. The project aimed to move on from disconnected, stand-alone national registers to an efficient European system of interoperable statistical business registers, including an improved EGR.

The project was based on the inputs of the MEETS programme (2009-2013) and in particular the work of ESSnet on concepts and methods with respect to shortcomings and inconsistencies in EBS.

It successfully covered the 14 distinct success criteria outlined in the business case, including methodological developments (see for example the ESBRs business architecture, the ESBRs interoperability framework, integration between the EGR and profiling), technical and IT developments (see for example EGR developments, or interactive profiling tool (IPT) developments), quality (see for example the data quality programme for national registers and the EGR), operations (see for example collaborative profiling of multinational enterprise groups by EU Member States, ESBR interoperability pilots carried out by EU Member States) and design (see for example the ESBRs statistical services). Following guidance from governance bodies during the course of the project, additional distinct deliverables were also developed in the area of governance (see for example the ESBRs interoperability framework implementation plan and the ESBRs organisational model). The deliverables for the project are accessible on the ESBRs wiki (registered access).

The ESBRs project addressed the objectives of the business case (and beyond), as it developed globalised approaches, common for all EU Member States such as the ESBRs business architecture, the ESBRs interoperability framework, European profiling methodology and the data quality programme. It also developed common tools and remote access facilities to avoid the duplication of work, such as the four EGR applications and the IPT. Finally, the project tested these ideas in practice during the interoperability pilots and most importantly during five successful annual production cycles for the EGR and four successful annual cycles for the IPT.

Business implementation activities have been planned for the EU Member States and Eurostat during the period 2020-2025 in order to make good use of the project's outputs. In terms of follow-up activities, the testing of the ESBRs organisational model, the implementation of the European profiling programme and the implementation of several of the (more than 50) follow-up recommendations and small projects are the basis for actions in the coming years.

In 2016, Eurostat and the EU Member States launched a data quality programme (DQP) for statistical business registers designed to continuously improve the quality of national statistical business registers and the EGR. The programme's components were gradually implemented with a first full DQP cycle being carried out in 2017, which was further fine-tuned for subsequent cycles. The programme monitors existing data quality of registers ('as is' state) and defines quality criteria ('to be' state). The DQP currently monitors eight compliance and five extended quality targets that drive constant improvements in statistical business registers. Additional recommendations that complement the *European business statistics methodological manual for statistical business registers — 2021 edition* 

are regularly drawn up with a view to improve constantly the quality of statistical business registers and in particular to increase harmonisation, comparability and the promotion of best practices. Eurostat also regularly conducts user surveys for statistical business registers in order to address user needs and to improve quality.

# 5.3. Further information

- Business registers
- EuroGroups register identification service
- EuroGroups register FATS interface
- Foreign affiliates statistics
- Foreign direct investment
- Changes introduced by the EBS Regulation
  - national statistical business registers
  - EuroGroups register

#### 5.3.1. PUBLICATIONS

Online article (based on experimental statistics) on the structure of multinational enterprise groups in the EU:

• Structure of multinational enterprise groups in the EU

Dedicated wiki page on the EuroGroups register with restricted access for data compilers and users:

• EGR wiki page (restricted access)

Eurostat has released a publication on the results of the European system of interoperable statistical business registers project:

• End-report for the ESBRs project (registered access)

Eurostat has published a methodological manual for statistical business registers:

• European business statistics methodological manual for statistical business registers - 2021 edition

This revised methodological manual for statistical business registers (2021 edition) was published at the start of 2021. All revised manuals concerning EBS will be made available as part of a dedicated section on Eurostat's website (RAMON — reference and management of nomenclatures).

#### 5.3.2. METHODOLOGY/METADATA

Methodology on multinational enterprise groups and the EuroGroups register is available in the *European business* statistics methodological manual for statistical business registers — 2021 edition (link provided above). The treatment of large multinational enterprise groups in European profiling is described in the *European business* profiling — *Recommendations manual* — 2020 edition.

#### 5.3.3. LEGISLATION

- Regulation (EEC) No 696/93 of 15 March 1993 Statistical Units Regulation
- Regulation (EU) 2019/2152 of 27 November 2019 EBS Regulation
- Regulation (EU) 2020/1197 of 30 July 2020 EBS GIA Regulation The EBS Regulation repeals Regulation (EC) No 177/2008 of 20 February 2008 — the Business Registers Regulation — which was applicable for reference periods ending on 31/12/2020

#### 5.4. Contacts

For questions or comments on the EuroGroups register, please contact ESTAT-EGR@ec.europa.eu.



# Preface

This chapter details the definition, rationale and methodology involved in profiling and describes the role it plays in the delineation of statistical units applicable in EBS.

The European business statistics methodological manual for statistical business registers — 2021 edition and the European business profiling — Recommendations manual — 2020 edition define profiling as:

a method to analyse the legal, operational and accounting structure of an enterprise group at national and world level, in order to establish the statistical units within that group, their links, and the most efficient structures for the collection of statistical data.

These statistical units are the profiled enterprises. This means that enterprises delineated within this group should have both an economic meaning and a *certain degree of autonomy in decision-making* in accordance with Regulation (EEC) No 696/93 of 15 March 1993 — Statistical Units Regulation.

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#### 6.1. Introduction

The purpose of profiling is to analyse the legal, economic and operational structure of an enterprise group in order to delineate its enterprises in the best possible way to promote the compilation of the most relevant statistics. The definition of an enterprise is provided by the Statistical Units Regulation. Its implementation should follow the operational rules adopted by the BSDG and the Directors of Macroeconomic Statistics (DMES) at their parallel meetings held on 25-26 June 2015 in Luxembourg (*Operational rules from now on* — see Chapter 7 on statistical units for more information).

At the beginning of the 1990s, some enterprise groups located across several different countries restructured and created new legal units at national level to carry out activities that were previously part of one multi-divisional enterprise and legal unit. This 'one enterprise equals one legal unit' principle led to a distorted statistical picture, insofar as it appeared that numerous (new) enterprises had been created, even though nothing had changed in economic terms. In addition, SBS that are often based on administrative tax data saw a bias introduced for time series data of non-additive variables like turnover.

Confronted with similar problems, European statisticians investigated alternative legal unit concepts for producing statistics, and the result was reflected in the Statistical Units Regulation. Later, EU Member States and EFTA countries developed national methods and processes for delineating the largest and most complex enterprises in their economies. The *European business profiling — Recommendations manual — 2020 edition* brought about further standardisation of national profiling practices.

At the European level, economic globalisation and how enterprise groups organise their production chains across national boundaries create challenges for statisticians (<sup>12</sup>). The profiling of large and complex enterprises that are part of multinational enterprise groups can be facilitated by cooperation between countries.

Different countries may well have a common interest in gaining a better understanding of the global structure of a multinational group with significant economic activity in their country because the relocation of activities from one country to another can have an impact on the accuracy/correctness of the statistics of all countries concerned. In such cases, the relevant information may be not be available at national level or it may be extremely difficult to validate. As a result, no country alone can make adequate progress and ensure high data quality. This can affect the delineation of consistent enterprise units across EU Member States and EFTA countries and the compilation of FATS, international trade statistics and, more generally, all statistics that are potentially affected by cross-border developments.

In 2018, Eurostat and the EU Member States decided to build a database on the largest European multinational enterprise groups, to better understand and monitor such groups; it was called the EuroGroups register. This database includes the global decision centre of multinational enterprise groups (which is the criterion for defining the leading country in the European profiling process) and all their legal units in different countries.

European profiling is a collaborative method involving those European countries that host enterprises on their territory that are part of a single multinational enterprise group. The respective NSIs participating in European profiling define and agree on the legal, financial and economic structure of multinational enterprise groups and delineate their main economic activities irrespective of geographical borders. This common understanding of the groups' structure and activities can strengthen data collection and data compilation and ensures more vertical and horizontal consistency in the treatment of data across the EU (<sup>13</sup>).

<sup>(&</sup>lt;sup>12</sup>) The globalisation of economic activities, their restructuring across countries and the registration of financial accounts in different legal units located in different countries can have a severe impact on national accounts data. To address this challenge, increased cooperation is needed between multinational enterprises, the European Statistical System and — on a global level — international statistical organisations/authorities. See also *The impact of globalisation on national accounts*, United Nations Economic Commission for Europe (UNECE).

<sup>(13)</sup> Vertical consistency: consistency of statistics produced within the same statistical domain between participating countries, or their joint consistency with the corresponding statistics produced at EU level. Horizontal consistency: consistency of statistics produced between two or more statistical domains in a participating country or between two or more statistical domains at EU level. Source: ESSnet consistency.

National profiling is largely recognised as the best available method for correctly producing SBS. European business profiling is, in turn, recognised as the best available method to achieve and to maintain a consistent view, acrossborders, of large multinational enterprises groups. NSIs may use this data collection as a source of information for the production of statistics alongside national statistical business registers in accordance with the EBS Regulation. In addition, the EBS Regulation justifies the exchange of confidential data on multinational enterprise groups and on the units belonging to these groups, exclusively for statistical purposes, between the statistical authorities of different EU Member States, whereby the exchange of information is carried out with the purpose of ensuring the quality of data on multinational enterprise groups in the EU. The EBS Regulation provides the basis for carrying out profiling across the EU Member States.

# 6.2. What's new?

Following the MEETS programme, European profiling was included in the 2013-2017 work programme for the ESS.VIP project concerning the European system of interoperable business registers (ESBR).

Under the ESBR, European profiling became part of the overall statistical business process that aims to produce consistent national and global frameworks for SBS and FATS. European profiling was tested using individual standard grant agreements. An updated methodology was endorsed by the BSDG at its December 2017 meeting. The methodology is characterised by introducing a connection between European and national profiling to: (i) build synergies between the two processes; (ii) allow the review of the profiling unit model to correctly reflect the national enterprise picture; (iii) link it to the global enterprise group structure; and (iv) review the roles and responsibilities so that the profiling burden is more balanced among countries and the responsibility for deciding how to classify resident statistical units is left to their NSIs.

By the end of the ESBRs project, more than 300 multinational enterprise groups had been manually profiled at least once (<sup>14</sup>) based on the European profiling methodology (<sup>15</sup>).

The implementation of the ESBR follows a business architecture approach involving both national and European profiling. Both processes are integrated in the ESBR and follow a consistent methodology. In order to finalise the work, a task force on profiling has been set up; it works in parallel with the dedicated task force that is in charge of maintaining the business architecture (<sup>16</sup>).

In 2020, Eurostat released a *European business profiling* — *Recommendations manual*. This manual explains the methodology of European profiling and profiling in general. Sections 6.3-6.8 below describe the main aspects of profiling: (i) following concepts developed as part of the MEETS programme, and (ii) having introduced changes proposed by the ESBRs. These sections have been updated and aligned in accordance with the profiling manual.

# 6.3. The top-down approach

National profiling as well as European profiling of large enterprise groups is based on the top-down approach in accordance with the method defined in the *European business profiling* — *Recommendations manual* — *2020 edition*. This means that the group is first analysed to define its constituent enterprises based on economic relevance, autonomy and possibility to collect data.

Nevertheless, there are still important differences between national and European profiling, especially in terms of data sources. With national profiling, the national truncated part of an enterprise group is the starting point as each country is able to observe only what is located in its national territory; with European profiling, the starting point is the analysis of the group irrespective of its geographical borders.

<sup>(14)</sup> In fact, because the perimeter of large enterprise groups changes every year, the profiling process should ideally be carried out every year. Such follow-ups are the only way of ensuring coherent and accurate statistics for multinational enterprise groups.

<sup>(&</sup>lt;sup>15</sup>) By December 2017, the following countries had tested the European profiling methodology over at least one reference year: Austria, Belgium, Bulgaria, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Iceland, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Sweden, Spain, Switzerland and the United Kingdom.

<sup>(&</sup>lt;sup>16</sup>) The business architecture of the ESBR will also have to be reviewed and continuously maintained. The two task forces will therefore coordinate and integrate their results.

Using a top-down approach, European profiling aims to delineate enterprises within enterprise groups. To delineate the enterprise, the starting point is the main economic activities of the group, as they are presented in the financial statements, the so-called 'operating segment(s)'. The geographical dimension is added later in the process to clearly identify the national parts of each operating segment. This top-down approach and the resulting outcome can be a starting point for delineating enterprises as statistical units, which is always carried out in accordance with the Statistical Units Regulation and following the operational rules, as described in Chapter 7 on statistical units.

Different situations may arise in practice, which require adaptations to the outcome in order to fulfil the requirements of statisticians involved in data collection and data compilation at national level.

Countries that have tested the collaborative process of European profiling agree on the following benefits:

- the top-down approach improves the correct understanding of the economic structure of multinational enterprise groups;
- profiling leads to important improvements for both the EGR and national business registers, especially as
  regards the additional legal units that can be discovered during the profiling process for each profiling
  reference year;
- profiling fosters important long-term relations with respondents in individual enterprises.

#### 6.4. Units and terminology in European profiling

#### 6.4.1. GLOBAL ENTERPRISE GROUPS

An enterprise group can consist of several subgroups, which may be located in several different countries. In European profiling terminology, the whole enterprise group is called a global enterprise group (GEG) to signify that it is considered an overarching unit due to its global nature.

GEGs provide the overarching structure to which administrative legal units are linked. Belonging to a GEG is a useful indicator for producing statistics that distinguish between real independent economic units and relevant ratios (for example debt ratios) at the group level.

#### 6.4.2. GLOBAL ENTERPRISE

A GEG may consist of one global enterprise (GEN) if its management is centralised. However, some GEGs are diversified conglomerates, which comprise several relatively autonomous parts, with easily-identified management structures which may be engaged in different businesses. In such cases, the GEG consists of several GENs.

According to the updated European profiling methodology a GEN should not be considered as a type of statistical unit in the ESS. From an economic point of view, it is an autonomous unit that fulfils the concept of an enterprise irrespective of national boundaries, but it is not used in official European statistics.

The 'operating segments' presented in the financial statements of a multinational enterprise group are the starting point for defining global enterprises. In many cases, these segments correspond to the global enterprise. Nevertheless, profilers have to depart from this segmentation if it does not fulfil the criteria for *a certain degree of autonomy in decision-making*. Eurostat's manual on European business profiling covers, in a comprehensive manner, the criteria that should be used to assess the autonomy of GENs and how to delineate GENs.

If a GEN corresponds to an operating segment, it could be an organisational unit that is recognised by the multinational enterprise group itself and for which useful information could be derived from the group's accounting system. In such a case, the GEN could provide relevant information about its global production chains that could be used as an input for statistical production (<sup>17</sup>). At the moment, the methodology recommends only a limited set of data be collected at the GEN level to provide a global picture to NSIs responsible for defining/delineating their national enterprises.

The profiled GEN may differ from the operating segments that are used within the group's management structure for several reasons. In some cases, the operating segments may have no autonomy. In other cases they may reflect subgroups within a global enterprise group, while profilers have to identify GENs that fulfil the criteria and satisfy

<sup>(&</sup>lt;sup>17</sup>) See UNECE's *Guide to Measuring Global Production*:

https://www.unece.org/fileadmin/DAM/stats/publications/2015/Guide\_to\_Measuring\_Global\_Production\_2015\_pdf.

the need for data collection. In all such cases, further analyses are necessary, and collaboration with each group is considered essential. Once identified, the GEN is a useful technical unit for supporting the delineation of national enterprises that can be linked to it.

#### 6.4.3. TEMPORARY ENTERPRISE

The updated European profiling methodology has introduced the concept of the temporary enterprise (TENT). This is the national part of a global enterprise proposed by the country of global decision centre to the respective country of residence of the enterprise. It is only a technical unit. It is automatically generated in the European profiling process, and thus used at national level as the starting point for delineating enterprises as statistical units. The statistical authority in the country of residence of the enterprise is the only (one) responsible for the final decision to validate it and recognise it as an enterprise. The temporary enterprise is not a type of statistical unit in the ESS.

#### 6.4.4. RELATION BETWEEN THE TEMPORARY ENTERPRISE AND THE ENTERPRISE

The temporary enterprise might or might not correspond to the national enterprise as defined by the Statistical Units Regulation and the operational rules for statistical units. The differences can consist of different economic activities and different sizes. When the temporary enterprise does not correspond to an enterprise, the NSI involved in delineating the enterprise can modify its characteristics and size. The updated European profiling methodology considers different situations possible: (i) the national enterprise can have a different economic activity with respect to the proposed temporary enterprise; (ii) at national level there may be several enterprises instead of one single temporary enterprise linked to a GEN; (iii) at national level there may be several temporary enterprises that need to be combined together to form a national enterprise.

In all such situations it is the responsibility of the NSI involved in delineating the enterprise(s) to make the necessary changes and assess the enterprise as the statistical unit that is suitable for data collection and for compiling data at the national level.

# 6.5. Different countries working together

European intensive profiling is a collaborative activity of ESS. It is innovative because several countries cooperate to produce one output, with mutual benefits to be had for all. It is important to understand that there are two categories of countries and different responsibilities held by the respective NSIs:

- the country where the global decision centre (GDC) of the group is located (<sup>18</sup>) the relevant NSIs are
  responsible for selecting the group for profiling, initiating the process, contacting and visiting the GDC (for
  intensive profiling), collecting the requested information and sharing it with the other ESS countries in which
  affiliated enterprises are located;
- the ESS countries where the affiliated enterprises of the group are located the relevant NSIs are
  responsible for analysing the information shared by the NSI in which the GDC is located and to delineate the
  statistical units within their own country. Feasible thresholds and agreements between countries on the
  number of groups to be profiled, in common, should be determined in the scope of a profiling programme.

The business architecture of the ESBR and the updated European profiling methodology have assigned greater flexibility to the partnering countries that do not necessarily have to accept all the information shared by the NSI in which the GDC is located. They could use it to delineate the enterprises located in their country; in doing so, they would still be ultimately responsible for ensuring the best quality, comparability and consistency of EBS.

Close cooperation between NSIs is therefore a key factor in determining the success of European profiling. Working as part of a joint programme implies speaking the same language, sharing the same concepts, avoiding misunderstandings, trying to clarify most of the inconsistencies during the process, and avoiding ex-post exercises for comparing or resolving data inconsistencies. The global enterprise group itself is an important partner in the profiling process.

<sup>(&</sup>lt;sup>18</sup>) If the GDC is located outside Europe, then this is the European country where the NSI initiates the profiling process.

# 6.6. Profiling types

There are different sub-methods available for profiling an enterprise group. These methods depend mainly on the size (in terms of number of employees, turnover, value added, or assets) and complexity (number of legal units, their activities, and geographical locations) of the group concerned, its economic relevance, and the possibility to establish direct contact with its representatives. Another determining factor relates to the requirements from partnering countries for delineating those enterprises located on their territory.

#### 6.6.1. DESK PROFILING WORK

One special feature of the methodology is that profilers analyse large GEGs on an individual basis. Indeed, large GEGs have such a weight on economic aggregates or on the quality of files that this individual approach is justified, regarding the balance between quality and resources.

In a first step, GDC profilers use available information to get an accurate picture of the GEG, and consider a first delineation of the GEN(s):

- the first information sources are statistical sources: the EGR, outward FATS, national business registers, SBS surveys, other surveys and administrative sources;
- the second information sources are those provided by the GEG itself: the GEG website and the financial statements released by the GEG.

This preparatory task is called desk profiling work.

#### 6.6.2. INTENSIVE PROFILING

In a second step, it is strongly encouraged that GDC profilers have a meeting with the GEG representatives (who are generally accountants), to confirm or to modify the delineation of GEN, and to collect data. When there is such a meeting, the process is called intensive profiling.

NSIs should create the right conditions for cooperation with the most economically important groups and should show them the benefits of a centralised approach in terms of reducing (or optimising) the statistical burden.

#### 6.6.3. LIGHT PROFILING

With light profiling, the entire profiling process is accomplished through desk profiling work. Profilers have no meeting with the group's representatives. They perform the profiling by taking advantage of the statistical sources and of the information released by the group (generally the financial statements and other information available on the group's website). Light profiling is normally sufficient for small to medium-sized groups that carry out activities with a limited number of affiliates or/and in a limited number of countries. This is because it is usually possible to find all the necessary information in the financial statements for these groups, together with other possible statistical or private sources of information that may be available to an NSI.

Even in light profiling, a few specific questions to group representatives by e-mail or conference calls may greatly improve the quality of the profiling.

#### 6.6.4. AUTOMATIC PROFILING

The manual delineation of enterprises is not possible for all group types and sizes, because there are simply too many of them. The vast majority of them are very small in size, with a maximum of two legal units, and are only set up to separate the productive activity of the enterprise from the assets (which often belong to several members of the same family or to several partners who are not involved in managing the enterprise). For such groups, automatic profiling is needed: this refers to the automation process used to delineate small and medium-sized enterprises. Automatic profiling is a method used to:

- Delineate automatically enterprises on the basis of assumptions. It may be assumed that each group, below a certain size or complexity criteria, consists of one enterprise. Algorithms may also be used to delineate several enterprises within a group, on the basis of assumptions regarding its internal structure.
- Calculate automatically the accounts of the delineated enterprises.
- Assign automatically to each enterprise its attributes (such as ID number, NACE code, link to the other units, and continuity).

In the scope of grants launched by Eurostat, several NSIs drafted algorithms based on common principles to consolidate the profit and loss of enterprises (<sup>19</sup>). Algorithms were also successfully drafted to assign the attributes of enterprises.

# 6.7. Impact of profiling

As soon as tests started on national and European profiling, numerous studies were made to estimate the impact of this method. These studies were carried out by individual EU Member States themselves or as part of joint actions initiated by Eurostat. Some studies analysed the structure and the activities of one large group profiled by virtue of intensive national or European profiling, others considered the whole national productive structure of a country as a result of several hypotheses of automatic profiling.

Irrespective of the country and profiling method, these studies show that the impact of profiling and the derived delineation of the enterprise as the statistical unit can be summarised as follows:

- 1. The economic structure is far more concentrated than it seemed to be with legal units. Prior to the Statistical Units Regulation, economic concentration was usually measured by the economic weight of the units in different workforce-size categories of legal units. However, with intensive profiling it is common to see large groups with hundreds of legal units, but only a few profiled enterprises or just one. Indeed, many groups' affiliates have been formed for strictly management-related objectives, and their significance only resides in their interaction with other entities of the same group. Equally, the weight of small and medium-sized enterprises (SMEs) decreases dramatically. The reason is that a significant proportion of legal units belonging to those enterprise consisted of affiliates and subsidiaries belonging to large enterprise groups. This different statistical representation of the productive structure has huge consequences in terms of economic policy and aid for businesses.
- 2. Profiling changes the perception of the weight of each sector, decreasing the weight of services and increasing that of manufacturing. Large groups in these two sectors contain many affiliates and subsidiaries in their core businesses. However, they also set up separate affiliates for sales/marketing or support functions classified in service sectors. The inclusion of these legal units increases most of the SBS variables by a few per cent (turnover, employment, value added, wages, and gross operating surplus) for manufacturing. The change affects export sales more because large manufacturing groups often assign their exports and imports to trade affiliates. Above all, the impact is far greater for other variables, which are affected in particular by spin offs to affiliates such as fixed assets or net assets. Most groups own these assets in 'professional, scientific and technical activities' or 'administrative and support services' (NACE Sections M and N).

<sup>(&</sup>lt;sup>19</sup>) The method for automatic profiling was developed by way of tenders: Contract No 06111.2013.002-2013.193 and Contract No 06111.2013.002-2013.194. Title: 'Guidelines Deliverable 3'.

3. Profiling provides a more realistic insight into how an enterprise is performing. By integrating all the legal units into an enterprise, it is possible to have a more realistic picture of economic performance as all the units that contribute to the enterprise are taken into account. As already mentioned, in most cases, the key fact is the inclusion within enterprises of those legal units dealing with NACE Sections M and N, where most of the assets held by head offices and various holding units are located. The same happens, to a lesser extent, with real estate activity. When shifting to an enterprise approach, all the means of production are taken into account and fixed assets per employee dramatically increase in the production sector.

# 6.8. The interactive profiling tool

The interactive profiling tool (IPT) is an application that allows profilers from different countries to participate in the collaborative European profiling process.

The IPT is currently operating as a prototype version and it is not yet fully integrated within the applications that have been developed for the EuroGroups register (<sup>20</sup>). To start a European profiling process, the IPT retrieves data on multinational enterprise groups from the last global frame produced by the EuroGroups register.

The European profiling process is initiated by the EU Member State where the global decision centre (GDC) of a multinational enterprise group is located. The Member States where affiliates of the group are located participate in the process as partnering countries. The result of European profiling is agreement on the GDC for the multinational enterprise group under consideration, its perimeter in terms of affiliated legal units and its global activities as carried out by defined global enterprises. The IPT is hosted as part of the Commission's secure environment for confidential data.

<sup>(&</sup>lt;sup>20</sup>) A project for the integration of the results of European profiling in the EuroGroups register has been launched. The Task Force profiling is responsible for the business specifications while Eurostat is responsible for the development.

# 6.9. Further information

- Statistical units
- European business profiling Recommendations manual
- External wiki page on profiling and IPT (registered access)
- Regulation (EEC) No 696/93 of 15 March 1993 Statistical Units Regulation

Eurostat provided information on profiling in the scope of a workshop on the implementation of the enterprise as the statistical unit. All guidance materials were disseminated on CIRCABC.

- Joint BSDG/DMES notice of intention (including operational rules) on the consistent implementation of the Statistical Units Regulation
- Automatic profiling
- Consolidation of SBS variables
- Regulation (EU) No 549/2013 of 21 May 2013 on the European system of national and regional accounts in the European Union
- Guide to measuring global production UNECE
- The Impact of Globalization on National Accounts UNECE

Eurostat has published a methodological manual for statistical business registers:

• European business statistics methodological manual for statistical business registers - 2021 edition

All revised manuals concerning EBS will be made available as part of a dedicated section on Eurostat's website (RAMON — reference and management of nomenclatures).

#### 6.10. Contacts

For questions or comments on profiling in business statistics, please contact ESTAT-G1@ec.europa.eu.

# Statistical units

# Preface

This chapter details the definitions of statistical units applicable in EBS.

7

The statistical unit is the entity for which the required statistics are compiled. It is an analytical unit for which statistics are compiled. Statisticians create it by splitting or combining observation units with the help of estimations or imputations in order to supply more detailed and/or homogeneous data than would otherwise be possible.

It is important to understand how it differs from the observation unit. The observation unit is the entity on which information is received. The observation unit and analytical unit may sometimes be the same. The reporting unit is the entity from which the necessary data items are collected. It will vary from sector to sector and from country to country, depending on institutional structures, the legal framework for data collection, traditions, national priorities and survey resources. It may or may not correspond to an observation unit and/or an analytical unit.

Besides definitions and explanatory notes on each type of statistical unit, this chapter also includes more detailed operational rules.

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# 7.1. Introduction

The Statistical Units Regulation (Regulation (EEC) No 696/93 of 15 March 1993) was adopted one year after the European single market was created. Its purpose was to provide a basis for consistent and integrated EU statistics that fulfil content and quality requirements.

The single market aimed to increase the international activities of enterprises. This resulted in an increase in international trade, followed by a growing volume and number of direct investments in other countries. Enterprises that originally operated only from their home country became more global, and some expanded so they were located in several countries. At the same time, the legal complexity of enterprises increased. Enterprises that used to consist of one legal unit split up their activities into a number of legal units in very different ways. Such restructuring was carried out for tax, liability, tariff and other reasons, which were often not directly related to the economic purpose of the enterprise. These patterns also applied to a growing number of small and medium-sized enterprises.

In this fast-changing economic environment, a simple equation consisting of legal or administrative units and statistical units painted an increasingly unrealistic picture of the economy. Moreover, legal and administrative units were designed for purposes that were not primarily connected to statistics. The legal and administrative systems of the EU Member States were also not fully standardised, which meant that units created by them might not be comparable.

# 7.2. What's new?

To achieve a uniform interpretation and implementation of statistical unit definitions in the EU Member States, two ESSnet projects were launched under the MEETS programme: ESSnet on Consistency and ESSnet Profiling of large and complex Multinational Enterprise Groups. Based on their results, the Task Force on Statistical Units (comprising experts from Eurostat and the Member States) was set up to develop operational rules for standardising the implementation of the Statistical Units Regulation.

This chapter is based on the definitions provided by the Statistical Units Regulation and on the operational rules developed by the Task Force on Statistical Units for the following types of statistical units: enterprise, enterprise group, KAU, local unit, local KAU.

The operational rules were adopted by the BSDG and the DMES in a joint notice of intention in June 2015.

From a user's perspective, priority should be given to consistency and comparability across domains and countries. The operational rules are meant to cover the majority of cases. In their application, all rules should be jointly considered rather than looking at an individual rule in isolation.

More detailed guidance with regard to specific cases can be found in a frequently asked questions (FAQs) section on the BSDG's website.

Further guidance on the application of the institutional unit can be found in the Statistical Units Regulation and in Regulation (EU) No 549/2013 of 21 May 2013 on the European system of national and regional accounts in the European Union. Within national accounts, the sector accounts are based on institutional units. The enterprise corresponds to the institutional unit used in the European system of accounts (ESA 2010). The main reference is Section III B, Explanatory note 1 of the Statistical Units Regulation.

For the purpose of this chapter, the versions of the NACE and ISIC (international standard industrial classification of all economic activities) classifications referred to below are those cited in the original source (regulations or other sources). In the case of subsequent revisions to these classifications, the assumption is that the most up-to-date version is to be taken into account for the purpose of these definitions.

# 7.3. The enterprise

#### 7.3.1. DEFINITION

An enterprise is:

the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.

Source: Regulation (EEC) No 696/93 of 15 March 1993

#### 7.3.2. EXPLANATORY NOTES

The enterprise thus defined is an economic entity which can therefore, under certain circumstances, correspond to a grouping of several legal units. Some legal units, in fact, perform activities exclusively for other legal units, and their existence can only be explained by administrative factors (e. g. tax reasons), without them being of any economic significance. A large proportion of the legal units with no persons employed also belong to this category. In many cases, the activities of these legal units should be seen as ancillary activities of the parent legal unit they serve, to which they belong and to which they must be attached to form an enterprise used for economic analysis.

Source: Regulation (EEC) No 696/93 of 15 March 1993

#### 7.3.3. OPERATIONAL RULES

1. Operational rule: characteristics of an enterprise

A unit is deemed to be an enterprise if it

- (a) operates the necessary factors of production (e.g. human resources, capital, technology, land and in particular management) and
- (b) accesses the necessary controlling systems, e.g. an integrated cost calculation, which covers the main, secondary and ancillary activities of the unit deemed as enterprise and
- (c) has adequate managerial structures, i.e. managers that can decide about the production process and about the economic transactions.
- 2. Operational rule: activity of an enterprise

An enterprise is deemed as active in a certain period if it generates turnover, employs staff or makes investments in the period (<sup>21</sup>).

3. Operational rule: identification of enterprise in case of an enterprise group

In case of an enterprise group, the identification of the statistical unit enterprise should in principle be made on the basis of the structure and the perimeter of the enterprise group reflected in the national Statistical Business Registers and in the EGR.

Further guidance:

- It should be noted that some enterprise groups may decide to organise their activities in various socalled profit-centres or operating segments (<sup>22</sup>).
- Each of these operating segments can be considered, for statistical purposes, as a starting point for the identification of an enterprise inside the enterprise group.
- Inside an operating segment there may be one or more legal units, or parts thereof, which are
  organisationally integrated with each other but not with the rest of the segment and have the factors

<sup>(&</sup>lt;sup>21</sup>) Holding assets and/or liabilities may also be considered to be an activity, in which case the operational rules for head offices, holding companies and special purpose entities apply.

<sup>(22)</sup> In general the profit centre equals the operating segment, but it can also be different. An operating segment as defined in the International Financial Reporting Standards is a component of an enterprise group that has discrete financial information available, and whose results are reviewed regularly by the entity's chief operating decision maker for purposes of performance assessment and resource allocation. An operating segment manager is accountable to the chief operating decision maker for the results of the segment.

of production at their disposal. Such units have to be considered as an enterprise, if they operate under an own management and do not carry out ancillary or vertically integrated activities (<sup>23</sup>).

• The application of operational rule 'Identification of Enterprise in case of an Enterprise Group' may result in an enterprise being equal to enterprise group. This is the case if an enterprise group performs its activities under a single management and operates as one organisational unit.

#### 4. Operational rule: ancillary legal units (24)

If a legal unit performs one or more ancillary activities for other legal units within the same enterprise group, it has to be considered as an ancillary legal unit. In this case it is not considered an enterprise. The outputs of the ancillary legal unit have to be considered as inputs for the other units of the enterprise group and its data have to be consolidated within the enterprises which consume these outputs.

In case the output of the legal unit, which performs one or more ancillary activities, is only partly consumed by other legal units, and the legal unit sells to a third party on a regular basis, it may be treated as an enterprise.

A legal unit or part thereof located in one country may carry out exclusively ancillary activities inside an enterprise group and deliver its services to more than one enterprise of the enterprise group it belongs to. If the enterprises that receive the ancillary services have locations in one or more other countries the legal unit providing these services is by convention treated as an enterprise and is classified according to the activity it is performing.

#### 5. Operational rule: vertically integrated legal units (25)

A vertically integrated enterprise is one in which different stages of production are carried out in succession by different parts of the same enterprise. The output of one stage becomes an input for the next stage, only the output from the final stage being actually sold on the market. (<sup>26</sup>)

A legal unit is vertically integrated, if its output is used as a pre-product in another legal unit of the same enterprise group. In this case, the vertically integrated legal unit or operating segment is merged inside the group with the legal unit using the output. The merged legal units have to be considered as one enterprise. (<sup>27</sup>)

#### 6. Operational rule: enterprises active in more than one country

Application of the enterprise concept may lead to identifying enterprises active in more than one country. In such cases, there will be links of the national part of the unit with the EGR. For national statistics the national part of the unit is to be considered an enterprise. Such a resident unit is regarded an enterprise unit in the economic territory where it is located. However in some specific cases this may lead to more than one national enterprise. Techniques like European profiling will aid such consistency.

Source: BSDG/DMES notice of intention — adopted on 25-26 June 2015

<sup>(23)</sup> Vertical integration: the output of one stage becomes input for the next stage, only the output from the final stage being actually sold on the market (Source: SNA 2008, paragraph 5.23).

<sup>(&</sup>lt;sup>24</sup>) This operational rule may also apply to operating segments by analogy. It applies also to legal units managing only factors of production, such as land, buildings, equipment or staff for other legal units.

<sup>(25)</sup> Vertical integration: the output of one stage becomes input for the next stage, only the output from the final stage being actually sold on the market (Source: SNA 2008, paragraph 5.23).

<sup>(&</sup>lt;sup>26</sup>) Source: SNA 2008, paragraph 5.23.

<sup>(27)</sup> The rule should be seen in connection with the other rules, in case not all the output is absorbed by the other unit, it still has to be checked, whether the unit delivering the output has autonomy or not and forms an organisational unit with the unit using the output.

#### 7.3.4. OPERATIONAL RULES FOR HEAD OFFICES, HOLDING COMPANIES AND SPECIAL PURPOSE ENTITIES

Head offices (HOs), holding companies (HCs) (<sup>28</sup>) and special purpose entities (SPEs) (<sup>29</sup>) have special characteristics.

The activities of a HO include the overseeing and managing of other legal units of the enterprise, supporting their day-to-day operations.

A HC is described as a legal unit that holds the assets of other legal units but does not undertake any management activities.

SPEs, as identified in operational rule 4, often have only limited presence in the country where they are registered. In general, SPEs are not seen to have autonomy of decision and are combined with one or more legal units to an enterprise. An important question is whether a HO/HC/SPE has autonomy of decision, which has to be answered in order to be able to delineate the enterprise. For example, a legal unit wholly owned by a parent legal unit may just be created to avoid taxes. Generally, such legal units do not satisfy the definition of an enterprise because they lack the ability to act independently from their parent and their accounts have to be consolidated with those of the parent. Therefore, in the first place, the autonomy of decision of the legal unit has to be assessed.

The following rules are based on ESA and the final report by the task force on head offices, holding companies and special purpose entities (SPEs). They regulate how to distinguish head offices from holding companies and in which cases these entities are characterised as institutional units. The rules refer to head offices and holding companies of very large enterprise groups owning subsidiaries. A head office of a huge international enterprise group is clearly in the scope of these rules, whereas a legal unit, employing the chairman of a small or medium-sized enterprise, which may have moreover e.g. the purpose to reduce liability, does not fulfil the criteria of being an institutional unit; and is hence not in the scope of these rules.

1. Operational rule: identification of enterprise characteristics

To identify the enterprise characteristics of a HO/HC/SPE the following conditions apply:

- (a) A HO/HC/SPE owned by a non-resident parent is to be considered by convention as an enterprise.
- (b) A HO/HC/SPE owned by multiple owners, and not controlled by any other legal unit, should be considered as a separate enterprise.
- (c) For a HO/HC/SPE wholly owned by a single resident unit, having no employees and no compensation of employees are not sufficient criteria for lack of independence; in such cases, further investigation is needed.
- (d) HOs are always considered to have autonomy of decision.
- (e) Governments' (and corporations') use of SPEs is normally to raise finance. Such SPEs are not separate institutional units when resident. Non-resident SPEs of governments are recognised as separate institutional units. At the same time, all stocks and flows between general government and the nonresident SPE are recorded in the general government and SPE accounts; including imputed transactions reflecting general government's borrowing from the non-resident SPE. (<sup>30</sup>)

2. Operational rule: identification of head offices and holding companies HOs and HCs have relations to other entities, namely, their subsidiaries. Hence, information on the structure of their balance sheet is one tool to determine whether an entity is a HO, HC or another type of unit. In order to identify these entities the following practical rule should be applied:

• A legal unit having at least 50 % of its assets consisting of investments in its subsidiaries can be considered to be of the type of HO or HC.

<sup>(&</sup>lt;sup>28</sup>) For the definition of the head offices and holding companies, see: Notice of intention of the Business Statistics Directors Groups and the Directors of Macroeconomic Statistics on the consistent implementation of Council Regulation (EEC) No 696/93 on statistical units, June 2015, available at: https://circabc.europa.eu/sd/a/0203fc33-9780-4ffa-8cb8-8adbbe6cf00d/Notice%20of%20intention%20of%20 BSDG%20and%20DMES%20on%20the%20consistent%20implementation%20of%20Council%20Regulation%20(EC)%20No%20696\_93%20on %20statistical%20units.doc.

<sup>(&</sup>lt;sup>29</sup>) See: https://ec.europa.eu/eurostat/documents/737960/738007/Final\_Report\_Task\_Force\_SPEs.pdf/9390b392-62d3-45b4-a4ee-fd9ed7a78da2.

<sup>(&</sup>lt;sup>30</sup>) See ESA 2010, paragraph 20.47-20.48.

3. Operational rule: distinction between head offices and holding companies

A HO may have noticeably fewer employees than the legal units it oversees and manages. However, having zero employment is a clear indication of not being a HO. On the other hand, HCs simply holding assets may do this with very few or without any employed personnel. Employment thresholds for the delineation between HOs and HCs should be determined taking into account national circumstances. In particular, national legislative requirements for the number of employees of HCs should be taken into account.

In general, employment of three or more persons is a first indicator for a HO or HC legal unit being a HO.

4. Operational rule: identification of special purpose entities

In order to identify SPEs the following practical rules should be applied:

- (a) SPEs are always related to another legal unit, often as a subsidiary of that legal unit.
- (b) SPEs have large balance sheets; usually with no non-financial assets. Therefore, investment income and holding gains are major elements of their accounts.
- (c) SPEs have few or no employees.
- (d) The production of SPEs is very limited. Usually fees are charged from the parent company.
- (e) SPEs are often ultimately controlled by a non-resident parent, directly or indirectly.

Source: BSDG/DMES notice of intention — adopted on 25-26 June 2015

## 7.4. Enterprise group

### 7.4.1. DEFINITION

An enterprise group is an association of enterprises bound together by legal and/or financial links. A group of enterprises can have more than one decision-making centre, especially for policy on production, sales and profits. It may centralize certain aspects of financial management and taxation. It constitutes an economic entity which is empowered to make choices, particularly concerning the units which it comprises.

Source: Regulation (EEC) No 696/93 of 15 March 1993

### 7.4.2. EXPLANATORY NOTES

For certain observations and analyses it is sometimes useful and necessary to study the links between certain enterprises (<sup>31</sup>) and to group together those which have strong ties with each other.

A number of exercises are underway but not finished concerning the concept of the group of enterprises. It is defined here starting from the concept of accounting group as given in the Seventh Council Directive 83/349/EEC (OJ No L 193, 18. 7. 1983, p. 1). This Directive came into force for the first time for consolidated accounts of the financial year which began in 1990. Directive 90/605/EEC (OJ No L 317, 16. 11. 1990, p. 60) extended the scope of application of the Seventh Directive.

Within the meaning of the Seventh Directive, a group is presumed to exist where 20 % of the capital or voting rights are held or controlled by another enterprise. Provisions regarding the control of the power to appoint directors must be taken into account. Behind financial (majority) control, the aim is to take into account where the control really is.

This definition as it stands is not suitable for statistical analysis because 'accounting groups' do not constitute mutually exclusive, additive groups of enterprises. A statistical unit known as 'enterprise group' based on the 'accounting group' concept must be defined by applying the following amendments:

- o consider accounting groups at the highest consolidation level (group head),
- include in enterprise group units whose accounts are entirely integrated in those of the consolidating company,

<sup>(&</sup>lt;sup>31</sup>) In practice, the financial control relationships that are needed to define the perimeter of a group are based on the legal units' information about their shareholders and voting powers. The European business statistics methodological manual for statistical business registers — 2021 edition therefore clarifies this aspect and the apparent inconsistency with the definition in Council Regulation (EEC) No 696/93, which refers to links of enterprises.

- add majority-controlled units whose accounts are not included in the overall consolidating by virtue of application of one of the criteria allowed by the seventh Directive, i.e. difference in the type of activity or small relative size,
- o discount temporary links of less than a year.

An enterprise group is a set of enterprises controlled by the group head. The group head is a parent legal unit which is not controlled either directly or indirectly by any other legal unit. The subsidiary enterprises of a subsidiary enterprise are considered to be subsidiaries of the parent enterprise. However there are some forms of cooperative or mutual associations where the parent enterprise is actually owned by the units of the group.

Enterprise groups are often bound together by various types of links such as ownership, controlling interest and management. These units are often linked with units of the same family from several different generations. The enterprise group unit often corresponds to a conglomerate bound together by a network of complex relationships and frequently covers a very wide range of activities. Subgroups can be identified within enterprise groups.

It is useful to recognize all (majority and minority) links between the group head and the controlled enterprise via the network of subsidiaries and sub-subsidiaries. This allows the group's entire organization to be depicted.

In view of the implications of the different accounting directives, an attempt should always be made to distinguish between basic units of the group that belong to non-financial enterprises and those which must be classified as financial institutions. In the case of the latter, a distinction must be drawn between units that are credit institutions and those that are insurance enterprises. Some enterprise groups span the whole world, but need to be analysed for the economic territory of the Community and for that of each Member State.

The enterprise group unit is particularly useful for financial analyses and for studying company strategies, but it is too varied in nature and unstable to be adopted as the central unit for observation and analysis, which remains the enterprise. It is used for compiling and presenting certain information.

Source: Regulation (EEC) No 696/93 of 15 March 1993

### 7.4.3. ADDITIONAL EXPLANATIONS

The explanatory notes formulated in Regulation 696/93 state that they were formulated while some exercises concerning the concept of the group had been still underway. They also contain references which have become outdated in the 20 years following. Therefore clarifications and updating are necessary:

The Seventh Council Directive was repealed and replaced by Directive 2013/34/EU.

Naming conventions

The parent legal unit which is not controlled by any other unit and thus the head of the enterprise group, does not need to be subject to accounting obligations. This may e.g. be the case if the group head is a natural person or the government. Consequently, the unit at the highest consolidation level is not in every case identical with the group head. Moreover, the management of an enterprise group is not necessarily carried out by the group head or in the unit at the highest consolidation level. As well there may be more than one decision centre. In this case the decision centre, which prepares the decisions that concern the whole group, needs to be identified.

For the purpose of clarity, the following terms should be used:

- a. Controlling unit: Global (32) Group Head (GGH)
- b. Managing unit: Global (<sup>32</sup>) Decision Centre (GDC)
- c. Consolidating unit: Highest Level Consolidating Unit (HLC)

Clarification of the definition of an EG

<sup>(&</sup>lt;sup>32</sup>) Also in enterprise groups which are purely domestic, in other words they are located completely in one country, the terms Global Group Head and Global Decision Centre apply. The word 'global' does not refer to global in the sense of 'worldwide' but in the sense of 'overarching' as there might be more than one decision centre within the group. If for example an enterprise group comprises more than one enterprise, these enterprises may also have decision centres. However, these decision centres do not make decisions about the enterprise group. Only in the Global Decision Centre decisions about the group are made.

An EG can be described as a cluster of legal units under the same control. This may imply that an enterprise group corresponds to only one enterprise.'

Source: BSDG/DMES notice of intention — adopted on 25-26 June 2015

### 7.4.4. OPERATIONAL RULES

1. Operational rule: control

Control over a legal unit is defined as the ability to determine general corporate policy. It can be exercised by (a) owning more than half of the voting shares, (b) having the right to appoint or remove a majority of the members of the management, (c) having the right to exercise a dominant influence over the legal unit, (d) controlling more than half of the shareholders' voting power of another legal unit directly or indirectly, or otherwise (e) proving that there is de facto control exercised. Indirect control refers to controlling a legal unit via another legal unit. This includes also cumulative control, i.e. controlling two or more legal units that together own more than half of the voting shares of the legal unit in question.

An EG is controlled by its Global (<sup>32</sup>) Group Head (GGH). The GGH is defined as the unit (legal or natural person) which controls all legal units of the group and is not controlled by any other legal unit.

### 2. Operational rule: management and control

An enterprise group is always controlled by only one GGH. Typically one GGH controls one enterprise group, however it is possible for a GGH to control more than one enterprise group. One sign that the GGH controls several enterprise groups might be the consolidation of the accounts appearing on a level below the GGH and the existence of several consolidated accounts.

The unit carrying out the actual management of the EG is named the Global (<sup>32</sup>) Decision Centre and it is not necessarily identical with the GGH.

3. Operational rule: consolidation and control

According to the Directive 2013/34/EU (Article 22) shares of affiliates' undertakings have to be listed in the balance sheet of a company.

All the legal units consolidated in full in the EG's accounts form part of the EG. If the global group head is identical with the highest level consolidating unit, it is included in the accounts as well. Legal units not consolidated but controlled by the GGH also form part of the EG. If the difference between the consolidation perimeter and the legal perimeter concerns statistically non-significant legal units, the consolidation perimeter is relevant for statistical purposes.

If the GGH does not produce consolidated accounts and reports, the legal unit below the GGH which has to produce consolidated accounts and annual reports is called the Highest Level Consolidating Unit (HLC) and determines the consolidation perimeter of the enterprise group.

Source: BSDG/DMES notice of intention - adopted on 25-26 June 2015

# 7.5. Kind-of-activity unit

### 7.5.1. DEFINITION

The kind-of-activity unit (KAU) groups all the parts of an enterprise contributing to the performance of an activity at class level (four digits) of NACE Rev. 1 and corresponds to one or more operational subdivisions of the enterprise. The enterprise's information system must be capable of indicating or calculating for each KAU at least the value of production, intermediate consumption, manpower costs, the operating surplus and employment and gross fixed capital formation.

Source: Regulation (EEC) No 696/93 of 15 March 1993

### 7.5.2. EXPLANATORY NOTES

The KAU was devised as an observation unit in order to improve the homogeneity of the results of statistical surveys by activity and hence the international comparability of these results, since at the level of the

enterprise different types of horizontal and vertical integration can be observed at both national and international level. An entity which only carries out ancillary activities for the enterprise to which it belongs cannot be considered as a separate KAU. In fact the KAU corresponds to the operational definition given in paragraph 96 of the introduction to ISIC Rev. 3.

The KAUs falling within a particular heading in the NACE Rev. 1 classification system can produce products outside the homogeneous group, on account of secondary activities connected with them which cannot be separately identified from available accounting documents. Conversely, the KAUs classified under a particular heading in the classification system on the basis of a principal activity do not produce the entire output of homogeneous groups of specific products because the same products can be produced in secondary activities of KAUs falling under some other classification heading.

The internal accounts of enterprises (e.g. profit or cost centres) have often been developed according to criteria that are close to those for the KAU: the activity concept. They enable the supply of data at KAU level, so that these can be observed.

All the costs of ancillary activities of an enterprise must be allocated to the principal and secondary activities and thus to the KAUs observed within the enterprise.

Source: Regulation (EEC) No 696/93 of 15 March 1993

### 7.5.3. ADDITIONAL EXPLANATIONS

In the currently valid ISIC Rev. 4 the operational definition of the KAU is given in paragraph 85.

In all cases where NACE Rev. 1 is quoted in the definition of the KAU of CR 696/93, the rules of the currently valid NACE Rev. 2 are identical.

Source: BSDG/DMES notice of intention - adopted on 25-26 June 2015

### 7.5.4. OPERATIONAL RULES

1. Operational rule: thresholds

In the practical implementation, the delineation of KAU may be restricted to enterprises which because of their size (e.g. production value) have:

(i) a significant influence on the aggregated (national) data at NACE activity level,

and

(ii) at the level of the individual enterprise, as guidance one secondary activity accounts for:

 more than 30 % of its total production at the 4-digit (class) level of the valid NACE classification, or

- more than 20 % of its total production at the 2-digit (division) level of the valid NACE classification.

2. Operational rule: other KAUs

In the case of enterprises which are not covered by rule 1, the KAU is considered to be equal to the enterprise.

3. Operational rule: estimates

In case that not all of the economic indicators are available from the respondents, they may also be estimated by the national statistical authorities.

### Remarks:

(a) KAUs do not have to be delineated for all enterprises. The delineation of KAUs can be restricted to only those enterprises which — because of their size — are considered as relevant nationally. Possible criteria for relevance at national level are turnover or employment. This operational rule leaves the decision, of how far to go with the delineation of individual enterprises, to the NSIs.

(b) The delineation of KAUs is relevant only for enterprises which are (i) heterogeneous, and (ii) the secondary activities of which are so important that failing to delineate these enterprises into KAUs would have a significant negative impact on the accuracy of the measurement of national production, at the level of NACE activities.

The number of KAUs to be delineated will thus depend, on the one hand on the desired level of accuracy (of the indicator in question), and on the other hand on the concrete economic structure, in a given country and at a

given point in time, i.e. the number and size of the enterprises, their heterogeneity at activity level, and their organisation.

(c) The thresholds (of 30 % and 20 % respectively) quoted in operational rule (1) as guidance mean that NSIs may delineate more KAUs. Examples could be where one of the secondary activities of an enterprise is of little significance for the enterprise in question (i.e. it would contribute less than 30 % or 20 % to the enterprise's total production) but where that particular secondary activity is of national significance (e.g. if the enterprise in question is the only national producer in that specific NACE activity).

Source: BSDG/DMES notice of intention — adopted on 25-26 June 2015

# 7.6. Local unit

### 7.6.1. DEFINITION

The local unit is an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place. At or from this place economic activity is carried out for which — save for certain exceptions — one or more persons work (even if only part-time) for one and the same enterprise.

Source: Regulation (EEC) No 696/93 of 15 March 1993

### 7.6.2. EXPLANATORY NOTES

If a person works in more than one place (maintenance or surveillance) or at home, the local unit is taken to be the place from which instructions emanate or from where the work is organised. It must be possible to specify the employment attached to any local unit. However, all legal units that serve as the legal basis for an enterprise or a part thereof must have a local unit which is the registered office, even if nobody works there. Moreover, a local unit can comprise only ancillary activities.

A geographically identified place must be interpreted on a strict basis: two units belonging to the same enterprise at different locations (even within the smallest administrative unit of the Member State) must be regarded as two local units. However, a single local unit may be spread over several adjacent administrative areas, in which case, by convention, the postal address is the determining factor.

The boundaries of the local unit are determined by the boundaries of the site, which means for example that a public highway running through does not interrupt the continuity of the boundaries. The definition is similar to the one in paragraph 101 of the introduction to ISIC Rev. 3, in that it concerns localisation in the strict sense of the term, but differs from the definition in paragraph 102 in that this strict sense may not vary according to the statistics under consideration. In addition, the criterion of persons working in the unit is normally applied.

The ESA-REG (the regional application of the ESA) uses the same definition of local unit for regional accounts purposes.

Source: Regulation (EEC) No 696/93 of 15 March 1993

### 7.6.3. ADDITIONAL EXPLANATIONS

In the currently valid ISIC Rev. 4 the operational definition of the Local unit is given in paragraph 86.

Source: BSDG/DMES notice of intention - adopted on 25-26 June 2015

### 7.6.4. OPERATIONAL RULES

### 1. Operational rule: identification

For the identification of a local unit the physical geographic location has to be identified. Such a single physical location is normally best approximated by the postal address. Several physical locations of the same enterprise within the same community or within the same region are to be treated as several local units of that enterprise.

### 2. Operational rule: physical geographic location

A physical location of a local unit may be found within a building, may correspond to one building or may comprises more than one building. In the latter case the various buildings do not form separate local units if they are physically close together and have a common postal address.

3. Operational rule: local unit without postal address

A local unit may not be situated in a building at all. If in that case the other criteria are fulfilled a separate local unit should be identified. In such a case a postal address may not exist; however, the geographical identification could be represented by geographical coordinates or other measures.

4. Operational rule: activities performed outside physical locations

Certain economic activities are performed outside the physical locations of the enterprise, for instance at the customer's address, at fairs, door-to-door sales, etc. These types of location should not be considered to be local units, but instead the site from where the activity is organised should be considered to be the local unit. Such activities are treated as if they are carried out at the local unit from which they are organised. The same holds for activities in transportation where the real economic service is the transportation of goods and persons over the area.

5. Operational rule: activities performed at private residence

In case that the economic activities are performed at the private residence of the entrepreneur, this address is also the address of the local unit of the enterprise.

6. Operational rule: localities without staff

Local units should have one or more persons working (even if only part-time). However, in the case of seasonal activities the premises which are unstaffed at a certain time of the year should nevertheless be viewed as a local unit. In the cases of all other premises and installations, where no persons are working and the unit is not equivalent to the enterprise, these should not be treated as separate local units, but should be incorporated in the local units from which they are operated and controlled.

7. Operational rule: activities of local units

At a local unit more than one activity of the enterprise may take place. A local unit may also comprise only ancillary activities.

8. Operational rule: local units of an enterprise

Each enterprise has at least one local unit, namely the location where the enterprise is registered as legal unit (e.g. in the trade register). In the case that the registered business address is at a separate location from the other local units of that enterprise, still that location forms a separate local unit, even if no one is working there.

Source: BSDG/DMES notice of intention — adopted on 25-26 June 2015

# 7.7. Local kind-of-activity unit

### 7.7.1. DEFINITION

The local kind-of-activity unit (local KAU) is the part of a KAU which corresponds to a local unit.

Source: Regulation (EEC) No 696/93 of 15 March 1993

The local KAU is the type of statistical unit used in national accounts to compile production accounts (based on supply and use tables).

### 7.7.2. EXPLANATORY NOTES

Each KAU must have at least one local KAU; however, the KAU can be made up of a grouping of parts of one or more local units. On the other hand, a local unit may in certain circumstances comprise solely a group of ancillary activities. In this instance, a supplementary classification of the local unit is possible. Furthermore, each enterprise should have at least one local KAU.

The local KAU corresponds to the operational definition of the establishment as given in paragraph 106 of the introduction to ISIC Rev. 3.

Source: Regulation (EEC) No 696/93 of 15 March 1993

### 7.7.3. ADDITIONAL EXPLANATIONS

In the currently valid ISIC Rev. 4 the operational definition of the LKAU is given in paragraph 87. Source: BSDG/DMES notice of intention — adopted on 25-26 June 2015

### 7.7.4. OPERATIONAL RULES

1. Operational rule: cases in which the local KAU may be delineated In the case where in one location the predominant activity is not the main activity of any KAU of the enterprise, and at the enterprise level this activity falls below the threshold to form a KAU, an additional KAU may be delineated so that correct LKAUs can be formed.

2. Operational rule: several local units in the same NUTS region It is not requested that the LKAUs strictly form part of a KAU corresponding to a single local unit. It is also acceptable when the LKAU comprises the sum of all respective activities performed within the lowest level of NUTS for which LKAUs are required.

3. Operational rule: ancillary activities In the case that solely ancillary activities are carried out in a particular local unit, this unit is treated as a LKAU and classified according to the activity of the KAU (for national statistics) as well as of the ancillary activity (for regional statistics).

Source: BSDG/DMES notice of intention — adopted on 25-26 June 2015

### 7.8. Ancillary activities (33)

### 7.8.1. DEFINITION

- 1. An activity must be regarded as ancillary if it satisfies all the following conditions:
  - (a) it serves only the unit referred to: in other words, goods or services produced must not be sold on the market;
  - (b) a comparable activity on a similar scale is performed in similar production units;
  - (c) it produces services or, in exceptional cases, non-durable goods which do not form part of the unit's end product (e. g. small implements or scaffolding);
  - (d) it contributes to the current costs of the unit itself, i.e. does not generate gross fixed capital formation.
- 2. The distinction between ancillary, principal and secondary activity can be illustrated by a few examples, as follows:
  - production of small implements for the unit's use is an ancillary activity (in accordance with all criteria);
  - own-account transport is normally an ancillary activity (in accordance with all criteria);
  - sales of own products are an ancillary activity because, as a general rule, it is not possible to produce without sales. However, if it is possible to identify a retail sales point within a production enterprise (direct sales to end-user) which may be, for example, a local unit, this sales point — exceptionally and for the purposes of certain analyses — may be regarded as a kind-of-activity unit. This observation unit then forms the subject of a twofold classification, i.e. in terms of the (principal or secondary) activity it performs within the enterprise and in terms of its own activity (retail sale).
- 3. Thus, the general rule is that, since production processes are not usually viable without the support of ancillary activities, these ancillary activities should not be isolated to form distinct entities, even if they are carried out by a distinct legal entity or at a distinct place, and even if separate accounts are kept. Furthermore, the ancillary activity is not taken into account when classifying the activity of the entity by

<sup>(&</sup>lt;sup>33</sup>) The term 'ancillary' is used for differentiating primary, secondary and ancillary activities. In ESA 2010, the term 'auxiliary' is used for Sector S12 Financial Corporations to differentiate specific non-FISIM activities.



which the ancillary activities are carried out. The best example of an entity carrying out ancillary activities is the central administrative department of registered office.

- 4. Having regard to the definition at the beginning, the following activities must not be considered as ancillary activities:
  - (a) the production of goods or work carried out which forms part of fixed capital formation in particular, construction work for own account. This is in line with the method used in NACE Rev. 1, where units carrying out construction work for own account are classified under the building industry if data are available;
  - (b) production, a significant part of which is sold commercially, even if much is consumed in the course of the principal or secondary activities;
  - (c) the production of goods which subsequently become an integral part of the output of the principal or secondary activity — e. g. production of boxes, containers, etc. by a department of an enterprise for use in packing its products;
  - (d) the production of energy (integrated power station or integrated coking plant), even where this is consumed in its entirety in the principal or secondary activity of the parent unit;
  - (e) the purchase of goods for resale in unaltered state;
  - (f) research and development. These activities are not very widespread and do not produce services which are used in current production.

In all these cases, if separate data are available for these activities, they should be regarded as distinct activities and subsequently recognised as KAUs.

- 5. If ancillary activities are carried out for the benefit of a single entity, these activities and the resources they use will constitute an integral part of the activities and resources of that unit. However, if the activities of the statistical unit and the corresponding ancillary activities are not carried out in the same geographical area (defined in terms of the zones delimited for the purposes of statistical surveys), it may be desirable to collect separate supplementary information on these units for the categories of data which have to be classified in terms of geographical areas, even if the units only carry out ancillary activities.
- 6. If ancillary activities are carried out basically for the benefit of two or more kind-of-activity units, the cost of these ancillary activities must be spread over all the kind-of-activity units which they support. If data are available on the proportion of the costs which can be assigned to each of these distinct activities, the costs should be broken down accordingly. However, should no information of this kind be available, the cost of the ancillary activity should be broken down over the principal and secondary activities proportionately to the value of output minus intermediate costs excluding the costs of the ancillary activities themselves. If this method proves too difficult in practice, the cost of the ancillary activity may simply be broken down proportionately to the value of output.
- 7. If ancillary activities are organised in such a way as to serve two or more entities of a multi-unit enterprise, they may constitute a group of ancillary activities at a distinct location. In this case, in the same way as it would be desirable to cover certain activities completely even if they are carried out independently or by entities which are engaged exclusively in ancillary activities (such as computer services), it could be useful to allow for supplementary classifications. For this purpose these ancillary entities could then be classified according to their own activities as well as being classified under the activity of the unit to which they belong.
- 8. It is possible that an activity starts out as ancillary but subsequently begins to provide services for sale to other entities. An activity of this kind may develop to the point where it ceases to be an ancillary activity and must therefore be regarded as one of the principal or secondary activities of an entity. The only way of deciding whether a given activity should be regarded as an ancillary activity or a principal or secondary activity, is to assess the role it plays in the enterprise as a whole.

Source: Regulation (EEC) No 696/93 of 15 March 1993

### 7.8.2. ADDITIONAL EXPLANATIONS

*Points 4 (a)-(f) of the ancillary activities definition of CR 696/93 are in line with the method used in NACE Rev. 2 (paragraph 53).* 

*Source:* BSDG/DMES notice of intention — adopted on 25-26 June 2015

### 7.8.3. OPERATIONAL RULES

1. Operational rule: examples of possible ancillary activities (<sup>34</sup>)

1. Distribution and logistics Trade services of own products Freight transport services Cargo handling services Storage and warehousing services Freight transport agency services and other freight transport services Postal and courier services

2. Marketing, sales- and after sales services including help desks and call centres Marketing management consulting services Advertising services and provision of advertising space or time Market research and public opinion polling services Advertising and related photography services Telephone call centre services Trade show assistance and organisation services

3. ICT services

Information technology (IT) consulting and support services Hosting and information technology (IT) infrastructure provisioning services IT infrastructure and network management services Telephony and other telecommunications services Internet telecommunications services

4. Administrative and management functions Legal and accounting services Management consulting and management services Business consulting services Other management services, except construction project management services Combined office administrative services Specialised office support services

Source: BSDG/DMES notice of intention - adopted on 25-26 June 2015

<sup>(&</sup>lt;sup>34</sup>) Compare with support business functions — Global Value Chains and Economic Globalization Project Report (GVC-EGP), page 26 Table 2; see: https://ec.europa.eu/eurostat/cros/system/files/Item%203\_Sturgeon\_GVC-EGP%20Report%20v.10-02-12.pdf.

# 7.9. Statistical units per domain

The table below summarises how the various types of statistical units are used by domain (<sup>35</sup>) according to the EBS Regulation.

Domain	Enterprise	Enterprise group	Local unit	KAU	Legal unit
Structural business statistics	x		х		
Research and development	X				
Information and communications technology	x				
Innovation	x				
Inward and outward foreign affiliates statistics	X				
International sourcing	X				
Trade by enterprise characteristics	x				
Business demography	X				
PRODCOM				х	
Short-term statistics (except for quarterly data on bankruptcies and registrations)				х	
Short-term statistics: quarterly data on bankruptcies and registrations					X
Business registers	Х	Х	Х	Х	Х

Table 7.1: Different types of statistical units used by domains within EBS

# 7.10. Further information

- Council Regulation EEC (No) 696/93 of 15 March 1993 Statistical Units Regulation
- Notice of intention of the BSDG and the DMES on the consistent implementation of Regulation (EEC) No 696/93 on statistical units, adopted on 25-26 June 2016
- European system of national and regional accounts (2010)
- Guidelines for the implementation of the KAU in short-term statistics (BSDG Document 20150604a)

Eurostat has published the following methodological manuals for statistical business registers and European profiling, both of which include content for the delineation of statistical units:

- European business statistics methodological manual for statistical business registers 2021 edition
- European business profiling Recommendations manual 2020 edition

All revised manuals concerning EBS will be made available as part of a dedicated section on Eurostat's website (<u>RAMON</u> — reference and management of nomenclatures).

# 7.11. Contacts

For questions or comments on statistical units, please contact ESTAT-G1@ec.europa.eu.

<sup>(35)</sup> Not applicable for: international trade in goods (ITGS); international trade in services (ITSS); and real estate (STS domain).



# Preface

This chapter introduces the statistical classifications used to classify EBS by criteria such as:

- economic activity;
- product/commodity;
- geographical entity.

It provides general information on cross-domain or interconnected classifications, and some general principles. It also includes a full list of individual classifications and links to these.

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# 8.1. Introduction

Classifications form the basis for collecting, compiling and disseminating data in every area of statistics. They are standardised concepts used to describe phenomena such as economic activity, products, expenditure, occupation or health. They are necessary to measure these phenomena in a consistent fashion within and across countries and geographical regions. International reference classifications set standards for internationally comparable classifications. These, in their turn, serve as models for the corresponding national, multinational and regional statistical classifications, and they form the basis for internationally comparable data.

Classifications play a central role in the statistical system as a whole. If the wrong categories are applied to the observed universe, the information supplied to decision-makers for their analysis will be of poor quality or even useless. Misclassification adversely affects the quality of statistics, thereby impinging on international comparability.

This chapter does not provide any detailed descriptions of the individual classifications mentioned here. For such information, please consult the glossary and Section 8.9. for further information.

# 8.2. What are statistical classifications, and why do we need them?

The United Nations define a classification as:

a set of discrete, exhaustive and mutually exclusive observations which can be assigned to one or more variables to be measured in the collation and/or presentation of data.

The main purpose of classifications is *to simplify the real world*, thereby enabling it to be better understood. There are an estimated 50-100 million types of goods in existence. This enormous number of results is meaningless for analytical purposes, it being impossible for decision-makers to extrapolate any trends or draw any conclusions from such a huge mass of raw data.

Standard statistical classifications are needed to define and describe economic and social processes. They systematically break down a population of entities, objects or phenomena on the basis of accepted principles and conventional criteria. Classification means breaking down the population into parts distinguished by characteristics that do not occur in other parts, measured for the purpose of presenting statistical data.

Classifications may differ in structure. They can be:

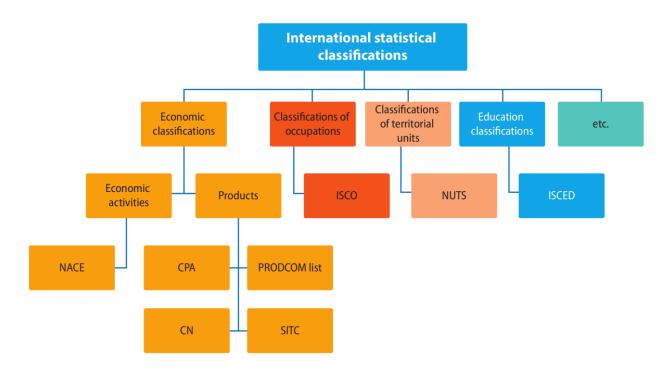
- hierarchical (for example a classification of activities such as ISIC or NACE or a classification of products such as the CPC or the CPA); or
- flat (for example a gender classification).

Properly defined classifications have the following features:

- they embody methodological principles, in other words, they define the set of methods used to define the categories of the classification, and the basic rules used to implement it;
- groupings are denominated by codes (numeric or alphanumeric);
- they are accompanied by explanatory notes and tables showing equivalence to other classifications or earlier versions of the same classification;
- each unit (object, phenomenon) classified is unambiguously assigned to a single grouping at the appropriate level in the classification breakdown.

# 8.3. Family of international statistical classifications

Compiling the wide range of statistics produced by international statistical organisations calls for different classifications to meet different needs. Statistical classifications can be broken down into large 'families', the most extensive being the family of 'economic classifications'.



Economic classifications break down into:

- economic activity classifications (for example NACE);
- product classifications (for example the CPA).

A classification of economic activities is designed to categorise data that can be related to the unit of activity, for example an individual plant or group of plants comprising an economic entity such as, for example, an enterprise. Such classifications form the basis for compiling statistics on:

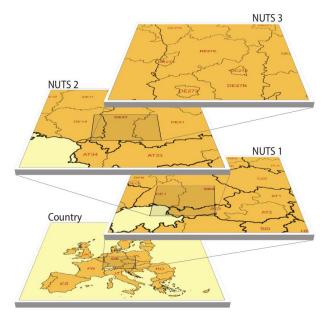
- output;
- production factors (labour, raw materials and supplies, energy, and so on);
- capital formation; or
- the financial transactions carried out by such units.

Classifications of economic activities cover all economic activities and provide the basic categories whereby activities carried out by economic entities (enterprises, local units and similar types of statistical units) can be assigned to homogeneous categories.

A product classification provides categories for grouping products (goods and services) with shared characteristics. These provide the basis for compiling statistics on the production, consumption, international trade, distributive trade and transport of such products. The other classification families provide tools to describe various other dimensions captured by statistics, such as occupations, levels of education, and diseases.

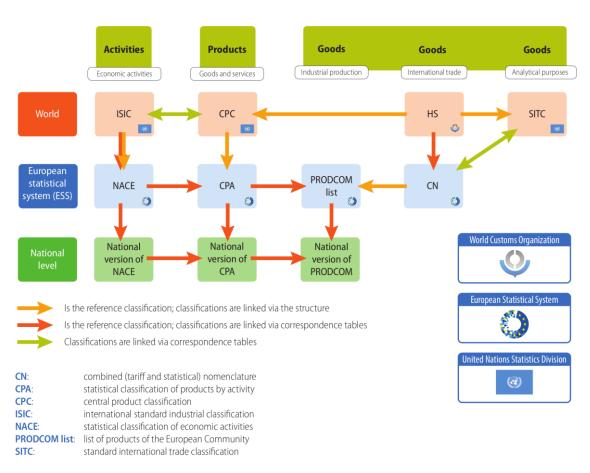
NUTS is a hierarchical system for dividing up the economic territory of the EU in order to:

- collect, develop and standardise EU regional statistics;
- conduct socioeconomic analyses of the regions;
  - NUTS level 1, major socioeconomic regions;
  - NUTS level 2, basic regions for the implementation of regional policies;
  - NUTS level 3, small regions for specific diagnoses;
- frame EU regional policies.



# 8.4. Integrated system of economic classifications

Most of the activity and product classifications in current international use are interconnected, either closely or loosely. This makes it easier to compare statistics produced by different institutions and covering different statistical domains. There are also rigorous interlinkages between standard classifications at world, European and national level. This system of economic classification, which is both horizontally and vertically integrated, is depicted below.



### Integrated system of statistical activity and product classifications

An integrated system of international statistical classifications gradually emerged during the 1980s. Global classifications developed under United Nations (UN) auspices were used as reference points to develop classifications within the ESS, which, in turn, were used as references for national versions. The reason for the existence of different standards at global, regional and national levels is that different stakeholders have different needs. For instance, the ESS often has more detailed needs than the UN, while ESS members have specific economic activities and products that are reflected in their national classifications — olive growing in southern Europe, for example.

Though different in nature (see above for the distinction between activity and product classifications), these classifications are closely linked. Linkage is achieved either through the coding system used in the classifications or by means of correspondence tables.

It was decided at ESS level to try to link the various economic classifications via their structure rather than via correspondence tables. With only a few exceptions, this principle was implemented for NACE, CPA and the PRODCOM list. The 4-digit categories of NACE are thus used as a backbone for CPA, which adds two further digits for its specific needs (product classifications are generally more detailed than activity classifications). In turn, the PRODCOM list extends the 6-digit codes of CPA to include two further digits. The coding pattern can be summarised thus,

### XX.XX.YY.ZZ

where XX.XX denotes NACE codes, YY denotes extra codes added for CPA and ZZ denotes extra codes added for the PRODCOM list.

National statistical authorities apply the same principle to develop their own national versions (if any) of these reference classifications.

# 8.5. Central role played by the harmonised system and the combined nomenclature

These HS and CN provide building blocks for the 'goods' part (in other words, all moveable objects, materials, and so on) of product classifications.

The HS and CN are the respective world and ESS standards for collecting data on international trade. The categories of these very detailed classifications are also used as input for describing the 'goods' part of more aggregated classifications, such as CPA and the PRODCOM list. Each category of these aggregated classifications is in fact described in terms of groupings of HS/CN categories. There are several reasons why this approach was chosen:

- These classifications are very detailed (around 5 000 categories for the HS, 10 000 for the CN), and it was thought appropriate and cost-effective to reuse existing resources, rather than start from scratch.
- They are also (and primarily) used for tariff purposes (in other words, to establish the duties payable when goods cross borders) and are therefore subject to very stringent procedures and rules and to thorough checks by numerous expert committees. This makes them very reliable tools.
- Both classifications are accompanied by very detailed explanatory notes (about 2 000 pages for the HS) as well as various other services and tools (for example classification decisions) which help to classify goods in the classification.
- Both classifications are revised regularly (every five years for the HS, every year for the CN), thus ensuring regular updates of the list of goods and proper alignment with economic changes.
- Both classifications (and their explanatory notes) are translated into dozens of languages, thus providing a
  common understanding of the content of the categories of any product classification (as regards 'goods' of
  course).

The HS/CN coding system is as follows:

### XX.XX.XX.YY

where XX.XX.XX denotes HS codes and YY denotes extra codes for the CN.

# 8.6. How are products and statistical units assigned to classifications?

Different methodological criteria can be used to construct classifications. The process of assigning an item (whether a good, a service or a statistical unit) to a statistical classification depends on these methodological principles.

For the CPA, the main classification criterion is industrial origin, in other words, each product is assigned to the economic activity that (typically) produces it (for example milk powder  $\rightarrow$  milk processing, lawnmowers  $\rightarrow$  production of agricultural machinery, retail trade in fuels  $\rightarrow$  petrol stations). Each product must be assigned a unique heading in the classification of activities; mutually exclusive categories are an essential characteristic of statistical classifications. Such a relationship exists between CPA and NACE, where products are classified so that they can be matched to the classification of economic activities. A distinguishing characteristic of such a system is that each product is assigned to a single activity, even though (a) the product might actually be produced by more than one activity, and (b) the activity may also produce products corresponding to NACE codes other than that of its main NACE activity.

For the HS and the CN, the basic criterion is the 'physical properties and intrinsic nature' of the goods concerned, based on inherent criteria such as:

- the raw materials they are made of;
- the stage of production they have reached;
- how they are produced;
- the purpose or user category for which they are intended;
- whether they can be stored.

A good's classification is thus determined primarily by its inherent features.

The way goods are produced is not necessarily the same as the industrial origin, though they very often coincide. Sometimes an activity produces goods that are totally different from each other, for example meat and hides, both produced by slaughterhouses. These goods are not assigned to the same category or even to the same section of a classification. For example, raw fur skins and miscellaneous raw hides and skins are considered raw animal material and classified under 'agriculture'. Meat, on the other hand, is classified under 'food products'.

The PRODCOM list is a special case, as its categories are part of larger CPA categories and are made up of groupings of CN categories. It thus inherits, by definition, the classification principles of both classifications to which it is linked.

The basic classification rules for the NACE are as follows: one NACE code is assigned to each unit recorded in statistical business registers in accordance with its principal economic activity (codes of secondary activities are also recorded in the register). The principal activity is the one contributing most to the unit's value added. The following help with assigning the NACE code:

- NACE explanatory notes;
- classification decisions (called case laws) taken by the NACE management committee;
- correspondence tables;
- reference to other classification systems, including ISIC, CPA, HS and CN.

Value added is the basic concept that determines a unit's classification by economic activities. It is not always possible to find out the value added associated with the various activities carried out; in such cases, activities are classified using substitute criteria. These may be based on output (for example the gross output of the unit that is attributable to the goods or services associated with each activity), or on input (for example wages and salaries attributable to the various activities).

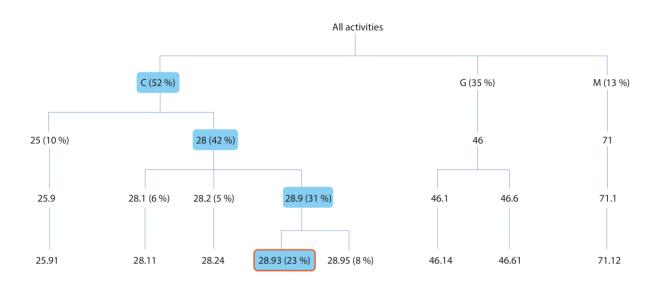
In simple cases where a unit performs only one economic activity, its principal activity is determined by the NACE category describing that activity. If the unit performs several economic activities (other than ancillary ones), the principal activity is determined on the basis of the value added associated with each activity, using a top-down method:

- identify the NACE section with the highest share of the value added;
- within this section, identify the NACE division with the highest share of the value added;
- within this division, identify the NACE group with the highest share of the valued added;
- within this group identify the NACE class which has the highest share of value added.

Section	Division	Group	Class	Description of the class	Share
C	25	25.9	25.91	Manufacture of steel drums and similar containers	10 %
	28	28.1	28.11	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	6 %
		28.2	28.24	Manufacture of power-driven hand tools	5 %
		28.9	28.93	Manufacture of machinery for food, beverages and tobacco processing	23 %
			28.95	Manufacture of machinery for paper and paperboard production	8 %
G	46	46.1	46.14	Agents involved in the sale of machinery, industrial equipment, ships and aircraft	7 %
		46.6	46.61	Wholesale of agricultural machinery, equipment and supplies	28 %
М	71	71.1	71.15	Engineering activities and related technical consultancy	13 %

### *Example* — a unit carries out the following activities (shares in terms of value added):

The decision path will be as follows:



# 8.7. Categorisation of classifications for business statistics

The statistical classifications used for business statistics are listed below (the dimension observed by the classification is given in brackets). For classifications that are valid beyond the ESS, the owner/custodian is also mentioned:

- NACE statistical classification of economic activities in the European Community (economic activities);
- CPA statistical classification of products by activity in the European Economic Community (products);
- NUTS classification of territorial units for statistics (geographical entities);
- BEC classification by broad economic categories defined in terms of the standard international trade classification (SITC) and the harmonised commodity description and coding system (HS) (analytical economic groupings) — United Nations Statistics Division;
- Business functions lists used in statistical surveys (analysis of value chains);
- CN combined nomenclature (goods);
- EBOPS extended balance of payments services classification (services) United Nations Statistics Division, Manual on Statistics of International Trade in Services 2010;
- FORD field of research and development classification (R&D expenditure) OECD, Frascati manual;
- Geonom nomenclature of countries and territories for the European statistics on international trade in goods (geographical entities);
- IPC international patent classification (patents) World International Property Organization;
- ISCED international standard classification of education (education) United Nations Educational, Scientific and Cultural Organization;
- ISCO international standard classification of occupations (occupations) International Labour Organization;
- LOC Locarno classification (industrial designs) World Intellectual Property Organization;
- MIGs main industrial groupings (analytical economic groupings);
- NABS nomenclature for the analysis and comparison of scientific programmes and budgets (public financing of research and development (R&D));
- NCL Nice classification (trademarks);
- **PRODCOM list** list of products of the European Community (products);
- SITC standard international trade classification (goods) United Nations Statistics Division.

In addition to the above classifications, EBS make use of classifications by enterprise size classes. These are used as one criterion to define target populations via thresholds. Equally, they are used for defining the required breakdown on the output side.

# 8.8. Revisions planned (as of November 2020)

- BEC, SITC: no revisions planned in the near future.
- NACE, CPA: NACE is currently being reviewed, the date of entry into force is still to be determined; CPA will be revised consequently.
- CN: annual revisions (the date of entry into force is always 1 January).
- PRODCOM list: irregular revision schedule, the latest PRODCOM list for 2019 became applicable as of 1 January 2019.
- Geonom: irregular revision schedule, depending on changes in national territories. An EBS implementing act containing the GEONOM was adopted in 2020 and will be applicable for reference year 2021 — Commission Implementing Regulation 2020/1470 of 12 October 2020 on the nomenclature of countries and territories for the European statistics on international trade in goods and on the geographical breakdown for other business statistics.
- NUTS: irregular revision schedule, depending on changes in national territorial units. The NUTS 2016 became operational as of 1 January 2018 for data transmitted to Eurostat. NUTS 2021 which, as the name indicates, will be operational as of 1 January 2021 for data transmitted to Eurostat, is already publicly available.
- HS: this classification, which is the backbone for CN, is revised at five-year intervals. The next revision will enter into force on 1 January 2022. Revisions of HS can involve major changes in the structure of the CN.

# 8.9. Further information

- The rationale for statistical classifications, the methodological principles underpinning their construction and so on are explained in layman's terms in the Companion guide to international statistical classifications; this page also provides numerous links to various resources about classifications
- NACE Rev. 2 statistical classification of economic activities with introductory guidelines (background, definitions and principles, classification rules, and so on), structure of the classification, explanatory notes, guidelines for the treatment of outsourcing, and so on; for more detailed operational rules on outsourcing, see the Outsourcing manual
- More information about NUTS: principles and characteristics, history of the classification, NUTS maps, correspondence tables, legislation, publications, and so on
- The classifications mentioned in this chapter, plus many others, can be consulted online and free of charge on RAMON, Eurostat's server for various categories of metadata (classifications, correspondence tables between classifications, legal acts and methodological manuals relating to statistics, concepts and definitions, and so on)

# 8.10. Contacts

For questions or comments on RAMON, please contact ESTAT-RAMON@ec.europa.eu.

For questions or comments on NACE and CPA, please contact ESTAT-CLASSIFICATIONS@ec.europa.eu.

For questions or comments on NUTS, please contact ESTAT-NUTS@ec.europa.eu.

For questions or comments on the PRODCOM list, please contact ESTAT-PRODCOM@ec.europa.eu.



# Preface

The production of EBS is based on a variety of data sources such as surveys, administrative data, Big Data, the reuse of microdata already collected, and a range of other data sources.

This chapter offers a detailed description of methodologies and background information on how these EBS are compiled within the ESS.

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# 9.1. Introduction

This chapter provides an overview of the various data sources that can be used for producing EBS.

European legislation provides the EU Member States with sufficient flexibility for determining the type of data source(s) they use for EBS based on the principle of subsidiarity. This flexibility is strengthened by Article 4(1) of the EBS Regulation:

Member States shall produce the statistics referred to in Articles 6 and 7 as well as set up their national statistical business registers in accordance with Article 9, using any relevant data sources while avoiding excessive burden on respondents and taking due account of the cost effectiveness of the NSAs [national statistical authorities].

For the production of the statistics and the national statistical business registers required under this Regulation, and provided that the results comply with the quality criteria referred to in Article 17, NSAs may use the following data sources, including a combination thereof:

- (a) surveys;
- (b) administrative records, including information from tax and customs authorities such as annual financial statements;
- (c) exchanged microdata;
- (d) any other relevant sources, methods or innovative approaches insofar as they allow for the production of data that are comparable and compliant with the applicable specific quality requirements.

For surveys, as referred to in point (a) of the second paragraph, reporting units called upon by the Member States shall provide timely, accurate and complete information needed for the production of the statistics and the national statistical business registers required under this Regulation.

The methods and approaches referred to in point (d) of the second paragraph shall be scientifically based and well documented.

The surveys are described in Section 9.2. below. The customs records, administrative records and other external data sources are addressed in Section 9.3.

In addition to the existing exchange of microdata in relation to the EuroGroups register, the EBS Regulation provides the legal framework for exchanging intra-EU export microdata so that national data compilers can reuse them to compile intra-EU imports. This will improve consistency between intra-EU imports and exports, and provide the conditions for EU Member States to significantly reduce the administrative burden on businesses. These microdata are described in Section 9.4.

Section 9.5. concludes the chapter by detailing microdata linking as a data source; this is based on combining several data sources that already exist within the organisation of the data compiler.

The arrangements for the possible bilateral exchange of data between the NSI and the NCB of an EU Member State in order to produce European (business) statistics are determined at national level in accordance with the European Statistics Regulation (Regulation (EC) No 223/2009 of 11 March 2009). This regulation emphasises the need for statistical cooperation between the ESS and the European System of Central Banks (ESCB). Given the national character of this cooperation, this chapter does not provide further information on these NSI-NCB data exchanges.

In addition to reusing external microdata records, aggregated data are sometimes also exchanged between data compilers at national level. Using these aggregated data as an input for the production of official European statistics is only admissible if their quality, underlying methods and use of statistical units comply with EU provisions and standards. Their description in quality and metadata reports should provide sufficient evidence of this. Justification for reusing aggregated data takes place on a case-by-case basis and is not detailed in this chapter.

If a statistic cannot be produced by one or more of the above-mentioned data sources, the EBS Regulation allows data compilers to (also) produce the statistic using scientifically based and well-documented estimation and imputation methods. These so-called model-based methods need to be evaluated on a case-by-case basis, and fall outside the scope of this chapter; general information on model-based estimation/imputation is available as part of Section 10.8. on imputing missing values. These estimates typically rely on observed data that correlate sufficiently with the unobserved target variable. Examples of such model-based statistics include seasonally adjusted and working-day adjusted short-term statistics.

EU Member States have full flexibility in their choice of data sources and processing methods. However, the resulting output needs to be checked against EU data validation standards and should be improved accordingly before it is submitted for publication by Eurostat. Data compilers also have to transmit reference metadata (including quality indicators) of the statistical output to Eurostat. This approach to input source flexibility and output quality control should ensure both effective production and high-quality end results. On one hand, businesses can be confident that the ESS produces business statistics in a cost-effective manner that avoids unnecessary burden, while on the other hand end-users can be confident that the statistical end results are checked, monitored and meet the key principles of statistical quality (relevant, accurate, timely, punctual, accessible and clear, comparable and coherent).

This chapter only covers the potential data sources for compiling EU statistics. Data flows for other purposes, such as microdata exchange for research purposes or data sharing between international organisations, fall outside its scope. Furthermore, confidentiality measures are described in detail in Chapter 17 on statistical disclosure control.

# 9.2. Surveys

Data collections by means of surveys usually involve an original source obtained directly from observation units for the specific purpose of producing statistics.

Using a survey to compile statistics affords data compilers significant control in general over the statistical process and outcome quality. This traditional approach to data collection is associated with a large number of wellestablished statistical methodologies ranging from questionnaire design, sampling and collection techniques to data cleaning, imputation and estimations of aggregates. For more details, see Chapter 10 on processing methods in business statistics.

The way in which survey data are collected has moved away from the traditional paper-based approach to electronic and internet-based solutions. A number of EU Member States have already made progress on reporting standards (<sup>36</sup>) for exchanging business information, reducing the administrative burden and streamlining administrative data collections as a whole (including for statistical purposes).

Along with the fact that the survey itself has been modernised, more and more survey-based collections are now strengthened or replaced by reusing existing external or internal data sources, as explained in the following sections.

# 9.3. Reusing external data sources

### 9.3.1. INTRODUCTION

The first initiatives for reusing external data sources were launched in the 1980s, and recent decades have revealed a sizeable interest in the potential for reusing existing external data sources for producing official statistics.

In general, the use of existing external data sources causes a reduction in the burden on enterprises and often improves the cost-effectiveness for national statistical authorities.

There are several alternatives for classifying the various types of external data sources. This chapter distinguishes between administrative data and Big Data.

Administrative data are defined as administrative records from public administrative systems (for example tax and customs records and so on) and from other sources. In statistical legislation, the term 'administrative data' is used in a more narrow sense, meaning administrative data from public administration. However, in terms of methodology, the definition of administrative data includes administrative data derived from other sources.

Administrative data from public administrative systems typically include data from systems that are run by public units classified under NACE Rev. 2 Group 84.1 (administration of the State and the economic and social policy of the community). This group includes general administration (for example executive, legislative, financial administration at all levels of government) and regulation concerning social and economic life.

<sup>(&</sup>lt;sup>36</sup>) A well-known example of a common reporting standard is XBRL, which stands for extensible business reporting language. It is a freely available and global standard for exchanging business information.

Many of these external administrative data follow a well-defined and largely stable structure in terms of variety, volume, format and velocity. Experience of using such information and integrating it into statistical systems has already been gained and significant progress made, as explained in Section 9.3.2. A typical characteristic of these external data is that they have been designed and put in place for non-statistical purposes. As a result, additional methodologies are required when using these external data in the statistical production process.

With the growing importance of information technology such as the internet, social media, smartphones and the global positioning system (GPS), new types of data have emerged that come into existence with the storing of interactions and sensor data. These new data types are generally referred to as Big Data, as they are so big and complex that they are hard to analyse with traditional descriptive statistics and database tools.

Big Data cover all sorts of information from, for example, sensors and tracking devices (GPS, traffic), online logging of searches and page visits, and recordings of social media and opinions.

The usefulness of Big Data is widely acknowledged, and this also goes for official statistics. But this is also a highly complex area — not only from a statistical point of view — but also in terms of several other aspects that are crucial for producing statistics such as policy, legislation and communication. Section 9.3.3. outlines the ESS projects on Big Data, which aim to:

- gain experience in using Big Data;
- identify, analyse and solve issues; and
- investigate and develop future business models for statistical data production.

### 9.3.2. ADMINISTRATIVE DATA

In recent decades, there has been a significant increase in the reuse of administrative data for statistical purposes. Well-known examples include the use of:

- company registrations (from chambers of commerce) for demographic events in business registers and for defining employment and turnover;
- tax and/or social security data as an input for producing SBS, STS and international trade statistics.

According to the ESS glossary on the reuse of administrative data, the following definitions apply:

- administrative data are defined as the data derived from an administrative source, before any processing or validation by NSIs or ONAs;
- an administrative source is defined as a data holding containing information collected and maintained for the purpose of implementing one or more administrative regulations;
- an administrative regulation is defined as a set of detailed directions having force of law (such as decrees, ordinances, and other similar provisions), developed to put a policy into practice it is normally addressed to a designated population of natural and/or juridical persons, which are bound to observe it.

An administrative source can be defined as any data source containing information that is not primarily collected for statistical purposes.

Special legal provisions are in place for the reuse of administrative data derived from public administrative sources. These are generally covered in the European Statistics Regulation (Regulation (EC) No 223/2009 of 11 March 2009) while particular provisions are detailed in the EBS Regulation.

The provisions of Article 17 of the European Statistics Regulation were amended by Regulation (EU) 2015/759 of 29 April 2015 as follows:

- 1. In order to reduce the burden on respondents, the NSIs, other national authorities as referred to in Article 4, and the Commission (Eurostat) shall have the right to access and use, promptly and free of charge, all administrative records and to integrate those administrative records with statistics, to the extent necessary for the development, production and dissemination of European statistics, which are determined in the European Statistical Programme in accordance with Article 1.
- 2. The NSIs and the Commission (Eurostat) shall be consulted on, and involved in, the initial design, subsequent development and discontinuation of administrative records built up and maintained by other bodies, thus facilitating the further use of those records for the purpose of producing European statistics. They shall be involved in the standardisation activities concerning administrative records that are relevant for the production of European statistics.
- 3. Access by, and involvement of the NSIs, other national authorities and the Commission (Eurostat) pursuant to paragraphs 1 and 2 shall be limited to administrative records within their own respective public administrative system.
- 4. Administrative records made available by their owners to the NSIs, other national authorities and the Commission (Eurostat) in order to be used for the production of European statistics shall be accompanied by relevant metadata.
- 5. The NSIs and owners of administrative records shall establish the necessary cooperation mechanisms.

In the EBS Regulation, Article 5 provides more detailed provisions that are specifically applicable to the production of business statistics and the maintenance of national business registers and the EuroGroups register:

- In accordance with the Article 17a of Regulation (EC) No 223/2009, the NSAs and the Commission (Eurostat) shall have the right to access and use, promptly and free of charge, all administrative records and to integrate those records with other data sources to meet the statistical requirements under this Regulation and update the national statistical business registers and the EuroGroups register. Access by the NSAs and the Commission (Eurostat) shall be limited to administrative records within their own respective public administrative systems.
- 2. Without prejudice to paragraph 1, the tax authority in each Member State shall provide the competent NSAs with information for statistical purposes related to exports and imports of goods as specified in Annex V.

The Commission is empowered to adopt delegated acts in accordance with Article 22 in order to:

- (a) amend Annex V by defining the types of statistical information to be provided by the tax authorities; and
- (b) supplement this Regulation by further specifying the details for the statistical information to be provided by the tax authorities in accordance with Annex V.
- 3. Without prejudice to paragraph 1, the customs authority in each Member State shall provide the competent NSAs with information for statistical purposes related to exports and imports of goods as specified in Annex VI.

The Commission is empowered to adopt delegated acts in accordance with Article 21 in order to:

- (a) amend Annex VI by defining the types of statistical information to be provided by the customs authorities; and
- (b) supplement this Regulation by further specifying the details for the statistical information to be provided by the customs authorities in accordance with Annex VI.
- 4. In order to produce harmonised statistics on international trade in goods and to improve the quality of those statistics, the NSAs of the Member States concerned shall exchange microdata for statistical purposes received from their customs authorities related to the exports or imports of goods, for the estimation of quasi-transit exports and imports of their Member State.

For other trade flows that involve the customs authorities of more than one Member State, the NSAs shall exchange the corresponding microdata related to the exports or imports of goods to improve the quality of the statistics concerned.

5. The Commission may adopt implementing acts specifying the arrangements for the data exchanges in accordance with this Article.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 23(2).

Besides legal support for reusing administrative data sources, an ESSnet research project was launched to specifically address this subject within the domain of business and trade statistics (the so-called Admin Data project). The project ran from 2009-2013 and focused on the following deliverables:

- 1. Overview of EU Member States' existing practices in the uses of administrative data for business statistics - Glossary
  - Overview of existing practices in the uses of administrative data for producing business statistics in EU and EFTA
- 2. Checklist to assist EU Member States when investigating the usefulness of administrative data and a checklist for the quality of administrative data inputs
  - Guide to checking usefulness and quality of administrative data
- 3. Estimation methods for SBS variables that are not directly available from administrative sources - Guide to estimation methods
- 4. Timeliness of administrative data for STS
  - STS estimates based solely on administrative data: final results and recommendations
  - The use of regression estimators for administrative data-based STS estimates
  - Extrapolating administrative data for early estimation: some findings and recommendations
  - STS estimates based on administrative data: dealing with revisions
  - Early monthly estimates in a statistical system based on administrative data: possibilities and recommendations
  - Monthly and quarterly estimates based on incomplete administrative data: findings and recommendations
- 5. Development of quality indicators
  - Final list of quality indicators and associated guidance
- 6. Statistics and accounting standards
  - Annex I Definitions
- 7. Creation of an information centre on the uses of administrative data for business statistics
- 8. Training and exchange of best practices on the uses of administrative data for business statistics

In addition to the Admin Data results, an ESSnet project on the methodology of modern business statistics, Memobust, provided two methodological reports on the use of administrative data: Editing Administrative Data and Estimation with Administrative Data.

In 2012, the ESS launched a new project on administrative data sources (ADMIN), which consolidated the experience gained from the Admin Data project and a number of other related projects on the use of administrative sources in other domains such as agriculture and social statistics. Its aim was to *provide Member States with harmonised approaches for dealing with the administrative data owners, for integrating the administrative data in statistical production and for assessing the quality of the statistical outputs that use administrative sources.* 

### 9.3.3. BIG DATA

In 2013, the ESSC adopted the Scheveningen Memorandum on Big Data and Official Statistics. It outlined the opportunities and challenges of using Big Data for official statistics, encouraged the ESS to examine its potential and to form a strategy, and established an ESS Task Force on Big Data charged with setting-up an ESS action plan and a roadmap for a Big Data project.

Given its importance at national and international level and its complexity, the ESS Task Force on Big Data includes nine NSIs, the Organisation for Economic Co-operation and Development (OECD), the UNECE, the Commission's Directorate General for Communication Networks, Content and Technology, the Commission's Joint Research Centre, and three academic experts. This broad international mix should ensure strong relations between the work of the task force, other Big Data projects and research being conducted by a UNECE high-level group.

The action plan and roadmap developed by the task force was approved by the ESSC in September 2014 together with the proposal to make it part of the ESS Vision 2020 portfolio. The ESSC also mandated the task force to coordinate the work on implementing the action plan and roadmap.

The roadmap defines the long-term vision (beyond 2020) as a 'to-be' state where EU and national legislation are adapted to enable the ethical use of Big Data in official statistics, and where Big Data sources are available to the ESS and integrated into the production of official statistics with adequate methods, tools, IT infrastructures and quality frameworks.

As a first step towards this 'to-be' state, ESS-VIP Big Data was launched at the beginning of 2015. It was also referred to as the Big Data project. This project ran from 2015 to 2020 and consisted of short-term objectives and medium-term goals:

- Short-term objectives (to be reached by the end of 2016) included the development of:
  - (a) an ESS strategy document that is integrated into the Commission's Big Data strategy;
  - (b) inventories of sources, methods, skills (including HR strategy) and legal implications;
  - (c) measures for sharing experiences.
- A medium-term goal (by 2020) to integrate the Big Data statistical strategy into national government strategies.

An ESSnet Big Data project was created and ran from February 2016 until May 2018. Its objective was the integration of Big Data into the regular production of official statistics, through pilots exploring the potential of selected Big Data sources, and through building and implementing concrete applications. ESSnet Big Data II started in November 2018 and was expected to run for 26 months until December 2020; it is a continuation of the first project.

UNECE's High-Level Group for the Modernisation of Official Statistics (ModernStats) initially proposed three categories for classifying different types of Big Data:

- social networks (human-sourced information) this information is the record of human experiences, previously recorded in books and works of art, and later in photographs, audio and video;
- traditional business systems (process-mediated data) these processes record and monitor business events
  of interest, such as registering a customer, manufacturing a product, taking an order, and so on;
- internet of things (machine-generated data) derived from the phenomenal growth in the number of sensors and machines used to measure and record the events and situations in the physical world. These may include for example traffic sensors, smart meters, satellite images and automatic vessel identification.

Building upon the work carried out by the high-level group, the Big Data Task Force proposed the following additional categories:

- mobile communication data;
- www, for example e-commerce websites and business websites;
- crowd sourcing, for example OpenStreetMap, Instagram and so on.

These categories should not be considered as final given the number of Big Data sources is growing rapidly. The Big Data Task Force has created a database with a more detailed and complete record of Big Data sources.

At this juncture, 'traditional business systems' and 'www' can be considered the most interesting categories for business statistics given their links to business activities. For example, business websites could be of potential interest as input for business registers and information society statistics.

There is clearly an overlap between well-defined administrative data sources and Big Data sources. A typical example of such an overlap is scanner data from supermarkets, which are already used on a regular basis as input for the compilation of consumer price indices in a number of EU Member States.

What distinguishes Big Data from the more traditional data sources is their sheer size and dynamic nature. Big Data are generally characterised by the so-called 'six Vs': high volume, high variety, high velocity, high variability, and unknown veracity and unknown validity. These six Vs pose many challenges to statistical processing techniques. However, addressing these is not entirely new territory as NSIs have already gained considerable experience in reusing administrative data sources over the last few decades, and have developed additional techniques and methods for making these data suitable for statistical purposes.

In business statistics, a key element in making external data more suitable as an input involves linking data records to the statistical units of the business register. This link enables statisticians to better evaluate the veracity and validity of the data and also provides a framework for converting data to statistical end results.

Overall, the use of Big Data for statistical purposes could be considered as the next major step for the development of reusing external data sources.

# 9.4. Microdata exchange

### 9.4.1. VISION 2020 AND CORE PRINCIPLES

One of the aims set out in ESS Vision 2020 is to benefit from the exchange of microdata, while fully respecting statistical confidentiality, by exploring both the opportunities and risks of exchanging confidential microdata on a case-by-case basis and assessing its impact on efficiency and quality. Confidential microdata will be exchanged in domains where there is a clear business case for improving the quality or efficiency of both European and national statistics and all prerequisites have been satisfied.

One example is the creation of the EuroGroups register (see Section 9.4.2.), where the exchange of data helps to provide a more accurate picture of the structure and activities of multinational enterprise groups. Intra-European trade provides another example of cross-border phenomena where the exchange of data may help to both increase the quality of statistics and reduce the response burden (see Section 9.4.3.).

Microdata exchange requires the development of appropriate legal, technical and organisational measures to manage risks and protect statistical confidentiality, while providing appropriate mechanisms in order to react to any breach in security in a swift and effective manner. Above all, the procedures that accompany microdata exchange should be organised in a transparent way in order to build up mutual trust based on evidence.

In February 2016, the ESSC approved the ESS core principles for the exchange of confidential data on businesses for statistical purposes applicable and limited to: (a) the mandatory exchange of microdata for businesses statistics; and (b) the ESS members. The ESS members are restricted to the NSIs and ONAs responsible in each EU Member State for the development, production and dissemination of European statistics, and the EU's statistical authority (Eurostat). The ESS core principles are as follows:

- access minimisation confidential data are only exchanged between statistical authorities that need the data to develop, produce and disseminate European statistics within their respective sphere of competence;
- purpose limitation exchanged confidential data are only used for statistical purposes;
- value added the exchange of confidential data takes place only when there is a clear, verifiable and welldocumented business case for improving statistical quality and efficiency;
- data protection the exchange of confidential data only takes place when confidentiality and information security meet the highest standards;
- clear responsibilities and rights the responsibilities and rights concerning exchanged confidential data, for example their secure handling and use, are explicitly specified and a credible enforcement regime to address potential breaches is in place;
- appropriate legal basis an obligation to exchange confidential data is laid down in a regulation of the European Parliament and of the Council;
- transparency the ESS is fully transparent about the exchange of confidential data.

Requirements on data security and protection that must be met by statistical authorities for the transmission, receipt and processing of business microdata as part of their exchange between statistical authorities should also be defined.

### 9.4.2. MICRODATA EXCHANGE FOR THE EUROGROUPS REGISTER

Eurostat has developed a network of business registers for statistical purposes in the EU Member States, which is focused on multinational enterprise groups. To this end, and for statistical purposes only, Eurostat and the Member States have established a European register containing multinational enterprise groups active in Europe — the EuroGroups register (EGR). For more information, see Chapter 5 and the European business statistics methodological manual for statistical business registers — 2021 edition.

Eurostat collects enterprise group information from the national statistical business registers of the EU Member States, participating EFTA countries and commercial sources. Following the consolidation and validation process, the EGR outlines the global structure of multinational enterprise groups. National statistical compilers working with business registers receive access to the information on all units associated with a multinational enterprise group if at least one unit of the group is located on their national territory. These populations can be used at national level for survey frames or for delimiting the relevant population, for example for FATS.

The necessary data exchange between national business registers and Eurostat is defined in Article 10 of the EBS Regulation; it defines the legal requirements for the:

- exchange of confidential data between EU Member States;
- exchange of confidential data between the European Commission (Eurostat) and EU Member States on multinational enterprise groups;
- exchange of confidential data between the European Commission (Eurostat) and EU Member States on the identification of legal units; and
- exchange of confidential data between the European Commission (Eurostat), the European Central Bank (ECB) and NCBs.

Article 10 also provides the legal requirements for safeguarding the confidentiality and access to identifiable data in two legal requirements:

- when the European Commission (Eurostat), national statistical authorities, NCBs and the ECB receive confidential data on units located inside or located outside their national territory, pursuant to this Article they shall treat that information confidentially in accordance with the European Statistics Regulation (Regulation (EC) No 223/2009 of 11 March 2009);
- the transmission of confidential data between national statistical authorities and the European Commission (Eurostat) shall take place to the extent that such transmission is necessary for the production of European statistics — any further transmission must be explicitly authorised by the national authority that collected the data.

### 9.4.3. MICRODATA EXCHANGE FOR INTRA-EU TRADE

The historical data collection system for compiling intra-EU trade statistics (Intrastat) consists of a dedicated business survey where data are collected directly from traders. The system has been in place since 1993, with a number of changes made to the collection process over the years. These changes include a reduction in the total number of mandatory data fields in the survey and a reduction in the number of businesses required to complete the survey.

In November 2011, the European Council called upon the ESS to take effective measures to ensure a substantial reduction in response burden by redeveloping Intrastat, while also maintaining a reasonable level of quality.

To achieve a sustainable solution for this issue, a proposal was made to exchange microdata on intra-EU exports between EU Member States. By exchanging microdata, each transaction reported in one Member State can serve as a data source for two Member States: the country exporting its goods and the country importing those exported goods. This means that the Member States would effectively have an additional data source — the mirror data on intra-EU exports from other Member States, with the potential to replace the collection of data on intra-EU imports.

In May 2012, the ESSC launched a project to investigate the feasibility of exchanging confidential microdata. The purpose of the project was to:

- analyse the comparability and usability of exchanged microdata; and
- explore the technical viability of exchanging big volumes of data in a secure way.

This ambitious project culminated in a pilot exchange of microdata from April to September 2015. During this period, 20 EU Member States successfully exchanged microdata relating to reference periods from January 2013 to August 2015. A sophisticated and secure transmission network was used to exchange data.

More details of the SIMSTAT project are described in an article on Intra-EU trade — exchange of microdata.

Following the pilot, EU Member States analysed the data for quality and reusability. The analysis revealed that intra-EU data exchanged on exports could be used effectively to fully or partially substitute the collection of intra-EU data on imports in the country of the trading partner. The use of exchanged data could therefore significantly reduce the administrative burden. The analysis also indicated that, if these data were used, Member States would continue to supply high-quality data to meet the needs of users and respondents.

The analysis carried out by individual EU Member States highlighted a potential alternative method for calculating statistics on intra-EU imports using a combination of data collected nationally and the mirror data received in order to ensure a smooth transition and potentially mitigate a break in time series.

Besides its potential for burden reduction, the reuse of mirror data on intra-EU exports for producing intra-EU imports can also reduce the asymmetries between data on intra-EU imports and mirrored exports at a detailed level. In addition, it can lead to an improvement in the quality of intra-EU trade data and other related macroeconomic statistics (for example the balance of payments or national accounts).

Given the positive results of the pilot, the ESSC lent its support to the general approach of modernising intra-EU trade in goods statistics in May 2016. To this end, the following key elements of the targeted modernised system of intra-EU trade in goods statistics were agreed:

- Harmonised statistical output EU Member States would continue to provide monthly statistics for both intra-EU exports and imports that were broken down by commodity and trading partner and fulfil the quality requirements related to statistical outputs.
- Multiple data sources EU Member States could use multiple data sources to compile statistics as long as strict minimum quality requirements were met on the statistical output to be established in EU legislation (in other words, the EBS Regulation).
- An additional data source exchanged microdata on intra-EU exports in accordance with the 'ESS core
  principles for the exchange of confidential data on businesses for statistical purposes' (see Section 9.4.1.), an
  additional data source would be created by making the exchange of microdata on intra-EU exports among EU
  Member States mandatory; by contrast, the use of exchanged microdata would be voluntary.
- Innovative and flexible compilation methodologies the availability of multiple sources gave EU Member States a high degree of flexibility and allowed innovative methodologies to be used for compiling the required statistical output. This was subject to strict minimum quality requirements on the statistical output to be established in EU legislation.
- Modernisation through evaluation an evaluation of how the modernised system was working, including the adequacy of breakdowns and frequency of the statistics produced, was envisaged during a period of 3-5 years after the relevant legislation had entered into force.

Articles 11-13 of the EBS Regulation detail the exchange of confidential data for the purpose of intra-EU trade in goods statistics. The provisions of these articles establish the exchange of confidential data between EU Member States, the confidentiality rules applicable for this exchange, and the specification of security and confidentiality measures.

The modalities of the data exchange are specified in an implementing act.

# 9.5. Microdata linking

Compilers of EBS often face a dilemma: on one hand, users and policymakers require additional information on the structure and development of European enterprises; on the other, budget constraints and a reluctance to increase the burden on survey respondents and NSIs puts tight restrictions on increasing data requirements. Microdata linking (MDL) can provide an opportunity to discover new information and to develop new statistics and indicators when using existing datasets and combining them with new data collections.

For MDL projects to succeed, two conditions must be met:

- A unique identifier or at least a very reliable matching approach. Up-to-date national statistical business registers play a key role in helping to connect the various datasets.
- A large enough intersection of responding units.

In addition to linking microdata, the newly created records usually undergo further cleaning/editing — after the individual data sources have been edited — to ensure that they have a sufficient level of consistency. Due to the variety of sources involved in the new record, the phenomenon of 'item non-response' will be more significant than in single source data, which requires specific weighting and imputation strategies for deriving aggregated statistical output.

Within the ESS, MDL has already been conducted in a number of areas: international sourcing, FATS (employment by business function), dependent and independent small and medium-sized enterprises (SMEs) and large enterprises, enterprises that trade internationally and those that do not, enterprise survival and growth prospects. In addition, there was an ESSnet project on linking microdata on ICT-usage, where business registers were linked with SBS, ICT-usage and e-commerce data. Finally, there was an ESSnet project on microdata linking and data warehousing which addressed theoretical aspects.

# 9.6. Reporting requirements

In annual reporting on the quality and metadata of a given dataset or groups of datasets, data compilers must indicate if a dataset is based on:

- a survey;
- administrative, commercial or other external data sources;
- other data from microdata exchange or from microdata linking; or
- a model-based approach.

If sample surveys are used, some sample characteristics should also be provided (for example population size, gross and net sample size, type of sampling design, reporting domain and so on).

If administrative, commercial or other external data sources are used, a description should be provided of the source, primary purpose, observation units and so on. For external data sources, Eurostat and the EU Member States should investigate if current reporting standards are sufficient for assessing data quality and to what extent additional requirements are needed. For the latter, the quality checklist and quality indicators as suggested by the Admin Data project (see Section 9.3.2., points 2 and 5) may provide useful input.

In special cases where a statistic is (partly) produced by means of a model-based approach, a dedicated analysis report describing and justifying the approach will be provided to Eurostat and pre-checked before actual data production. Exceptions to this are seasonally adjusted and working-day adjusted statistics. There are already numerous accepted, solid scientific methodological reports in place for these. In terms of annual reporting on quality and metadata, a hyperlink will be included to these dedicated analysis reports where applicable.

Annual reporting on the type of data source will be conducted in the reporting standard ESMS (item 20.1) or ESQRS (item XII.I); see Chapter 12 on Reference metadata for more information on these two standards.

# 9.7. Further information

- Overview of the legal aspects related to this chapter
- Multinational enterprise groups
- EuroGroups register
- Exchange of microdata on intra-EU trade
- Methodological reports on the use of administrative data
  - Editing administrative data
  - Estimation with administrative data
- Microdata on ICT-usage
- ESSnet project on microdata linking and data warehousing
- ESS Vision 2020
- Scheveningen Memorandum on Big Data and Official Statistics
- ESSnet Big Data

# 9.8. Contacts

For questions or comments on data sources for business statistics, please contact ESTAT-EBS-MANUAL@ec.europa.eu.

# **10** Processing methods in business statistics (at national level)

# Preface

This chapter describes the wide range of methods available to NSIs for processing statistical inputs into statistical outputs.

The methods outlined here are mainly intended for the national statistical process, rather than for background data (for example data sources and business registers) or the further processing of compiled data to produce EU-harmonised statistics (for example standards on data validation, reference metadata reporting or dissemination).

The chapter is restricted to those methods which can be applied generally across all statistical subjects/areas. For domain-specific methods, see the detailed domain-specific methodologies.

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# 10.1. Introduction

The methods used to compile business statistics at national level reflect various steps: from the design of the process, through determining and sampling the business population, to data collection, error cleaning, processing missing values and calculating statistical output aggregates. These steps typically follow the generic statistical business process model that was drawn up by the UNECE.

This chapter also examines methods for improving cross-domain consistency at microdata level between the various domains of business statistics.

Most of the methods summarised in this chapter are taken from the ESS's *Handbook on Methodology of Modern Business Statistics*, known as Memobust. The sections below closely follow the various summaries in the handbook and provide links to several ESS methodological research practices.

# 10.2. Design of the process

The design of the statistical process generally refers to the design of a new survey, the redesign of a survey, or continuous improvements to a repeated survey.

The two main steps in the design process are:

- choosing methods, for example sampling and estimation, data collection, contact strategies and editing;
- allocating resources to the sub-processes in compiling statistics.

In most cases, the design will be based on a particular statistical infrastructure (for example the business register, classifications, and types of data sources) and a particular set of statistical outputs.

It is essential to properly identify the variables of interest in the survey. These variables serve as an input for producing the statistical output and are not necessarily the same across EU Member States or over time, even though the statistical output as an end result is harmonised and consistent. This is part of the output-oriented approach of EBS. In this approach, it is up to each Member State to determine the best way of producing its European statistical output.

The aim of the design process is to optimise statistical quality and to balance efforts to:

- minimise costs for data compilers and the administrative burden on businesses: and
- maximise benefits for end-users.

In practice, much of the design work is devoted to optimising the accuracy and reliability of the statistics at a more or less predetermined level of operational costs and under restrictive conditions regarding the burden on businesses.

There are additional important quality components such as timeliness, consistency and comparability. The optimisation process may include one or more of these components, often with certain trade-offs.

More information on design and optimisation can be found in the handbook: see overall design. For specific guidance on the trade-off between accuracy and delays, see guidelines for balance between accuracy and delays.

Most business statistics surveys are conducted at regular intervals — every month, quarter, year, or over several years. These are referred to as 'repeated surveys'. The repetitive nature of a survey plays an important role in its design, as it affects sampling and accuracy, the perception of burden on businesses, time series and possible breaks. More information can be found in the handbook: see repeated surveys.

In addition to the survey-oriented part, the design process also includes:

- A review of the existing and available administrative data this can be very useful to check if a survey is really needed and for writing the questionnaire (by avoiding to ask for information which is already available in administrative data).
- A detailed description of the various external data sources that can be used as inputs for the statistical production process, their usefulness and also their risks and recommended quality checks can be found under the heading of administrative data that forms part of Chapter 9.

- The domains of dissemination, including the level of detail, must also be identified in this step. The sampling design and the strategies for control and data validation all depend on the level of dissemination. The level of detail required for business statistics in the EBS Regulation are described in Chapter 15 on data requirements for business statistics.
- The observation units used to collect the input data and to disseminate the statistical output must be determined in this step. The observation units used for input can be different from the statistical units applicable to the output (for example legal units for inputs compared with enterprises for outputs). The principle of subsidiarity in producing EBS as described in Chapter 2 enables EU Member States to use various types of input, provided that the resulting output from the statistical production process remains harmonised at an EU level.
- Data providers (or their representatives) should be involved early in the design process to assess the feasibility of the intended design (for example data availability) and also to create goodwill for the new design (for example involving business associations who might otherwise be unwilling to promote the survey).

# 10.3. Design of questionnaires

Questionnaire design is part of the operational phase of a survey, as it is carried out after a questionnaire has been selected as the data collection method. However, it is essential in terms of the survey objectives.

It is difficult to compensate at a later stage for errors caused by an inadequate questionnaire (Brancato *et al.,* 2006). As such, the design of questionnaires can be seen as essential to the design stage as a whole.

The relationship between information demand, response burden and existing information (the development of microdata linking) must be taken into account when creating new questionnaires or assessing existing ones. Questionnaire drafting, which is an iterative process, must be seen as a continuous cycle.

General information on designing questionnaires is available in a handbook on questionnaire design and in a *Handbook of Recommended Practices for Questionnaire Development and Testing in the European Statistical System*.

There are also a number of more specific issues connected with drafting a questionnaire, including:

- designing electronic questionnaires;
- embedded functionalities for editing electronic questionnaires that enable responding businesses to directly
  detect and correct any errors and/or missing values while filling in a questionnaire;
- testing questionnaires.

As regards the embedded editing functionalities, receiving higher quality responses from businesses may significantly reduce the resources needed to clean microdata that are received.

Testing a questionnaire is also very important. Tests should be conducted at every stage in the process. It is good practice to have an advisory committee to take account of user needs and to ensure that businesses will be able to answer the questionnaire.

In some countries, there are procedures for certifying survey quality (see, for example, *Assessing and improving quality in official statistics: the case of the French Label Committee*).

For more information on testing and evaluating questionnaires, see Brancato et al., 2006 and Willimack, 2013.

# 10.4. Target business population (survey frame)

The survey frame identifies and lists the units of the business population together with their contact details, economic and geographic classifications and size measures. The survey frame serves as a sampling frame.

The survey frame is also useful for contacting data suppliers (reporting units), personalising and mailing questionnaires. Furthermore, it has a role in controlling and monitoring the data collection phase: it helps to register and validate responses and evaluate non-response. The survey frame gives information for the weighting, grossing and micro-integration.

For business statistical surveys, the main source of the survey frame is the **business register** which records and maintains the statistical units and their characteristics. The business register can also store links between units for collecting data (in other words, reporting units) and units for dissemination (in other words, statistical units).

The survey frame for a particular survey 'instance' uses a snapshot of the register — the register's state for any given date.

Since the business register serves as a base for different surveys, it is worth creating a master frame that can be used as a common frame for all surveys. A master frame and predefined subpopulations are useful for building survey frames and supports the integration of different surveys.

Integrated survey frames improve the effectiveness of data collection and the whole survey process and also help to reduce response burden. As such, survey design may pave the way for the integration of surveys by assigning suitable survey frames (the building blocks of populations and common classifications that might help to integrate data coming from different surveys).

Survey design can also accommodate the phenomenon whereby the information contained in the business register improves over time. This can be achieved by basing the data collection on the initial register state, but later using the most recent state of the register (for the same reference period) for imputation and weighting.

A more detailed explanation of survey frames and their design can be found in survey frames, survey frame design and the *European business statistics methodological manual for statistical business registers* — 2021 edition.

# 10.5. Selecting samples

Sample selection in business statistics can be challenging for several reasons. The population is often skewed, new enterprises may be formed or go out of business, and businesses may be related to each other in different ways.

The use of stratified simple random sampling can enable researchers to draw inferences about specific subgroups that could be lost in a more generalised random sample, but it requires the selection of the relevant stratification variables.

A useful approach here, often used for business surveys where element sizes vary greatly, is to use probability proportional to size (pps) sampling, often combined with cut-off sampling. This method can improve the accuracy of a given sample size by focusing the sample on large elements that have the greatest impact on population estimates. Stratification may also produce a more accurate estimate, especially if the strata regroup similar units. The cut-off method leads to bias, which must be quantified.

An alternative to stratified simple random sampling is systematic sampling. Cluster or multistage sampling is used for practical, economical and sometimes administrative efficiency. The use of fixed panels will produce very efficient estimates of periodic change. In most periodic surveys, sample rotation is used to reduce response burden.

A broad general introduction into these sampling techniques can be found in sample selection and in sampling issues in business statistics.

There are some cases where additional specific sampling techniques may be necessary. For example if:

- The variable of interest is correlated to auxiliary variables that can be used in the design of the sample (see balanced sampling). This information can also be used with a Neyman allocation based on the dispersion of auxiliary variables.
- There is a need to produce preliminary estimates (see subsampling for preliminary estimates).

If it is necessary to coordinate samples to produce comparable, consistent statistics, the estimates of change over time must be highly accurate and the response burden should be spread evenly between businesses (see sample coordination).

Coordination across different/sequential samples can be achieved by assigning permanent random numbers to the units in the business register. There are two methods for sample coordination:

- simple random sampling with permanent random numbers;
- Poisson sampling with permanent random numbers.

It is also possible to coordinate samples that are based on different types of statistical units (see assigning random numbers when co-ordination of surveys based on different unit types is considered).

If the units for collecting the data (the observation units) and for dissemination (the statistical units) are different, then it is necessary to make some adaptations (see, for example, *The unit problem: a first assessment of the impact of profiling on sampling*; a paper presented at Geneva ICES-V).

#### 10.6. Data collection

The process of data collection involves a number of sub-processes, each with its own recommended methodology and specific considerations: the design phase of the data collection methodology, the techniques and tools for data collection, and the mixed mode approach. This section focuses on methods relating to the following data sources:

- surveys;
- reusing existing external data sources;
- microdata linking.

#### 10.6.1. SURVEYS

The choice of technique depends on many factors, such as:

- survey subject;
- timing of data delivery;
- type of respondents;
- budget.

The survey technique is usually chosen during the design phase, as the technique influences the way the data is collected and the design of the survey questionnaire.

There are various techniques and tools for data collection. For example:

- computer-assisted telephone interviewing (CATI);
- computer-assisted personal interviewing (CAPI);
- e-mail and online surveys;
- the electronic exchange of information based on electronic data interchange (EDI) and extensible business reporting language (XBRL).

By uploading data files in a standard record layout, perhaps integrated into a web questionnaire, it is possible to obtain high-quality data with a relatively low response burden.

The use of the mixed mode approach, in other words, combining different data collection techniques in the same survey, can overcome the limitations specific to each technique. If the approach is designed correctly, it can reduce the unit non-response rate.

The data collection process concerns not only interviewing techniques, but also contact strategies, monitoring activities and follow-up:

- contact strategies are necessary to get in touch with respondents and may vary according to the type of
  respondent unit (large or small company, new company, and so on);
- monitoring activities are important to keep the data collection process under control while it is in progress and to take proper action to improve or modify any factors that could seriously impair data quality;

• follow-up takes place after the formal data collection period has ended — it involves following up on nonrespondent units and the strategy for doing so (based on their significance for statistical end results).

#### **10.6.2. REUSING EXISTING EXTERNAL DATA**

A general trend among the NSIs is to reuse administrative data already collected by other public organisations or other existing external data sources, including Big Data. This may also include data sources from other NSIs, as in the case of the exchange of microdata on intra-EU trade. These external data sources are generally referred to as 'secondary data' as opposed to 'self-collected' data or 'primary data'.

The most obvious advantage of reusing existing information is a reduction in (data collection) costs and the burden on business. However, there are various advantages and disadvantages to be taken into account when deciding on the methods for collecting and using secondary data.

#### **10.6.3. MICRODATA LINKING (DATA FUSION)**

For some statistical elements, it is possible to avoid collecting primary or secondary data by combining existing (internal and external) microdata sources. This approach is known as 'microdata linking' (MDL) or 'data fusion' and involves various techniques for integrating several, sometimes conflicting, microdata records into a new set of highquality microdata records.

In addition to a general overview of data fusion at micro level, more detailed technical information — depending on the quality of and overlap between microdata sources — is presented below:

- If the statistical units (or other record identifiers) represented by the different microdata sources more or less
  match, use object matching. If the match is of good quality, see object identifier matching. For matches of
  poor quality, consider alternative methods, such as unweighted matching of object characteristics, weighted
  matching of object characteristics, probabilistic record linkage and the Fellegi-Sunter and Jaro approach to
  record linkage.
- If there is no overlap of record identifiers between microdata sources for example when using different statistical units — even though the sources target the same population, the recommended methodologies are more complex and are referred to as statistical matching methods; see also general background information on statistical matching.

Once the new microdata set has been compiled using one of these matching techniques, the new dataset may contain conflicting microdata. A general description of this problem and how to resolve it is provided in reconciling conflicting microdata. For more specific reconciliation techniques, see point 3 in Section 10.7. below.

Finally, if the observation units differ from the statistical units, the last step is to consolidate the answers of reporting units.

#### 10.7. Checking and cleaning microdata

After collecting the microdata using surveys, existing external data sources or microdata linking to existing internal sources (see Section 10.6.), it is necessary to check and clean the microdata records.

This process is referred to as 'editing': for a detailed overview see statistical data editing and recommended practices for editing and imputation in cross-sectional business surveys.

Checking and cleaning methods include several techniques that can be used together or separately:

- deductive editing for treating systematic (recurring) errors throughout the dataset;
- selective editing mainly for treating specific micro-records, for example those of larger enterprises;
- automatic editing for treating errors that can be fully edited automatically special editing techniques are available in the case of conflicting microdata that has been 'collected' by means of microdata linking (see Section 10.6.3.), such as prorating, minimum adjustment methods and generalised ratio adjustments;
- manual editing for treating errors using expert judgment because of its relatively labour-intensive
  nature, it is often accompanied by well-defined editing instructions and restricted to those errors which have
  significant impact on the outcome and could not be treated by other editing techniques;

 macro-editing — for treating only those errors that would have a significant impact on the (aggregated) statistical output data.

The latter of these five methods is also known as 'output editing'. To ensure consistency between the microdata and the final aggregated outcomes, significant errors are corrected at the microdata level and not at the statistical output level. This type of editing used within business statistics may be contrasted with macro-integration techniques that are used in national accounts to balance supply and use at national level.

When making use of secondary information in general and administrative data in particular, some additional specific editing considerations may apply: see editing administrative data.

Additional editing techniques for time series are described in editing for longitudinal data.

During the checking and cleaning of the microdata, data compilers at national level can already apply the data validation standards for output data transmitted to Eurostat.

Incorporating these standards into regular data checking and cleaning routines reduces the risk of data being rejected by Eurostat. Although the EU data validation standards can be incorporated into the cleaning of microdata, they are different, as microdata cleaning focuses on source data, whereas EU data validation focuses on data transmitted by the EU Member States to Eurostat (in other words, on output data).

#### 10.8. Imputing missing values

The problem of missing values occurs both for data collected in traditional surveys and for administrative data. It is usually more difficult to use an incomplete dataset to infer population parameters, such as totals or statistical means of target variables. For this reason, data compilers often create a complete dataset prior to the estimation stage by replacing the missing values with estimated values from the available data. This process is referred to as 'imputation'.

Possible imputation methods include:

- **deductive imputation** this method is used if the missing value can be logically calculated from available non-missing values, for example in the case of a missing total and its non-missing sub-totals;
- model-based imputation this method is based on a predictive model that uses a quantitative relationship between the missing value and observed non-missing values;
- donor imputation the missing value is imputed by a 'donor' record with non-missing values and with similar characteristics.

In order to comply with editing rules, it is necessary to constrain the imputation methods used either directly (complex) or stepwise (simpler). For more details, see imputation under edit constraints. Different methods may be appropriate in different contexts.

Some general aspects of imputation that do not relate to a particular method, such as the inclusion or exclusion of an error term in the imputed values, the use of deterministic versus stochastic imputation, the incorporation of design weights into imputation methods, and multiple imputation and mass imputation, are discussed in imputation — main module.

There are alternative methods for dealing with non-response in addition to those described above, although they are more complex. These alternate methods rely on re-weighting procedures that are integrated into the methods for estimating aggregated totals (see Section 10.9.).

#### 10.9. Estimating aggregated totals (output data)

After the microdata has been cleansed (see Section 10.7.) and imputed for non-response (see Section 10.8.), the next step in the compilation process is to estimate aggregated totals from the observed microdata.

This section gives an overview of the methods that can be used to obtain estimates for parameters such as aggregated totals, statistical means and ratios.

A general overview of estimation methods and how to design estimations can be found in weighting and estimation —main module and in the design of estimation — some practical issues.

Estimation methods can be divided into design-based (traditional) and model-based approaches. Model-based estimation methods are used if there is no random sample design available underpinning the microdata (for example in the case of data from incomplete administrative sources or from an unknown internet source) or if there are too few observations to produce reliable estimates by means of the traditional design-based estimators.

In official statistics, probability-based sampling designs are commonly used, and a design weight can be associated with each sampled unit. This design weight equals the inverse of the inclusion probability. It can be thought as the number of population units each sample unit represents.

Therefore, a simple method for obtaining estimates of the target parameter is to use these design weights to inflate the sample observations. Design weights are strictly linked to the sampling design used for the survey. Moreover, design weights can be adjusted to consider non-response or they can be modified to take account of auxiliary information.

An example of using external information is provided by an estimator based on calibration or generalised regression which is a special case of a calibration estimator.

In the case of non-response, several methods are available — based on adjusting design weights — that take into account (temporary) non-response as an alternative to micro-imputation of missing units as described in Section 10.8. For general methods that can be used if the theoretical sample is not achieved in the observed sample due to non-response, see preliminary estimates with design-based methods.

The estimators detailed above are unbiased or approximately unbiased in a randomisation approach (in a designbased approach, the properties are assessed against the set of all possible samples). Note that even if, in some cases, a model is assumed (as for generalised regression), the properties of the estimators do not depend on the model and the estimators remain design-unbiased even in the event of model failure. For this reason, this class of methods is robust. However, their efficiency depends heavily on model assumptions and relationships, and auxiliary variables can affect their variances.

In fact, if the distribution of the target variable in the population is highly skewed, as often happens in business surveys, representative outliers may appear in the sample. The values of such units are true values, so they do not need to be edited. Nevertheless, even if estimators remain unbiased, the presence of these outlying units has a major impact on variance estimators. See <u>outlier treatment</u> for an overview of methods that have been suggested for reducing the variance of the estimates while controlling for the presence of bias.

Model-based estimators can be applied in specific situations where traditional design-based methods fall short. This could be the case, for example, if the sample size is not large enough to obtain sufficiently accurate estimates. For general information, see small area estimation. More detailed technical information on the various small area estimations methods can be found in: synthetic estimators, composite estimators, empirical best linear unbiased prediction (EBLUP) area level estimators, EBLUP unit level estimators and time series data estimators.

Methods specifically relating to administrative data can be found in estimation with administrative data.

If the confidentiality of the aggregated totals is an issue, see Chapter 17 on statistical disclosure control.

#### 10.10. Improving cross-domain comparability and consistency

In the design and compilation phase there are a number of ways to improve comparability and consistency across different statistics.

The coordinated use of the business register as a source to define the population and design coordinated samples is a first step in establishing comparable statistics.

A balance should be struck between sample size (and the associated administrative burden and compilation costs) and the expected accuracy of the resulting output data and its estimation method.

Maximising the reuse of previously collected data would also increase comparability. A key example is the reuse of VAT records for both annual and short-term turnover statistics.

The data compiler can also introduce a number of cross-domain checks at the micro-level for larger enterprises or enterprise groups, ensuring consistent microdata for those cases that usually have a large impact on the final output data, also referred to as the 'large cases'. To reflect and respond to globalisation challenges a number of NSIs have started setting-up specialist 'large cases units' (LCUs) within their organisations. The primary objective of LCUs is to allow better understanding and reflection of the activities of the largest and most complex groups in national statistics. A large case unit is a dedicated team, or a network of colleagues, within an NSI tasked with ensuring that data collected across different statistical domains from the largest and most complex multinational enterprises (MNEs) is consistent, and coherently presented in disseminated statistics. This type of work is also referred to as 'micro-integration'. In-depth investigation of the MNE and direct dialogue between the LCU staff within the NSI and the MNEs representatives are essential elements of the consistency work. For an example of this type of work, see the treatment of large enterprise groups within Statistics Netherlands.

The sharing of national experiences is considered an important learning opportunity by all countries that have already set-up, or an in the process of setting-up LCUs. A number of NSIs presented their approaches for setting-up national LCUs at meetings organised at UNECE (31 May-2 June 2017) and Eurostat (11-12 September 2017 and 19-20 March 2018). These events demonstrated the significant interest from members of the ESS in consistency work. They highlighted a number of important aspects and challenges relating to the setting-up and operationalisation of an LCU at national level. Finally, the varied experiences of the participants suggested the need for additional support to countries that are considering setting-up or are in the process of setting-up an LCU nationally. In order to facilitate such needs, Eurostat envisages developing a forum containing best/good practices and guidelines on LCUs.

At the end of the compilation process, it is strongly recommend to add a validation step in which the resulting output data is confronted with comparable output data from other sources. This will enable data compilers to check that the strategy for control, correction and imputation was effective (see also Section 11.1.5. on validation levels, especially validation level 4 which refers to cross-domain checks). This type of validation may also involve output checks that would support the integration process of national accounts for which the business statistics serve as an input.

#### An example

At the French National Institute of Statistics and Economic Studies (INSEE), for example, the integration of SBS into national accounts (NA) is supported by a special validation procedure:

- First, the previous SBS/NA aggregates for year *n*-1 are recalculated using the SBS/NA aggregation method for year *n*. The method for year *n* may integrate improvements (consequent changes) compared with the method used previously in year *n*-1. The recalculated *n*-1 SBS/NA aggregates (based on the method for year *n*) may therefore differ from the original *n*-1 aggregates (based on the method for year *n*-1).
- Second, the development of the recalculated SBS/NA aggregates using n-1 method and the SBS/NA
  aggregates for year n (both based on the same method for n) are checked and validated for national accounts
  purposes.

#### 10.11. Further information

#### General

- Data sources
- Microdata exchange for Intrastat
- Business register
- Data validation
- Reference metadata reporting
- Data requirements of business statistics
- Principle of subsidiarity in producing EBS
- Dissemination
- Statistical disclosure control
- Detailed domain-specific methodologies
- Handbook on Methodology of Modern Business Statistics
- ESS methodological research practices
- Handbook of Recommended Practices for Questionnaire Development and Testing in the European Statistical System

#### Design of the process

- Overall design
- Guidelines for balance between accuracy and delays
- Repeated surveys

#### Design of questionnaires

- Questionnaire design
- Handbook of Recommended Practices for Questionnaire Development and Testing in the European Statistical System
- Designing electronic questionnaires
- Editing electronic questionnaires
- Testing questionnaires
- Assessing and improving quality in official statistics: the case of the French Label Committee
- Brancato et al., 2006
- Willimack, 2013

#### Target business population

- Survey frames
- Survey frame design



#### Selecting samples

- Sample selection
- Sampling issues in business statistics
- Balanced sampling
- Subsampling for preliminary estimates
- Simple random sampling with permanent random numbers
- Poisson sampling with permanent random numbers
- Assigning random numbers when co-ordination of surveys based on different unit types is considered
- The unit problem: a first assessment of the impact of profiling on sampling

#### Data collection

- Various techniques and tools for data collection
- Collecting and using secondary data
- Data fusion at micro level
- Object matching
- Unweighted matching of object characteristics
- Weighted matching of object characteristics
- Probabilistic record linkage
- Fellegi-Sunter and Jaro approach to record linkage
- Statistical matching methods
- Statistical matching
- Reconciling conflicting microdata

#### Checking and cleaning microdata

- Statistical data editing
- · Recommended practices for editing and imputation in cross-sectional business surveys
- Deductive editing
- Selective editing
- Automatic editing
- Prorating
- Minimum adjustment methods
- Generalised ratio adjustments
- Manual editing
- Macro-editing
- Supply and use
- Editing administrative data
- Editing for longitudinal data
- Data validation standards

#### Imputing missing values

- Deductive imputation
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- Donor imputation
- Imputation under edit constraints
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#### Estimating aggregated totals

- Weighting and estimation main module
- Design of estimation some practical issues
- Calibration
- Generalised regression
- Preliminary estimates with design-based methods
- Outlier treatment
- Small area estimation
- Synthetic estimators
- Composite estimators
- EBLUP area level estimators
- EBLUP unit level estimators
- Time series data estimators
- Estimation with administrative data

Improving cross-domain comparability and consistency

- The treatment of large enterprise groups within Statistics Netherlands
- Generic statistical business process model

#### 10.12. Contacts

For questions or comments on processing methods in business statistics, please contact ESTAT-EBS-MANUAL@ec.europa.eu.

## Data validation in business statistics

#### Preface

This chapter on data validation in the ESS focuses on approaches for validating the quality of national output data for European purposes; it does not refer to corrective actions. Details concerning the validation of output data (or datasets), as expected by Eurostat, are specified in domain-specific compilation guides.

The aim of clarifying and streamlining validations within the statistical production chain is to reduce burden, improve timeliness and achieve better quality data in the ESS.

Considering that one of the main goals of EBS is to improve data consistency between business domains, a specific challenge facing EBS is validation across business domains. Consistency checks should be carried out in most cases for similar concepts or ones that are the same. This involves first making an inventory across domains of similar/identical concepts and checking differences in values collected between these concepts. If values are different, these differences should then be either justified or corrected. Special attention should be paid to values that are different only for a subset of countries. This may reflect the fact that some countries use the same concepts (definition, type of statistical unit, data source), whereas others use different ones — a typical case for the lack of consistency not only between domains, but also between countries.

Even in cases where the differences between data for similar concepts can be explained (for example 'ICT turnover' may be different from 'SBS turnover' due to a time lag), efforts should be made to see if the domains could be further harmonised.

Consistency checks between domains could also be performed for concepts that are not similar but could be correlated.

The content of this chapter is largely based on two deliverables that formed part of an ESS.VIP validation project:

- the ESS methodological handbook on validation (available here);
- the business architecture for ESS validation (available here).

Both of these are 'living documents' that are reviewed/revised on a regular basis.

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#### 11.1. Framework for data validation

#### **11.1.1. WHAT IS DATA VALIDATION?**

According to the Methodology for data validation manual:

data validation is an activity verifying whether or not a combination of values is a member of a set of acceptable combinations.

The set of 'acceptable combinations' may be a set of possible values for a single field. But under this definition it may also be a set of valid value combinations for a record, column, or larger collection of data. It should be emphasised that the set of acceptable values does not need to be defined extensively. This broad definition of data is introduced to make data validation refer both to micro and macro (aggregated) data.

Data validation assesses the plausibility of data: a positive outcome will not guarantee that the data are correct, but a negative outcome will guarantee that the data are incorrect.

Data validation is a decisional procedure ending with the acceptance or refusal of data. The decisional procedure is generally based on rules expressing the acceptable combinations of values. Rules are applied to data. If data satisfy the rules, which means that the combination expressed by the rules is not violated, data are considered valid for the final use they are intended. There is of course the possibility of using the complementary approach in which rules are expressed in 'negative form': in this case data are validated by verifying that predefined non-acceptable combinations of values do not occur.

Sometimes the rules used in a validation procedure are split in hard/fatal edits and soft/query edits and those values that are not acceptable are classified either as 'erroneous' or 'suspicious' depending on whether they fail hard edits or soft edits. Hard edits are generally rules that must necessarily be satisfied for logical or mathematical reasons (for example, children cannot be older than their parents). An example of query edits taken from the UNECE glossary on statistical data editing is *a value that, compared to historical data, seems suspiciously high,* while a fatal edit is *a geographic code for a Country province that does not exist in a table of acceptable geographic codes.* This distinction is important information for the related 'editing' phase. Furthermore, a data validation procedure may assign a degree of failure (severity) that is important for the data editing phase and for the tuning of data validation. Taking the example previously mentioned for soft edits, the severity can be evaluated by measuring the distance of the actual values with respect to historical ones.

In the case of failure, data are exported from the data validation procedure or marked respectively, and are handled by the editing staff in order to correct values to make the rules satisfied, or data are considered acceptable and the rules of the data validation are updated. The data validation process is an iterative procedure based on the tuning of rules that will converge to a set of rules that are considered the minimal set of relations that must be necessarily satisfied.

#### **11.1.2. VALIDATION AND QUALITY FRAMEWORK FOR OFFICIAL STATISTICS**

The formalisation of validation within the ESS needs to be considered against the backdrop of the quality standards for official statistics. The key supporting document is the *European Statistics Code of Practice*.

The European Statistics Code of Practice is the cornerstone of the common quality framework of the European Statistical System. It is a self-regulatory instrument and is based on 16 Principles covering the institutional environment, statistical processes and statistical outputs. A set of indicators of best practices and standards for each of the Principles provides guidance and reference for reviewing the implementation of the Code of Practice, increasing transparency within the European Statistical System.

Statistical authorities, comprising the European Union Statistical Authority (Eurostat), the National Statistical Institutes and other national authorities responsible for the development, production and dissemination of European Statistics, commit themselves to adhere to the Code of Practice. Clarification of the validation checks to be performed on data produced by the ESS plays a key role in compliance with the 16 principles of the *European Statistics Code of Practice*. In particular, Principles 11-15 below, which refer to 'statistical output', benefit greatly from such clarification:

- Principle 11 Relevance (European Statistics meet the needs of users);
- Principle 12 Accuracy and Reliability (European Statistics accurately and reliably portray reality);
- Principle 13 Timeliness and Punctuality (European Statistics are released in a timely and punctual manner);
- Principle 14 Coherence and Comparability (European Statistics are consistent internally, over time and comparable between regions and countries; it is possible to combine and make joint use of related data from different sources); and
- Principle 15 Accessibility and Clarity (European Statistics are presented in a clear and understandable form, released in a suitable and convenient manner, available and accessible on an impartial basis with supporting metadata and guidance).

#### **11.1.3. VALIDATION PRINCIPLES**

In addition to those described in the *European Statistics Code of Practice*, six further principles were drawn up for validation processes (see Annex A of the *Business Architecture for ESS Validation*). These six principles are fully compatible with those in the *European Statistics Code of Practice*, although their aim is to provide guidance specifically on how to improve the validation processes. They are particularly relevant for designing business and IT architectures for data validation.

#### 1. The sooner, the better

Validation processes must be designed to be able to correct errors as soon as possible, so that data editing can be performed at the stage where the knowledge is available to do this properly and efficiently.

#### 2. Trust, but verify

When exchanging data between organisations, data producers should be trusted to have checked the data before and data consumers should verify the data on the common rules agreed.

#### 3. Well-documented and appropriately communicated rules

Validation rules must be clearly and unambiguously defined and documented in order to achieve a common understanding and implementation among the different actors involved.

#### 4. Well-documented and appropriately communicated validation errors

The error messages related to the validation rules need to be clearly and unambiguously defined and documented, so that they can be communicated appropriately to ensure a common understanding on the result of the validation process.

#### 5. Comply or explain

Validation rules must be satisfied or reasonably well explained.

#### 6. Good enough is the new perfect

Validation rules should be fit-for-purpose: they should balance data consistency and accuracy requirements with timeliness and feasibility constraints.

#### **11.1.4. DATA VALIDATION IN THE STATISTICAL PRODUCTION PROCESS**

The business processes for the production of official statistics are described in the generic statistical business process model (GSBPM, UNECE 2013).

The schema in the GSBPM shows that data validation is performed during different phases of a production process. The sub-processes where validation is performed are as follows:

GSBPM: sub-process 2.5

The first phase in which data validation is introduced is the 'design' phase, more specifically sub-process 2.5 — design processing and analysis. The description in the GSBPM is as follows:

This sub-process designs the statistical processing methodology to be applied during the 'Process' and 'Analyse' phases. This can include specification of routines for coding, editing, imputing, estimating, integrating, validating and finalizing data sets.

This is related to the design of a validation procedure, or more specifically, a set of validation procedures consisting of a validation plan.

#### GSBPM: sub-process 4.3

The first phase of GSBPM in which validation checks are performed is sub-process 4.3 - run collection (which is part of the collect phase). As described in the GSBPM document, checks deal with the formal aspects of data and not the content:

Some basic validation of the structure and integrity of the information received may take place within this sub-process, e.g. checking that files are in the right format and contain the expected fields. All validation of the content takes place in the Process phase.

#### GSBPM: sub-process 5.3

In the process phase, sub-process 5.3 explicitly refers to validation and is called review and validate. The description given in the GSBPM is as follows:

This sub-process examines data to try to identify potential problems, errors and discrepancies such as outliers, item non-response and miscoding. It can also be referred to as input data validation. It may be run iteratively, validating data against predefined edit rules, usually in a set order. It may flag data for automatic or manual inspection or editing. Reviewing and validating can apply to data from any type of source, before and after integration. Whilst validation is treated as part of the 'Process' phase, in practice, some elements of validation may occur alongside collection activities, particularly for modes such as web collection. Whilst this sub-process is concerned with detection of actual or potential errors, any correction activities that actually change the data are done in sub-process 5.4 (edit & impute).

Several observations can be made:

- validation may occur alongside collection activities it only expresses whether there is (potentially) an error or not while, any transformation of data is carried out as part of the process phase;
- by contrast, editing forms part of the process phase and is performed as part of the editing and imputing subprocess — the relationship between validation and data editing is discussed in more detail below; and
- while errors should be corrected as part of the edit and impute sub-process, in some cases these errors may
  reveal a need to improve the design, build or collect phases of the GSBPM.

#### GSBPM: sub-process 6.2

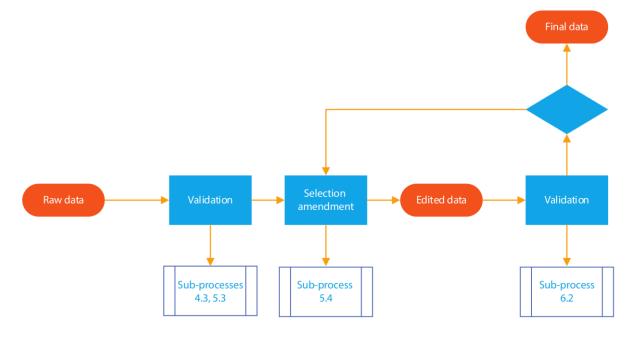
The last sub-process in which validation checks are performed, sub-process 6.2, is called validate outputs:

This sub-process is where statisticians validate the quality of the outputs produced, in accordance with a general quality framework and with expectations. This sub-process also includes activities involved with the gathering of intelligence, with the cumulative effect of building up a body of knowledge about a specific statistical domain. This knowledge is then applied to the current collection, in the current environment, to identify any divergence from expectations and to allow informed analyses. Validation activities can include:

- o checking that the population coverage and response rates are as required;
- comparing the statistics with previous cycles (if applicable);
- checking that the associated metadata and paradata (process metadata) are present and in line with expectations;
- o confronting the statistics against other relevant data (both internal and external);
- investigating inconsistencies in the statistics;
- performing macro editing;
- o validating the statistics against expectations and domain intelligence.

#### Among the above checks, the first and the third items are not usually considered to be part of a 'data validation' procedure.

Flowchart describing the different GSBPM validation phases and sub-processes linked with statistical data editing



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#### **11.1.5. VALIDATION LEVELS**

Examining the practical implementation of the validation process means looking at it from a business perspective. In doing so, the focus is on validation activities.

The amount and accessibility of information needed and the phases/sub-processes of validation are important for determining the validation levels. This approach is particularly useful when classifying and designing validation activities within an organisation.

Validations could be divided into structural validations and content validations.

- Structural validations are linked to the definition of the data structure. In the SDMX context (<sup>37</sup>) this also
  includes the definition of the code lists and constraints related to the use of specific codes. Structural
  validations refer here to validation level 0 and a part of validation level 1 described below.
- Content validations are linked to levels 1-5 described below. They also rely on a clear definition of the data structure.

Validation level 0: consistency with the expected IT structural requirements

Check for example that:

- the file has the expected number of columns (agreed format of the file);
- the column has the expected format (in other words, alphanumeric, numeric, and so on).

Validation level 1: consistency within the dataset

Check for example that:

- the content of the third column is one of the codes from the 'Sex' dictionary;
- the content of the first column (reporting country) is consistent with the data sender;
- male inhabitants + female inhabitants = total inhabitants.

Validation level 2: consistency with other datasets within the same domain and data source

Check for example that:

- new data referring to a new time period are not outliers (do not vary by more than 10 % compared with data from the previous time period);
- annual data are consistent with data from the corresponding quarterly datasets.

Validation level 3: consistency within the same domain between different data sources (mirror checks)

Check for example that:

• the exports declared by country A to country B are the same as the imports declared by country B from country A.

Validation level 4: consistency between separate domains available in the same organisation

Check for example that:

• the number of enterprises and employees in the SBS and business demography datasets are consistent for the same time period.

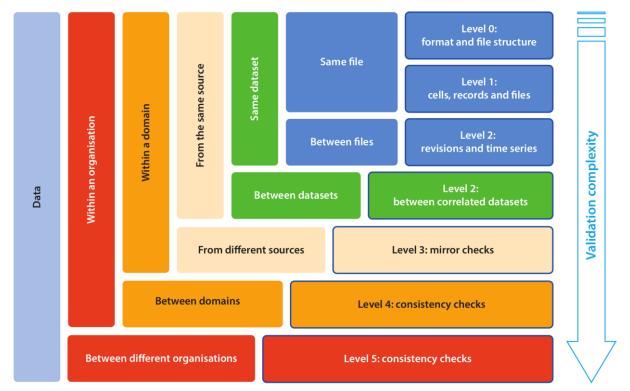
Validation level 5: consistency with data available in other organisations

Check for example that:

• country data in the ESS are consistent with the data available in the World Trade Organization, International Labour Organization, the World Bank and so on.

<sup>(&</sup>lt;sup>37</sup>) See the information presented on SDMX in Section 11.2.2. on standards for validation in the ESS.

#### Graphical representation of validation levels



#### **11.1.6. VALIDATION LIFE CYCLE**

To improve the performance of a statistical production process by managing and optimising the data validation process, a description of the data validation process life cycle is considered to be of use.

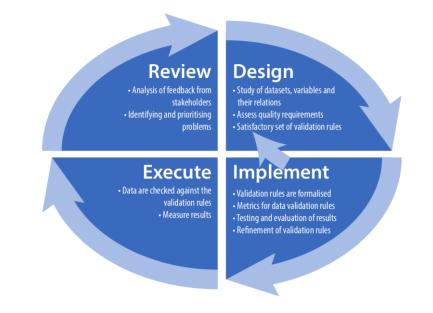
First, the process is both dynamic and complex. Adapting validation rules may affect not only the scope of one dataset or one statistical domain, but also that of all statistical domains. For instance, when optimising the effectiveness and efficiency of the validation rules, their assessment from the previous time, relationships with indicators and so on should be taken into account.

The data validation life cycle involves the activities directly linked to each statistical domain for the definition and execution of data validation. This cycle starts by designing the data validation process for the statistical domain or inter-statistical domain, with an overall study of the datasets, variables and their relationships to find a list of suitable and effective validation rules. In the implementation phase, these validation rules are described in a common syntax, formalised, tested and refined, discussed and evaluated by stakeholders. During the execution phase, data are checked against the rules with validation results measured and quantified. These outputs are reviewed to improve the list of validation rules.

Second, the process should be viewed as an integral part of the whole statistical information production process. Validation tasks and controls are performed by several stakeholders with a wide range of responsibilities. The data validation process life cycle should provide a clear and coherent allocation of actions and responsibilities to ensure the highest level of performance, while reducing the number of possible errors. However, it may be difficult to allocate responsibilities to each phase of the data validation life cycle due to the complexity of the data validation procedure and because this is closely related to the specific structure of an organisation.

Designing validation rules and rule sets for a dataset involves distributing validation tasks in the statistical production chain to be proposed to decision-making structures. This distribution of responsibilities should be designed based on the principle of 'the sooner the better' as it is commonly agreed that the cost of fixing data errors in terms of resources, time and quality is lower the closer it is to the data source.

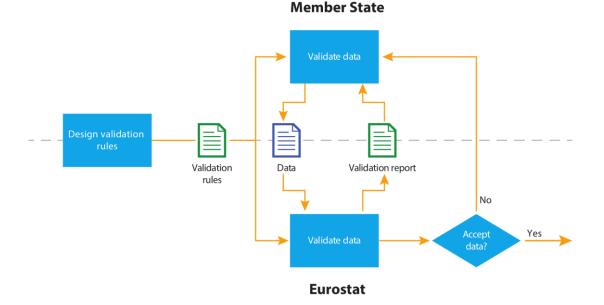
Data validation process life cycle



#### 11.2. Target state for validation in the ESS

#### **11.2.1. TARGET BUSINESS PROCESS**

Target business process ('to-be' state) for validation in the ESS



In the target business process, validation rules are jointly designed and agreed upon at the level of each statistical domain's working group. The resulting validation rules are documented using common cross-domain standards, with clear validation responsibilities assigned to the different groups participating in the production process of European statistics.

The use of common standards for validation rules and validation reports, combined with the common ESS guidelines for IT services being developed by the ESS Vision 2020 SERV project, will enable shareable ESS services to be created for data validation. EU Member States will be able to use them on a voluntary basis to validate data to be sent to Eurostat.

#### **11.2.2. STANDARDS FOR VALIDATION IN THE ESS**

The prerequisite for building a validation framework in a specific domain is to express the structure of the data and its format in a standardised and machine-readable way. The SDMX standard provides this description for a growing number of domains.

Validation rules then have to be described in a non-ambiguous standard language that can be understood by both humans and computers. This is the purpose of VTL (validation and transformation language), which is being developed under the umbrella of the SDMX Technical Working Group.

Finally, ESS members are invited to use or develop whenever possible any relevant shared validation services compatible with the common statistical production architecture (CSPA) standard.

There are also plans to develop a standard for validation reports.

SDMX

The first step in the current ESS validation process is to define the structure, standard code lists and format of the data files to be sent to Eurostat. This business function is important for validation as it implicitly provides an initial set of validation rules related to the expected structure of the data file. This first step is usually conducted jointly by Eurostat and the EU Member States by means of consultations in each specific domain's working group. The main output is a document describing the expected data structure. In recent years, SDMX has played an increasing role in standardising this step. At the time of writing (November 2020), around 40 % of European statistical production processes use the SDMX formalism to describe their data structures. The emergence of SDMX has enabled shared services to be created in support of this business function (for example the Euro-SDMX Registry and the SDMX Global Registry).

#### VTL

The VTL has been designed mainly for non-IT personnel and is geared to the statistical world.

VTL is a standard language for defining validation and transformation rules (sets of operators, their syntax and semantics) for any kind of statistical data. VTL builds on the SDMX information model, but it can also be used with any kind of structured data and data typology (microdata, aggregated data, registers, qualitative or quantitative data).

The logical formalisation of VTL validation and transformation rules allows several implementations using specific programming languages for execution (R, SAS, Java, SQL and so on).

The specifications for exchanging VTL validation rules in SDMX messages, storing rules and requesting validation rules from web services will be provided in a specific update to the SDMX technical standards, which the SDMX Technical Working Group is working on.

VTL 2.0 specifications have been endorsed by the SDMX community in March 2018. They form the basis for ESS shared tools/service developments and are to be used as a common language for documenting ESS validation rules.

#### **CSPA** services

The CSPA is a reference architecture for the statistical activity. It has been developed and peer reviewed by the international statistical community as a key standard for the modernisation of official statistics (ModernStats initiative) which was set-up by the High-Level Group for the Modernisation of Official Statistics under the Conference of European Statisticians (CES), which brings together chief statisticians in the UNECE region.

CSPA:

- covers statistical production across the processes defined by the GSBPM;
- provides a practical link between conceptual standards (the generic statistical information model (GSIM) and the generic statistical business production model (GSBPM)) and statistical production;
- includes application architecture and associated principles for the delivery of statistical services;
- does not prescribe technological environments of statistical organisations.

CSPA-compatible services aim to allow integration in a service oriented architecture (SOA) and therefore support the reuse and sharing of software components in the international statistical community.

Eurostat and the ESS are currently working on the development of CSPA-compatible services for data validation. Eurostat maintains a catalogue of CSPA services available in the ESS (accessible from the UNECE CSPA global artefacts catalogue here).

#### 11.3. EU Member State implementation

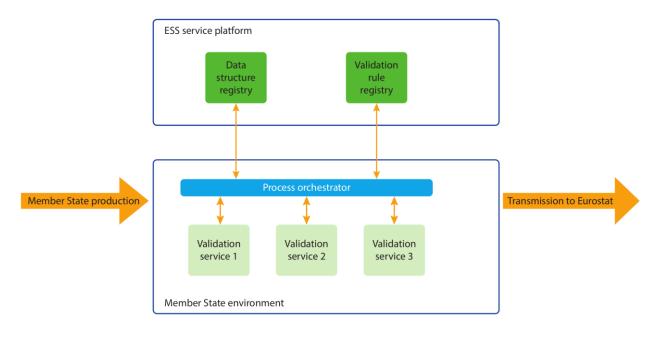
#### **11.3.1. IMPLEMENTATION OPTIONS FOR EU MEMBER STATES**

As long as the validation rules that have been jointly agreed upon are applied, each EU Member State should be able to freely choose, for each statistical production process, the extent to which it wants to benefit from the availability of reusable ESS validation services. There are therefore three basic scenarios in which Member States could implement validation rules in the target 'to-be' state.

Scenario 1: autonomous validation services

In this scenario, EU Member States would use their own autonomous services to implement the validation rules before transmitting data to Eurostat. However, these services would use the data structures and validation rules jointly agreed upon, which would be stored in centrally hosted registries. Translating these validation rules into autonomous validation services would be the responsibility of each Member State.

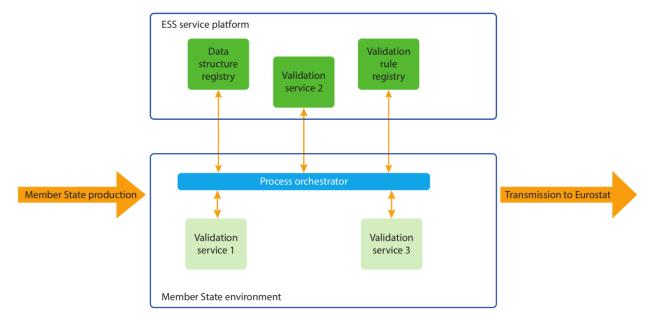




#### Scenario 2: replicated/shared validation services

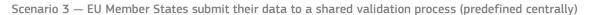
In this scenario, in addition to the shared registries for data structures and validation rules, EU Member States would use certain replicated and/or shared validation services in their validation process. They would be free to select a combination of autonomous/interoperable/replicated and shared services they find most suitable. They would also still be responsible for managing the different services used in the validation process. This scenario can be likened to the Software as a Service (SaaS) model in cloud computing.

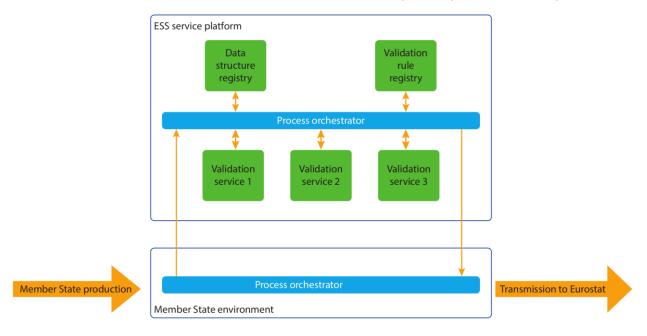




#### Scenario 3: shared validation process

In this scenario, EU Member States would delegate the validation of their data to a shared validation process that is predefined centrally. This process would manage the various services needed and would provide the Member State with a comprehensive validation report. This scenario can be likened to the Business Process as a Service (BPaaS) model in cloud computing.





The scenarios above represent rather idealised situations. In real-life situations, it is likely that EU Member States will create hybrid scenarios that incorporate elements from two or more scenarios. Each Member State would be free to mix and match the three scenarios as it sees fit.

#### **11.3.2. VALIDATION SERVICES AVAILABLE TO EU MEMBER STATES**

Validation services are IT tools made available by Eurostat to EU Member States; they are CSPA-compatible. They can be integrated into the production system of the Member State, called from the production system, or used as central services to which data are submitted for validation (variants of scenarios 2 and 3 above).

#### STRUVAL (structural validation)

The STRUVAL service performs structural validation of statistical data files based on structural information in accordance with the SDMX information model for a given data flow. It ensures that a data file respects the structure and coding of the data structure definition (DSD) and the constraints defined for the respective data flow.

It also checks that the physical format used to transmit data is compatible with the expected SDMX format (SDMX-ML, SDMX-CSV and so on).

#### CONVAL (content validation)

The CONVAL service performs validation on the content of statistical datasets based on validation rules and constraints formulated by the statistical domain managers responsible for the respective business processes and datasets. This generic validation service can be used via a graphical user interface or by connecting to a process manager layer of the service architecture that executes a configured workflow. The service is a key component of the data validation process performed by Eurostat and the ESS.

The service provides and performs the complete range of validation operations employed in statistical production. It carries out basic logical checks and content checks, intra- and inter-file data plausibility and consistency checks, and cross-domain, source-based checks.

In addition, the service informs stakeholders of the validity and consistency of datasets. It produces a validation report as output, which is distributed to stakeholders of the validation service. The report contains those errors that were detected separately, classified to support effective business response.

CONVAL is based on EDIT, a validation tool used by more than 20 statistical domains in the ESS. CONVAL is compatible with VTL 2.0.

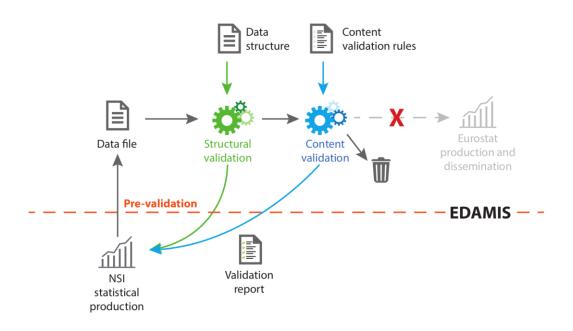
#### SDMX tools and services

SDMX tools and services such as the SDMX registry, SDMX RI or SDMX converters may also be used by EU Member States together with validation tools and services in their business architecture.

#### Scenario 3 validation workflow implemented by Eurostat

Eurostat has implemented Scenario 3 in a way that allows EU Member States to pre-validate their files through EDAMIS prior to official transmission. This pre-validation functionality uses exactly the same rules that are applied for official transmissions. The only difference is that datasets sent for pre-validation are not forwarded to Eurostat's data production system, but deleted immediately after validation. The validation results are then available via the EDAMIS feedback functionality. The diagram below illustrates the pre-validation workflow.

Eurostat scenario 3 implementation for 'pre-validation'



#### 11.4. Further information

- ESS manual on Methodology for data validation
- Business Architecture for ESS Validation
- European Statistics Code of Practice
- SDMX website
- VTL on the SDMX website
- Data validation on the Collaboration in Research and Methodology for Official Statistics (CROS) website
- UNECE GSBPM
- UNECE CSPA
- UNECE High-Level Group for the Modernisation of Official Statistics (ModernStats)

#### 11.5. Contacts

For questions or comments on data validation in business statistics, please contact ESTAT-SUPPORT-SDMX@ec.europa.eu.

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### 11.6. Supplement — example of a validation rule for STS expressed in VTL 1.1

Rule: STS\_1C\_CEC\_2 (consistency between most recent observation period in data file and the envelope)

Rule type: Consistency between envelope and content

Link with reference document (SDMX for STS — Appendix 3 — data validation rules): inspired from part of rule 1

Description rule:		
The most recent observation period in the data file must correspond to the observation period of the		
envelope.		
i.e. the most recent combination of year and quarter or year and month in the dimension « TIME_PERIOD » of		
the data file must correspond to the year/period identified in the eDAMIS flow.		
Refers to: all STS datasets		
Data structure: STSALL		
FREQ; REF_AREA; ADJUSTMENT; INDICATOR; ACTIVITY;BASE_YEAR; TIME_PERIOD; OBS_VALUE; OBS_STATUS; CONF_STATUS; UNIT_MULT; UNIT; DECIMALS; TRANSFORMATION; PRE_BREAK_VALUE; TIME_FORMAT; COMMENT_DSET; COMMENT_OBS; EMBARGO_TIME; COMMENT_TS		
Severity: Error		
VTL:		
Parameters:		
ds_sts the dataset to be validated		
end_datethe end date (e.g. 2015- Q4 if years and quarters, or 2015-12 if years and months), derivedfromthe envelope in the eDamis flowApproach:		
Check if most recent date (maximum value) in the TIME_PERIOD dimension corresponds to the end date.		
Returns:		
Empty dataset if correct — otherwise the most recent (incorrect) time period along with the corresponding error level and error code. VTL code:		
ds_result_2:= check (max (ds_sts.TIME_PERIOD) = end_date, errorcode ('The most recent date does not correspond to the time period specified in the eDamis flow'), errorlevel ('E')).		
Example:		
For a data file identified in eDAMIS with the following envelope «STSCONS_PERM_M_HU_2015_0010_Vnnnn.xxx» (building permits, number of dwellings or square metres of useful floor area — monthly data for Hungary — 2015 — October) Good data file		
because the most recent TIME_PERIOD in the records is 2015-10 For example in the record below:		
M;HU;N;PNUM;F_CC1 1_X_CC1 13;ABS 0;2015-10;1011;A;F;;;;;0;PN;;;P1M;		
Bad data file		
due to at least the record below		
M;HU;N;CSTM;F_CC1 1_X_CC1 13;ABS 0;2015-11;1011;A;F;;;;;0;PN;;;P1M;		
=> 2015-11 (Nov 2015) is more recent than the year/month of the envelope.		
Bad data file		
=> the most recent TIME_PERIOD in the data file is 2014-12 (Dec 2014), which is older than the year/month of the envelope (2015-10) For example in the record below:		
M;HU;N;PSQM;F_CC1 12;ABS 0; <mark>2014-12</mark> ;56223;A;F;;;;;0;PN;;;P1M;		

# **122** Reference metadata in business statistics

#### Preface

This chapter provides a description of how data compilers report national reference metadata to Eurostat, and explains how the quality of data may be assessed and documented.

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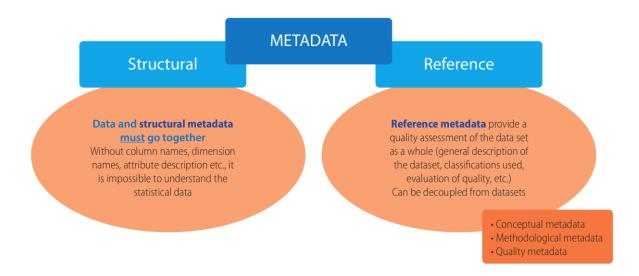
#### 12.1. What is metadata?

The global exchange of data is increasing every day. Data dissemination sites run by different organisations are offering more and more services using data exchange standards that support the automation of data extraction. To be able to process all this data efficiently, reference metadata that describe the data should be produced using a harmonised list of statistical concepts within the ESS. Metadata are essential for understanding the data, and allow users to make comparisons between data and assess the quality of data. Metadata can be expressed as text (for example descriptions), values (for example percentage rates) and codes (from controlled vocabularies such as code lists).

There are two principal types of metadata:

- Structural metadata act as identifiers and descriptors of the data, for example dimensions of statistical cubes, variables, titles of tables, the data navigation tree. They must always be associated with the data, otherwise it becomes impossible to identify, retrieve and navigate the data.
- Reference metadata are used to describe the data. There can be different description types, for example:
  - 'conceptual' metadata, describing the concepts used and their practical implementation;
  - 'methodological' metadata, describing methods used for the generation of the data; and
  - 'quality' metadata, describing the different quality dimensions of the resulting statistics.

Reference metadata can be exchanged independent of the data they are related to, but should be linked to the data in question.



#### Legal basis for reference metadata

The use of reference metadata in the ESS is governed by the following legal acts:

- Commission Recommendation 2009/498/EC of 23 June 2009 on reference metadata for the European Statistical System;
- Regulation (EU) 2015/759 of 29 April 2015 amending Regulation (EC) No 223/2009 amendment to the European Statistics Regulation.

#### 12.2. How to process metadata in the ESS?

The creation of metadata follows a stepwise approach:

- mapping existing national reference metadata to the two ESS reporting standards (see below);
- converting existing national reference metadata files into files based on the ESS standards; and
- uploading the national files to the ESS metadata handler (ESS-MH), a web-based application supporting the production, exchange and dissemination of reference metadata in the ESS (see also Section 12.3. below).

Reference metadata and quality reports do not exist for all statistical processes within the ESS, and the existing ones may contain confidential information. As a result, not all quality-related information is made publicly available on Eurostat's website.

In addition, the publication of reference metadata and quality reports depends on statistical domain regulations and is decided, on the business side, at the level of statistical working groups.

Two SDMX-compliant reporting standards are currently used to create, collect and compare national reference metadata in the ESS.

Single integrated metadata structure (SIMS)

SIMS is a standard for users and producers of statistics. It is a dynamic and unique inventory of all ESS quality and reference metadata statistical concepts.

In this structure, all statistical concepts of the ESS reporting structure for reference metadata (ESMS) have been included and streamlined, by assuring that all concepts appear and are therefore reported upon only once (direct reusability of existing information).

It is a dynamic structure in the sense that additional statistical metadata and quality concepts can be included if necessary in the future. The SIMS standard is SDMX-compliant.

#### Euro-SDMX metadata structure (ESMS)

The ESMS is a user-oriented subset of SIMS for the collection of reference metadata in the ESS. It is based on 19 concepts and enables reference metadata to be provided for a list of concepts derived from the SDMX glossary. This standard format is also used for the reporting of national reference metadata files to Eurostat (Commission Recommendation 2009/498/EC of 23 June 2009).

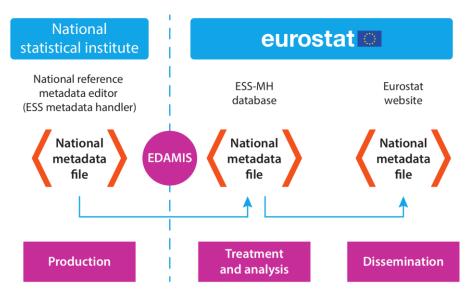
#### ESS standard for quality reports structure (ESQRS)

ESQRS is a producer-oriented subset of SIMS. It is based on 12 concepts and allows users to monitor the quality of the statistics produced, concentrating on the main quality criteria (as mentioned in Article 12 of the European Statistics Regulation).

#### 12.3. ESS metadata handler

The ESS metadata handler (ESS-MH) is a web-based application that supports the production, exchange and dissemination of reference metadata in the ESS. The ESS-MH accommodates SDMX-compliant files based on SIMS. It supports the harmonisation of reference metadata and quality reports in the ESS.

The diagram below presents the high-level business process for reporting SDMX-compliant reference metadata and ESS-MH usage.



### 12.4. Reference metadata on cross-domain coherence in business statistics

A specific part of national reference metadata is dedicated to cross-domain coherence of the dataset(s) with related data. It describes:

the differences of the statistical outputs in question to other related statistical outputs (incl. main differences in concepts and definitions, statistical unit or object, classification (nomenclature) used, geographical breakdown, reference period, correction methods, etc.). The order of magnitude of the effects of the differences should be assessed as well. For each output the report should contain an assessment of incoherence in terms of possible sources and their impacts.

Source: Technical Manual of the Single Integrated Metadata Structure (SIMS)

In the field of business statistics, metadata concerning coherence with other statistics could address the following issues:

- Coherence with the business register. For example: Are the population, the sampling frame and the statistical units taken from the national business register? Are the sampling frames for all EBS taken on the same date?
- Coherence with other datasets within the same topic and subject area. For example: Is the number of
  importing and exporting enterprises consistent with the number of active enterprises? Is the number of R&D
  personnel in foreign-controlled enterprises consistent with the total number of R&D personnel? For a detailed
  overview of subjects and topics, see here.
- Coherence with similar datasets from other subject areas of business statistics. For example: country data compared with regional data for turnover, annual data compared with infra-annual data for turnover; the number of employees and the number of self-employed persons collected for ICT compared with the number of employees and the number of self-employed persons in active enterprises.
- Coherence with national accounts and, where applicable, the balance of payments. For example, for investment or labour-related variables).



#### 12.5. Further information

- ESS metadata handler (restricted access)
- ESS metadata and quality
- Quality reporting for European statistics
- ESS handbook for quality and metadata reports
- SIMS
- SDMX

#### 12.6. Contacts

For questions or comments on the ESS metadata handler support, please contact: ESTAT-METADATA@ec.europa.eu.

# **13** Data exchange in business statistics (part 1) — EDAMIS

#### Preface

This chapter describes the system for transmitting data from national data compilers to Eurostat – EDAMIS. The format for data exchange is described in the next chapter on *Data exchange in business statistics (part 2) – SDMX*.

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#### 13.1. Introduction

Eurostat is required to:

- receive data from EU Member States, mainly from NSIs, but also from other statistical authorities and entities, see below;
- send data to EU Member States;
- share data with third parties such as the ECB, the OECD and outside contractors.

The transmission and the delivery of datasets is managed by EDAMIS.

In May 2009, the ESSC endorsed the use of EDAMIS for the transmission of data files from national statistical authorities to Eurostat. The ESSC has thus adopted EDAMIS as the unique entry point for the transmission of data to Eurostat.

#### 13.2. Main features of EDAMIS

The dataset inventory within EDAMIS lists the statistical domains and the datasets within each domain. Dataset names are constructed by joining together:

- the domain;
- the specific table/collection;
- the intervals at which data are collected.

Additional metadata concerning each domain and dataset are stored, such as: information about the production unit and individuals responsible within Eurostat, the basis for the collection (such as a legal act) and the deadlines for sending data.

EDAMIS also holds a list of all organisations sending data to Eurostat, categorised as:

- NSIs;
- ONAs as referred to in Article 5 of the European Statistics Regulation (Regulation (EC) No 223/2009 of 11 March 2009);
- other organisations or entities (OOE)

and information concerning the authorised senders in each of these organisations.

The EDAMIS system allows the user to send data to Eurostat using secure transfer protocols. In case of confidential data, EDAMIS allows users to enable PGP (pretty good privacy) encryption for the transmitted data files for additional security.

When the data files reach the central server in Eurostat, EDAMIS sends an e-mail acknowledgement (receipt) for the dataset/period to the data sender and any other individuals nominated by the sending organisation. The file is then delivered to a server/directory assigned to the relevant Eurostat production unit, and the individuals responsible for handling the data are notified by e-mail that the data have arrived. Delivered files are named in a standard format in accordance with the dataset naming convention (DSNC): the dataset name, the sending country, the period of the data (for example year/month or sequential). The system logs the whole transmission chain.

After the Eurostat production unit has processed the file or after validation has been performed, EDAMIS can, if appropriate, send the data provider feedback. This may take the form of written comments or log files showing any errors discovered during the course of processing the data files. EDAMIS allows for feedback to be automatically forwarded to Eurostat contractors or other organisations with an interest, such as the ECB or the OECD. EDAMIS can also be used to send reminders that data are expected, based on the intervals between data transmissions and the deadline for each dataset. Reminders can be sent at the start of the transmission period, before the deadline, on the day of the deadline and after the deadline. They are sent if the obligation to send data is laid down in a legal act or an agreement (not if data submission is voluntary).

The EDAMIS web portal offers a full range of reporting functions. Detailed information on domains, datasets, statistical products and organisations is available. Country/organisation links to domains and datasets can be produced, as can lists of people connected with these. In addition to statistics and the compliance indicator for any

required period, reports on data transmissions and timetables can be drawn up. These reports are available to all users who are registered with their national organisations.

#### 13.3. Transmission tools

Organisations can choose to use either the EDAMIS web portal and/or automated transmission methods to send or receive data files of any format and size.

As the EDAMIS web portal (EWP) (restricted access) is internet-based, it does not have to be installed locally by users. It uses the 'EU Login' user authentication system and is best-suited for the manual transmission of data files to Eurostat.

The automated transmission methods include secure file transfer protocol (sFTP) and the European statistical data exchange network (ESDEN) client. These two transmission methods require local installations and are more suited to automatic data transmission or to the exchange of very large data files.

#### 13.4. Support

The first contact point for help with data transmission and data transmission tools is Eurostat's data transmission helpdesk — EDAMIS support. The helpdesk also:

- manages the dataset inventory;
- manages the dataset/country/organisation links;
- prepares and distributes a range of documentation about the tools available;
- maintains the EDAMIS 4 InfoSpace.

Through the EDAMIS web application, the support team produces a compliance indicator report. This provides information on the extent to which each organisation has met its data transmission obligations.

Eurostat has established a transmission coordinator network. Each NSI elects a transmission coordinator (TCO), who is the main person responsible for contact with Eurostat (ensuring effective implementation of the electronic data exchange) and also a contact point for members of their own organisation. Most coordinators also support and assist members of other organisations providing data in their country. They meet annually in Luxembourg in a specific user group. This group supports the work of the relevant IT Working Group in the ESS. Both the transmission coordinators and EDAMIS support manage EDAMIS users, using specific functions provided by the EDAMIS web portal.

#### 13.5. Further information

- Overview of the legal provisions related to data exchange EDAMIS
- EDAMIS web portal (restricted access)
- EDAMIS 4 InfoSpace
- National transmission coordinators

#### 13.6. Contacts

For questions or comments on Eurostat's data transmission helpdesk, please contact: ESTAT-SUPPORT-EDAMIS@ec.europa.eu.

## Data exchange in business statistics (part 2) — SDMX

#### Preface

This chapter provides a general outline of the SDMX initiative, which is being implemented across a wide range of statistical domains. It explains what SDMX is, why it matters, and who is using it. The SDMX initiative and the various implementation projects are explained in comprehensive detail in the SDMX section of Eurostat's website, which also provides several tutorials.

As it is intended as a general introduction, this chapter does not go into detail about each of the tools that support SDMX exchanges or technical issues. However, it does provide links to other, more detailed sources of information on these tools.

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#### 14.1. What is SDMX?

The internet and the world wide web have made electronic data exchange and the sharing of data easier and more frequent. However, data exchange often takes place in an ad-hoc manner, using all kinds of formats and non-standard concepts. This creates the need for common standards, guidelines and tools to enable more efficient processes for exchanging and sharing statistical data and metadata (<sup>38</sup>).

#### Step forward SDMX!

SDMX is the name given by seven international sponsor organisations (including Eurostat) to an initiative designed to *manage and automate the process of data and metadata exchange*.

SDMX is a standard (indeed an ISO standard, ISO 17369:2013) designed to describe statistical data and metadata, to normalise their exchange, and to enable them to be shared more efficiently among organisations.

To meet these three requirements, SDMX has three key components:

- a model the information model to describe data and metadata;
- a standard for automated communication called content-oriented guidelines;
- an IT architecture and set of tools for data and metadata exchange.

The SDMX standard thus provides essential support to statisticians, in that it: maximises the amount of information made available to users; enables the process to be automated; and allows web-service queries.

#### **SDMX IS A MODEL**

The SDMX information model forms the core of SDMX. It describes statistics in a standard way, it identifies objects and their relationships and it allows central management and standard access. In other words, statistical data, metadata and the data exchange process are all modelled.

#### How so?

Data represent concrete observations of a particular statistical phenomenon at a given moment. A dataset is a collection of related observations, organised according to a predefined structure. In themselves, data are meaningless unless accompanied by a description. For instance, what does 2 347 mean? It means nothing without concept descriptors that explain its meaning. These descriptors can be modelled according to whether they are:

- dimensions identifying and describing the data;
- attributes providing additional information about the data, such as whether they are estimates;
- measures representing the phenomenon to be measured.

These structural descriptors are brought together in something called a data structure definition (DSD). The DSD identifies the dimensions, attributes and measures in a dataset, associates them with common code lists and is integrated within concept schemes.

In addition to the structural descriptions of datasets, there are also reference metadata. These refer to information about quality descriptions, process descriptions, methodological descriptions and administrative descriptions. Reference metadata are described in a standard way using the metadata structure definition (MSD).

<sup>(&</sup>lt;sup>38</sup>) Metadata are data that define and describe other data and processes. Metadata can either be of a structural form — to identify, use and process data matrices and data cubes — or reference form — describing the contents and quality of statistical data.

#### SDMX IS A SET OF GUIDELINES

The content-oriented guidelines (COGs) are a set of recommendations within the scope of the SDMX standard that are designed to maximise interoperability. They are intended to be applicable to all statistical domains.

The COGs focus on harmonising specific concepts and terminology that are common to a large number of statistical domains. Such harmonisation helps achieve a more efficient exchange of comparable data and metadata, and builds on existing experience from implementation.

COGs cover cross-domain concepts, code lists, subject-matter domains, a glossary, and implementation-specific guidelines.

- Cross-domain concepts in SDMX describe concepts relevant to many, if not all, statistical domains. SDMX
  recommends using these concepts whenever feasible in SDMX structures and messages to promote the reuse
  and exchange of statistical information and related metadata between organisations. Examples of concepts
  include the 'reference area', 'statistical unit' and 'time period'. Each concept is described in a standard way
  with an ID, description, context and presentation.
- Code lists are predefined sets of terms from which some statistical coded concepts take their values. SDMX cross-domain code lists are used to support cross-domain concepts.
- A statistical subject-matter domain refers to a statistical activity that has common characteristics with respect to variables, concepts and methodologies for data collection and the whole statistical data compilation process.
- The SDMX glossary contains concepts and related definitions used in structural and reference metadata of
  international organisations and national data-producing agencies. It recommends using a common
  terminology to facilitate communication and understanding. The overall message from developing the SDMX
  glossary is: if a term is used, then its precise meaning should correspond to the glossary definition.

#### SDMX IS AN IT ARCHITECTURE AND SET OF TOOLS FOR DATA AND METADATA EXCHANGE

To support more automated, efficient exchanges of data and metadata, standard tools and an IT architecture are required. In practice, this means that SDMX:

- promotes the use of standard SDMX-compliant formats (such as \*.xml);
- provides the necessary tools to support the model, to create SDMX-compliant files, to store SDMX-related
  artefacts, to map and transcode from existing databases, and to validate the structure (and in future the
  content) of data files;
- provides the necessary architecture to connect IT systems to the SDMX world, enabling data to be shared more easily.

The tools that support SDMX exchanges fall into three broad groups:

- tools for data receivers covering the Euro SDMX registry which creates and stores SDMX artefacts;
- tools for data and metadata providers covering the SDMX converter that converts files to and from SDMX-ML files (using extensible mark-up language syntax), the SDMX reference infrastructure (SDMX-RI) that creates and disseminates SDMX-ML files directly from databases using a set of pick-and-choose building blocks and tools, such as the mapping assistant, and the ESS metadata handler (ESS-MH) that processes reference metadata; and
- tools for IT developers in SDMX covering the SDMX source code, the SDMX-RI web service that disseminates SDMX-ML data, and the SDMX converter API (application programming interface) that converts files between different formats (as detailed in a series of articles on SDMX tools for IT developers).

Choosing the relevant tools to use in an SDMX implementation is a business choice made by the statistical production unit within Eurostat together with the relevant organisations in EU Member States, weighing the possible benefits of implementation against the necessary investment. As each SDMX implementation is different, and as the tools are frequently updated (for example, providing new functionalities), Eurostat provides support to its partners.

Myth-busting — SDMX is therefore much, much more than just a data transmission format!

# 14.2. Why is SDMX used?

The use of SDMX is a business choice, as opposed to a technical choice.

What makes it a business choice?

Firstly, decision makers need to understand background issues. Supply-side issues associated with the exchange of statistical data and metadata include the following:

- such an exchange is complex, resource-intensive and expensive, with data being collected in multiple ways and transmitted in various formats, across various media;
- multiple organisations can collect similar or the same (identical) data;
- similar concepts can have a different content;
- the manual nature of data collection can lead to errors and inconsistencies.

There are also demand-driven issues: there is an increasing demand for data, faster and more frequent data exchanges, and a growing number of types of information being exchanged.

Secondly, decision makers need to know what potential advantages SDMX can offer, for example:

- SDMX can improve timeliness, with faster access to data and metadata and the possibility of automated exchanges;
- SDMX can improve accessibility, with bilateral, gateway and data-sharing possibilities;
- SDMX can improve interpretability, with standardised structural metadata (the identifiers and descriptors of data) and reference metadata (the content and quality of data);
- SDMX can improve coherence, by using standard cross domain-concepts, shared code lists and standard guidelines which are reused across statistical domains and agencies, and can support single figure dissemination;
- SDMX can reduce data errors, through automated structural and content validation, agreed structures for transmission, and can save time on conversion and mapping, with less manual intervention;
- SDMX can reduce the reporting burden on statistical authorities through the use of pre-validated content, common formats, automated publication, while providing the possibility for collecting agencies to 'pull' data;
- SDMX can cut the costs of IT development and maintenance by using open source software, eliminating licensing costs, having a shared toolbox and improving interoperability between systems and applications.

In short — SDMX responds to a business need — it improves the quality of data exchanges, is an international standard and offers cost-efficiencies.

# 14.3. Who uses SDMX?

SDMX was launched for exchanges of official statistics among international organisations and their constituencies (such as central banks and NSIs in member countries) and various statistical agencies (particularly government departments). However, SDMX is now being used by a range of organisations outside the world of official statistics. In theory, it may be of interest to any organisation that collects, processes, analyses and disseminates statistical data and metadata.

There are generally three roles and teams in an SDMX project:

- initiators represented by a business unit that has a business case for an SDMX project;
- facilitators represented by IT units that are involved with developing tools and/or establishing the necessary IT architecture, and, in international organisations, SDMX specialists who develop the DSDs or MSDs;
- implementers represented by data providers who make information available in the form of SDMXcompliant files.

An SDMX project typically brings together statisticians, economists, methodologists, and experts in dissemination and IT. This is why it is vital for people to 'speak the same language', in other words, to use shared standards and a common vocabulary.

# 14.4. How is SDMX implemented?

An SDMX project is usually carried out using the following project management steps:

- preparation;
- compliance;
- implementation;
- production.

There is a working checklist of the steps that are generally required in an SDMX project, which are summarised here.

- The preparation phase of an SDMX project is arguably the most critical. This is the phase in which the
  initiators and facilitators determine the project's objectives, scope, expected benefits and outputs. It is the
  moment to specify needs, plan and organise. Some of the key questions to be asked include the following.
  Why is SDMX being considered for use? What is the timetable? What risks are involved? What production
  systems, file formats and code lists are currently in use? What is the frequency of data flows? Who will be
  involved? By the end of this phase, the goals of the SDMX project should be clear. So should the timetable for
  implementation, along with a draft project plan with roles and responsibilities. The key decision is whether to
  go ahead with the project or not.
- The compliance phase is arguably the most time-consuming. This is the phase in which the initiators and facilitators design the system and plan the sequence of the workflow. Steps are taken to analyse the current exchanges, decide what can be reused, define the concepts, define the DSD matrix and design supporting artefacts.
- The implementation phase brings together facilitators and implementers. At this building stage, SDMX artefacts (particularly the DSDs) are made available (in something called the SDMX registry), the appropriate IT infrastructure is established, pilot projects are conducted (testing and review), final changes are made, the roll-out schedule is agreed and support is provided.
- The production phase is the ultimate goal, when SDMX-compliant data and metadata can be used in exchanges. SDMX artefacts will continue to need regular maintenance, reflecting the need to be flexible to accommodate new coverage, new needs, new codes, and so on.

So how do statistical authorities, government departments and other implementing bodies in EU Member States get started? The first steps are all about communication; Eurostat's statistical production units and SDMX facilitation team share information with their counterparts through appropriate working parties. Topics for discussion include the project's rationale and goals, and what SDMX tools to use for implementation.

After the planning stage, the real work for the national organisations starts. It begins with Eurostat providing them with a set of guidelines. In addition to the background information underpinning the project and various contact points, these guidelines provide information about code lists, the DSD(s) and how to conduct data (or metadata) transmission(s). A straightforward step-by-step guide provides instructions on how to design the input file format and download and use the appropriate SDMX tool(s).

Eurostat is available to provide help. The SDMX support e-mail address is always provided, so counterparts in EU Member States can ask questions in the knowledge that every effort is made to respond within 48 hours. Furthermore, with increasing experience at national level, local points of contact also emerge to help with implementation.

# 14.5. Where can information about the status of SDMX in different statistical domains be found?

All statistical domains for which there is some level of SDMX implementation are described in Eurostat's SDMX InfoSpace. A table is provided that shows the relevant DSDs, their version number, their location and the agency responsible for their maintenance.

# 14.6. Principles for data exchange standards under the provisions of the EBS Regulation

In a meeting held in June 2020, the BSDG endorsed the following six principles to be applied when developing data exchange standards for those data flows required under the provisions of the EBS Regulation.

- 1. EBS concepts and code lists that will be rendered SDMX-compliant should be used as much as possible.
- 2. The following (minimum) set of SDMX concepts should be used in all DSDs for business and trade statistics (and for all statistics in general).

	Concept ID	Description
SDMX recommended	FREQ	Frequency
concepts for all data structure definitions	REF_AREA	Reference area
(DSDs)	TIME_PERIOD	Time period for the data observation
	OBS_STATUS	Status of the observation, such as normal, estimated or provisional
	CONF_STATUS	Confidentiality status of the observation
	DECIMALS	Decimals, number of decimals
	UNIT_MULT	Value by which the observation value needs to be multiplied, as power of 10
	UNIT_MEASURE	Unit of measure

Implications for business and trade statistics data exchange standards

When this principle is applied in practice, in some domains the Concept ID (or field name) will be changed. In some cases, additional concepts will be added. Some SDMX formats allow the use of 'nesting' in those cases where the code used for a concept is the same for all records in a file; meaning that the concepts concerned can be mentioned in the heading of a file and do not need to be repeated for each individual record.

For regional SBS and research and development (R&D) statistics, the reference area dimension is currently used to report data for different NUTS levels. As the SDMX code list is based on ISO codes, this means that data for Greece should be reported using the code 'GR', whereas data for NUTS should be reported using the code 'EL'. For regional data the reference area concept will still be used for reporting the regional breakdown of the data to the different NUTS levels to which two different code lists will be attached: a regional data code list (the NUTS codes) and a 'national' data code list (the ISO codes).

	Concept ID	Description
SDMX cross-domain	ADJUSTMENT	Adjustment indicator
concepts to be used where relevant	AGE	Age group breakdown
where recevant	BASE_YEAR	Base year
	TRANSFORMATION	Transformation, needed for dissemination of, for example month-on-month or year-on-year growth rates, or annual aggregates
	PRE_BREAK_VALUE	Pre-break observation value; the 'would-be' observation value if the reason for the 'break' did not exist
	EMBARGO_TIME	Embargo date; date and time when the observation is not under embargo anymore
	CURRENCY	Currency breakdown
	SEX	Gender breakdown
	COMMENT_DSET	Comment for dataset
	COMMENT_OBS	Comment for observation
	COMMENT_TS	Comment for time series (for example, breaks in series)
	COUNTERPART_AREA	Counterpart area

3. Where relevant, the following SDMX cross-domain concepts should be used.

Implications for business and trade statistics data exchange standards When this principle is applied in practice, in some domains the Concept ID (or field name) will be changed.

4. Where relevant, the following business statistics shared concepts should be used.

	Concept ID	Description	
<b>Business statistics</b>	INDICATOR (`)	Indicator	
shared concepts	ACTIVITY	Economic activity	
	PRODUCT/COMMODITY	Product	
	FLOW	Flow	
	SOCIOECONOMICS	Breakdown for socioeconomic criteria	
	NUMBER_EMPL	Breakdown by enterprise size class in terms of employees and self-employed persons	
	NUMBER_EMPLOYEES	Breakdown by enterprise size class in terms of number of employees	
	TURNOVER	Breakdown by enterprise size class in terms of turnover	
	DOMINANCE	Dominance	
	SHARE_SECOND	Share of second statistical unit	

(') An indicator may be presented longitudinally (see Principle 6 below concerning ITGS and PRODCOM).

Implications for business and trade statistics data exchange standards When this principle is applied in practice, in some domains the Concept ID (or field name) will be changed. 5. For all the concepts enumerated in principles 2-4, common code lists should be used.

Alongside others, a common code list for the concept INDICATOR will be developed. For its implementation, a certain level of flexibility is allowed. In fact, for the composite variables included in Annex I of the EBS general implementing act (EBS GIA), the indicator code for the 'root' variable in combination with the relevant breakdown may be used instead of a specific code for the variable itself (for example for 'Net turnover of foreign-controlled enterprises' the code for the variable 'Net turnover' may be used in combination with the breakdown by country of residence of the controlling unit).

This will facilitate the implementation of validation checks where the sum of the values for the breakdown needs to be equal to the value of the root variable. This principle would also allow establishing a one-to-one relationship with the variable codes currently used.

Implications for business and trade statistics data exchange standards This principle implies that codes will be updated in some domains.

#### Some examples

ACTIVITY: the codes for (special) aggregates of NACE codes are different from those used in dissemination and may have to be updated in some domains.

NUMBER\_EMPL/NUMBER\_EMPLOYEES/TURNOVER (note this concerns breakdowns by enterprise size class and not the variables themselves): the codes for enterprise size classes may need to be updated in some domains.

Allowing some flexibility for the indicator code list means that a one-to-one relationship can be established for all codes that are currently used, which will facilitate the implementation of any changes.

6. Indicators can either be presented vertically or horizontally (longitudinally) when exchanging data.

In the historic transmission of data for ITGS and for PRODCOM, variables/indicators are presented horizontally (or longitudinally). Indeed, the concepts for 'quantity in net mass', 'statistical value' and 'supplementary quantity' in combination with the concept of 'flow' (imports, exports) were foreseen in the DSD. The same approach would still be allowed in the harmonised approach — although a change in the name of the concepts to align with the harmonised indicator code list will perhaps be needed.

The variables enumerated in Part A of Annex I of the EBS general implementing act can then be found by a combination of the three 'indicator' concepts and the 'flow' concept (import, export), as shown below.

	INDICATOR 1	INDICATOR 2	INDICATOR 3	
FLOW	 NET_MASS	STAT_VALUE	SUP_UNIT	
IMP	500	3 000	20	

For most other domains, the concept INDICATOR is likely to be presented vertically, meaning that the indicator code is included as part of each record (see the example below).

 INDICATOR	ACTIVITY	BASE_PER	TIME_PERIOD	OBS_VALUE	
 τοντ	G47	2015	jan-20	115	
 TOVD	G47	2015	jan-20	112	

In some domains the concept INDICATOR will be missing.

7. For all other concepts (specific to one domain and not shared with another domain), the domains are free to choose the concept IDs and code lists.

# 14.7. Further information

- Standardising and modernising the mechanisms and processes for data and metadata exchange SDMX within the ESS
- SDMX tools for data and metadata providers
- Training courses for SDMX
- Tutorials for SDMX
- Implementation projects for SDMX
- Validation and transformation services for SDMX
- SDMX a global initiative (website sponsored by seven international organisations)
- Checklist for SDMX design projects (website sponsored by seven international organisations)
- SDMX an ISO standard (International Organization for Standardization ISO website)

### 14.8. Contacts

For questions or comments on SDMX support, please contact: ESTAT-SUPPORT-SDMX@ec.europa.eu.

# **15** Data requirements for business statistics

# Preface

This chapter outlines the data requirements for EBS which will be applicable from 2021 onwards.

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# 15.1. Introduction

This chapter summarises data requirements in the field of European business and trade statistics. It explains how the new structure of data requirements under the provisions of the EBS Regulation and the EBS GIA are linked to the old structure of data requirements based on the legal acts repealed by these two Regulations.

The data requirements of the EBS Regulation follow an integrated approach based on domains and key topics. Business statistics fall into four main domains:

- short-term business statistics;
- country-level business statistics;
- regional business statistics;
- statistics on international activities.

Key topics include the business population, output and performance indicators, and labour input.

Data requirements for EBS are outlined in the EBS GIA; they are listed in Annex I — data requirements. Similarly, the changes introduced by the EBS Regulation are outlined in the EBS GIA and are listed in Annex II — new requirements (deltas). The following sections reference these tables laid down in Annexes I and II.

Statistics covered by the EBS Regulation need to be provided starting with the reference year 2021 (or 2022/2023 depending on the domain and topic) with the exception of some statistics which are due on a multi-annual basis. Domain and topic-specific reference periods are listed below in the next section. Possible derogations granted by the Commission regarding these new data requirements introduced by the EBS Regulation will be laid down in a Commission decision. Several EBS implementing and delegated acts (for example, global value chains) were still under discussion at the time of writing (December 2020).

## 15.2. Data requirements by domain

#### **15.2.1. SHORT-TERM BUSINESS STATISTICS (STS)**

STS provide monthly and quarterly information on the business cycles of European economies, covering industry, construction, trade and services. The business cycle may be described using the following topics:

- the business population indicators on registrations and bankruptcies;
- labour inputs indicators on the number of employees and self-employed persons, as well as hours worked or wages and salaries;
- prices indicators on producer (or output) prices and import prices;
- outputs and turnover indicators on production (<sup>39</sup>) and net turnover;
- real estate indicators on building permits.

These indicators provide a direct measure of the business cycle and may be used as an input for compiling national accounts. The concepts and definitions used in STS are therefore closely linked to those used in the national accounts.

<sup>(&</sup>lt;sup>39</sup>) It should be noted that the word production used in STS contradicts the definition of 'production' in the framework of national accounts or structural business statistics. Within STS, production is used in the context of the production volume index, which aims to 'measure changes in the volume of value added at close and regular intervals'.

The full set of data requirements in this domain is covered by Tables 1-9, as defined by the EBS GIA for STS:

- Table 1 the business population quarterly data on registrations and bankruptcies;
- Table 2 employment quarterly (unadjusted) indices on the number of employees and the number of self-employed persons;
- Table 3 hours worked and wages and salaries quarterly (unadjusted and calendar adjusted) indices;
- Table 4 import prices monthly (unadjusted) indices;
- Table 5 producer prices monthly and quarterly (unadjusted) indices;
- Table 6 production (volume) monthly (unadjusted, calendar adjusted and seasonally adjusted) indices, except for NACE Rev. 2 Section F for small countries, where quarterly indices are required;
- Table 7 volume of sales monthly (unadjusted, calendar adjusted and seasonally adjusted) volume indices for retail trade;
- Table 8 net turnover (value) monthly (unadjusted, calendar adjusted and seasonally adjusted) indices, and data in other (non-index) forms;
- Table 9 real estate quarterly (unadjusted, calendar adjusted and seasonally adjusted) indices on building permits, as well as data for the number of dwellings and data in square metres.

The data required for Table 1 are based on legal units. For Tables 2-8, the data should be based on KAUs, including those for trade and service activities. Data for Table 9 should be based on building permits (as their unit).

Wholesale and service activities are covered by a broader range of STS indicators under the provisions of the EBS Regulation when compared with the situation for the repealed Regulation (EC) No 1165/98 of 19 May 1998 (STS Regulation), where the coverage of wholesale and service activities was restricted (compared with that for industry and construction). In particular, an early indicator of the business cycle in real (volume) terms has been introduced for wholesale and service activity (NACE) coverage for producer price indices has been extended for services. Moreover, the EBS Regulation obliges EU Member States to submit calendar adjusted and seasonally adjusted data for specific indicators. In addition, some data transmission deadlines were shortened to ensure that data are available more promptly.

The first reference period for the new data requirements under the provisions of the EBS Regulation is January / first quarter of 2021. The EBS GIA allows transitional arrangements for some indicators during the period January / first quarter of 2021 to December / fourth quarter of 2023. For an overview of data requirements during this transition period and changes as of January / first quarter of 2024, see the detailed list of STS data requirements in Annex I, Section 1.

The EBS Regulation entails the following changes compared with the STS Regulation.

- (a) Introduces a monthly production index for the STS services activities (NACE Rev. 2 Sections H to N with the exception of K, 70.1, 72, and 75; at NACE division level). In order to introduce the index of services production (ISP), the data requirements concerning net turnover and for producer price indices were changed (see points (b) and (c)).
- (b) Changes the periodicity of net turnover indices for services from quarterly to monthly, with the inclusion of data for the following service activities (NACE Rev. 2 Divisions 68, 77 and 81).
- (c) Extends the activity coverage of quarterly producer price indices (or other deflators) for services so as to align these with the scope of the net turnover and services production indices; note, at the same time, producer price indices for services will change from business to business (B2B) to embrace prices for businesses and consumers (B2All).
- (d) Introduces a monthly sales volume index for wholesale trade and for the trade and repair of motor vehicles at NACE division level for all countries, and at NACE group level for medium-sized and large EU Member States.
- (e) Changes the periodicity for net turnover indices from quarterly to monthly in wholesale trade and for the trade and repair of motor vehicles.
- (f) Extends the coverage of labour input variables for service activities so as to align these with the coverage of production and turnover indicators (as described above).
- (g) Introduces the compilation of calendar adjusted data where relevant (in other words, for production/sales volume, turnover, hours worked, gross wages and salaries, and building permits); in addition, introduces the transmission of seasonal adjusted data for the PEEIs other than price indicators.
- (h) Introduces a single producer price index for new residential buildings, to replace three construction costs variables;
- (i) Introduces quarterly data on business registrations and bankruptcies;
- (j) Improves the timeliness of the following variables (deadlines are all specified relative to the end of the reference month or quarter to which the data refer):
  - production and turnover indices for industry reduce the deadline for small and medium-sized EU Member States by 15 days to one month and 10 days for the production index and to two months for the turnover index;
  - production indices for construction reduce the deadline for medium-sized EU Member States by 15 days to one month and 15 days; change the frequency for this index from quarterly to monthly (although this does not apply to Ireland or Greece);
  - building permits reduce the deadline for small and medium-sized EU Member States by 15 days to three months;
  - volume of sales and turnover of retail trade reduce the deadline by 15 days to two months for those data compiled at NACE group and class levels;
  - industrial turnover indices split into domestic / euro area / non-euro area reduce the deadline for small and medium-sized EU Member States by 15 days to two months;
  - industrial producer prices reduce the deadline for small and medium-sized EU Member States by 15 days to one month; reduce the deadline for large EU Member States by 15 days to one month for data compiled at NACE group and class levels;
  - import prices reduce the deadline for small and medium-sized EU Member States by 15 days to one month and 15 days.

#### **15.2.2. COUNTRY-LEVEL BUSINESS STATISTICS**

Country-level business statistics provide annual data on the national economies of the EU Member States covering resident enterprises and KAUs active in industry, construction trade and services. Each national economy is described by the following topics:

- the business population indicators on active enterprises and business demographic events (such as births and deaths of enterprises, as well as enterprise survivals);
- labour inputs indicators on employees and self-employed persons, labour costs, hours worked, and the employment effects of business demographic events;
- R&D inputs indicators on R&D expenditure, R&D personnel and researchers, as well as publicly funded R&D;
- purchases indicators on purchases of goods and services and imports by enterprises;
- outputs and performance indicators on net turnover and the value of output, value added, the gross
  operating surplus, industrial production, and exports by enterprises;
- investments indicators on gross investment in tangible and intangible non-current assets.

For some of these topics, the indicators are broken down by enterprise size class, legal form and/or the control of enterprises. Specific indicators also cover enterprises that employ at least one employee, enterprises controlling other enterprises located abroad, and enterprises engaged in international trade. R&D statistics also cover the higher education, government and private non-profit sectors. Breakdowns by product are available for manufactured goods and business services.

Compared with the regulations that it repeals, the EBS Regulation entails the following changes:

- completes the coverage of the service sector (with the inclusion of data for education; human health and social work activities; arts, entertainment and recreation; or other personal service activities);
- provides for preliminary data on small and medium-sized enterprises (SMEs), in other words those with less than 250 employees and self-employed persons;
- harmonises the reporting of the financial sector with that for other services and completes the coverage of the financial sector;
- allows national statistical authorities to simplify measures so as to reduce the costs and burden faced by respondents.

In the EBS GIA, country-level business statistics are covered in Tables 10-27 of Annex I, Part B. In addition, the domain of country-level business statistics covers two topics related to dynamic business statistics: (i) innovation statistics and (ii) ICT-usage and e-commerce statistics for enterprises. The variables collected for these topics change with every data collection round and are laid down in separate implementing acts.

#### TABLES WITH DATA FOR THE SECTORAL ANALYSIS OF RESIDENT ENTERPRISES

The annual data in these tables provide answers to questions on wealth creation (value added), investments and labour input for different economic activities. The data can be used to analyse structural shifts, for example between industry and services, country specialisations in particular activities, sectoral productivity and profitability, as well as a range of other subjects. They provide useful background information on which to base an interpretation of STS and the business cycle.

The following tables from Annex 1, Part B of the EBS GIA contain data for a sectoral analysis of resident enterprises:

- Table 10 activities of enterprises;
- Table 21 purchases by enterprises;
- Table 22 changes in stock of enterprises;
- Table 23 product and residence of client breakdown of net turnover of enterprises;
- Table 24 broad activity regroupings breakdown of net turnover of enterprises;
- Table 25 type of turnover breakdown of enterprises;
- Table 27 investment in tangible non-current assets by enterprises;
- Table 28 investment in intangible non-current assets.

The data for these tables are based on the enterprise as the statistical unit. From the end of the calendar year to which the data refer, deadlines for the transmission of data to Eurostat are 10 months for preliminary data and 18

months for the final data. Some of the data series are not transmitted every year, but with a periodicity of three (up to five) years (<sup>40</sup>).

The EBS Regulation results in the following changes compared with the repealed SBS Regulation (Regulation (EC) No 295/2008 of 11 March 2008), in particular all the series for Annexes I-VIII defined in Commission Regulation (EC) No 251/2009 of 11 March 2009 except for series 1B, 1C, 2B, 2C, 2I, 2K, 3B, 3C, 3K, 4B, 4C and 4H.

- (a) Improves the coverage of services data for all variables in Table 10 and some variables in Tables 21 and 27 by extending the NACE Rev. 2 activity coverage to include: Section P (education), Section Q (human health and social work activities), Section R (arts, entertainment and recreation) and Division 96 (other personal service activities).
- (b) Extends the coverage of the variables for investment in machinery and equipment and hours worked to all service activities.
- (c) Restructures data requirements for the financial sector by introducing standard SBS variables, deleting sector-specific variables and extending coverage to all subsectors (including financial leasing, granting mortgage credit, granting consumer credit, similar financial entities and auxiliary activities).
- (d) Implements a range of simplifying measures:
  - removes data for a breakdown of turnover by product within the trade sector;
  - removes data on environmental protection expenditure;
  - decreases the level of activity breakdown to the NACE division level for those variables that are specifically needed for national accounts;
  - extends the application of the 1 % rule to specific datasets within SBS those EU Member States whose data represents less than 1 % of the EU total, in terms of employment and turnover, will no longer have to deliver data to Eurostat for the specified datasets.

Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2021.

For a detailed list of the changes that are required, regrouped by table, see Annex I, Part B of the EBS GIA:

- Table 10 activities of enterprises;
- Table 21 purchases by enterprises;
- Table 22 changes in stock of enterprises;
- Table 23 product and residence of client breakdown of net turnover of enterprises;
- Table 24 broad activity regroupings breakdown of net turnover of enterprises;
- Table 25 type of turnover breakdown of enterprises;
- Table 27 investment in tangible non-current assets by enterprises;
- Table 28 investment in intangible non-current assets.

# TABLES WITH DATA FOR THE ANALYSIS OF ENTERPRISE SIZE CLASSES AND THE LEGAL FORM OF RESIDENT ENTERPRISES

Resident enterprises can be analysed by enterprise size class (defined in terms of their (combined) number of employees and self-employed persons or, for a few variables, by their number of employees). These annual enterprise size class data can be used as a first approximation for data on micro, small, medium-sized and large enterprises (note however that as they focus on an analysis by employment size class, they do not take account of turnover or the balance sheet, both of which are criteria for identifying SMEs). Enterprise size class data by employment are based solely on the employment count of the enterprise itself and do not consider employment in enterprises that belong to the same enterprise group.

In addition, a few statistics are broken down by legal form.

• Table 11 activities of enterprises broken down by size classes or broken down by legal form.

The data for this table are based on the enterprise as the statistical unit. From the end of the calendar year to which the data refer, deadlines for the transmission of data to Eurostat are 10 months for preliminary data and 18 months for the final data (<sup>41</sup>).

<sup>(&</sup>lt;sup>40</sup>) Follow this link for more information.

When compared with the repealed SBS Regulation (Regulation (EC) No 295/2008 of 11 March 2008), in particular, the series 1B, 2B, 2I, 2K, 3B, 4B and 4H as well as part of the tables for Annex IX as defined in Commission Regulation (EC) No 251/2009 of 11 March 2009, the EBS Regulation introduces the provision of preliminary data for SMEs for three key variables (the number of active enterprises, turnover, the number of employees and self-employed persons) within 10 months from the end of the reference period. In addition, the statistics in Table 11 also cover additional service activities.

Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2021.

For a detailed list of the changes that are required, see Annex I, Part B of the EBS GIA:

• Table 11 activities of enterprises broken down by size classes or broken down by legal form.

#### TABLES WITH INFORMATION ON DEMOGRAPHY OF RESIDENT ENTERPRISES

The business demography of resident enterprises can be studied through annual statistics for the active population of resident enterprises, their birth, survival (followed up to five years after their birth) and death. Special attention is paid to the impact of these demographic events on employment levels. In addition, statistics are also compiled for high-growth and young high-growth enterprises ('gazelles').

Business demography data can be used to analyse the dynamics of different markets, for example entrepreneurship in terms of the propensity to start a new business, or the contribution of newly born enterprises to the creation of jobs.

In the EBS GIA, the following tables contain information on the demography of enterprises:

- Table 10 activities of enterprises (for the following variables the number of active enterprises, the number of employees and self-employed persons, the number of employees);
- Table 11 activities of enterprises broken down by size class or broken down by legal form (for the following variables the number of active enterprises, the number of employees and self-employed persons, the number of employees);
  - Table 12 demographic events for enterprises;
- Table 13 high-growth enterprises.

The data for Tables 10-13 are based on the enterprise as the statistical unit. These data are broken down by economic activity (NACE), by employment-based enterprise size class and by legal form. They are delivered to Eurostat with the schedule (in months) after the end of the reference year *t*:

- t+12 preliminary data for high-growth enterprises;
- *t*+18 data for active enterprises, the birth and survival of enterprises; preliminary data on enterprise deaths; final data for high-growth enterprises;
- t+20 data for active enterprises, the birth and survival of enterprises with at least one employee; preliminary data on enterprises deaths for those enterprises with at least one employee;
- *t*+30 final data on enterprise deaths;
- *t*+32 final data on enterprise deaths for those enterprises with at least one employee (<sup>42</sup>).

The EBS Regulation introduces the following changes compared with Annex IX of the repealed SBS Regulation (Regulation (EC) No 295/2008 of 11 March 2008).

- (a) Improves the coverage of services data by extending the NACE activity coverage to include: Section P (education), Section Q (human health and social work activities), Section R (arts, entertainment and recreation) and Division 96 (other personal service activities).
- (b) Enriches business demography data by providing data on young high-growth enterprises ('gazelles').

<sup>(&</sup>lt;sup>41</sup>) Follow this link for more information.

<sup>(&</sup>lt;sup>42</sup>) Follow this link for more information.

Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2021.

For a detailed list of the changes that are required, regrouped by table, see Annex I, Part B of the EBS GIA:

- Table 10 activities of enterprises (for the following variables the number of active enterprises, the number of employees and self-employed persons, the number of employees);
- Table 11 activities of enterprises broken down by size class or broken down by legal form (for the following variables the number of active enterprises, the number of employees and self-employed persons, the number of employees);
- Table 12 demographic events for enterprises;
- Table 13 high-growth enterprises.

#### TABLES WITH INFORMATION ON THE CONTROL OF RESIDENT ENTERPRISES

The ultimate controlling institutional unit (UCI) is the institutional unit, proceeding up a foreign affiliate's chain of control, which is not controlled by another institutional unit. Under this heading there is, on the one hand, a table covering annual data on the economic performance of the foreign-controlled resident enterprises (resident enterprises controlled by a UCI residing abroad; also known as inward foreign affiliates). On the other hand, a second table comprises annual data on resident enterprises which control enterprises abroad as well as on resident enterprises controlled by resident UCIs that also control at least one foreign affiliate abroad (resident enterprises and enterprises abroad controlled by a resident UCI are also known as outward foreign affiliates). The enterprises abroad controlled by UCIs in the reporting country are covered under Section 15.2.4. on statistics on international activities. Note that a commercial presence in the territory of another country is only one of the modes of delivery of economic activities abroad.

Data on the population of resident enterprises are broken down by country of residence for the UCI unit. Data are compiled by economic activity (NACE).

These data can be seen as a subset of annual activities of enterprises (Table 10, described above), with the same activity coverage and core variables: the number of enterprises, net turnover, the value of output, value added, purchases, expenses for employee benefits, the number of employees and self-employed persons, and investment. In addition, they also cover, biennially, R&D expenditure and R&D personnel.

- Table 14 enterprises by country of ultimate control;
- Table 15 foreign-controlling enterprises and domestic affiliates active in the reporting country.

Data in these tables are based on the enterprise as the statistical unit. The transmission deadline for the delivery of information on the control of resident enterprises to Eurostat is set at 20 months from the end of the reference year (<sup>43</sup>).

The EBS Regulation introduces the following changes compared with the repealed FATS Regulation (Regulation (EC) No 716/2007 of 20 June 2007).

- (a) Improves the coverage of services data on foreign-controlled enterprises by extending the NACE activity coverage to include: Section P (education), Section Q (human health and social work activities), Section R (arts, entertainment and recreation), Division 95 (repair of computers and personal and household goods (already provided on a voluntary basis)) and Division 96 (other personal service activities).
- (b) Reduces the detailed NACE breakdown for foreign-controlled enterprises by applying the more aggregated activity classification used in national accounts (A\*38) (<sup>44</sup>), thereby reducing the number of activities for which data are required from 127 to 41.
- (c) Introduces additional variables broken down by activity for the number of enterprises, the number of employees and self-employed persons, and net turnover for (i) those resident enterprises that are controlling enterprises abroad and (ii) those resident enterprises that are controlled by a resident UCI which also controls at least one enterprise abroad.

<sup>(43)</sup> Follow this link for more information.

<sup>(&</sup>lt;sup>44</sup>) Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union.

Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2021.

For a detailed list of the changes that are required, regrouped by table, see Annex I, Part B of the EBS GIA:

- Table 14 enterprises by country of ultimate control;
- Table 15 foreign-controlling enterprises and domestic affiliates active in the reporting country.

# TABLES WITH INFORMATION ON RESIDENT ENTERPRISES ENGAGED IN INTERNATIONAL TRADE IN GOODS (TRADE IN GOODS BY ENTERPRISE CHARACTERISTICS)

Statisticians have examined using ITGS in conjunction with business statistics to provide an enriched analysis of the characteristics of enterprises engaged in international trade, for example, providing information as to their economic activity, their size, or the concentration of trade; this can help to identify differences between those enterprises that trade internationally and those that do not. Data on trade by enterprise characteristics (TEC) are produced without any additional burden on businesses by combining microdata from existing ITGS with information on enterprise characteristics. This is done by linking intra- and extra-EU trade microdata with data from the business register. The resulting trade by activity datasets are further broken down by enterprise size class, type of trader, commodity, the concentration of trade, partner country, and the number of partner countries.

• Table 16 trade in goods by enterprise characteristics.

The transmission deadline for the delivery of information on resident enterprises engaged in international trade in goods by enterprise characteristics is set at 12 months from the end of the reference year (<sup>45</sup>).

The EBS Regulation introduces the following changes compared with the repealed Intrastat Regulation (Regulation (EC) No 638/2004 of 31 March 2004) and Extrastat Regulation (Regulation (EC) No 471/2009 of 6 May 2009).

- (a) Introduces four additional ITGS-TEC datasets:
  - trade by activity, with more detailed levels of NACE;
  - trade by activity and by type of control (domestically-controlled compared with foreign-controlled enterprises);
  - trade by activity and by export intensity;
  - trade by activity, by partner country and by enterprise size class.
- (b) Improves the timeliness of the ITGS-TEC datasets by providing the data within 12 months from the end of the reference period.

Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2022.

For a detailed list of the changes that are required, see Annex I, Part B of the EBS GIA:

• Table 16 trade in goods by enterprise characteristics.

<sup>(45)</sup> Follow this link for more information.

# TABLES WITH INFORMATION ON RESIDENT ENTERPRISES ENGAGED IN INTERNATIONAL TRADE IN SERVICES (TRADE IN SERVICES BY ENTERPRISE CHARACTERISTICS)

Data for trade in services by enterprise characteristics describe how enterprises trading in services operate, by analysing enterprise-level data and examining in detail the characteristics of such enterprises, detailing: their size (the number of employees), ownership (domestically-controlled compared with foreign-controlled) and the main economic activity of the enterprise trading in services.

• Table 17 trade in services by enterprise characteristics.

The transmission deadline for the delivery of information on resident enterprises engaged in international trade in services by enterprise characteristics is set at 18 months from the end of the reference year (<sup>46</sup>).

This is a new data requirement introduced by the EBS Regulation. Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2022.

#### TABLES WITH INFORMATION ON R&D INPUTS

Research and development (R&D) statistics show the scale of R&D activity in terms of numbers of people (R&D personnel, researchers) and expenditure (government budget allocations for research and development (GBARD) and national public funding to transnationally coordinated R&D).

R&D data are broken down by:

- sectors of performance;
- economic activity (NACE);
- enterprise size class;
- fields of research and development (FORD).

R&D expenditure data are also broken down by:

- source of funds;
- type of costs;
- type of R&D;
- socioeconomic objectives.

R&D personnel data are further broken down by:

- occupation;
- qualification;
- sex;
- citizenship;
- age groups.

The following tables contain information on R&D inputs:

- Table 14 enterprises by country of ultimate control (i) intramural R&D expenditure in foreign-controlled enterprises and (ii) R&D personnel in foreign-controlled enterprises;
- Table 18 intramural R&D expenditure;
- Table 19 employment in R&D;
- Table 20 publicly funded R&D.

Data in Tables 14, 18 and 19 are based on the enterprise as the statistical unit within the business sector, while the type of statistical unit for other sectors of the economy is the institutional unit. Table 20 is also based on the institutional unit as the statistical unit. Preliminary R&D data on a limited number of variables/breakdowns are to be provided to Eurostat within 10 months from the end of the reference year and final data within 18 months from the

<sup>(&</sup>lt;sup>46</sup>) Follow this link for more information.

end of the reference year. Preliminary GBARD data are to be provided to Eurostat within 6 months from the end of the reference year, and final GBARD data within 12 months from the end of the reference year (<sup>47</sup>).

The EBS Regulation introduces the following changes compared with the data requirements under the provisions of the Decision on Community statistics on science and technology (Decision (EC) No 1608/2003 of 22 July 2003).

- (a) Continues the compilation of R&D statistics at NACE section level reporting on existing groupings (NACE Rev. 2 Sections D+E, Sections O+P and Sections S+T+U) and in addition splits these groupings into their component parts (data for NACE Rev. 2 Sections D, E, O, P, S, T and U).
- (b) Aligns the breakdown of R&D data by economic activity (classified according to NACE) with the classification used in national accounts (A\*38).
- (c) Aligns the enterprise size class breakdown of R&D statistics with those traditionally used in SBS, (i) simplifying the number of size classes from six to four (a breakdown for enterprises with 0-9, 10-49, 50-249, and 250 or more employees and self-employed persons) and (ii) changing the underlying variable used for the size class analysis from the number of employees to the (combined) number of employees and self-employed persons.

Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2021.

For a detailed list of the changes that are required, regrouped by table, see Annex I, Part B of the EBS GIA:

- Table 14 enterprises by country of ultimate control (i) intramural R&D expenditure in foreign-controlled enterprises and (ii) R&D personnel in foreign-controlled enterprises;
- Table 18 intramural R&D expenditure;
- Table 19 employment in R&D;
- Table 20 publicly funded R&D.

#### TABLE WITH INFORMATION ON INDUSTRIAL PRODUCTION

Statistics on industrial production aim to provide a picture of developments in industrial production, for a given product or a given industry, in a comparable manner across countries.

• Table 26 industrial production.

The data required in this table are based on the KAU as the statistical unit. Data should be transmitted to Eurostat within 6 months from the end of the reference year (<sup>48</sup>).

The EBS Regulation introduces the following changes compared with the repealed PRODCOM Regulation (Regulation (EEC) No 3924/91 of 19 December 1991).

- (a) Introduces a new variable for production under subcontracted operations.
- (b) Modifies the type of statistical unit from the enterprise to the KAU.
- (c) Implements a range of simplifying measures:
  - the PRODCOM list will be kept stable for several years and updated only as often as required to take account of (i) technological changes in the industrial economy and (ii) changes made to other classifications (for example if NACE and the HS/CN are updated);
  - replaces input-oriented requirements by output-oriented requirements (for example deleting the 90 % coverage rule) to give NSIs more flexibility in setting-up their surveys;
  - introduces a 'contribution to European totals only' (CETO) flag designed to reduce the quality requirements on small contributions (to EU totals) that do not have the reliability required for publication at national level.

Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2021.

For a detailed list of the changes that are required, see Annex I, Part B of the EBS GIA:

<sup>(&</sup>lt;sup>47</sup>) Follow this link for more information.

<sup>(&</sup>lt;sup>48</sup>) Follow this link for more information.

Table 26 industrial production.

#### ICT-USAGE AND E-COMMERCE (FOR ENTERPRISES)

Data are compiled on the use made by enterprises of ICT and e-commerce. These are annual statistics that provide figures for a number of ICT characteristics, including:

- ICT systems;
- internet-related aspects;
- e-commerce and e-business;
- ICT skills;
- ICT security and trust.

ICT-usage and e-commerce statistics for enterprises are collected every year. The list of variables describing these characteristics can vary from year to year and is therefore not included in the EBS GIA, but in separate Commission implementing regulations that are adopted each year (49). The data required are based on the enterprise as the statistical unit. The transmission deadline for providing this data is 5 October of the reference year (50).

The EBS Regulation aligns data on ICT-usage and e-commerce for enterprises with the general specifications that are used for sectoral analysis (see Tables with data for the sectoral analysis of resident enterprises and Tables with data for the analysis of enterprise size classes and legal form of resident enterprises above) regarding their coverage and breakdowns by activity (NACE) and by enterprise size class. In most cases, the resulting additional data requirements are optional.

The EBS Regulation introduces the following changes relative to Regulation (EC) No 808/2004 of 21 April 2004 on ICT enterprise statistics:

- (a) Improves the activity coverage for enterprises performing professional, scientific and technical activities (NACE Rev. 2 Section M) by including enterprises performing veterinary activities (NACE Rev. 2 Division 75).
- (b) Introduces the (optional) transmission of data covering enterprises with 0-9 employees and self-employed persons (except for the financial sector, NACE Rev. 2 Section K); changing the previous specification that was based on the (optional) transmission of data covering enterprises with 1-9 employees and selfemployed persons, and discontinuing the collection of data on enterprises with 1-4 employees and selfemployed persons and 5-9 employees and self-employed persons.
- (c) Extends the activity coverage to several additional NACE divisions; data are only compiled for EU aggregates (national information will not be published), with the aim of aligning ICT-usage and ecommerce data by economic activity with the classification used in national accounts (A\*38).

#### INNOVATION STATISTICS

The Community innovation survey (CIS) is a biennial survey that is carried out across the EU Member States, some EFTA countries and EU candidate countries. It collects innovation statistics from enterprises with 10 or more employees, active within the industrial and service sectors. Innovation statistics include variables that detail the innovativeness of enterprises, the different types of innovation implemented and various aspects of the development of an innovation, including objectives, sources of information, public funding or expenditure on innovation. The CIS provides statistics broken down by types of innovators, economic activity (NACE) and enterprise size class. The list of variables changes with every data collection and is therefore not included in the EBS GIA, but in separate Commission implementing regulations. The data required are based on the enterprise as the statistical unit. The transmission deadline for providing tabulated CIS data is within 18 months from the end of the reference year.

The EBS Regulation introduces the following changes compared with the repealed Decision on Community statistics on science and technology:

aligns the breakdown of innovation statistics by economic activity (NACE) with the classification used in national accounts (A\*38);

<sup>(49)</sup> At the time of writing (November 2020), the latest to be adopted was Commission Implementing Regulation (EU) 2020/1030 of 15 July 2020 laying down the technical specifications of data requirements for the topic 'ICT-usage and e-commerce' for the reference year 2021.

<sup>(&</sup>lt;sup>50</sup>) Follow this link for more information.

• changes the enterprise size class breakdown variable for innovation statistics from the number of employees to the (combined) number of employees and self-employed persons.

#### **15.2.3. REGIONAL BUSINESS STATISTICS**

Regional business statistics provide annual data for the regional economies of the EU Member States covering resident local units and enterprises in industry, construction, trade and services. These regional economies are described by following topics:

- the business population indicators on active enterprises, business demographic events (such as births and deaths of enterprises, as well as enterprise survivals);
- labour inputs indicators on employees and self-employed persons, labour costs, and the employment effects of business demographic events;
- R&D inputs indicators on R&D expenditure, R&D personnel and researchers.

#### STATISTICS ON LOCAL UNITS

The annual data in this table provide information pertaining to the location of local units and labour inputs for different economic activities across the regions of the EU Member States. The data can be used to analyse structural shifts, for example between industry and services, and regional specialisations in particular activities.

• Table 29 local units.

Regional data are classified according to the NUTS classification. These regional business statistics are compiled at NUTS level 2. The data required are based on the local unit as the statistical unit. The transmission deadline for the delivery of information is set at 18 months from the end of the reference year.

The EBS Regulation results in the following changes compared with the repealed SBS Regulation (Regulation (EC) No 295/2008 of 11 March 2008), in particular, series 1C, 2C, 3C, 3K and 4C.

- (a) Improves the coverage of services data for the variables in Table 29 by extending the NACE Rev. 2 activity coverage to include: Section P (education), Section Q (human health and social work activities), Section R (arts, entertainment and recreation) and Division 96 (other personal service activities).
- (b) Simplifies the data collection exercise by removing the obligation to provide more detailed multi-annual regional data for retail trade.

Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2021.

For a detailed list of the changes that are required, see Annex I, Part B of the EBS GIA:

Table 29 local units.

#### **STATISTICS ON ENTERPRISES**

The annual data covered in this table provide information on the business demography of enterprises active across European regions. These statistics cover enterprise births, survival (followed up to three years after their birth) and enterprise deaths. Special attention is paid to the impact of these demographic events on employment levels. In addition, statistics are compiled for high-growth enterprises.

• Table 30 statistics on enterprises.

These regional business statistics are compiled at NUTS level 3. The data required are based on the enterprise as the statistical unit. The deadline for the transmission of data to Eurostat is generally set at 22 months from the end of the reference year (including for preliminary data related to enterprise deaths). The deadline for the transmission of final data related to enterprise deaths is set at 34 months from the end of the reference year.

This is a new data requirement introduced by the EBS Regulation. Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2021.

#### STATISTICS ON R&D INPUTS

Regional research and development (R&D) statistics show the scale of R&D activity in terms of numbers of people (R&D personnel, researchers) and expenditure. Regional R&D statistics are broken down by sectors of performance. R&D personnel data are further broken down by sex.

- Table 31 intramural R&D expenditure;
- Table 32 employment in R&D.

These regional business statistics are compiled at NUTS level 2. The data required are based on the enterprise as the statistical unit. Data are provided biennially and the transmission of data to Eurostat is set at 18 months from the end of the reference year.

The EBS Regulation introduces the following change compared with the repealed Decision on Community statistics on science and technology:

(a) modifies the type of statistical unit from the local unit to the enterprise for regional data on R&D expenditure.

#### **15.2.4. STATISTICS ON INTERNATIONAL ACTIVITIES**

Business statistics on international activities provide monthly and/or annual information on the activities of EU affiliates abroad, for international trade in goods, international trade in services and global value chains. The following topics are covered:

- the business population a count of the number of EU affiliates abroad;
- labour inputs indicators on employees and self-employed persons and labour costs for EU affiliates abroad;
- outputs and performance indicators on the net turnover of EU affiliates abroad;
- investments indicators on gross investment in tangible goods by EU affiliates abroad;
- international trade in goods;
- international trade in services;
- global value chains.

#### STATISTICS ON EU AFFILIATES ABROAD

Foreign affiliates are enterprises resident in one country that are controlled by a unit resident in another (the UCI). EU affiliates abroad are defined as those enterprises abroad that are controlled by institutional units that are resident in the EU. Together with resident enterprises which control enterprises abroad and the resident enterprises controlled by resident UCIs that also control at least one foreign affiliate abroad, EU affiliates abroad are also known as outward foreign affiliates.

Statistics on the population of EU affiliates abroad are broken down by their country of residence and by economic activity (NACE). The following core variables are available: the number of enterprises, net turnover, expenses for employee benefits, the number of employees and self-employed persons, and investment.

• Table 33 control by institutional units of the reporting country of enterprises abroad.

Data in these tables are based on the enterprise as the statistical unit. The transmission deadline for the delivery of information on EU affiliates abroad to Eurostat is set at 20 months from the end of the reference year.

The EBS Regulation introduces the following changes compared with the repealed FATS Regulation (Regulation (EC) No 716/2007 of 20 June 2007).

- (a) Introduces two new variables expenses for employee benefits and gross investment in tangible non-current assets.
- (b) Extends the coverage of foreign affiliates to include information on all foreign EU affiliates, in contrast to collecting information exclusively for foreign non-EU affiliates.
- (c) Reduces the detailed NACE breakdown for EU affiliates abroad by applying the more aggregated activity classification used in national accounts (A\*38), thereby reducing the number of activities for which data are required from 74 to 41.

Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting from reference year 2021.

For a detailed list of the changes that are required, see Annex I, Part B of the EBS GIA:

• Table 33 control by institutional units of the reporting country of enterprises abroad.

#### INTERNATIONAL TRADE IN GOODS STATISTICS (ITGS)

ITGS measure, at monthly intervals, the value and the quantity of goods traded between EU Member States (intra-EU trade) and between EU Member States and non-member countries (extra-EU trade). The data are broken down by trade flow (imports/exports), partner country, commodity, the nature of the transaction, and, in the case of extra-EU trade, by preferential treatment of imports and by mode of transport. On a biennial basis, ITGS for trade by invoicing currency (TIC) are compiled, reusing existing monthly statistics — microdata for extra-EU trade — broken down by the UN's international commodity classification SITC and by invoicing currency.

- Table 34 intra-EU exports and imports of goods;
- Table 35 extra-EU exports and imports of goods detailed data including monthly data in value and quantity;
- Table 36 exports and imports of goods aggregated data, including monthly data in value of intra-EU imports and exports of goods, and extra-EU imports and exports of goods;
- Table 37 extra-EU exports and imports of goods by invoicing currency.

The transmission deadlines for the delivery of information to Eurostat are:

- main aggregates and detailed data on extra-EU trade to be provided within 40 days of the end of the reference month;
- detailed data on intra-EU trade to be provided within 70 days of the end of the reference month (<sup>51</sup>);
- data on trade by invoicing currency to be provided within 3 months from the end of the reference period (<sup>52</sup>).

The EBS Regulation introduces the following change compared with the repealed Intrastat Regulation (Regulation (EC) No 638/2004 of 31 March 2004) and Extrastat Regulation (Regulation (EC) No 471/2009 of 6 May 2009):

(a) refines the breakdown of information by invoicing currency.

For a detailed list of the changes that are required, regrouped by table, see Annex I, Part B of the EBS GIA:

- Table 34 intra-EU exports and imports of goods;
- Table 35 extra-EU exports and imports of goods detailed data including monthly data in value and quantity;
- Table 36 exports and imports of goods aggregated data, including monthly data in value of intra-EU imports and exports of goods, and extra-EU imports and exports of goods;
- Table 37 extra-EU exports and imports of goods by invoicing currency.

<sup>(&</sup>lt;sup>51</sup>) Follow this link for more information.

<sup>(&</sup>lt;sup>52</sup>) Follow this link for more information.

#### INTERNATIONAL SUPPLY OF SERVICES BY MODES OF SUPPLY

ITSS measure, on an annual basis, the value of services traded i) between EU Member States and ii) between Member States and non-member countries. Statistics on trade in services by modes of supply (MoS) aim to provide information relating to how and where services are supplied to foreign customers. These statistics can assist in better understanding the drivers and consequences of international trade in services. The EBS Regulation goes beyond the coverage foreseen in Regulation (EC) No 184/2005 of 12 January 2005 on Community statistics concerning the balance of payments, international trade in services and foreign direct investment, by adding additional breakdowns for imports and exports of services by mode of supply, product and partner country.

• Table 38 international supply of services by mode of supply — annual data.

The earliest reference period for which ITSS by mode of supply will be required is 2024 (this is dependent on the availability of the first edition of a compilers guide). The deadline for the transmission of other datasets will be based, in a similar vein, on the publication date for the second edition of the compilers guide.

Trade in services is defined in terms of four different modes of supply: mode 1 - cross border transactions; mode 2 - consumption abroad; mode 3 - a commercial presence; and mode 4 - the presence of natural persons. The transmission deadline for the delivery of information to Eurostat for modes 1, 2 and 4 is set at 10 months from the end of the reference year, while the deadline for mode 3 and for the total (modes 1-4) is set at 22 months from the end of the reference year (<sup>53</sup>).

This is a new data requirement introduced by the EBS Regulation. Under the provisions of the EBS Regulation, statistics for this topic have to be provided starting two years after the publication of the first edition of the mode of supply compilers guide.

#### **GLOBAL VALUE CHAINS**

Statistics on global value chains provide information on global value chains and international sourcing, and how these affect business performance in the context of globalisation. The EBS Regulation introduces a new set of triennial statistics on global value chains and international sourcing, covering information on employment by business function, international sourcing of business functions, motives for and barriers to sourcing, and the organisation of global value chains. These statistics are broken down by economic activity (NACE), enterprise size class and geographical area, in line with the other datasets that are compiled in relation to business performance.

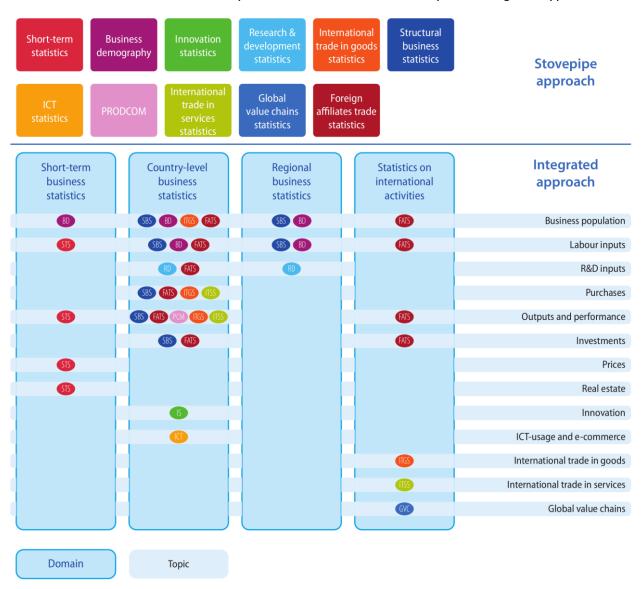
The data requirements for global value chains will be laid down in a separate Commission implementing act.

<sup>(53)</sup> Follow this link for more information.

# 15.3. An integrated approach

Data requirements under the provisions of the EBS Regulation are presented according to an integrated approach based on domains and topics. This may be contrasted with the situation that existed prior to 10 individual legal acts being repealed by the EBS Regulation, when the compilation of EBS was based on a stand-alone, stovepipe approach. The four EBS domains have some topics in common and the EBS Regulation and its implementing acts have led to the harmonisation of common concepts, definitions and breakdowns.

The diagram below shows how this was achieved: transposing a set of disparate domains (the stovepipe approach) into a coherent set of inter-related data requirements based on domains and topics (an integrated approach).



Annex I, Part A of the EBS GIA provides a detailed mapping for variables from the four domains covered by the EBS Regulation. It shows topics, detailed topics and variables to be compiled alongside cross-references for the new data requirements. In the annexes at the end of this manual this information is supplemented by details of the statistical domains that were repealed when adopting the new legislation; it can be found here. Note the mapping excludes the following 'dynamic topics', for which data requirements will change with each data collection:

- ICT-usage and e-commerce;
- innovation;
- global value chains.

These three topics are dealt with separately because they have specific data requirements which can be transformed for each reference period (under certain conditions). For each, an implementing act is used to lay down the data requirements for a specific reference period. The latest versions of these legal acts can be found here.

The data requirements mentioned above stipulate what data should be supplied to Eurostat. Two chapters on data exchange in business statistics, concerning EDAMIS and SDMX, explain the practicalities of the transmission process.

The above-mentioned overview of data requirements reflects statistical output, in other words, published data. There are also some data collections defined by the EBS Regulation which, though not published, are an essential component of harmonised, high-quality statistics entailing limited costs and burden: the business register, as well as the related microdata exchange for the purposes of the European framework of statistical business registers (EuroGroups register); the additional data required for Intrastat's microdata exchange; and the weighting schemes for STS. The EBS Regulation introduces a number of changes compared with the Business Registers Regulation (Regulation (EC) No 177/2008 of 20 February 2008), as detailed in Annex VIII of the EBS GIA for national statistical business registers and Annex IX of the EBS GIA for the EuroGroups register. The data required for these two annexes is detailed at the end of this manual, for statistical business registers and for the EuroGroups register. Further methodological information is available in the *European business statistics methodological manual for statistical business registers — 2021 edition*.

The description of data requirements through an integrated approach in the EBS Regulation is a first step in moving from a stovepipe approach towards a more integrated system of EBS, using, where applicable, the same harmonised classifications and standard code lists, the same types of statistical units, and the same definitions of variables, which help make data more coherent across all domains of business statistics.

For a complete set of definitions of variables as used in the EBS Regulation, see the glossary of definitions presented in Section 7 of Annex I at the end of this manual. The harmonisation of cross-domain variables (in other words, variables shared by several domains of business statistics) means that new definitions may differ slightly from those previously used: the glossary clarifies any difference for these cases.

If a modified variable definition causes a significant break in series at national and/or EU level, a special data flag is used to identify those data values concerned and to explain the major differences.

For each of the four EBS domains, Section 1 of Annex I provides a summary of the statistics required, while an overview of the new data requirements introduced by the EBS Regulation is presented in Annex II.

The overview of legal data provisions in Section 2 of Annex I, presented as uniformly structured tables, does not imply that each table has to be transmitted by EU Member States in that exact form. For transmission purposes, some tables may be split up into one or more datasets or may be combined with others. The complete technical details concerning data transmission will be specified in a number of technical compilation guides, expected to be drawn up during the course of 2021-2023.

# 15.4. Further information

- Description of EBS data requirements (other than for 'dynamic topics')
- Changes to data requirements resulting from the introduction of the EBS Regulation:
  - short-term business statistics
  - country-level business statistics
  - regional business statistics
  - statistics on international activities
- Glossary definition of variables for EBS

# 15.5. Contacts

For questions or comments on data requirements for business statistics, please contact: ESTAT-EBS-MANUAL@ec.europa.eu.

# **16** Production of European aggregates

# Preface

This chapter describes the production, by Eurostat, of European aggregates for business statistics and the dissemination of this information.

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# 16.1. Introduction

Based on the national data provided by the national statistical authorities, Eurostat calculates aggregates at European level. These aggregates are calculated for the EU as a whole and — depending on the domain — for the euro area ( $^{54}$ ).

This chapter focuses on aggregation methods for tabular data as detailed in the previous chapter on Data requirements.

Section 16.2. describes the calculation in its simplest form, under perfect conditions, whereby complete, timely and high-quality national data are provided by all EU Member States.

Section 16.3. underlines that such perfect conditions are not always met. National data may be missing, incomplete and/or of insufficient quality. There are two main reasons for this:

- The EBS Regulation introduces a number of legally embedded simplifications (in other words, relaxations of general data requirements) that take into account the size of the countries/activities concerned with the aim of reducing the statistical burden on respondents and national statistical authorities. As the EBS Regulation enters into force, EU Member States may also be granted a derogation period, during which they are exempt from the mandatory delivery of specified data.
- There are a variety of reasons at national level as to why national data sent to Eurostat may not meet the specific data requirements.

After calculating European aggregates and validating them internally, Eurostat decides whether they can be published, taking into account their quality and the confidential nature of the underlying national data. Eurostat generally aims to make statistical aggregates at EU level as widely available as possible, by applying specific statistical disclosure control techniques that do not infringe upon national rules on dissemination. In doing so, it also focuses on providing European aggregates for the most important variables.

Section 16.4. outlines confidentiality measures at EU level and introduces a model for the confidentiality charter which describes the specific measures taken for each statistical domain.

Revisions of EU aggregates are governed by the same ESS principles as revisions of national data (see Section 18.3. on data revision policies and practices), assuming that the confidentiality pattern is not changed.

Eurostat seeks to maximise the availability of European aggregates for business statistics as described in Sections 16.2.-16.4. below. This is part of what is known as the 'European approach to statistics', an essential element of the ESS based on Article 16 of the European Statistics Regulation (Regulation (EC) No 223/2009 of 11 March 2009).

<sup>(54)</sup> Some domains in business statistics also publish other European aggregates, such as the EU excluding Croatia (historical series), the EU including the United Kingdom, and/or aggregates for the EU Member States and EFTA countries; statistical disclosure control applies to both new and historical series.

## 16.2. Aggregation under perfect conditions

Aggregation under perfect conditions assumes that all EU Member States (H) have provided national data ( $\theta$ h) on time and that these data are both complete and meet the necessary quality standards.

In its simplest form, the European aggregate ( $\theta$ aggr) is calculated as:

 $\theta aggr = \sum_{h=1}^{H} \theta h$ 

For additive national data in absolute terms, the aggregation is merely the sum of all national data. Examples include the number of employees and self-employed persons or turnover expressed in absolute values.

For index-based data, such as STS, the European aggregate is calculated as:

 $\theta$ aggr =  $\sum_{h=1}^{H} W_h * \theta h$ , where  $W_h$  is the 'weight' of country *h*.

This weight represents the country's share as a proportion of a representative European total.

There are also different kinds of aggregates:

- product aggregates;
- geographical aggregates (EU);
- time-based aggregates (monthly, quarterly and annual data).

Eurostat's weighting system has a dual role: it serves both geographical aggregation and activity aggregation. Each European index therefore has a number of different sets of specific weights.

## 16.3. Aggregation under imperfect conditions

The simple aggregation formulae set out in the previous section do not hold under imperfect conditions, such as when:

- national data are missing (or incomplete) data from one or more EU Member States are missing on account
  of a temporary delay, for a longer period, or permanently;
- national data are considered unreliable this could be due to small sample sizes or low response rates, leading to variances that are too high to permit publication of the national data cell(s). From a wider perspective, however, these national data cells are still valuable for the compilation of European aggregates.

Possible reasons for these imperfect conditions include:

- Several simplifications of the data requirements within the EBS Regulation that take into account the size of
  national economies and/or business activities. Examples include
  - the 1 % simplification rule where there is no need for EU Member States to transmit national data cells representing less than 1 % of the EU total (in terms of turnover and employment) to Eurostat;
  - those cases where national data cells for detailed NACE levels are flagged and delivered exclusively for their contribution to European totals only (CETO) — these data are not published for individual EU Member States;
  - a reduction in reporting requirements for smaller and medium-sized Member States for detailed NACE breakdowns; and
  - the use of EU sampling frames (STS data).
- Derogations in the context of the implementation of EBS Regulation for some data series, particular
  national statistical authorities may be exempt from delivering data for a limited number of years (before they
  have to comply with the data requirements of the EBS Regulation).
- Non-compliance with the data requirements of the EBS Regulation.

Where data are missing or incomplete, Eurostat's standard procedure is to estimate the missing values, purely for the purpose of calculating European aggregates. Such estimates are generally based on a variety of methods, depending on whether past data are available (forecasting methods) or if there are data from similar Member States or adjacent levels of breakdown (imputations). These methods show a close correspondence with processing methods at national level (see methods for imputing missing values and methods for estimating aggregated totals).

# 16.4. Confidentiality

Eurostat is in a particular position concerning the treatment of confidential data: it can work only on European aggregates relative to the protection of national figures. Eurostat does not normally remove data for EU Member States to protect confidential cells. This is because data may already have been published at national level and this could be used to recalculate confidential figures if these are based on different criteria (see below).

The general legal rules on statistical confidentiality are set out in Articles 20-26 of the European Statistics Regulation and are further detailed in the chapter on statistical disclosure control.

The practical rules on confidentiality when publishing European aggregates composed of confidential national figures may be laid down in what are known as confidentiality charters. These charters are applicable to tabular data based on quantitative variables and may be adapted to domain-specific needs. A standard model for confidentiality charters was discussed by the Working Group on Methodology in April 2016 (see *Confidentiality charters as a way to align treatment of statistical confidentiality in Eurostat*; a standard model is included in the annex). The standard model was subsequently further improved.

In general, the more detailed the data received by Eurostat, the more efficient the treatment of the statistical confidentiality for European aggregates.

Specific confidentiality charters describe methods and parameters for confidentiality treatment in a particular statistical domain of business statistics, ensuring appropriate documentation and transparency with regard to the methods used. Once created and approved, domain-specific confidentiality charters are published in two versions:

- for data compilers NSIs and ONAs responsible for the collection and compilation of EBS the full charter;
- for end-users the same charter, but without information on domain-specific confidentiality parameters (see below).

In the field of business statistics, confidentiality charters are developed at a domain level. It is considered unmanageable to apply the charter to international trade in goods and services statistics (ITGS and ITSS); this is due to sheer volume of data and difficulties linked to collecting the appropriate metadata. Moreover, there are generally far fewer problems that restrict the dissemination of international trade statistics given the application of passive confidentiality and the fact that EU Member States are legally obliged to publish data at least at the chapter level of the CN.

In general, national statistical authorities apply the following common rules for primary confidentiality:

- threshold rule a data cell is confidential if the number of contributors is under a specified threshold; this threshold can vary across countries and across domains;
- dominance rule (n,k) a data cell is confidential if the n largest units contribute more than k % to the total value of the cell;
- P-percent rule a data cell is confidential if one respondent can estimate the value of a cell for another respondent within *p* % of its true value.

To make these rules protective, the abovementioned parameters (n, k, p) are generally kept confidential for endusers. In 2016, the Expert Group on Statistical Disclosure Control approved a set of recommendations for confidentiality parameters (only made available to data compilers).

If a confidential cell contributes to a European aggregate, the aggregate must be dealt with in such a way as to prevent disclosure. The rules adopted by Eurostat are based on the same approach as for primary confidentiality at a national level (threshold, dominance, P-percent) and will be specified in confidentiality charters. The following observations are specific to Eurostat:

If detailed information on the individual contributors (statistical units) is available, Eurostat will apply the
agreed confidentiality rule to determine whether the aggregate should be treated as confidential (because of
too few individual contributors or because of one or two dominating contributors in the total of national
confidential figures). If no such information about individual contributors is available, then national figures
are treated as if they concern only one contributor (the worst case scenario).

Normally only European aggregates are protected for confidentiality, not data cells in tables provided by
national statistical authorities (as it is assumed that these were already treated for confidentiality when
being published at national level).

The EU aggregate is considered unsafe if:

- only one national total is confidential; or
- two national totals are confidential, and at least one has only one contributor; or
- three national totals are confidential, and one contributor dominates the confidentiality cluster (in other words, the sum of the three national totals).

When transmitting national data to Eurostat, the national statistical authorities are asked to provide additional meta-information on confidentiality (for example the contribution of dominant businesses). This enables Eurostat to determine the confidentiality of European aggregates more efficiently. Cells that are missing, not for reasons of confidentiality, but rather due to imperfect conditions for national data (see Section 16.3.) can be used to protect confidential cells that contribute to the same aggregate.

If a European aggregate is unsafe, it will need some kind of protection. The principal way of treating unsafe cells is by suppression. After suppression of the unsafe cells (primary suppression) it might still be necessary to suppress further cells to prevent the suppressed values from being calculated back by taking the difference with a higher level total (secondary suppression), for example a total for a higher level of the activity classification. For secondary suppression, there are usually several solutions (only selecting from European aggregates). As a general rule, Eurostat tries to maintain higher level aggregates within the dataset (rather than suppressing data at this level).

If the national figures are revised without any changes to the confidentiality pattern, European aggregates can be updated in line with the confidentiality approach taken in the previous release. If, however, a revision changes the national confidentiality pattern, the confidentiality of the European aggregates must be reassessed, bearing in mind that potential intruders may have access to both the original and the revised datasets.

Suppression can potentially lead to considerable information loss and it also makes it difficult for users to analyse the tables as a whole, because of gaps in the dataset. There are alternatives to suppression (see statistical disclosure control). At the European level, rounding may be used, sometimes in combination with suppression. Rounding can give a sufficient level of uncertainty to protect the values for individual businesses. Perturbative methods (adding noise) can also be used to protect data by introducing a sufficient level of uncertainty. SBS and PRODCOM both make use of some kind of perturbative method; the special case of controlled tabular adjustment (CTA) is described in a *Handbook on Statistical Disclosure Control* (see page 159).

### 16.5. Domain-specific characteristics

Domain-specific rules and practices for calculating European aggregates may be described in more detail for EBS domains in specific articles (for example, see an article on Short-term business statistics introduced and in particular the section on calculating EU aggregates). Domain-specific references on the calculation of European aggregates will be included as part of this section once they have been developed.

# 16.6. Further information

- Short-term business statistics introduced
- The European approach to statistics Article 16 of the European Statistics Regulation
- Methods for imputing missing values
- Methods for estimating aggregated totals
- Handbook on Statistical Disclosure Control
- Confidentiality charter for the treatment of confidentiality at Eurostat (see annex)

# 16.7. Contacts

For questions or comments on the production of European aggregates, please contact: ESTAT-EBS-MANUAL@ec.europa.eu.

# **17** Statistical disclosure control

# Preface

This chapter elaborates on statistical disclosure control (SDC) and presents the various methods that may be applied by statistical authorities to protect confidential data when releasing tables or microdata. The chapter focuses on the protection of European business data.

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# 17.1. The ESS and European statistics

According to the European Statistics Regulation:

The European Statistical System (ESS) is the partnership between the Community statistical authority, which is the Commission (Eurostat), and the national statistical institutes (NSIs) and other national authorities responsible in each Member State for the development, production and dissemination of European statistics. [...]

In compliance with the principle of subsidiarity and in accordance with the independence, integrity and accountability of the national and the Community authorities, European statistics are relevant statistics necessary for the performance of the activities of the Community. European statistics are determined in the European statistical programme.

# 17.2. Legal rules on statistical disclosure control

Statistical confidentiality is a fundamental principle of official statistics enshrined in the Treaty.

Article 338 of the Treaty on the functioning of the European Union states that:

- 1. Without prejudice to Article 5 of the Protocol on the Statute of the European System of Central Banks and of the European Central Bank, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall adopt measures for the production of statistics where necessary for the performance of the activities of the Union.
- The production of Union statistics shall conform to impartiality, reliability, objectivity, scientific independence, cost-effectiveness and statistical confidentiality; it shall not entail excessive burdens on economic operators.

The European Statistics Regulation defines confidential data and Chapter V covers statistical confidentiality. Those parts that are relevant to a discussion of statistical disclosure control in business statistics are described below.

## **17.2.1. DEFINITION OF CONFIDENTIAL DATA**

Article 3 of the European Statistics Regulation on definitions defines confidential data in the following way:

Confidential data means data which allow a statistical unit (i.e. the person, company or organisation to which the data refers) to be identified, either directly or indirectly, thereby disclosing individual information.

To determine whether a statistical unit is identifiable, account shall be taken of all relevant means that might reasonably be used by a third party to identify the statistical unit.

A The combination of two factors is used to qualify data as being confidential: identification and disclosure. Note that it is not important which information is disclosed and whether this information is sensitive or not.

# **17.2.2. LEGAL OBLIGATION TO PROTECT CONFIDENTIAL DATA**

The legal obligation on members of the ESS to protect confidential data is emphasised in Chapter V of the European Statistics Regulation. Article 20 on the protection of confidential data states:

Within their respective spheres of competence, the NSIs and other national authorities and the Commission (Eurostat) shall take all necessary regulatory, administrative, technical and organisational measures to ensure the physical and logical protection of confidential data (statistical disclosure control).

The NSIs and other national authorities and the Commission (Eurostat) shall take all necessary measures to ensure the alignment of principles and guidelines as regards the physical and logical protection of confidential data.

Physical protection of confidential data refers to different aspects of data security. National statistical authorities must make sure that only authorised users in their office have access to confidential data.

Logical protection means the authorities must check whether published statistics allow a statistical unit to be identified. If a statistical unit can be identified and information on the individual entity can be disclosed, methods

have to be applied to prevent such disclosure. The field of statistics detailing these methods is called statistical disclosure control (SDC).

# 17.2.3. EXCEPTIONS TO THE OBLIGATION TO PROTECT STATISTICAL UNITS' CONFIDENTIALITY

There are only two exceptions where identifiable data can be published, as outlined by Article 20 of the European Statistics Regulation:

Statistical results which may make it possible to identify a statistical unit may be disseminated by the NSIs and other national authorities and the Commission (Eurostat) in the following exceptional cases:

(a) where specific conditions and modalities are determined by an act of the European Parliament and of the Council acting in accordance with Article 251 of the Treaty and the statistical results are amended in such a way that their dissemination does not prejudice statistical confidentiality whenever the statistical unit has so requested; or

(b) where the statistical unit has unambiguously agreed to the disclosure of data.

Exception (*a*) refers to 'passive confidentiality'. Where allowed in a separate legal act, the NSIs and ONAs do not have to protect the data against the identification of a statistical unit unless explicitly requested by an importer or exporter. This measure is used, for example, in international trade statistics (<sup>55</sup>).

For other domains within business statistics, NSIs and ONAs generally apply 'active confidentiality'. Active confidentiality means that statistical units do not have to explicitly ask the statistical authorities to have their data protected; rather, these authorities have an obligation to protect the data for all statistical units.

Exception (*b*) refers to the opposite situation to passive confidentiality; this is sometimes referred to as the 'waivers approach'. It says that, by default, all data are confidential, but if a given statistical unit explicitly agrees, the individual data referring to that unit may be disclosed. Table 17.1 compares the different approaches to statistical confidentiality.

Approaches to	Standard approach	Exceptions	
confidentiality	Active confidentiality	Passive confidentiality	Waivers approach
By default data is	Confidential	Non-confidential	Confidential
National statistical authorities need to ensure that published statistics do not lead to disclosure of information on individual statistical units	Yes, always	No, only if a statistical unit requested to the statistical authority to protect its data and only in relation to data provided by the same statistical unit	Yes, but if the statistical unit agrees to disclosure, its data can be disclosed

## Table 17.1: Comparison of the different approaches to statistical confidentiality

<sup>(&</sup>lt;sup>55</sup>) See for example Article 10 of Regulation (EC) No 471/2009 of the European Parliament and of the Council on Community statistics relating to external trade with non-member countries.

## **17.2.4. SENDING CONFIDENTIAL DATA FOR STATISTICAL PURPOSES**

Article 21(1) of the European Statistics Regulation allows confidential data to be sent between different members of the ESS if:

this transmission is necessary for the efficient development, production and dissemination of European statistics or for increasing the quality of European statistics.

In practice, domain-specific legal acts define at which level of detail data should be sent between different members of the ESS, and in particular between national statistical authorities and Eurostat.

- For a limited number of domains (for example the structure of earnings survey), unit level data microdata should be transmitted.
- For most domains (including for example SBS), data are transmitted according to predefined breakdowns (aggregates for various dimensions of the dataset). If these breakdowns are very detailed, the data may also be disclosive (in other words, it may allow the individual contribution made by a statistical unit to be recalculated). National statistical authorities transmit their data together with relevant flags allowing Eurostat to know how to treat it.

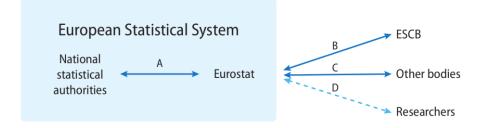
Article 21 of the European Statistics Regulation also allows confidential data to be sent beyond the ESS. Data may be transferred between the ESS authority that collected the data and a member of the European System of Central Banks (ESCB) if it is:

necessary for the efficient development, production and dissemination of European statistics or for increasing the quality of European statistics, within the respective spheres of competence of the ESS and the ESCB, and (if) this necessity has been justified.

Any further transmission of confidential data to other bodies and for statistical purposes requires explicit authorisation from the authority that collected the data. The image below provides a summary of the different conditions for transferring data between different bodies of the ESS.

ESS data transmission to researchers is covered by separate legislation (see Chapter 19 on microdata services for researchers), with strict authorisation procedures and the requirement for national statistical authorities to be consulted.

Sending confidential data in the ESS



 A: Sending confidential data between members of the ESS — <u>for statistical purposes</u> — to produce European statistics (detailed conditions defined in the separate legal acts) B: Sending confidential data between the ESS authority that collected the data and the ESCB — <u>for statistical</u> <u>purposes</u> — only if justified for producing European statistics C: Sending confidential data to other bodies — only <u>for</u> <u>statistical purposes</u> — only if the national statistical authority that collected the data explicitly agrees

D: Sending confidential data <u>for scientific purposes</u> conditions for doing so are specified in Regulation (EU) No 557/2013

# **17.2.5. USE OF DATA FROM PUBLIC SOURCES**

Article 25 of the European Statistics Regulation states that:

Data obtained from sources lawfully available to the public and which remain available to the public according to national legislation shall not be considered confidential for the purpose of dissemination of statistics obtained from those data.

This article applies when data have been collected from publicly available sources. It allows national statistical authorities to publish data even if its publication would allow statistical units to be identified (<sup>56</sup>). This article has been applied in the case of business registers, for example. In some EU Member States, some basic information about companies is public and so does not need to be hidden when statistics are distributed by national statistical authorities.

# **17.2.6. EUROPEAN STATISTICS CODE OF PRACTICE**

Within the *European Statistics Code of Practice*, statistical confidentiality is referenced in relation to an obligation on national statistical authorities to guarantee privacy to data providers (households, businesses, administrations and other respondents), in particular in relation to the confidentiality of the information they provide and its use only for statistical purposes.

Compliance with this obligation should be measured with reference to the following indicators:

- statistical confidentiality is guaranteed in law;
- penalties are prescribed for any wilful breaches of statistical confidentiality;
- staff in national statistical authorities of the ESS are obliged to sign a legal confidentiality commitment upon their appointment;
- staff are given guidelines and instructions on the need to protect statistical confidentiality when producing and disseminating data — this confidentiality policy is made available to the public;
- physical, technological and organisational provisions are put in place to protect the security and integrity of statistical databases;
- strict protocols apply to external users who access statistical microdata for research purposes within the ESS

   access to confidential data can be granted to researchers carrying out statistical analysis for scientific purposes (<sup>57</sup>).

<sup>(&</sup>lt;sup>56</sup>) Please note that data collected by a national statistical authorities are directly from statistical units and for statistical purposes can remain confidential even if the same information is available for a public source.

<sup>(57)</sup> Article 23 of Regulation (EC) No 223/2009 of 11 March 2009 - European Statistics Regulation.

# 17.3. Statistical units in business statistics

A statistical unit is an individual, household or organisation to which data refer. Officially the definition (58) refers to:

... a basic observation unit, namely a natural person, a household, an economic operator and other undertakings, referred to by the data.

In producing business statistics, the term statistical unit is used for the different units that statistical output refers to (<sup>59</sup>); here, the statistical unit is defined from an economic perspective. For the statistical description of the different economic processes (for example production, R&D, investments) different types of statistical units are used — for example the KAU, the enterprise or the enterprise group.

All these units consist of one or more natural persons or legal persons. These legal units are the building blocks for the types of statistical units used in business statistics. There is also a strict relationship between the unit concepts: an enterprise group consists of one or more enterprises and an enterprise consists of one or more KAUs.

For most businesses, the three types of statistical unit coincide. For many others, the structure of statistical units is simple. This has two implications for statistical disclosure control:

- The use of statistical units to produce economic statistics makes it a bit more difficult for an intruder to link information to specific legal units, as the structures of large businesses are complex, dynamic and international (the enterprise group will likely be more easy to identify than the enterprise); this case will not be dealt with here, as it is assumed that the link between the statistical unit and legal units is public and known.
- The assessment of disclosure risks cannot be limited to one type of statistical unit, but should consider all types of unit that present the same or similar variables in an integrated way; this creates more complex disclosure scenarios (<sup>60</sup>).

The disclosure risk is not necessarily in the observed business; product information, for instance, may also lead to disclosure of big distributors or suppliers that did not report the information themselves.

Protection against disclosure is generally different in nature for natural persons than for legal persons. For natural persons privacy is protected, whereas for legal persons protection concerns their business interests. For very small businesses there might be a privacy element too (self-employed persons, sole proprietorships). For larger businesses, the disclosure risk and the harm to business interests fade over time (as the identity of the business changes).

# 17.4. Statistical disclosure control in different types of output (tables, microdata files, regression models, graphs, maps and so on)

According to Commission Regulation (EU) No 557/2013 of 17 June 2013 on access to confidential data for scientific purposes:

Statistical disclosure control (SDC) means methods to reduce the risk of disclosing information on statistical units, usually based on restricting the amount of, or modifying, the data released.

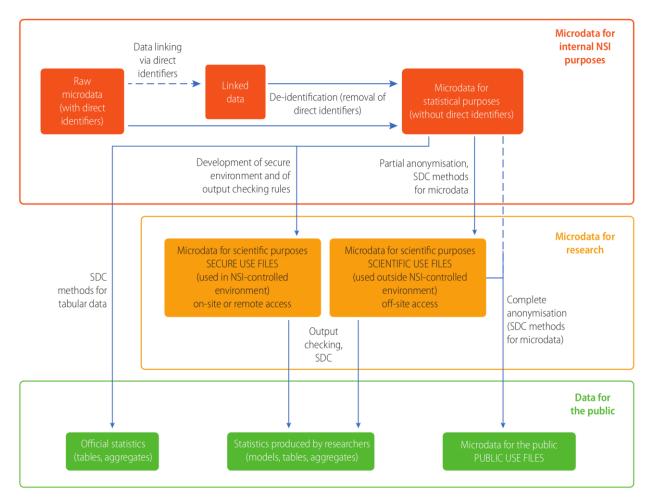
SDC methods were traditionally associated with protecting tables. Nowadays, tables are complemented by graphs, maps, models and the like. The approaches to SDC differ depending on the raw input data and how the data are presented in different types of output. This chapter focuses on SDC methods for tables and protecting microdata.

<sup>(&</sup>lt;sup>58</sup>) Regulation (EC) No 223/2009 of 11 March 2009 (European Statistics Regulation) and Regulation (EEC) No 696/93 (Statistical Units Regulation). (<sup>59</sup>) See Chapter 7 on statistical units.

<sup>(&</sup>lt;sup>60</sup>) A disclosure scenario is the means, motives and opportunities that a potential intruder has to disclose confidential information (for example what information does the intruder have and how can this information be linked).

# SDC methods need to be consistently applied, taking into account the links between data. Consistency needs to be ensured between linked tables and between different types of data presentation (<sup>61</sup>).

Place of statistical disclosure control in the process of producing statistics (tables), microdata files and other types of output



<sup>(&</sup>lt;sup>61</sup>) The obligation to apply statistical disclosure control methods before the data are published applies not only to statistical authorities but also to researchers and other users with lawful access to confidential data. NSIs typically apply statistical disclosure control when they publish tables and/or produce microdata; the output produced by researchers/other users needs to be verified for statistical disclosure control as well.

# 17.5. Statistical disclosure control rules and methods for protecting data in tables

Statistical disclosure control for tabular data consists of two steps:

- identifying the cells with a risk of disclosure;
- applying protection methods.

At the end of this section there is a short presentation on the confidentiality of European aggregates calculated by Eurostat.

# **17.5.1. IDENTIFYING CONFIDENTIAL CELLS IN TABLES**

Tabular data report on categories of companies with similar characteristics (for example, economic activity and enterprise size class). The publication of tabular data for rare combinations of such characteristics should be avoided, as the statistical units are likely to be easily identified.

It is always the case that any value that is published in a table should represent at least three observations. Values based on one or two observations should always remain confidential.

In business statistics, the distribution of the target variable is often skewed: there are only a few large companies, while one or two companies might be dominant for a particular cell. This could make it easy to disclose very accurate information on the dominant company. For this reason, cells containing information on dominant companies are also marked as confidential.

The rules used to determine the confidentiality of a cell are summarised in Table 17.1.

Rule	Cell is confidential if
Threshold rule	The number of contributors is less than a pre-specified threshold — for example three
(n, k) rule / dominance rule	The <i>n</i> largest contributions to the cell make up more than $k \%$ of the total value for the cell — for example if the rule is (2, 90), the cell is confidential if the two biggest contributors account for more than 90 % of the turnover for that cell
<i>p</i> % rule	A contributor to a particular cell is able to derive an estimate for some other contributor to the same cell within $p \%$ of its true value

Table 171: Confidentiality rules

Source: adapted from the Handbook on Methodology of Modern Business Statistics

## Primary confidentiality

The term primary confidentiality is used for cells that are identified as confidential by using a set of rules (<sup>62</sup>). Suppressing only those cells identified by the rules is usually not sufficient, as in a table with totals a confidential cell may be re-calculated by taking the difference.

<sup>(62)</sup> Primary confidentiality — concerns tabular cell data, whose dissemination would permit attribute disclosure. The two main reasons for declaring data to be primary confidential are: too few units in a cell and dominance of one or two units in a cell. *Source:* Handbook on Statistical Disclosure Control, version 1.2, January 2010.

## Secondary confidentiality

Secondary confidentiality is treating a non-confidential cell as confidential, to prevent a user from recalculating the value of a confidential cell (<sup>63</sup>). For example, if a data compiler wants to publish the following information on the mining of metal ores (see Table 17.2).

Table 17 7. Evample	applying coconday	w confidentiality fo	r the mining for motal erec
Table 17.2: Example —	applying secondar	y commutentiality to	or the mining for metal ores

Industry	Production
Mining of iron ores	666
Mining of uranium and thorium ores	Confidential
Mining of other non-ferrous metal ores	222
Mining of metal ores (= total)	999

The suppressed confidential cell for the mining of uranium and thorium ores will only remain confidential if one of the other (non-confidential) values is also treated as confidential. The usual solution is to continue, where possible, to publish values for higher level aggregates (in this example, the total for the mining of metal ores), and to treat another cell as secondary confidential (for example, the mining of other non-ferrous metal ores).

Totals are the easiest and most frequent example of relations between data that can lead to disclosure. Totals can occur at several levels of a classification (for example in the NACE classification) as well as within tailor-made groupings of categories (for example, groupings of innovative or labour-intensive activities). The need for secondary confidentiality also occurs with other mathematical relationships (for example, ratios).

1 In determining whether a cell should be confidential, bear in mind the effect of publication at other times (either beforehand or potentially in the future).

Consider the publication of data on the same subject for other reference periods. If time series are important, a consistent approach to disclosure control should be kept (as far as possible). This is especially true for confidentiality patterns where cells are suppressed, as the value for a confidential cell from some other reference period is usually a good basis for estimating — and thus disclosing — information.

In short-term statistics, the disclosure risk is reduced by publishing data in the form of indices and/or growth rates. However, additional protection measures may still be necessary.

## Pre-tabular treatment (microdata)

The information presented until now has assumed that confidentiality is treated table by table (or as a set of tables). A potentially attractive alternative is to treat the microdata file that is the (underlying) basis for tables. This approach guarantees that all possible tables are treated the same way.

The methods available for treating microdata are, in part, the same as those described for protecting tabular data:

- recoding reducing the level of detail of variables by combining categories (for example from 5-year to 10year age groups);
- suppression;
- rounding; and
- adding noise.

Some methods specific for the protection of microdata are described in Section 17.6.2. on statistical disclosure control methods for microdata — record swapping, micro aggregation and post-randomisation (PRAM). However, it is not feasible to process microdata for publication and to generate safe tables without a significant loss of information. The current solution is to build some basic protection into the microdata file, and to add additional protection to tables as and when needed.

<sup>(63)</sup> Secondary confidentiality — to reach the desired protection of confidential cells, it is necessary to treat additional non-confidential cells.

# **17.5.2. PROTECTING CONFIDENTIAL CELLS IN TABLES**

A well-known method for protecting confidential cells is to suppress them, so the values appear as missing. This rather crude method is safe, but it undermines the usability of the data. Missing values usually interrupt the transformation of complete tables, thus hindering data analysis.

In social statistics, perturbative methods with additive noise seem to offer a good alternative to suppression. Additive noise (generally) does not work well for business statistics due to the presence of quantitative variables and skewed distributions. The idea of using multiplicative noise requires more investigation.

Table 17.3 shows an overview of protection methods. Many of these are built on the idea of adding some noise to the information, in order to produce tables for publication without missing values.

Method	Type of table	Description
Table redesign through recoding	Magnitude or frequency	Reducing the number of rows and/or columns by combining categories (for example from 5-year to 10-year age groups)
Cell suppression	Magnitude or frequency	Completely suppress the value of some cells (put a 'cross')
		This does not suppress all information, as an interval can be established
Rounding Controlled Deterministic Random	Magnitude or frequency	Round each cell value to a pre-specified rounding base
Controlled tabular adjustment	Magnitude	Aims at finding the closest additive table ensuring that adjusted values of all confidential cells are safely away from their original values and that the adjusted values are within a certain range of the real values
Perturbation	Magnitude	Add random noise to cell values

Table 17.3: Most frequently used statistical disclosure control protection methods for tables

Source: adapted from the Handbook on Methodology of Modern Business Statistics

## **Combining methods**

If a table contains many confidential cells, it is possible to consider redesigning it through recoding as a first step, possibly followed by rounding. However, this might still be insufficient for some very large companies; suppression might be the only alternative.

Protecting a few very large companies can undermine the usefulness of the information presented. One potential solution involves coming to an agreement with the companies concerned about the way their data can be represented in official statistics ('waivers'). As creating and maintaining waivers is usually expensive, there is a natural limit to this approach.

# **17.5.3. PROTECTING EU AGGREGATES**

Eurostat is responsible for calculating European aggregates from national data provided by national statistical authorities.

This means that Eurostat is responsible for the confidentiality treatment of the newly-derived information. Although the ideas behind the approach remain the same, the situation is somewhat different.

- The data published by national statistical authorities are a given; Eurostat cannot suppress or add noise to data already published at national level.
- Eurostat is dependent on the background information provided about confidential cells at a national level. This varies by domain: in some, the EBS Regulation requires EU Member States to provide the values for confidential cells as well as full information on why the cell is classified as confidential; for others, neither the values for confidential cells, nor the justification are provided cells are simply flagged as not available with a confidentiality flag.

If confidential data are provided with full background information, European aggregates can be calculated and their confidentiality determined more or less as at national level. However, as national rules and approaches are not (fully) aligned, it is important to agree on a transparent approach in relation to how confidentiality rules will be applied at European level. This can be documented in a confidentiality charter (a standard model is presented in the annex of this document).

*Example:* a total for the EU-27 is built-up from national values for all EU Member States. Of these national values, two are confidential and therefore suppressed when published at the national level:

- country A uses a threshold of three and the actual number of contributors is two;
- country B uses a threshold of five and the actual number of contributors is four;
- at European level, a threshold of five is agreed the European total can be published as the value is based on six contributors (the example would be more complex with dominance rules, but the approach remains the same).

If confidential data are not provided, the data can be treated as missing at European level. Eurostat could estimate the missing data at the national level as an input to be used when estimating European aggregates (flagged as estimates).

# 17.6. Statistical disclosure control for business microdata

Business data are usually presented to end-users in the form of tables. But some national statistical authorities (and Eurostat) also offer access to business microdata for scientific purposes (<sup>64</sup>).

In the microdata file, each statistical unit is represented as a separate record. As some statistical units are very easily identifiable, microdata need to be protected, to make the identification (recognition) of statistical units more difficult (or impossible).

There are different stages in the preparation, processing and protection of microdata, which result in different types of microdata files (see Table 17.4 for a comparison):

- De-identification or pseudonymisation this process removes direct identifiers (like the name, ID and address) from confidential data and replaces these with pseudo names/codes. Microdata used within national statistical authorities to produce statistics and secure use files are prepared in this way (<sup>65</sup>).
- Partial anonymisation the application of statistical disclosure control methods to de-identified microdata, to reduce the risk of the statistical unit being identified. Scientific use files are the result of partial anonymisation.
- Complete anonymisation the application of statistical disclosure control methods to completely eliminate the risk of the statistical unit being identified (directly or indirectly) (<sup>66</sup>). Public use files contain completely anonymised records (<sup>67</sup>).

Microdata protection	Level of disclosure risk for the resulting files	Resulting files	Users
De-identification	High risk	Microdata for statistical purposes	National statistical authority staff
		Secure use files Files are used in a physical (safe centre access) or virtual (remote access) environment controlled by national statistical authorities	Eligible researchers
Partial anonymisation	Medium/low risk (risk reduced), the actual level depends for example on the sensitivity of response variables	Scientific use files Files can be used outside the national statistical authority's secure environment; the security of data is the responsibility of data receivers (researchers)	Eligible researchers
Complete anonymisation	Risk eliminated under predefined intruder scenarios	Public use files Files are prepared in such a way that statistical units cannot be identified This type of protection is practically non-existent for business microdata, as it would result in too much information loss	All

## Table 17.4: Microdata protection and resulting types of microdata files

In this section, we present the major factors that must be considered when business microdata are released for scientific purposes. The reference material provides further details on the microdata protection methods.

<sup>(&</sup>lt;sup>64</sup>) In some countries, the release of business microdata is forbidden by law.

<sup>(&</sup>lt;sup>65</sup>) See Table 17.4 and Section 19.3. on access to ESS microdata released by Eurostat for a definition of the three types of files: secure use files, scientific use files and public use files.

<sup>(&</sup>lt;sup>66</sup>) In some countries, anonymisation may mean something different than making the data completely anonymous (non-confidential). For instance, in Germany anonymisation usually means de-identification.

<sup>(&</sup>lt;sup>67</sup>) Public use files may be developed on the basis of scientific use files.

# **17.6.1. DISCLOSURE RISK IN THE MICRODATA FILES**

Disclosure risk is the risk that a particular statistical unit is identified and some new information about it is disclosed. This goes beyond identity risk — the risk of identifying the statistical unit without disclosing new information.

There might be some additional ambiguity in cases where the statistical unit consists of more than one legal unit (see Section 17.3 on statistical units in business statistics). But such cases are not addressed here, as the text below assumes that the link between the statistical unit and legal units is public and known.

## Analysis of disclosure

Disclosure risk is higher in business microdata than in social microdata (for households or individual people). This is because the distribution of business data is usually much more skewed than the distribution of personal data, with a few large companies which are normally very apparent within the microdata.

This makes it very difficult to make a safe microdata set for business statistics, in other words, a microdata set with a sufficiently low disclosure risk (<sup>68</sup>). Another important factor is that business statistics are not always sampled. Sampling provides additional ambiguity about recognition. If there is no sampling, a user can be relatively sure that the company they are interested in is contained in the data.

When preparing the microdata file, the corresponding target audience should also be taken into account. If the files are prepared for scientific use, the permissible disclosure risk may be higher, because researchers are considered to be 'trusted users':

- they sign the necessary commitments to get access to confidential data;
- any failure to respect confidentiality rules would have a negative impact on their reputation and that of the organisation they belong to;
- they are not normally interested in individual (company specific) information;
- there is no evidence of cases where authorised researchers deliberately sought to re-identify observations.

However, disclosure risk still exists, because researchers may disclose individual information accidently — for example, if they publish un-safe tables without checking the confidentiality rules. Scientific use files are protected to limit these risks.

<sup>(68)</sup> See: Handbook on Statistical Disclosure Control.

# 17.6.2. STATISTICAL DISCLOSURE CONTROL METHODS FOR MICRODATA

Various statistical disclosure control methods are available for microdata protection. In general, they reduce information about the statistical unit or they introduce data perturbation. Some methods try to prevent identity disclosure, whereas others try to create uncertainly about the attribute. Table 17.5 compares the most frequent methods that are used to protect business microdata.

SDC method	Definition	Example
Recoding (information reduction method)	Re-categorisation applied to the whole dataset	Employment-based enterprise size classes 250-499 and 500-999 are merged into one class, 250-999
Top/bottom coding (information reduction method)	All values above or below a specified value are set to that value, or to a code indicating the class	All turnover values higher than EUR 500 000 are set to equal EUR 500 000 or to EUR 500 000+
Micro-aggregation (data perturbation)	Records are grouped, based on a proximity measure of variables of interest, and the same small groups of records are used in calculating aggregates for those variables What is released is the aggregates (for example the mean of the aggregated values), not the individual record values	Records are ordered by turnover, in ascending order — for each group of for example three records the real turnover is replaced by the average of the group
PRAM (post randomisation method) (data perturbation)	The scores of a categorical variable are changed, with certain probabilities, into other scores This method can be defined as intentional misclassification with known misclassification probabilities	
Suppression	Whole-variable suppression — a variable is no longer released for the whole file Whole record suppression — a whole record is suppressed Local suppression — one or more records have a variable/value suppressed	
Record swapping	Swapping pairs of records that are partially matched on a set of key variables but are for example in different geographical locations	
Rounding	Replaces original values of response variables with rounded values	

Table 17.5: Most frequent methods for business microdata protection

# **17.6.3. MICRODATA PROTECTION PROCESS**

Protecting microdata is a process that may be divided into several steps.

It is important to distinguish different types of variables:

- Direct identifiers such as name and unique national identification number.
- Indirect identifiers such as NACE activity, enterprise size class, or region these divide the total population into subpopulations; rare combinations may lead to the statistical unit being identified.
- Response variables represent the information about the statistical unit which would be disclosed if the unit is identified. If the response variables are rare or extreme, they can also be used as indirect identifiers.

Direct identifiers are always removed from microdata files for researchers, as they are clearly disclosive. They are usually separated from the data early in the statistical process and replaced by a statistical identifier that has no administrative function (pseudonymisation) to reduce risks during statistical processing.

When preparing microdata, the combinations of indirect identifiers that may lead to identification of statistical units are analysed. Microdata protection methods focus on these variables classified as indirect identifiers.

The following steps should be followed to protect business microdata files for researchers, based on already pseudonymised microdata (<sup>69</sup>):

- 1. define indirect identifiers (for example NACE activity, enterprise size class, region);
- 2. decide on the permitted share of combinations of indirect identifiers leading to small frequencies (for example at most 5 % of combinations should lead to low frequencies one or two units this is considered an acceptable level of identification risk) the actual level of identification risk will vary, depending on the targeted type of microdata file and data sensitivity;
- 3. calculate frequencies for the combinations of indirect identifiers;
- 4. perform a global recode on the indirect identifiers;
- 5. apply statistical disclosure control methods like micro-aggregation on the variables and records requiring protection (for business microdata, a typical variable to micro-aggregate is turnover);
- 6. perform local suppressions on the identifying variables, if there are still records requiring protection;
- 7. repeat steps 3-6 above until an acceptable level of identification risk and utility has been achieved in the file.

## **17.6.4. INFORMATION LOSS DUE TO MICRODATA PROTECTION**

The more microdata are protected, the more information is lost in the data.

If possible, carry out the microdata preparation in collaboration with potential data users. This helps to preserve variables that are extremely important for data analysis and identify those that could be 'sacrificed' for protection purposes.

For measures of information loss, see the chapter on information loss in microdata protection in the *Handbook on Statistical Disclosure Control*. These measures are usually based on:

- a comparison of records in the original and protected dataset;
- a comparison of some statistics computed on the basis of the original and protected dataset.

<sup>(69)</sup> Based on the methodology for developing scientific use files for the Community innovation survey.

# 17.7. Statistical disclosure control tools

Applying statistical disclosure control is a complex process — it has to guarantee the anonymity of statistical units, while not leading to the unnecessary loss of information through excessive suppressions/modifications.

Statistical disclosure control tools have been developed to cope with these issues. There are two families of tools divided by the type of statistical output:

- tools protecting confidential data presented in tables;
- tools protecting confidential data in microdata files.

Tools for protecting data in tables

Standard tools for data presented in tables include tau Argus and R-based sdcTable.

According to a questionnaire conducted across the ESS (in 2016), most national statistical authorities were familiar with tau Argus. These standard tools are often complemented by other tools (SAS, STATA or Excel) and manual procedures.

Specialised statistical disclosure control tools identify primary confidential cells according to rules defined by the user. The more information that is provided to the tool, the better the data are protected.

Ideally, input data are microdata. The tools identify secondary confidential cells depending on the chosen treatment method; both primary and secondary confidential cells are protected with the selected method. The data may be protected by suppression, rounding or other methods.

## Tools for protecting microdata files

These include mu Argus and R-based sdcMicro. These tools are complemented by standard statistical tools (such as SAS, STATA or SPSS). Specialised microdata protection tools apply statistical disclosure control methods on the microdata (as detailed above).

## Other types of output

There are no tools to protect other types of output: for example models, graphs and so on. Some simple graphs can be translated into the format of a table. More complex outputs usually make it very difficult to disclose information about individual statistical units.

For some useful guidelines on how to deal with these specific forms of output, see *Guidelines for output checking*.

Eurostat supports the migration of statistical disclosure control tools towards open source solutions. Argus tools have been open source since 2015 and Argus codes since 2016.

Statistical disclosure control tools and user support are available on GitHub (70).

# 17.8. Confidential data transmission between national statistical authorities and Eurostat (flags and meta-information)

Data transmitted to Eurostat or between national statistical authorities need to be flagged appropriately. For European statistics, this process is usually defined in the relevant regulations for different statistical domains.

The minimum information Eurostat needs to treat confidentiality for European aggregates (typically the EU-27 and the euro area) is the confidential data itself. If the national statistical authorities can also provide the reasons for confidentiality (for example, the number of statistical units in the cell, shares of the first and the second largest contributors, and so on), then Eurostat can set the confidentiality for European aggregates more accurately.

With information on the reasons for confidentiality, Eurostat can apply a set of criteria to check whether or not data on individual statistical units are safe when publishing European aggregates and, if not, take appropriate measures to rectify the situation (<sup>71</sup>).

<sup>(&</sup>lt;sup>70</sup>) GitHub is a web-based repository hosting open source software projects; it offers version control and source code management.

<sup>(&</sup>lt;sup>71</sup>) For a discussion on the calculation of European aggregates, see Chapter 16 on the production of European aggregates.

There are four typical cases of confidential data transmission between national statistical authorities and Eurostat:

- no confidential figures and no information on the reasons for confidentiality are sent to Eurostat;
- confidential data are sent to Eurostat (hypercubes, tables), but no reasons for confidentiality;
- confidential data are sent to Eurostat together with information about the reason (sensitivity rules) for confidentiality and confidentiality parameters (for example, the number of contributors to the cell, the share of largest contributor);
- microdata are provided to Eurostat (at the level of individual statistical units).

In general: the more detailed the data received, the more efficient the treatment of statistical confidentiality in terms of balancing data protection and the provision of aggregates. Information at a micro level allows Eurostat to protect statistical units by taking into account unique or dominating statistical units across different EU Member States.

If data are transmitted in a semi-aggregated format (for example as hypercubes (<sup>72</sup>)) and if some additional information is provided on the reasons for confidentiality, the decision to publish EU aggregates can still be taken without unnecessary suppressions.

In the second case above — no explanatory information provided on the reasons for confidentiality — national data are treated as if they concern only one contributor, in other words, a single statistical unit (the worst case scenario).

To ensure the consistent use of a coherent system of flags for those statistical domains that use SDMX format to send data, a code list on confidentiality status was defined by the SDMX Statistical Working Group. It is a mixed list, indicating whether observations can be freely published, are for internal use only (for reasons not related to statistical confidentiality) or are confidential. It also provides reasons for confidentiality (for example the dominance rule).

Recommended code for confidentiality flag	Recommended code description	Annotation
F	Free (free for publication)	Used for observations without any special sensitivity considerations and which can thus be freely shared.
		Usually, source organisations provide information and guidance on general requirements for re-dissemination (like mentioning the source) either on their websites or in their paper publications. In some institutional environments the term 'unclassified' is used in a sense that still denotes implied restrictions in the circulation of information. If this is the case, the organisations concerned may probably consider that 'free' (flag F) is not the appropriate flag for this kind of 'unclassified' category and that 'Not for publication, restricted for internal use only' (flag N) may be more appropriate.
N	Not for publication, restricted for internal use only	Used to denote observations that are restricted for internal use only within organisations. This flag may be accompanied with an additional observation-level attribute: CONF_REDIST which defines the secondary recipient(s) to whom the sender allows the primary recipient to forward confidential data.
C	Confidential statistical information	Confidential statistical information (primary confidentiality) due to identifiable respondents. Measures should also be taken to prevent not only direct access, but also indirect deduction or calculation by other users and parties, probably by considering and treating additional observations as 'confidential' (secondary confidentiality management).

## Table 17.6: Confidentiality-related flags used in SDMX

<sup>(&</sup>lt;sup>72</sup>) These are detailed and complex tables that are not suited for direct publication, but rather serve as the basis for publication tables.

Recommended code for confidentiality flag	Recommended code description	Annotation
D	Secondary confidentiality set by the sender, not for publication	Used by the sender of the data to flag (beyond the confidential statistical information) additional observations in the dataset so that the receiver knows that he/she should suppress these observations in subsequent stages of processing (especially dissemination) in order to prevent third parties to indirectly deduct the observations that are genuinely flagged with a 'C'.
S	Secondary confidentiality set and managed by the receiver, not for publication	If senders do not manage the secondary confidentiality in their data and/or there are also other countries' data involved (with the intention to eventually compile a region-wide aggregate that is going to be published), the value 'S' is used by the receiver to flag additional suppressed observations (within the sender's data and/or within the datasets of other senders) in subsequent stages of processing (especially, dissemination) in order to prevent third parties from indirectly deducting the observations that were genuinely flagged with a 'C' by the sender.
A	Primary confidentiality due to small counts	A cell is flagged as confidential if less than 'm' units ('too few units') contribute to the total of that cell. The limits of what constitutes a 'small count' can vary across statistical domains, countries, and so on.
0	Primary confidentiality due to dominance by one unit	Used when one unit accounts for more than x % of the total of a cell. The value of x can vary across statistical domains or countries, be influenced by legislation, and so on.
Т	Primary confidentiality due to dominance by two units	Used when two units account for more than x % of the total of a cell. The value of x can vary across statistical domains or countries, be influenced by legislation, and so on.
G	Primary confidentiality due to dominance by one or two units	Used when one or two units account(s) for more than $x \%$ of the total of a cell. The value of x can vary across statistical domains or countries, be influenced by legislation, and so on.
М	Primary confidentiality due to data declared confidential based on other measures of concentration	Cells declared confidential using mathematical definitions of sensitive cells, for example p-percent, p/q or (n, k) rules.
E	Not for publication, restricted for internal use only (equivalent to the code N) until an embargo elapses; free for publication (equivalent to the code F) after an embargo elapses	Used for embargoed data. The embargo time period has to be specified in the EMBARGO_TIME attribute. This code may be accompanied by an additional observation-level attribute: CONF_REDIST which defines the secondary recipient(s) to whom the sender allows the primary recipient to forward confidential data.

# 17.9. Statistical disclosure control aspects in confidential data exchange

Members of the ESS are permitted by the European Statistics Regulation (Regulation (EC) No 223/2009 of 11 March 2009) to exchange confidential data, if this is necessary for developing, producing and distributing European statistics or improving their quality. Such data exchanges are particularly useful for statistics measuring cross-border flows of goods, capital, or people.

In some statistical domains (for example tourism statistics or the EuroGroups register), ESS members may exchange confidential data through Eurostat as an intermediary. They often use these data to perform comparisons, to check

the quality of their own statistics (for example outward tourism from country A to country B, as reported by country A, should mirror inward tourism from country A to country B, as reported by country B).

Direct exchanges of confidential data between ESS members for the purpose of producing statistics are a new practice under the provisions of the EBS Regulation (see Section 9.4.3. on microdata exchange for intra-EU trade). There are two basic approaches to statistical disclosure control when confidential data are exchanged:

- the sender protects confidential data and the receiver receives data that are already safe, to be processed further or published (for example tourism statistics);
- the sender sends confidential data together with instructions on how to protect it if both the sender and
  receiver publish the data, they must agree on which statistical disclosure control rules should be applied for
  protecting confidential data, and these rules should be applied by both parties.

The second situation applies, for example, when national statistical authorities send data to Eurostat to produce European aggregates. The instructions on how to protect data are sent together with confidential data, and agreements are made between Eurostat and national statistical authorities in the form of confidentiality charters.

▲ It is important to keep the receiver of the data informed about any changes in the status of a particular cell (confidential or not) and the underlying reasons for this. Any inconsistency may lead to the disclosure of data — both for the country concerned and possibly other countries too — for example if the data concerned are part of a confidential cluster (<sup>73</sup>) used to produce a European aggregate. For example, in single market statistics (SIMSTAT), the statistical disclosure control rules must be agreed by all exchanging parties, based on core principles established together.

<sup>(&</sup>lt;sup>73</sup>) Confidential cluster: in this example, the group of Member States contributing to an EU aggregate and whose data are confidential for a particular variable; in general, a group of confidential cells contributing to an aggregate.

# 17.10. Risk management ('5 safes' model)

The '5 safes' model is useful for considering various elements of data protection and security. It refers to:

- safe projects;
- safe settings;
- safe data;
- safe outputs;
- safe people.

The model is often applied to the release of microdata (<sup>74</sup>), but can also be helpful when reviewing some aspects of confidential data protection in the standard distribution processes of national statistical authorities. The table below shows how the model applies to microdata from business statistics.

Table 17.7: The '5 safes' model applied to microdata from business statistics

The '5 safes'	What makes it 'safe'?
Safe projects	Are confidential data used for lawful (statistical or scientific) purposes?
Safe settings	Are confidential data used in an appropriately safe environment? Are they securely stored? Is access limited to authorised staff/researchers?
Safe data	Are the data safe to be published? For microdata, are they prepared adequately, regarding access settings and microdata types?
Safe output	Are the results of the research safe to be made public?
Safe people	Are the users of confidential data aware and respectful of confidential data handling conditions?

# 17.11. Further information

## Key regulations

- Regulation (EC) No 223/2009 of 11 March 2009 European Statistics Regulation
- Commission Regulation (EU) No 557/2013 of 17 June 2013 on access to confidential data for scientific purposes

## Methodological guidelines

- Guidelines for output checking Data without boundaries
- ESSNet Handbook on Statistical Disclosure Control version 1.2; Hundepool A., Domingo-Ferrer J., Franconi L., Giessing S., Lenz R., Naylor J., Schulte Nordholt E., Seri G., De Wolf P-P.; January 2010
- How to use microdata properly: self-study material for users of Eurostat microdata sets
- Statistical disclosure control tools manuals for sdcTools
- ESSNet Methodology for modern business statistics Handbook on Statistical Disclosure Control (main module), 26 March 2014
- Confidentiality charters as a way to align treatment of statistical confidentiality in Eurostat, April 2016 (a standard model is included in the annex)
- Recommendations for confidentiality management in business statistics in the ESS, September 2016 (document available for members of the ESS on request)

# 17.12. Contacts

For questions or comments on statistical disclosure control, please contact: ESTAT-CONFIDENTIALITY@ec.europa.eu.

<sup>(&</sup>lt;sup>74</sup>) For more information, see: How to use microdata properly: self-study material for the users of Eurostat microdata sets.

# 18 Dissemination of business statistics

# Preface

This chapter discusses the channels through which business statistics are disseminated within the EU, concluding with two related topics:

- data revisions;
- the use of standard code lists.

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# 18.1. Introduction

In this chapter, dissemination is defined as publishing data produced by data compilers (input) and making statistics available in line with user needs (output).

Publication can be divided into a range of channels, each designed to meet particular user needs. These include news releases, other (online) publications and databases. The channels Eurostat uses to make statistics available to the public are set out in Section 18.2.

Section 18.3. presents the EU's data revision policies and practices.

The classifications and breakdowns of European data are harmonised and conventionalised using standard code lists so as to ensure that the same coding and definitions are used across datasets; Section 18.4. provides further background information.

# 18.2. Channels for publishing statistics

Increasingly, EBS are published online, with paper publications becoming the exception. A paper publication presenting *Key figures on European businesses* will be published in 2021. One of Eurostat's flagship (paper) publications, *Key Figures on Europe* — *Statistics Illustrated*, also includes selected business statistics.

Accessing European statistics gives a detailed overview of the various channels through which Eurostat's statistics are published. As with other domains, business statistics are made available in a variety of different ways — all of which are free of charge. The main channels include:

- news releases;
- an online database;
- Statistics Explained (a wiki-based repository for a broad range of articles on European statistics).

Eurostat's business statistics are linked to metadata, which describe the quality, background and structure of data using a common standard. These metadata can be found, in the form of hyperlinks; they are connected to each dataset within the online database.

Safeguarding rules and the legal obligation to protect confidential data are explained in Section 17.2. which covers the legal rules on statistical disclosure control. These rules guarantee that data sent to Eurostat as confidential information are not published.

Business statistics are also covered, on Eurostat's website, by a number of dedicated sections; these provide specific information (access to data, publications, metadata, methodology, legislation) for a particular topic:

- short-term business statistics;
- structural business statistics;
- PRODCOM;
- digital economy and society statistics on ICT;
- science, technology and innovation;
- international trade in goods;
- international trade in services;
- balance of payments.

SBS are divided into subdomains, covering topics such as business services, globalised businesses, small and medium-sized enterprises, business demography, foreign affiliates, and international sourcing.

Regional data are available in SBS, the digital economy and society, and science and technology; for more detailed information on this topic, refer to the dedicated section on regional statistics.

The dedicated sections for all of the topics above include links to associated datasets. Eurostat's online database provides access to all of its datasets in a structured form based on a data navigation tree. Each dataset is accompanied by methodological notes which describe the relevant metadata (and may provide links to supplementary information). Methodological notes also present the (data) release policy, such as the time/date of release. Note: there is also a release calendar for STS.

Eurostat has introduced additional, complementary tools for disseminating business statistics. These have been designed to address user needs — in particular, the desire to have cross-domain information on businesses. The business sector profile (BSP) application presents an economic dashboard for different economic activities (NACE divisions). It covers a wide spectrum of short-term and structural indicators for revenues and expenses, the labour market, investment and technology, prices and productivity, international business, product markets,

entrepreneurship and other business-related aspects. The application was launched in October 2019 and its contents are likely to be further enriched by extending the sectoral coverage.

Furthermore, the presentation of business and trade statistics will be revised to reflect the increasing integration of these statistics following the adoption of the EBS Regulation.

# 18.3. Data revision policies and practices

According to the *European Statistics Code of Practice*, which forms part of the main framework for European statistics, the revision of data should be based on the following principles:

- o advance notice is given on major revisions or changes in methodologies;
- o revisions follow standard, well-established and transparent procedures;
- revisions are regularly analysed in order to improve source data, statistical processes and outputs.

In 2009, the ESSC approved the following set of principles for data revisions, to be applied across the ESS:

- Each statistical institution within the ESS defines, communicates and publicly releases well documented general revision policies and domain specific ones applicable to European statistics under its responsibility.
- Domain specific revision policies should be kept consistent across statistical domains and countries as far as possible and stable over a sufficiently long time period.
- Statistical institutions within the ESS should define a common strategy, for each statistical domain to communicate qualitative and quantitative information on data revisions of European statistics.
- Routine and annual revisions should be published in the framework of well defined, synchronised and regularly updated release/revision calendars at national and European level. Releases of European and national data aggregates should be synchronised as far as possible.
- Major revisions should only take place in larger intervals. They should be pre-announced, backwards implemented and coordinated across statistical domains and institutions.
- Non-scheduled revisions should be reduced over time in the case of errors and unforeseeable accidents occurring in the production process. Corrections should be released without waiting for scheduled revisions. They should be accompanied by appropriate explanations.
- Domain specific revision policies should rely on sound and homogeneous methodological choices covering i.a. scheduling of revisions, possible use of thresholds, length, depth, and seasonal adjustment whenever applicable [the list is not exhaustive].
- As far as appropriate, each statistical institution within the ESS carries out and disseminates regular revision analysis at statistical domain level. For this purpose, the adequate vintage databases consistent with release/revision calendars should be implemented, maintained and disseminated.

Further technical guidelines needed to implement the ESS's revision policy, which are in line with the above principles, have been provided in the context of:

• Quality reporting applicable to all business statistics: the 2020 edition of the *ESS handbook on quality and metadata reports* explicitly includes data revision as a quality indicator. The quality reports associated with the datasets and drawn up by NSIs and Eurostat should cover revision policy, the number of revisions (both scheduled and non-scheduled), the average scale of revisions, the main reasons for revisions, and the extent to which data revision improves accuracy.

Where unscheduled revisions (in other words, corrections of errors) are concerned, there should be an analysis of the nature of errors over the past few years and of what has been done to avoid future errors. The general reporting requirements state how revisions should be reported in annual quality reports. Each domain has the discretion to decide how scheduled and unscheduled revisions are to be treated, provided that general ESS-level principles are respected. In the domain of STS, the treatment of revisions is subject to detailed guidelines (see below).

- Principal European economic indicators (PEEIs): these are a comprehensive set of infra-annual macroeconomic indicators that describe the economic and labour market situation, as well as price developments in the euro area and the EU, which are of particular importance to economic and monetary policy. Many such indicators are drawn from the STS domain. The *ESS guidelines on revision policy for PEEIs* provide detailed guidance on how to treat revisions of those STS that are covered by the PEEIs.
- Seasonal adjusted data: detailed guidance is provided in the ESS guidelines on seasonal adjustment, in particular Part 3 on revision policies. The preferred option is that the revision period for the seasonally adjusted data must at least cover the extent of the raw data revision period. Due to the property of filters, it is normally acceptable to revise the seasonally adjusted data from a point of 3-4 years before the beginning of the revision period of the unadjusted data; earlier data should be frozen. This specific guideline can be seen as a further refinement of the PEEI guidelines on revisions.

All of these guidelines/handbooks have been endorsed by the ESSC and thus represent standard practice. As regards individual statistics, information on data revisions is published as part of the metadata files linked to datasets. As revisions are particularly important for STS, they are explained in more detail in a separate article, Short-term business statistics — revisions.

Where Eurostat publications are revised to remove errors (unscheduled revisions), Eurostat's internal dissemination error management policy applies.

# 18.4. Standard code lists

Statistical code lists are structural metadata on statistical concepts which are, in general, used to specify the dimensions of datasets (in other words, tables). Multi-dimensional datasets in Eurostat's online databases generally use several such code lists. Where appropriate, the lists are based on official statistical classifications such as NACE, NUTS, the PRODCOM list, or on code lists introduced to cover other aspects of business activity.

The codes used in dissemination may differ from those used in data collection (particularly those based on the SDMX standard). Some differences are technical in nature, arising from requirements with respect to software or tools. They may also arise from differences in readability requirements; in automated data collection, machines require absolute singularity of concepts and their associated codes, whereas in dissemination human-readable codes are favoured. Eurostat plans to try to reduce these differences where possible; where this is not possible, mapping with due explanations will continue. The results of this work will be incorporated into this chapter in due course.

# 18.5. Further information

- Overview of domain methodologies for business statistics
- Overview of the legal aspects related to this chapter
- Methodologies regarding statistical confidentiality statistical disclosure control
- Eurostat's dissemination channels Accessing European statistics
- Key Figures on Europe Statistics illustrated
- Release calendar for STS
- European Statistics Code of Practice
- ESS handbook for quality reports
- PEEIs
- ESS guidelines on revision policy for PEEIs
- ESS guidelines on seasonal adjustment
- Short-term business statistics revisions
- Business sector profile

# Dedicated sections

- Short-term business statistics
- Structural business statistics
- Business services
- Globalised businesses
- Small and medium-sized enterprises (SMEs)
- Business demography
- Foreign affiliates
- International sourcing
- PRODCOM
- Digital economy and society statistics on information and communication technologies (ICT)
- Science, technology and innovation
- International trade in goods
- International trade in services
- Balance of payments
- Regional statistics

# 18.6. Contacts

For questions or comments on the dissemination of business statistics, please contact: ESTAT-EBS-MANUAL@ec.europa.eu.

# **19** Microdata service for researchers

# Preface

This chapter describes the legal conditions within the ESS for releasing and accessing record-level data (microdata) and the methods used to prepare microdata files for researchers. Its focus is on microdata at European level — as released by Eurostat.

The chapter is concerned only with microdata for businesses. However, the conditions of access to European microdata for other socioeconomic datasets are identical.

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# 19.1. The ESS and European statistics

This chapter focuses on access to ESS microdata, as released by Eurostat. However, the main concepts and principles apply to any dataset that is made available for research purposes by an ESS partner.

The European Statistics Regulation (Regulation (EC) No 223/2009 of 11 March 2009) states:

The European Statistical System is the partnership between Eurostat and the national statistical institutes (NSIs) and other national authorities (ONAs) responsible for developing, compiling and disseminating European statistics in each EU country. NSIs and ONAs are often known as national statistical authorities (NSAs), a nomenclature we shall use in this chapter. These authorities are listed on Eurostat's website.

European statistics are those required for the European Union to carry out its various activities. They are determined in the European statistical programmes. (75)

These statistics are sent to Eurostat in accordance with subject-specific (legal) regulations. If national statistical authorities (NSAs) transmit data in the form of microdata, and if this is agreed, Eurostat can provide access to this data for scientific purposes.

# 19.2. Confidential data and microdata

Confidential data may be defined as: *data that reveal the identity/contribution of individual statistical units (individual persons, households or business entities)*. One of the fundamental principles of the ESS is an obligation on NSAs and Eurostat to protect confidential data — confidential data may not be published.

The methods used to identify and protect confidential data in the different forms of statistical output are called methods of statistical disclosure control (SDC). SDC methods establish the criteria necessary to judge whether or not figures in an output (for example cells in a table, records in microdata files, or a regression coefficient in a model) are confidential.

If the figures are non-confidential they may be published. If they are confidential, on the other hand, they must be treated appropriately: kept secret, rounded up or down, or aggregated, for instance. SDC methods offer a range of techniques designed to ensure optimum protection of confidential figures without forfeiting too much information. Chapter 17 outlines the SDC methods that may be applied to the various types of statistical outputs.

Microdata are sets of records (lines in a file) containing information on statistical units: typically individual persons, households or business entities. Each record/line represents information about respondents and/or statistical units.

Records may be readily identifiable when they contain unique direct identifiers, such as a person's name, address, social security number or ID number. These confidential records with direct identifiers are only available to statistical authorities under strict confidentiality protocols. Microdata with direct identifiers (especially with a unique ID number) are increasingly important for producing official statistics, as they enable data collected from different sources to be linked. This encourages the use of administrative sources and the like and the derivation of further results from existing data. In the case of longitudinal files, direct identifiers allow the monitoring of individuals over time. Direct identifiers are often replaced by pseudo names/codes (pseudonymisation), which are less identifying but equally efficient for monitoring individuals over time and across various data collections.

Microdata without direct identifiers may also be confidential, as a combination of rare characteristics may enable unique statistical units to be identified (see below). Such microdata are invaluable to the research community, as only they allow a deep analysis of relationships in datasets, such as causalities, dependencies or convergences.

The conditions for accessing microdata are normally set out in legal acts. In the ESS, access to microdata is limited to statistical analysis for scientific purposes. The precise conditions are laid down in a Commission regulation (<sup>76</sup>). In parallel, there are national access systems governed by national statistical authorities and national legislation.

<sup>(75)</sup> For information about European statistical programmes, see: http://ec.europa.eu/eurostat/web/european-statistical-system/overview and https://ec.europa.eu/eurostat/web/ess/about-us/statistical-programmes.

<sup>(&</sup>lt;sup>76</sup>) The legal basis for access to ESS microdata is Commission Regulation (EU) No 557/2013 of 17 June 2013 as regards access to confidential data for scientific purposes.

# 19.3. Access to ESS microdata released by Eurostat

# **19.3.1. DATA COLLECTIONS AVAILABLE AS MICRODATA FILES FOR SCIENTIFIC PURPOSES**

As noted above, access to confidential microdata for scientific purposes at European level may be considered for those datasets for which Eurostat receives data at an individual or micro level. Eurostat grants access to microdata for a wide range of data collections. Five of these are data emanating from business surveys (indicated by the initials, 'BS'):

- Structure of earnings survey (SES), BS
- Community innovation survey (CIS), BS
- Continuing vocational training survey (CVTS), BS
- Farm structure survey (FSS), BS
- Micro-moments dataset (MMD) linked micro-aggregated data on ICT-usage, innovation and economic performance in enterprises, BS
- European Community household panel (ECHP)
- European Union statistics on income and living conditions (EU-SILC)
- Labour force survey (LFS)
- Adult education survey (AES)
- European road freight transport survey (ERFT)
- European health interview survey (EHIS)
- Community statistics on the information society (CSIS)
- Household budget survey (HBS)
- Harmonised European time use survey (HETUS)

An up-to-date list and descriptions of the microdata collections available may be found on Eurostat's website.

# 19.3.2. CRITERIA FOR ELIGIBLE RESEARCH ENTITIES AND RESEARCH PROPOSALS

Commission Regulation (EU) No 557/2013 of 17 June 2013 defines the criteria for eligible research entities and research proposals. It also describes how microdata are to be made available to researchers (modes of access).

Researchers wishing to access microdata must follow a two-step procedure (77):

- Eurostat recognises the organisation to which the researcher is affiliated as a 'research entity';
- a research proposal describing the scientific project and explaining the need for access to confidential data is submitted to Eurostat (by a recognised research entity).

Recognition as a research entity

The recognition of research entities involves identifying organisations (or particular departments thereof) that conduct research and can be trusted with confidential data. Applicants must meet the following criteria:

- a statement of the entity's purpose, its mission statement or its articles of association must mention 'research';
- the entity must be able to show a record of quality research, such as a list of scientific publications and research projects these research results must be in the public domain;
- the entity must formulate its scientific conclusions as an independent body;
- the entity must have adequate security safeguards.

Eurostat assesses each application on its merits. If a research entity is granted accreditation, its director must sign a commitment that the microdata will be used in accordance with the terms agreed and be protected by the organisation's researchers.

Eurostat publishes a list of recognised research entities on its website ( $^{78}$ ). In 2020, the list comprised some 1 000 organisations both within and outside the EU.

<sup>(&</sup>lt;sup>77</sup>) For more details concerning microdata access procedures, see Eurostat's website: http://ec.europa.eu/eurostat/web/microdata/overview.

## Submitting a research proposal

To have access to microdata, researchers who are affiliated to a recognised research entity must submit a research proposal to Eurostat.

Proposals must describe:

- the research project for which the microdata are to be used;
- the data and variables to be used;
- the statistical methods to be applied to the data;
- why the project requires access to microdata;
- how the research results are to be published;
- how data security will be guaranteed.

To be considered eligible, the research proposal must specify in sufficient detail:

- the scientific purpose of the research;
- why the microdata are needed;
- the expected outcomes of the research.

Research outcomes must be made public. All researchers named in the research proposal as potential microdata users must sign an individual confidentiality declaration, in which they must undertake to abide by the specific terms governing the use of confidential data.

The research proposal is examined by Eurostat's staff responsible for the data requested and by the national statistical authorities that provided it. If a national statistical authority denies access to their data, then the data for the country concerned is expunged from the relevant microdata file.

If the research proposal is accepted, researchers are given access to the relevant data. They may access the data for the period specified in the research proposal. If requested, new releases of the relevant microdata files are sent to researchers during the course of the project (for up to five years).

At the end of the period during which access has been granted to microdata, researchers should send their published results to Eurostat; they should also destroy any confidential data they may have received during the course of the research project. A database with all of the publications that have been released following research projects using European microdata is available on the collaboration in research and methodology for official statistics (CROS) portal.

Eurostat's website has a section presenting self-study material for users of Eurostat microdata sets. It provides guidance to researchers as to the procedures that need to be followed in order to become a 'safe researcher' — someone eligible to use European microdata. This material aims at making researchers aware of their responsibilities when they are entrusted with confidential data.

ESS microdata are available to researchers in two different formats:

- secure use files;
- scientific use files.

## **19.3.3. SECURE USE FILES**

Secure use files contain data on individual statistical units. Within the ESS, the usual practice for this type of file is to remove only direct identifiers, while data are cleaned but not further anonymised. It is still possible to identify statistical units (such as businesses, households or persons), and secure use files are therefore considered confidential files. Respondents can be identified by combining basic characteristics or variables. For instance, a company with more than 1 000 employees in a particular NUTS level 3 region is (generally) easily recognisable, even if it is not named.

Secure use files in the ESS — access via Eurostat's safe centre

<sup>(78)</sup> See: http://ec.europa.eu/eurostat/documents/203647/771732/Recognised-research-entities.pdf.

ESS secure use files can only be accessed in Eurostat's safe centre (Luxembourg). Researchers may analyse data there (on site), but nothing can be taken out of the room. Researchers are isolated from the rest of the world; they cannot, for instance, use the internet or download the data they are working on. They are obliged to work in a dedicated room equipped with a standalone PC.

The following ESS data collections are available as secure use files in Eurostat's safe centre:

- structure of earnings survey (SES);
- Community innovation survey (CIS);
- micro-moments dataset (MMD).

## Output checking

After working at the safe centre, researchers place the results of their research in an output folder. They must ensure that the output does not contain any confidential data. The results are checked for confidentiality by a Eurostat staff member; this is known as output checking. The aim is to ensure that the results of research projects contain no confidential data, after which the safe output can be e-mailed to the researcher(s) concerned.

The general rules for this procedure are set out in *Guidelines for output checking*. They differentiate between safe output (for example regression coefficients) and unsafe output (for example tables) and suggest appropriate techniques to check whether or not the results are confidential.

The rules on output checking also depend on the characteristics and sensitivity of each domain. For example, there are specific safe centre rules in the ESS for accessing microdata from the Community innovation survey (CIS) (<sup>79</sup>). These rules, which were established by representatives of national statistical authorities, include requirements and criteria for safe output produced on the basis of the CIS secure use files.

## Remote access

Some statistical authorities in Europe offer access to national secure use files in remote mode (<sup>80</sup>). This enables researchers to work on files containing confidential data cells without having to travel to a safe centre. The key principle of remote access is that secure use files remain in a controlled environment in one place, while the researcher connects from elsewhere. The researcher's identity can be checked remotely using specific (for example biometric) tools. The remote connection enables a researcher to run statistical packages/programs on a server from a distant location. There are two basic types of remote access:

- 'real' remote access, where the researcher can see the microdata and work directly on the files;
- remote execution, where the researcher cannot see the data but submits codes and routines that are
  processed on the data by the system; a remote execution system checks the input codes (unauthorised tasks
  are blocked) and the output data (confidentiality on the fly) (<sup>81</sup>).

Eurostat aims to provide 'real' remote access to ESS microdata. The first step in this direction is the DARA project.

Decentralised and remote access (DARA) to secure use files

Eurostat is in the process of developing a system that will enable eligible researchers — see Section 19.3.2. on the criteria for eligible research entities and research proposals — to work on secure use files at accredited safe centres in NSIs.

<sup>(&</sup>lt;sup>79</sup>) See: http://ec.europa.eu/eurostat/documents/203647/203701/Note-CIS-researcher-Eurostat-SAFE-Centre.pdf.

<sup>(&</sup>lt;sup>80</sup>) There are also various collaborative initiatives involving several countries. For example, the Nordic countries have agreed that, in the event of a research project requiring access to Nordic microdata for more than one Nordic country, their data can be pooled via the remote access system of a single country.

<sup>(&</sup>lt;sup>81</sup>) See: Methodology for the Automatic Confidentialisation of Statistical Outputs from Remote Servers at the Australian Bureau of Statistics, Gwenda Thompson, Stephen Broadfoot and Daniel Elazar, October 2013.

# **19.3.4. SCIENTIFIC USE FILES**

Under Commission Regulation (EC) No 557/2013 of 17 June 2013, scientific use files are defined as:

confidential data for scientific purposes to which methods of statistical disclosure control have been applied to reduce to an appropriate level and in accordance with current best practice the risk of identification of the statistical unit.

Scientific use files are anonymised more than secure use files. This entails not only removing direct identifiers, but also grouping together, rounding, swapping or eliminating certain categories of variables. While it is still possible to identify statistical units in scientific use files, the probability of being able to do so is lower. It may nonetheless be possible to identify a statistical unit in scientific use files if that unit has some unusual (rare) or specific features (for example if it is a very big company) (<sup>82</sup>).

Since statistical units are identifiable, scientific use files are considered confidential and can be accessed only by authorised researchers (a procedure described in Section 19.3.2.). Unlike secure use files, scientific use files can be used outside Eurostat's secure environment, directly on the premises of the research entity (<sup>83</sup>).

Data	Risk levels	How respondents can be identified	To what level of precision can respondents be identified?
Microdata for statistical purposes	Extremely high	By direct identifiers (if available) or by combining indirect identifiers (characteristics such as NACE activity, enterprise size class, or NUTS level)	'This is a record referring to company X'
Secure use files	High	By combining indirect identifiers (characteristics such as NACE activity, enterprise size class, NUTS level)	The likelihood of identification is much smaller than with microdata for statistical purposes: 'This is a record that <u>probably</u> refers to company X'
Scientific use files	Low (reduced)	By combining indirect identifiers (characteristics such as NACE activity, enterprise size class, NUTS level), but only units with rare characteristics can be identified	The likelihood of identification is much smaller than with secure use files: 'This is a record that <u>may</u> refer to company X'
Public use files	Eliminated	Not applicable	Not applicable

Table 19.1: Identification of risk levels for different types of microdata

## Preparing scientific use files

Scientific use files must be developed in such a way as to make it more difficult for the user to identify the statistical unit(s) concerned. However, the data must retain their research value. The following basic SDC methods are applied to make it harder to identify respondents (<sup>84</sup>):

- removal of direct identifiers;
- recoding providing information at a more general level for example at NUTS level 2 instead of NUTS level 3, or information on employment-based enterprise size classes instead of real numbers (a count) of employment;
- micro-aggregation;
- record swapping;
- rounding off;
- (local) suppression.

<sup>(&</sup>lt;sup>82</sup>) With both scientific use and secure use files, users may be able to identify a statistical unit if they have some real-life knowledge of it; for instance, a user may know where the unit is located, how big it is or what its main activities are.

<sup>(&</sup>lt;sup>83</sup>) Specific conditions of use apply.

<sup>(84)</sup> These SDC methods are described in more detail in Chapter 17 on statistical disclosure control.

SDC methods are applied gradually to produce scientific use files. The actual risk of disclosure and the quality of the data are constantly checked. As more measures are taken to anonymise the files, the less detailed they become, and therefore the less interesting they are for researchers.

The process of applying SDC methods to microdata continues until the right balance is struck between the disclosure risk (the probability that the respondent will be identified) and the quality of the data. Achieving a judicious balance depends on many conditions and involves expert judgment. It helps if the framework criteria are established at the beginning of the process.

## Table 19.2: Examples of framework criteria for scientific use files

Criteria for:		
Disclosure risk for scientific use file	Scientific use files must contain at least X records with the same characteristics (defined by combining variables)	
Quality of scientific use file	Indicator X derived from the scientific use file must differ by no more than xx $\%$ from indicator X derived from original data	

It is important to document the various steps in microdata protection in an appropriate manner and to describe the reasoning leading to a particular decision. This not only makes the process transparent, but also enables it to be reproduced for other releases of data or other countries' data.

## Scientific use files — access in the ESS

Most ESS microdata sets are available as scientific use files. All social surveys are available in this format. In addition, the following ESS data from business data collections are available as scientific use files:

- Structure of earnings survey (SES);
- Community innovation survey (CIS);
- Continuing vocational training survey (CVTS);
- Farm structure survey (FSS).

It is (generally) much more difficult to prepare scientific use files for business data than for social data. This is because it is easier to identify enterprises, even if their detailed characteristics (direct identifiers: name, address, business register number) are not provided. Exceptionally high values (for example for turnover or investment) are often identifying factors, making the identity of large companies difficult to protect (see Chapter 17 on statistical disclosure control).

## **19.3.5. BUSINESS MICRODATA RELEASED BY EUROSTAT**

ESS business microdata are available on-site in Eurostat's safe centre (as secure use files) and sometimes as scientific use files (depending on the data collection). There are fewer users of secure use files because of the costs of travel to the safe centre in Luxembourg. All microdata files for researchers are provided free of charge (<sup>85</sup>).

Table 19.3: ESS business microdata available for scientific purposes and number of research proposals submitted during the years 2017-2019

	Secure use files	Scientific use files
Structure of earnings survey (SES)	23	148
Community innovation survey (CIS)	49	123
Continuing vocational training survey (CVTS)	-	37
Micro-moments dataset (MMD) — available since 2015	18	-

Not all statistical authorities across the ESS choose to participate in the release of business microdata (<sup>86</sup>). In some countries, releasing data on individual businesses is forbidden by law.

<sup>(85)</sup> Access to microdata released by Eurostat used to be subject to fees. Since 2011, access has been free of charge, following a decision of the Dissemination Working Group. The reason for this decision was the inefficiency of the complex cost recovery procedures which Eurostat used to charge for access. Moreover, the charging procedures were slowing down the application process.

<sup>(86)</sup> For details of those ESS members participating in the release of different microdata sets, see:

http://ec.europa.eu/eurostat/documents/203647/771732/Datasets-availability-table.pdf.

Some countries choose not to release scientific use files: this may be for technical reasons (linked to the SDC method applied) or because they consider the research value of such files to be insufficient.

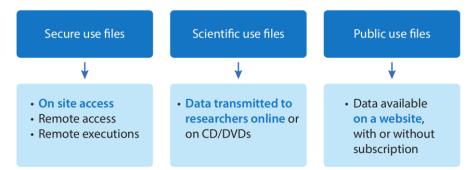
# **19.3.6. PUBLIC USE FILES**

In 2014, Eurostat launched a project to establish a methodology for ESS public use files for the EU's labour force survey (EU-LFS) and for EU statistics on income and living conditions (EU-SILC). Seven NSIs worked on developing a methodology for public use files and thereafter generated a set of data files for dissemination; these files are available on Eurostat's website. During the course of the project it became clear that it would be very difficult to produce public use files that are both safe and rich in information (the first version of the files is intended mainly for educational and testing purposes). There are currently no plans to produce public use files for ESS business microdata (<sup>87</sup>).

# 19.3.7. MODES OF ACCESS TO DIFFERENT TYPES OF MICRODATA IN THE ESS

There are alternative modes of access to microdata in the ESS. Source data also range from traditional questionnaires to administrative registers and publicly available sources. The diagram below represents the current situation as regards different modes of access to the various data types available.

Modes of access for different types of microdata in the ESS



Note: Eurostat provides those modes of access identified by a <u>blue font</u> in the diagram above.

# 19.4. How Eurostat prepares ESS microdata

To release ESS microdata, national statistical authorities must agree on the mode of access (secure use files or scientific use files) and on how to protect the data adequately. This process is outlined in the *Guidelines for the assessment of research entities, research proposals and access facilities.* It covers: (i) SDC methods applied to produce scientific use files; and (ii) rules for output checking of secure use files. The process can only be launched for those surveys where national statistical authorities transmit microdata to Eurostat.

The process comprises the following stages.

- The domain-specific ESS working group (for example, the CIS WG):
  - analyses the need for and context of the release of confidential data for scientific purposes;
  - identifies researchers' needs as regards the level of detail of the datasets;
  - establishes the order of priority of variables in terms of their interest or importance to researchers;
  - documents the most relevant types of analysis in the context of the survey;
  - proposes the mode of release (secure use files or scientific use files).
- The ESS Working Group on Methodology (WGM) is notified of the decision by the domain-specific working group on the release of confidential data for scientific purposes.
- After analysing the disclosure risk, Eurostat, assisted by the Expert Group on SDC, proposes protection methods.

<sup>(87)</sup> However, some national statistical institutes (such as Finland's) provide access to public use files for business data.

- The protection method is cross-validated by the domain-specific working group against the initial context and objectives, and by the WGM with regard to disclosure risks.
- The national statistical authorities providing the confidential data notify Eurostat that they have approved the protection method and that their data may be included in the release.
- The list of research datasets and possible modes of access is published on Eurostat's website.

# 19.5. Anonymising microdata

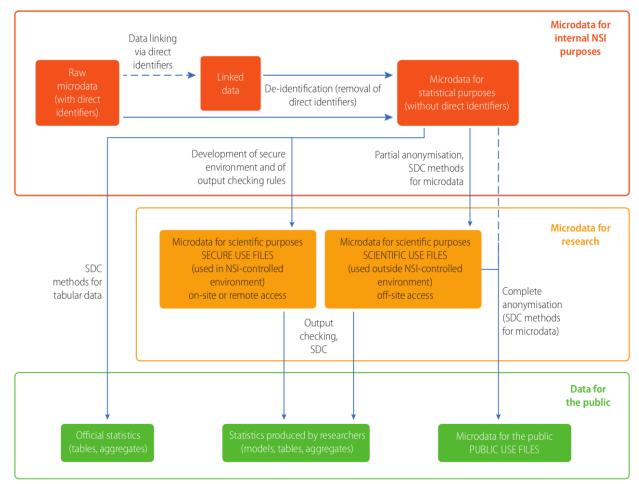
The term 'anonymisation' is often used as a synonym for the protection of microdata in general. It may refer either to the overall 'de-confidentialisation' process or to specific stages of that process. Microdata protection falls into the following stages:

- De-identification or pseudonymisation the process of removing direct identifiers (like the name, ID and address) from confidential data and replacing these with pseudonymous names/codes (<sup>88</sup>).
- Partial anonymisation applying a set of statistical disclosure control methods to de-identified microdata so as to reduce the risk that the statistical unit can be identified. Scientific use files are the result of partial anonymisation.
- Complete anonymisation the application of statistical disclosure control methods that completely eliminate the risk of the statistical unit being identified (directly or indirectly). Public use files contain fully anonymised records.

The diagram below shows the processes involved in preparing different types of microdata files and other types of outputs.

<sup>(88)</sup> In some countries, anonymisation is limited to and synonymous with de-identification.

## Processes for preparing different types of statistical outputs



# 19.6. Organising access to microdata within the ESS

While Eurostat provides access to ESS microdata, most national statistical authorities in Europe hold microdata at country level. They decide individually which data are available for scientific purposes and what specific conditions apply. An overview of microdata access systems across the EU was drawn up in 2015 as part of the Data without Boundaries project and is available at: https://cimes.casd.eu/.

National statistical authorities do not always consider providing access to microdata to be part of their core business. In some countries, researchers may have to pay for services relating to access provision.

Many EU Member States have data archives which provide researchers with additional services, including:

- preparing metadata;
- user support;
- training sessions;
- information sessions.

In some countries, data archives release microdata — usually scientific use files — on behalf of national statistical authorities. Data archives have become important partners within the ESS, providing added value to the research community concerned with accessing microdata.

# 19.7. Conclusions and future outlook

Microdata access systems within the ESS are in a process of constant development. They provide access to growing numbers of datasets which are made available in different ways.

As regards access to microdata on European businesses for research purposes, Eurostat provides a range of modes to access data collections for which microdata are available at European level.

At the same time, Eurostat is expanding its services by developing decentralised access to secure use files via safe centres in EU Member States. Another area of work in progress is the development of a system that will enable researchers to remotely submit codes and routines to be applied to microdata. This will remove the need for researchers to have physical access to such microdata themselves.

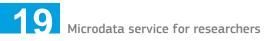
Other challenges facing Eurostat include processing and providing access to integrated data or Big Data. Such processing raises a number of legal issues which will need to be resolved first.

## 19.8. Further information

- List of NSIs and ONAs responsible in each EU Member State for developing, producing and disseminating European statistics
- European statistical programmes (annual and multiannual)
- Microdata access procedures, descriptions of available microdata collections
- How to use microdata properly: self-study material for the users of Eurostat microdata sets
- Guidelines for output checking
- Safe centre rules for accessing microdata from the Community innovation survey
- Public microdata files for EU-LFS and EU-SILC public use files
- List of ESS members participating in the release of microdata collections on business
- Centralising and integrating metadata from European statistics (CIMES) overview of microdata disseminated for research purposes in Europe

## 19.9. Contacts

For questions or comments on the microdata service for researchers, please contact: ESTAT-MICRODATA-ACCESS@ec.europa.eu.



# 20 Detailed domain specific methodologies

# Preface

This chapter provides an overview of and links to detailed domain-specific methodologies in the field of EBS as of November 2020.

Many EBS methodological manuals are currently being updated/revised or developed. As they are finalised and published, they will be made available on Eurostat's dedicated section for metadata, RAMON.

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# 20.1. Introduction

This chapter connects the EBS manual, covering cross-cutting methodological issues, and the methodological information that is specific for one or several tables of business and trade statistics as identified in Annex I, Part B of the EBS GIA.

The EBS domains referred to in this chapter provide an overview/summary of domain-specific methodologies; each of these is based on a similar structure to that used in the EBS manual. The EBS domains will provide links to more detailed domain-specific methodologies and to more general cross-domain information included within the EBS manual. As such, the EBS domains will function as a hub connecting domain-specific methodologies with cross-domain methodologies.

The EBS domains included in this version of the EBS manual are still linked, to a large extent, to the domains of business and trade statistics as they existed before the adoption of the EBS Regulation. For many of these, detailed domain-specific methodologies were developed in the form of (recommendations) manuals under the responsibility of domain-specific working groups. Some of these manuals were developed in cooperation with other international institutions.

# 20.2. EBS domains on Statistics Explained

Statistics Explained is a wiki-based repository for a broad range of articles on European statistics. EBS domains are available or are in the process of being developed on Statistics Explained for the following subjects:

- short-term business statistics (STS) (draft);
- structural business statistics (SBS);
- business demography statistics (BD);
- foreign affiliates statistics (FATS);
- international trade in goods statistics (ITGS);
- international trade in goods trade by enterprise characteristics (TEC);
- international supply of services by modes of supply (MoS);
- services trade statistics by enterprise characteristics (STEC);
- R&D statistics;
- PRODCOM statistics;
- ICT statistics;
- Innovation statistics;
- Global value chains statistics (GVC).

# 20.3. Links between EBS domains and tables and topics that form part of the EBS general implementing act

Annex I, Part B of the EBS GIA defines the data requirements for a set of stable business and trade statistics, in other words, those areas where the specification for data collection remains unchanged over time. These data requirements are specified in a set of annexed tables that present an extensive list of data elements (variables, statistical units, statistical population, breakdowns, and so on) for each domain. The EBS GIA also identifies a list of topics that are used as headings under which groups of indicators for specific business and trade statistics may be classified (for example, the business population, labour inputs, R&D inputs, or investments).

EBS domains and detailed methodological manuals may be applicable to: (i) a series of tables found in Annex 1 of the EBS Regulation; (ii) to an individual table; or (iii) to part of a specific table. The information presented below in Table 20.1 gives an overview of the links between EBS domains and existing methodological manuals on the one hand and tables and topics laid down in the EBS GIA on the other.

 Table 20.1: Tables and topics in the EBS GIA linked to EBS domains and domain-specific methodology

EBS GIA reference	EBS GIA topic(s)	EBS domain	Domain-specific methodology (1)
European framework of statistic	al business registers (na	tional statistical busines	s registers and EuroGroups register)
Annexes VIII and IX		BR	European business statistics methodological manual for statistical business registers — 2021 edition
Domain 1. Short-term business	statistics (Annex I, Part B	Tables 1-9)	
Table 1 — short-term business statistics on business population	Business population	STS	Under development (linked with information on Tables 2-9)
Tables 2-9		STS	Chain linking in STS — Final report of short-term statistics task force
			Methodology of short-term business statistics — Interpretation and guidelines
			Methodology of short-term business statistics — Associated documents
Table 2 — short-term business statistics on employment	Labour inputs	STS	Covered by STS manuals
Table 3 — short-term business statistics on hours worked and wages and salaries	Labour inputs	STS	Covered by STS manuals
Table 4 — short-term business statistics on import prices	Prices	STS	Covered by STS manuals
Table 5 — short-term business statistics on producer prices	Prices	STS	Eurostat-OECD Methodological guide for developing producer price indices for services
			Handbook on industrial producer price indices (PPI)
Table 6 — short-term business statistics on production (volume)	Outputs and performance	STS	Guidelines for compiling the monthly index of production in construction
Table 7 — short-term business statistics on volume of sales	Outputs and performance	STS	Covered by STS manuals
Table 8 — short-term business statistics on net turnover (value)	Outputs and performance	STS	Covered by STS manuals
Table 9 — short-term business statistics on real estate	Real estate	STS	Covered by STS manuals

EBS GIA reference	EBS GIA topic(s)	EBS domain	Domain-specific methodology ( <sup>1</sup> )
Domain 2. Country-level busines	s statistics (Annex I, Part	B, Tables 10-28)	
Tables 10-13 and regional business statistics Table 29		BD	Eurostat-OECD manual on business demography statistics
Tables 10, 12, 20-24, 26-27 and regional business statistics Table 30		SBS	Under development
Tables 14-15 and statistics on international activities Table 33		FATS	Foreign AffiliaTes Statistics (FATS) — Recommendations manual
Tables 18-20 and regional business statistics Tables 31-32		R&D	Frascati manual 2015
Table 10 — country-level business statistics on activities of enterprises	Business population; labour inputs; purchases; outputs and performance; investments	SBS-BD	Covered by SBS and BD manuals
Table 11 — country-level business statistics on activities of enterprises broken down by size classes or broken down by legal form	Business population; labour inputs; purchases; outputs and performance	SBS-BD	Covered by SBS and BD manuals
Table 12 — country-level business statistics on demographic events for enterprises	Business population; labour inputs	BD	Covered by SBS manual
Table 13 — country-level business statistics on high- growth enterprises	Business population; labour inputs	BD	Covered by SBS manual
Table 14 — country-level business statistics on enterprises by country of ultimate control	Business population; labour inputs; R&D inputs; purchases; outputs and performance; investments	FATS	Covered by SBS manual
Table 15 — country-level business statistics on foreign- controlling enterprises and domestic affiliates active in the reporting country	Business population; labour inputs; outputs and performance	FATS	Covered by SBS manual
Table 16 — country-level business statistics on trade in goods by enterprise characteristics	Business population; purchases; outputs and performance	TEC	Compilers guide on European statistics on international trade in goods by enterprise characteristics (TEC)
Table 17 — country-level business statistics on trade in services by enterprise characteristics (STEC) — annual data	Purchases; outputs and performance	STEC	Eurostat-OECD Compilers guide for statistics on services trade by enterprise characteristics (STEC)
Table 18 — country-level business statistics on intramural R&D expenditure	R&D inputs	R&D	Covered by Frascati manual
Table 19 — country level business statistics on	R&D inputs	R&D	Covered by Frascati manual



EBS GIA reference	EBS GIA topic(s)	EBS domain	Domain-specific methodology ( <sup>1</sup> )
Domain 2. Country-level busines	s statistics (Annex I, Par	t B, Tables 10-28)	
employment in R&D			
Table 20 — country-level statistics on publicly funded R&D	R&D inputs	R&D	Covered by Frascati manual
Table 21 — country-level business statistics on purchases by enterprises	Purchases	SBS	Covered by SBS manual
Table 22 — country-level business statistics on changes in stock of enterprises	Purchases	SBS	Covered by SBS manual
Table 23 — country-level business statistics on product and residence of client breakdown of net turnover of enterprises	Outputs and performance	SBS	Covered by SBS manual
Table 24 — country-level business statistics on broad activity regroupings breakdown of net turnover of enterprises	Outputs and performance	SBS	Covered by SBS manual
Table 25 — country-level business statistics on type of turnover breakdown of enterprises	Outputs and performance	SBS	Covered by SBS manual
Table 26 — country-level business statistics on industrial production	Outputs and performance	PRODCOM	PRODCOM user guide
Table 27 — country-level business statistics on investments in tangible non- current assets by enterprises	Investments	SBS	Covered by SBS manual
Table 28 — country-level business statistics on investment in intangible non- current assets	Investments	SBS	Covered by SBS manual

EBS GIA reference	EBS GIA topic(s)	EBS domain	Domain-specific methodology ( <sup>1</sup> )
Domain 3. Regional business sta	tistics (Annex I, Part B, Ta	bles 29-32)	
Table 29 — regional business statistics on local units	Business population; labour inputs	SBS	Covered by SBS manual
Table 30 — regional business statistics on enterprises	Business population; labour inputs	BD	Covered by BD manual
Table 31 — regional business statistics on R&D expenditure	R&D inputs	R&D	Covered by Frascati manual
Table 32 — regional business statistics on employment in R&D	R&D inputs	R&D	Covered by Frascati manual

EBS GIA reference	EBS GIA topic(s)	EBS domain	Domain-specific methodology ( <sup>1</sup> )
Domain 4. Statistics on internat	ional activities (Annex I, Pa	art B, Tables 33-38)	
Table 33 — statistics on international activities — control by institutional units of the reporting country on enterprises abroad	Business population, labour inputs, outputs and performance, investments	FATS	Covered by FATS manual
Table 34 — statistics on international activities — intra-Union trade in goods —	International trade in goods	ITGS	Compilers guide on European statistics on international trade in goods
detailed data			User guide on European statistics on international trade in goods
			Geonomenclature applicable to European statistics on international trade in goods
			National requirements for the Intrastat system
Table 35 — statistics on international activities — extra-Union imports and exports of goods — detailed data	International trade in goods	ITGS	Covered by ITGS manuals
Table 36 — statistics on international activities — exports and imports of goods — aggregated data	International trade in goods	ITGS	Covered by ITGS manuals
Table 37 — statistics on international activities — extra-Union exports and imports of goods by invoicing currency	International trade in goods	TIC	Covered by ITGS manuals
Table 38 — statistics on international activities — international supply of services by mode of supply — annual data	International trade in services	MoS	Manual on statistics of international trade in services Compilers guide for statistics on international supply of services by mode of supply (to be developed)

<sup>(1)</sup> Status as of November 2020. For updated EBS guidance visit the dedicated section of RAMON.

For 'dynamic topics', in other words those business statistics where data requirements change for every data collection exercise, the topics laid down in the EBS GIA and EBS domains can also be linked to domain-specific methodologies (as shown in Table 20.2).

 Table 20.2: Topics in the EBS GIA and EBS domains linked to domain-specific methodology

EBS GIA topic/EBS domain	Domain-specific methodology
ICT-usage and e-commerce	Methodological manuals — Part I — Enterprise survey
Innovation	Oslo manual 2018
Global value chains	Under development



# 20.4. Further information

• Methodological manuals relating to statistics

## 20.5. Contacts

For questions or comments on detailed domain-specific methodologies, please contact: ESTAT-EBS-MANUAL@ec.europa.eu.

eurostat European Business Statistics Manual — dynamic edition

# Annexes

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Domestic producer prices	
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Employee benefits expense in foreign-controlled enterprises	
Employee benefits expense of enterprises abroad ultimately controlled by institutional units of the reporting country	
Enterprise births	
Enterprise deaths	
Enterprise survivals	
Enterprises having no employees anymore	
Enterprises having the first employee	
Expenses of long-term rental and operating leases	
Expenses on services provided through agency workers	
Foreign-controlled enterprises gross investment in tangible non-current assets	
Government budget allocations for research and development (GBARD)	
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# Annex I — EBS Regulation — general implementing act (EBS GIA) — data requirements

# SECTION 1 — EBS GIA DATA REQUIREMENTS — BUSINESS STATISTICS DOMAINS, TOPICS AND DETAILED TOPICS CORRESPONDENCE WITH THE REPEALED LEGAL ACTS

Domain 1 — short-term business statistics

Topics	Detailed topics	Variables	Elements of data requirements as defined in Tables of Part B	Domains repealed legal acts
Business population	Business demographic events	Registrations	Table 1	BusDemo (new)
	(bankruptcies, registrations)	Bankruptcies	Table 1	BusDemo (new)
Labour inputs	Employment	Number of employees and self-employed persons	Table 2	STS
	Hours worked	Hours worked by employees	Table 3	STS
	Labour costs	Wages and salaries	Table 3	STS
Prices	Import prices	Import prices	Table 4	STS
		Import prices (euro area)	Table 4	STS
		Import prices (non-euro area)	Table 4	STS
	Producer prices	Producer prices	Table 5	STS
		Domestic producer prices	Table 5	STS
		Non-domestic producer prices	Table 5	STS
		Non-domestic producer prices (euro area)	Table 5	STS
		Non-domestic producer prices (non-euro area)	Table 5	STS
Outputs and	Production	Production (volume)	Table 6	STS
performance	Volume of sales	Volume of sales	Table 7	STS
	Net turnover	Net turnover (value)	Table 8	STS
		Domestic net turnover (value)	Table 8	STS
		Non-domestic net turnover (value)	Table 8	STS
		Non-domestic net turnover (euro area) (value)	Table 8	STS
		Non-domestic net turnover (non-euro area) (value)	Table 8	STS
Real estate	Real estate	Building permits: number of dwellings	Table 9	STS
		Building permits: square metres	Table 9	STS

### Domain 2 — country-level business statistics

Topics	Detailed topics	Variables	Elements of data requirements as defined in Tables of Part B	Domains repealed legal acts
Business population	Population of active enterprises	Number of active enterprises	Tables 10, 11 and 14	SBS and BusDemo
		Number of enterprises having at least one employee	Table 12	BusDemo
		Number of high-growth enterprises	Table 13	BusDemo
		Number of young high-growth enterprises	Table 13	BusDemo
	Business demographic events	Enterprise births	Table 12	BusDemo
	(births, deaths, survivals)	Enterprise deaths	Table 12	BusDemo
		Enterprise survivals	Table 12	BusDemo
		Enterprises having the first employee	Table 12	BusDemo
		Enterprises having no employees anymore	Table 12	BusDemo
		Survivals of enterprises having at least one employee	Table 12	BusDemo
	Population of foreign- controlled enterprises	Number of foreign-controlled enterprises	Table 14	FATS
	Population of foreign- controlling enterprises and domestic affiliates	Number of foreign-controlling enterprises (UCI concept) and domestic affiliates	Table 15	FATS (new)
	Population of enterprises	Number of enterprises importing goods	Table 16	TEC
	engaged in international trade	Number of enterprises exporting goods	Table 16	TEC
Labour inputs	Employment	Number of employees and self-employed persons	Tables 10, 11 and 14	SBS and BusDemo
-		Number of employees	Tables 10 and 11	SBS and BusDemo
		Number of employees in full-time equivalent units	Table 10	SBS
		Number of employees and self-employed persons in enterprises having at least one employee	Table 12	BusDemo
		Number of employees in enterprises having at least one employee	Table 12	BusDemo
		Number of employees in high-growth enterprises	Table 13	BusDemo
		Number of employees in young high-growth enterprises	Table 13	BusDemo
	Hours worked	Hours worked by employees	Tables 10 and 11	SBS
	Labour costs	Employee benefits expense	Tables 10, 11 and 14	SBS
		Wages and salaries	Tables 10 and 11	SBS
		Social security costs	Tables 10 and 11	SBS

Topics	Detailed topics	Variables	Elements of data requirements as defined in Tables of Part B	Domains repealed legal acts
Labour inputs	Employment linked to business demographic events (births,	Number of employees and self-employed persons in newly born enterprises	Table 12	BusDemo
	deaths, survivals)	Number of employees in newly born enterprises	Table 12	BusDemo
		Number of employees and self-employed persons in enterprise deaths	Table 12	BusDemo
		Number of employees in enterprise deaths	Table 12	BusDemo
		Number of employees and self-employed persons in enterprise survivals	Table 12	BusDemo
		Number of employees and self-employed persons in enterprise survivals, in the year of birth	Table 12	BusDemo
		Number of employees and self-employed persons in enterprises having the first employee	Table 12	BusDemo
		Number of employees in enterprises having the first employee	Table 12	BusDemo
		Number of employees and self-employed persons in enterprises having no employees anymore	Table 12	BusDemo
		Number of employees in enterprises having no employees anymore	Table 12	BusDemo
		Number of employees and self-employed persons in survivals of enterprise having at least one employee	Table 12	BusDemo
		Number of employees and self-employed persons in survivals of enterprises having at least one employee, in the year of birth	Table 12	BusDemo
	Employment in foreign- controlled enterprises	Number of employees and self-employed persons in foreign- controlled enterprises	Table 14	FATS
	Employment in foreign- controlling enterprises and domestic affiliates	Number of employees and self-employed persons in foreign- controlling enterprises (UCI concept) and domestic affiliates	Table 15	FATS (new)
	Labour costs in foreign- controlled enterprises	Employee benefits expense in foreign-controlled enterprises	Table 14	FATS
R&D inputs	R&D expenditure	Intramural R&D expenditure	Table 14 and 18	R&D
	R&D employment	R&D personnel	Table 14 and 19	R&D
		Researchers	Table 18	R&D

Topics	Detailed topics	Variables	Elements of data requirements as defined in Tables of Part B	Domains repealed legal acts
	R&D expenditure in foreign- controlled enterprises	Intramural R&D expenditure in foreign-controlled enterprises	Table 14	FATS
R&D inputs	R&D employment in foreign- controlled enterprises	R&D personnel in foreign-controlled enterprises	Table 14	FATS
	Publicly funded R&D	Government budget allocations for research and development (GBARD)	Table 20	R&D
		National public funding to transnationally coordinated R&D	Table 20	R&D
Purchases	Purchases of goods and services	Total purchases of goods and services	Tables 10, 11 and 14	SBS
		Purchases of goods and services for resale	Table 14 and 21	SBS
		Expenses on services provided through agency workers	Table 21	SBS
		Expenses of long-term rental and operating lease	Table 21	SBS
		Purchases of energy products	Table 21	SBS
		Payments to subcontractors	Table 21	SBS
	Change in stock of goods	Change in stock of goods	Table 22	SBS
		Change in stock of finished goods and work-in-progress	Table 22	SBS
		Change in stock of goods for resale	Table 22	SBS
	Purchases of goods and services of foreign-controlled	Total purchases of goods and services of foreign-controlled enterprises	Table 14	FATS
	enterprises	Purchases of goods and services for resale of foreign- controlled enterprises	Table 14	FATS
	Imports by enterprises	Statistical value of imports by enterprises	Tables 16 and 17	TEC and STEC (new)
Outputs and	Net turnover	Net turnover	Tables 10, 11 and 14	SBS
performance		Net turnover from agriculture, forestry, fishing and industrial activities	Table 24	SBS
		Net turnover from industrial activities	Table 24	SBS
		Net turnover from industrial activities excluding construction	Table 24	SBS
		Net turnover from construction	Table 24	SBS
		Net turnover from service activities	Table 24	SBS
		Net turnover from trading activities of purchase and resale and from intermediary activities	Table 24	SBS
		Net turnover from building	Table 24	SBS
		Net turnover from civil engineering	Table 24	SBS

Topics	Detailed topics	Variables	Elements of data requirements as defined in Tables of Part B	Domains repealed legal acts
		Net turnover from the principal activity at the NACE group level	Table 25	SBS
		Net turnover from subcontracting	Table 25	SBS
		Net turnover by residence of client	Table 23	SBS
		Net turnover by product	Table 23	SBS
Outputs and performance	Gross margin on goods for resale	Gross margin on goods for resale	Table 10	SBS
	Value of output	Value of output	Tables 10, 11 and 14	SBS
	Value added	Value added	Tables 10, 11 and 14	SBS
	Gross operating surplus	Gross operating surplus	Tables 10 and 11	SBS
	Net turnover of foreign- controlled enterprises	Net turnover of foreign-controlled enterprises	Table 14	FATS
	Value of output of foreign- controlled enterprises	Value of output of foreign-controlled enterprises	Table 14	FATS
	Value added of foreign- controlled enterprises	Value added of foreign-controlled enterprises	Table 14	FATS
	Net turnover of foreign- controlling enterprises and domestic affiliates	Net turnover of foreign-controlling enterprises (UCI concept) and domestic affiliates	Table 15	FATS (new)
	Industrial production	Sold production	Table 26	PRODCOM
		Production under subcontracted operations	Table 26	PRODCOM (new)
		Actual production	Table 26	PRODCOM
	Exports by enterprises	Statistical value of exports by enterprises	Tables 16 and 17	TEC and STEC (new)
Investments	Gross investment by active	Gross investment in tangible non-current assets	Table 10 and 14	SBS
	enterprises	Gross investment in land	Table 27	SBS
		Gross investment in the acquisition of existing buildings	Table 27	SBS
		Gross investment in construction and improvement of buildings	Table 27	SBS
		Gross investment in machinery and equipment	Table 27	SBS
		Gross investment in intangible non-current assets other than goodwill	Table 10	SBS
		Investment in purchased software	Table 28	SBS
		Sales proceeds of tangible investments	Table 10	SBS
	Gross investment by foreign- controlled enterprises	Foreign-controlled enterprises' gross investment in tangible non-current assets	Table 14	FATS

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### Domain 3 — regional business statistics

Topics	Detailed topics	Variables	Elements of data requirements as defined in Tables of Part B	Domains repealed legal acts
Business population	Population by region	Number of local units	Table 29	SBS
		Number of active enterprises	Table 30	BusDemo
		Number of enterprises having at least one employee	Table 30	BusDemo
		Number of high-growth enterprises	Table 30	BusDemo
	Business demographic events	Enterprise births	Table 30	BusDemo
	by region (births, deaths,	Enterprise deaths	Table 30	BusDemo
	survivals)	Enterprise survivals (three-calendar year survival only)	Table 30	BusDemo
		Enterprises having the first employee	Table 30	BusDemo
		Enterprises having no employees anymore	Table 30	BusDemo
		Survivals of enterprises having at least one employee (only for enterprises having survived for three calendar years)	Table 30	BusDemo
Labour inputs	Employment in active enterprises by region	Number of employees and self-employed persons in local units	Table 29	SBS
		Number of employees and self-employed persons	Table 30	BusDemo
		Number of employees	Table 30	BusDemo
		Number of employees and self-employed persons in enterprises having at least one employee	Table 30	BusDemo
		Number of employees in enterprises having at least one employee	Table 30	BusDemo
	Employment linked to business demographic events by region	Number of employees and self-employed persons in newly born enterprises	Table 30	BusDemo
	(births, deaths, survivals)	Number of employees in newly born enterprises	Table 30	BusDemo
		Number of employees and self-employed persons in enterprise deaths	Table 30	BusDemo
		Number of employees in enterprise deaths	Table 30	BusDemo
		Number of employees and self-employed persons in enterprise survivals (only for enterprises having survived for three calendar years)	Table 30	BusDemo
		Number of employees and self-employed persons in enterprise survivals, in the year of birth (only for enterprises having survived for three calendar years)	Table 30	BusDemo
		Number of employees and self-employed persons in	Table 30	BusDemo

Topics	Detailed topics	Variables	Elements of data requirements as defined in Tables of Part B	Domains repealed legal acts
		enterprises having the first employee		
Topics	Detailed topics	Variables	Elements of data requirements as defined in Tables of Part B	Domains repealed legal acts
Labour inputs	Employment linked to business	Number of employees in enterprises having the first employee	Table 30	BusDemo
	demographic events by region (births, deaths, survivals)	Number of employees and self-employed persons in enterprises having no employees anymore	Table 30	BusDemo
		Number of employees in enterprises having no employees anymore	Table 30	BusDemo
		Number of employees and self-employed persons in survivals of enterprises having at least one employee (only for enterprises having survived for three calendar years)	Table 30	BusDemo
		Number of employees and self-employed persons in survivals of enterprises having at least one employee, in the year of birth (only for enterprises having survived for three calendar years)	Table 30	BusDemo
	Labour costs by region	Wages and salaries in local units	Table 29	SBS
R&D inputs	R&D expenditure by region	Intramural R&D expenditure	Table 31	R&D
	R&D employment by region	R&D personnel	Table 32	R&D
		Researchers	Table 32	R&D

#### Domain 4 — statistics on international activities

Topics	Detailed topics	Variables	Elements of data requirements as defined in Tables of Part B	Domains repealed legal acts
Business population	Population of enterprises abroad controlled by resident institutional units of the reporting country	Number of enterprises abroad ultimately controlled by institutional units of the reporting country	Table 33	FATS
Labour inputs	Employment in enterprises abroad controlled by resident institutional units of the reporting country	Number of employees and self-employed persons in enterprises abroad ultimately controlled by institutional units of the reporting country	Table 33	FATS
	Labour costs in enterprises abroad controlled by resident institutional units of the reporting country	Employee benefits expense in enterprises abroad ultimately controlled by institutional units of the reporting country	Table 33	FATS (new)
Investments	Gross investment by enterprises abroad controlled by resident institutional units of the reporting country	Gross investment in tangible non-current assets of enterprises abroad ultimately controlled by institutional units of the reporting country	Table 33	FATS (new)
Outputs and performance	Net turnover of enterprises abroad controlled by resident institutional units of the reporting country	Net turnover of enterprises abroad ultimately controlled by institutional units of the reporting country	Table 33	FATS
International trade in goods	Intra-Union (89) trade in goods	Statistical value of intra-Union exports of goods — detailed data	Table 34	ITGS
-		Quantity of intra-Union exports of goods — detailed data	Table 34	ITGS
		Statistical value of intra-Union imports of goods — detailed data	Table 34	TGS
		Quantity of intra-Union imports of goods — detailed data	Table 34	ITGS
		Statistical value of exports of goods — aggregated data	Table 36	ITGS
		Statistical value of imports of goods — aggregated data	Table 36	ITGS

<sup>(89)</sup> References in this manual to Union (such as intra-Union and extra-Union) concern the European Union (EU).

Topics	Detailed topics	Variables	Elements of data requirements as defined in Tables of Part B	Domains repealed legal acts
International trade in goods	Extra-Union trade in goods	Statistical value of extra-Union exports of goods — detailed data	Table 35	ITGS
		Quantity of extra-Union exports of goods —detailed data	Table 35	ITGS
		Statistical value of extra-Union imports of goods — detailed data	Table 35	ITGS
		Quantity of extra-Union imports of goods — detailed data	Table 35	ITGS
		Statistical value of extra-Union exports of goods by invoicing currency	Table 37	TIC
	Extra-Union trade in goods	Statistical value of extra-Union imports of goods by invoicing currency	Table 37	TIC
International	Imports of services	Imports and acquisition of services	Tables 38	ITSS (new)
trade in services	Exports of services	Exports and provision of services	Tables 38	ITSS (new)

## SECTION 2 — EBS GIA DATA REQUIREMENTS — TABLES

Table 1: short-term business statistics on business population

Variables	Registrations	
	Bankruptcies	
Statistical unit	Legal unit	
Measurement unit	Absolute value: unadjusted	
Periodicity	Quarterly	
Reference period	Quarter	
Statistical population	Market activities of NACE Sections B to N, and P to R and Divisions 95 and 96	
Breakdowns	Breakdown by activity	
	Aggregates of NACE:	
	<ul> <li>B+C+D+E; K+L+M+N; P+Q+R+95+96;</li> </ul>	
	NACE Sections:	
	○ F, G, H, I and J;	
	Special aggregate:	
	<ul> <li>Industry, construction and services (except public administration, defence,</li> </ul>	
	compulsory social security, activities of membership organisations, activities	
	of households as employers and extra-territorial organisations and bodies)	
	(NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96).	
Data transmission deadline	<i>t</i> +40 days.	
First reference period	First quarter 2021.	

	tatistics on employment
Variables	Number of employees and self-employed persons
Statistical unit	KAU
Measurement unit	Indices: unadjusted
Periodicity	Quarterly (monthly optional)
Reference period	Quarter (month optional)
Statistical population	Market activities of NACE B, C, D, 36, F, G, H to M (excl. K, 70.1, 72 and 75) and N
Breakdowns	Breakdown by activity
	For all countries:
	MIGs of NACE Sections B, C, D and Division 36;
	Aggregates of NACE:
	<ul> <li>B+C+D+36; H+I+J+L+M (excl. 70.1, 72, 75)+N;</li> </ul>
	NACE Sections:
	<ul> <li>B, C, D, F, G, H, I, J, L, M (excl. 70.1, 72, 75) and N;</li> </ul>
	NACE Divisions:
	<ul> <li>36, 45, 46, 47 and 47 (excl. 47.3);</li> </ul>
	For medium-sized and large countries:
	<ul> <li>In addition, NACE divisions of Sections B, C and D;</li> </ul>
	For large countries:
	In addition, NACE divisions of Sections H, I and J.
	The additional breakdowns required for medium-sized and large countries are
	optional for small countries.
Use of approximations and	Number of employees and self-employed persons may be approximated by the
quality requirements	number of employees.
	For activities in NACE Sections C. 11 to M (avel. 14, 70, 1, 72, and 75) and N. the
	For activities in NACE Sections G, H to M (excl. K, 70.1, 72 and 75) and N, the enterprise may be used instead of kind-of-activity units for the reference periods
	before 2021 and from January 2021 to December 2023 in base year 2015.
Data transmission deadline	<i>t</i> +2 months for quarterly or monthly (optional) data, except for:
Data transmission deadline	<ul> <li>requirements for small and medium-sized countries: t+2 months+15 days.</li> </ul>
	• requirements for small and medium-sized countries: (+2 monuis+15 days.
	Transitional arrangements for NACE Section L, NACE Division 77 and NACE Groups
	81.1 and 81.3 that are to be included in their aggregates as of first guarter or month
	(optional) 2021.
First reference period	First quarter or month (optional) 2000, except for:
	NACE Section L, NACE Division 77 and NACE Groups 81.1 and 81.3 that are to be
	included in their aggregates as of first quarter or month (optional) 2021;
	<ul> <li>Spain: first quarter or month (optional) 2002 for the required NACE Sections G to</li> </ul>
	M (excl. K, 70.1, 72 and 75) and N and first guarter or month (optional) 2005 for
	NACE Divisions 47, 47 (excl. 47.3), 55, 56, 58, 59 and 60;
	<ul> <li>Finland: first quarter or month (optional) 2005 for NACE Divisions 32 and 33;</li> </ul>
	<ul> <li>Austria: first quarter or month (optional) 2003 for the required NACE Sections H</li> </ul>
	to N (excl. K, L, 70.1, 72, 75, 77, 81.1, 81.3) and first quarter or month (optional)
	2005 for NACE Division 09.

Table 2: short-term business statistics on employment

Variables	Hours worked by employees
	Wages and salaries
Statistical unit	KAU
Measurement unit	Indices: unadjusted and calendar adjusted
Periodicity	Quarterly (monthly optional)
Reference period	Quarter (month optional)
Statistical population	Market activities of NACE B, C, D, 36, F, G, H to M (excl. K, 70.1, 72 and 75) and N
Breakdowns	Breakdown by activity
Breakuowiis	For all countries:
	<ul> <li>MIGs of NACE Sections B, C, D and Division 36;</li> </ul>
	<ul> <li>Aggregates of NACE:</li> <li>B+C+D+36; H+I+J+L+M (excl. 70.1, 72 and 75)+N;</li> </ul>
	NACE Sections:
	<ul> <li>B, C, D, F, G, H, I, J, L, M (excl. 70.1, 72 and 75) and N;</li> </ul>
	<ul> <li>NACE Divisions:</li> </ul>
	<ul> <li>NACE Divisions:</li> <li>36, 45, 46, 47 and 47 (excl. 47.3);</li> </ul>
	For medium-sized and large countries:
	<ul> <li>In addition, NACE divisions of Sections B, C and D;</li> </ul>
	• In addition, NACE divisions of Sections B, C and D; For large countries:
	<ul> <li>In addition, NACE divisions of Sections H, I and J.</li> </ul>
	The additional breakdowns required for medium-sized and large countries are
	optional for small countries.
Use of approximations and	For activities in NACE Sections G, H to M (excl. K, 70.1, 72 and 75) and N, the
quality requirements	enterprise may be used instead of kind-of-activity units for the reference periods
	before 2021 and from January 2021 to December 2023 in base year 2015.
Data transmission deadline	t+3 months for quarterly or monthly (optional) data, except for:
	<ul> <li>requirements for small and medium-sized countries at: t+3 months+15 days.</li> </ul>
	Transitional arrangements for NACE aggregate 47 (excl. 47.3), NACE Section L, NACE
	Division 77 and NACE Groups 81.1 and 81.3 that are to be included in their
	aggregates as of first quarter or month (optional) 2021.
First reference period	First quarter or month (optional) 2000 for the required NACE Sections B to F, except
	for:
	• Finland: first quarter or month (optional) 2005 for the required Divisions 32 and
	33;
	• Austria: first quarter or month (optional) 2005 for NACE Division 09.
	First quarter or month (optional) 2010 for the required NACE Sections G to M (excl. K,
	70.1, 72 and 75) and N, except for:
	• NACE aggregate 47 (excl. 47.3), NACE Section L, NACE Division 77 and NACE
	Groups 81.1 and 81.3 that are to be included in their aggregates as of first
	quarter or month (optional) 2021.

Table 3: short-term business statistics on hours worked and wages and salaries

Variables	Import prices (optional for non-euro area countries and countries applying the
	European sampling schemes)
	Import prices (euro area) (optional for non-euro area countries and countries
	applying the European sample schemes)
	<ul> <li>Import prices (non-euro area) (optional for non-euro area countries)</li> </ul>
Statistical unit	Not applicable
Measurement unit	Indices: unadjusted
Periodicity	Monthly
Reference period	Month
Statistical population	Products in CPA B (excl. 07.21 and 09), C (excl. 18, 24.46, 25.4, 30.1, 30.3, 30.4 and 33)
	and D
Breakdowns	Breakdown by products
	For all countries:
	• MIGs of CPA Sections B (excl. 07.21 and 09), C (excl. 18, 24.46, 25.4, 30.1, 30.3,
	30.4 and 33) and D;
	<ul> <li>CPA aggregate of Sections B (excl. 07.21 and 09)+C (excl. 18, 24.46, 25.4, 30.1, 30.3, 30.4 and 33)+D;</li> </ul>
	<ul> <li>CPA Sections B (excl. 07.21 and 09), C (excl. 18, 24.46, 25.4, 30.1, 30.3, 30.4 and 33), D;</li> </ul>
	For medium-sized and large countries:
	<ul> <li>In addition, CPA divisions of Sections B (excl. 07.21 and 09), C (excl. 18, 24.46, 25.4, 30.1, 30.3, 30.4 and 33) and D.</li> </ul>
	The additional breakdowns for medium-sized and large countries are optional for
	small countries.
Use of approximations and quality requirements	Scope of data provision limited by European sampling schemes for specific countries.
Data transmission deadline	t+1 month+15 days.
First reference period	January 2006, except for:
	• Austria: January 2009 for CPA 16.1, 28.11, 28.92.
	For the Member States of the euro area that acceded after January 2006, the
	variables import prices, import prices (euro area) and import prices (non-euro area)
	are required from the beginning of the year of the entry into the euro area.

Table 4: short-term business statistics on import prices

	statistics on producer prices
Variables	Producer prices
	Domestic producer prices
	Non-domestic producer prices
	Non-domestic producer prices (euro area) (optional for non-euro area countries)
	Non-domestic producer prices (non-euro area) (optional for non-euro area
	countries)
Statistical unit	KAU
Measurement unit	Indices: unadjusted
Periodicity	Monthly, with the following exceptions:
	<ul> <li>CPA 41.00.1 excl. 41.00.14 (new buildings only): quarterly (monthly optional) and NACE Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N: quarterly</li> </ul>
Reference period	Month; with the following exceptions:
	• CPA 41.00.1 excl. 41.00.14 (new buildings only): quarterly (monthly optional) and NACE Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N: quarterly
Statistical population	For the variable producer prices: market activities of NACE Sections B (excl. 07.21), C (excl. 24.46, 25.4, 30.1, 30.3 and 30.4), D and Division 36, CPA 41.00.1 excl. 41.00.14 (new buildings only), NACE Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N.
	For the variables domestic producer prices, non-domestic producer prices, non- domestic producer prices (euro area) and non-domestic producer prices (non-euro area): market activities of NACE Sections B (excl. 07.21), C (excl. 24.46, 25.4, 30.1, 30.3 and 30.4), D and Division 36.
Breakdowns	Breakdown by activity and products
	For all countries:
	• MIGs of NACE Sections B (excl. 07.21), C (excl. 24.46, 25.4, 30.1, 30.3 and 30.4) and D and Division 36;
	<ul> <li>Aggregates of NACE:         <ul> <li>B (excl. 07.21)+C (excl. 24.46, 25.4, 30.1, 30.3 and 30.4)+D+36; H+I+J+L+M (excl. 70.1, 72 and 75)+N;</li> </ul> </li> </ul>
	<ul> <li>NACE Sections:         <ul> <li>B (excl. 07.21), C (excl. 24.46, 25.4, 30.1, 30.3 and 30.4), D, H, I, J, L, M (excl. 70.1, 72 and 75) and N;</li> </ul> </li> </ul>
	<ul> <li>NACE Division 36 and NACE divisions of Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N;</li> </ul>
	• CPA 41.00.1 excl. 41.00.14 (new buildings only); For medium-sized countries:
	<ul> <li>In addition, NACE divisions of Sections B (excl. 07.21), C (excl. 24.46, 25.4, 30.1, 30.3 and 30.4) and D;</li> <li>For large countries:</li> </ul>
	<ul> <li>As for medium-sized countries and in addition, NACE groups and classes of Section C for the variables — producer prices, domestic producer prices and non- domestic producer prices (representing at least 90 % of value added of Section C).</li> </ul>
	The additional breakdowns required for medium-sized and large countries are optional for small countries; the additional breakdowns for large countries are optional for medium-sized countries.
Use of approximations and	Scope of data provision for euro area/non-euro area breakdown limited by European
quality requirements	sampling schemes for specific countries.
	The total construction costs (material costs and labour costs) can be used as a proxy for producer prices in construction (CPA 41.00.1 excl. 41.00.14). Costs that constitute components of the construction costs are also plant and equipment, transport, energy and other costs (excluding architect's fees).
	Indices based on actual producer prices are preferable. If those are not available, approximations may be used for NACE 49, 50, 52, 55, 56, 58, 59, 60, 68, 74, 77, 79, 81 and 82. Products (CPA) may be used to approximate activities (NACE).
	For activities in NACE Sections H to M (excl. K, 70.1, 72 and 75) and N, the enterprise

#### Table 5: short-term business statistics on producer prices

	may be used instead of kind-of-activity units for the reference periods before 2021
	and from January 2021 to December 2023 in base year 2015.
Use of approximations and	The services producer price indices (SPPIs) are business-to-all (B2All). Where the
quality requirements	share of transactions with private consumers (B2C) is negligible, the SPPIs may be
	approximated by business-to-business (B2B) indicators. For reference periods before
	2021, the SPPIs may be approximated by B2B indicators instead of B2All indicators.
Data transmission deadline	t+1 month for monthly data for the required NACE Section B to Division 36:
	• <i>t</i> +3 months for all other required NACE and CPA 41.00.1 (excl. 41.00.14), except
	for: small and medium-sized countries for the required CPA 41.00.1 (excl.
	41.00.14), the quarterly and monthly (optional) data at: $t+3$ months+15 days.
	Transitional arrangements for inclusion of NACE aggregates for: NACE Sections
	H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE Sections H, I, J, L, M (excl. 70.1, 72 and
	75), N; NACE Divisions 49, 50, 52; 55, 56; 58, 59, 60; 68; 74; 77, 79, 81, 82.
First reference period	First quarter or month (optional) 2000 for the required CPA 41.00.1 excl. 41.00.14, except for:
	Bulgaria: first quarter or month (optional) 2003;
	January 2005 for the required NACE Section B to Division 36, except for:
	Austria: January 2008 (producer prices and domestic producer prices) and
	January 2009 (non-domestic producer prices, non-domestic producer prices (euro
	area) and non-domestic producer prices (non-euro area)) for NACE Division 09;
	January 2005 for requirements of non-domestic producer prices (euro area) and non- domestic producer prices (non-euro area);
	First quarter or month (optional) 2010 for the requirements of NACE Sections H to M (excl. K, 70.1, 72, and 75) and N, except for:
	<ul> <li>the aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; for NACE Sections H to M (excl. K, 70.1, 72 and 75); and NACE Section N and Divisions 49, 50, 52, 55, 56, 58, 59, 60, 68, 74, 77, 79, 81, 82 that are to be included as of first quarter or month (optional) 2021;</li> </ul>
	For the Member States of the euro area that acceded after January 2005, the variables non-domestic producer prices (euro area) and non-domestic producer prices (non-euro area) are required from the beginning of the year of the entry into the euro area.

Variables	
Statistical unit	KAU
Measurement unit	Indices: unadjusted, calendar adjusted and seasonally adjusted
Periodicity	Monthly, with the following exceptions:
·	<ul> <li>NACE Section F for small countries as defined in Annex IV.A.2 of the EBS GIA Regulation: quarterly (monthly optional)</li> </ul>
Reference period	Month, with the following exceptions:
·	NACE Section F for small countries as defined in Annex IV.A.2 of the EBS GIA
	Regulation: quarter (month optional)
Statistical population	Market activities of NACE Sections B, C, D (excl. 35.3), F, H, I, J, L, M (excl. 70.1, 72 and 75) and N
Breakdowns	Breakdown by activity
	For all countries:
	• MIGs of NACE Sections B, C and D (excl. 35.3) as defined in Annex II.A of the EBS
	GIA Regulation (MIG energy excl. 35.3 and E);
	Aggregates of NACE Sections:
	<ul> <li>B+C+D (excl. 35.3); H+I+J+L+M (excl. 70.1, 72 and 75)+N;</li> </ul>
	NACE Sections:
	<ul> <li>B, C, D (excl. 35.3), F, H, I, J, L, M (excl. 70.1, 72 and 75) and N;</li> </ul>
	NACE divisions of Sections:
	• H, I, J, L, M (excl. 70.1, 72 and 75) and N;
	For medium-sized and large countries:
	In addition NACE divisions of Sections B, C, D and F;
	For large countries:
	• In addition NACE groups and classes of Section C (representing at least 90 % of
	value added of Section C). The additional breakdowns required for medium-sized and large countries are
	optional for small countries; the additional breakdowns for large countries are
	optional for medium-sized countries.
	Transitional arrangements for NACE Section F for the reference periods before January 2024.
Use of approximations and quality requirements	For activities in NACE Sections H to M (excl. K, 70.1, 72 and 75) and N, the enterprise may be used instead of kind-of-activity units for the reference periods before 2021
	and from January 2021 to December 2023 in base year 2015.
Data transmission deadline	<i>t</i> +1 month+10 days for NACE Sections B, C, D (excl. 35.3).
	For NACE Section F:
	<ul> <li>for medium-sized and large countries: t+1 month+15 days;</li> </ul>
	• for small countries: t+2 months.
	<i>t</i> +2 months for NACE Sections H, I, J, L, M (excl. 70.1, 72, 75) and N.
	Transitional arrangements for inclusion of NACE aggregate for: NACE Sections
	H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE sections and divisions of Sections H to M (excl. K, 70.1, 72 and 75) and N; NACE divisions of Section F.
First reference period	January 2000 for the required NACE Sections B to D (excl. 35.3), except for:
	<ul> <li>Spain (NACE groups and classes) January 2002;</li> </ul>
	<ul> <li>Austria (NACE Division 09) January 2005.</li> </ul>
	January 2005 for NACE Division 33.
	First quarter 2000 (or month 2005) for small countries the required NACE Section F and January 2005 for large and medium-sized countries the requirements of NACE Section F.
	January 2021
	• for the aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; for
	NACE sections and divisions of Sections H to M (excl. K, 70.1, 72 and 75) and N;

Table 6: short-term business statistics on production (volume)

	for NACE divisions of Section F.
Table 7: short-term business	statistics on volume of sales
Variables	Volume of sales
Statistical unit	KAU
Measurement unit	Indices: unadjusted, calendar adjusted and seasonally adjusted
Periodicity	Monthly
Reference period	Month
Statistical population	Market activities of NACE Section G
Breakdowns	Breakdown by activity
	For all countries:
	NACE Section G;
	NACE divisions of Section G;
	NACE Division 47 (excl. 47.3);
	Aggregate of NACE Class 47.11+ Group 47.2;
	• Aggregate of NACE Class 47.19+Groups 47.4+47.5+47.6+47.7+47.8+47.9;
	•
	NACE Group 47.3;
	For medium-sized and large countries:
	• In addition, NACE groups of Section G, NACE Classes 47.11, 47.19 and 47.91.
	The additional breakdowns required for medium-sized and large countries are
	optional for small countries.
Use of approximations and	For activities in NACE Section G, the enterprise may be used instead of kind-of-
quality requirements	activity units for the reference periods before 2021 and from January 2021 to
	December 2023 in base year 2015.
Data transmission deadline	t+2 months for monthly data for:
	NACE Section G;
	NACE Divisions 45 and 46;
	• NACE Groups 45.1, 45.2, 45.3, 45.4, 46.1, 46.2, 46.3, 46.4, 46.5, 46.6, 46.7, 46.9,
	47.1, 47.2, 47.4, 47.5, 47.6, 47.7, 47.8 and 47.9;
	• NACE Classes 47.11, 47.19 and 47.91.
	<i>t</i> +1 month for monthly data for NACE:
	NACE Division 47:
	<ul> <li>NACE Division 47 (excl. 47.3);</li> </ul>
	<ul> <li>Aggregate of NACE Class 47.11+Group 47.2;</li> </ul>
	<ul> <li>Aggregate of NACE Class 47.19+ Groups 47.4+47.5+47.6+47.7+47.8+47.9;</li> </ul>
	<ul> <li>NACE Group 47.3.</li> </ul>
First reference period	January 2000, except for:
	NACE Section G, NACE divisions and groups of Divisions 45 and 46, NACE groups
	of Division 47 (except 47.2 and 47.3) that are to be provided as of January 2021

	statistics on net turnover (value)
Variables	Net turnover (value)
	Domestic net turnover (value)
	Non-domestic net turnover (value)
	Non-domestic net turnover (value) (euro area) (optional for non-euro area
	countries)
	<ul> <li>Non-domestic net turnover (value) (non-euro area) (optional for non-euro area countries)</li> </ul>
Statistical unit	KAU
Measurement unit	Indices: unadjusted and calendar adjusted for all activities as well as seasonally adjusted for NACE Sections G, H, I, J, L, M (excl. 70.1, 72 and 75) and N
Periodicity	Monthly
Reference period	Month
Statistical population	For the variable net turnover (value): NACE Sections B, C, G, H, I, J, L, M (excl. 70.1, 72 and 75) and N.
	For the variables domestic net turnover (value), non-domestic net turnover (value), non-domestic net turnover (value) (euro area) and non-domestic net turnover (value) (non-euro area): NACE Sections B and C.
Breakdowns	Breakdown by activity For the variable net turnover (value)
	For all countries:
	MIGs of NACE Sections B and C as defined in Annex II.A of the EBS GIA Regulation (MIG energy excl. D and E);
	<ul> <li>Aggregates of NACE Sections:</li> <li>B+C; H+I+J+L+M (excl. 70.1, 72 and 75)+N;</li> </ul>
	NACE Sections:
	<ul> <li>B, C, G, H, I, J, L, M (excl. 70.1, 72 and 75) and N;</li> </ul>
	NACE divisions of Sections:
	<ul> <li>G, H, I, J, L, M (excl. 70.1, 72 and 75) and N;</li> </ul>
	NACE Division 47 (excl. 47.3);
	NACE Group 47.3;
	Aggregate of NACE Class 47.11+Group 47.2;
	• Aggregate of NACE Class 47.19+Groups 47.4+47.5+47.6+47.7+47.8+47.9. For medium-sized and large countries:
	In addition, NACE divisions of Sections B and C, NACE groups of Section G, NACE Classes 47.11, 47.19 and 47.91.
	For the variables domestic net turnover (value), non-domestic net turnover (value), non-domestic net turnover (value) (euro area) and non-domestic net turnover (value) (non-euro area)
	For all countries:
	MIGs of NACE Sections B and C as defined in Annex II.A of the EBS GIA Regulation (MIG energy excl. D and E);
	<ul> <li>Aggregates of NACE Sections B+C;</li> <li>NACE Sections B and C;</li> </ul>
	For medium-sized and large countries:
	In addition, NACE divisions of Sections B and C.
	The additional breakdowns required for medium-sized and large countries are optional for small countries.
Use of approximations and	For activities in NACE Sections G, H to M (excl. K, 70.1, 72 and 75) and N, the
quality requirements	enterprise may be used instead of kind-of-activity units for the reference periods
	before 2021 and from January 2021 to December 2023 in base year 2015.
	t+2 months for:
	<ul> <li>MIGs of NACE Sections B and C as defined in Annex II.A of the EBS GIA Regulation (MIG energy excl. D and E);</li> </ul>
	Aggregates of NACE Sections:
	<ul> <li>B+C; H+I+J+L+M (excl. 70.1, 72 and 75)+N;</li> </ul>

## Table 8: short-term business statistics on net turnover (value)

Use of approximations and	NACE Sections:
quality requirements	<ul> <li>B, C, G, H, I, J, L, M (excl. 70.1, 72 and 75) and N;</li> </ul>
	NACE divisions of Sections:
	<ul> <li>B, C ,H, I, J, L, M (excl. 70.1, 72 and 75) and N;</li> </ul>
	NACE Divisions 45 and 46;
	<ul> <li>NACE Groups 45.1, 45.2, 45.3, 45.4, 46.1, 46.2, 46.3, 46.4, 46.5, 46.6, 46.7, 46.9, 47.1, 47.2, 47.4, 47.5, 47.6, 47.7, 47.8 and 47.9;</li> </ul>
	• NACE Classes 47.11, 47.19 and 47.91.
	Transitional arrangements for inclusion of aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE sections and divisions of Sections H to M (excl. K, 70.1, 72 and 75) and N.
	<i>t</i> +1 month for:
	NACE Division 47
	• NACE Division 47 (excl. 47.3);
	<ul> <li>Aggregate of NACE Class 47.11+Group 47.2;</li> </ul>
	• Aggregate of NACE Class 47.19+Groups 47.4+47.5+47.6+47.7+47.8+47.9;
	• NACE Group 47.3.
First reference period	January 2000 for the required NACE aggregates, NACE sections and divisions of
	Sections B and C, except for:
	Spain: January 2002;
	Austria: January 2005 for NACE 09.
	January 2000:
	<ul> <li>for NACE Division 47, NACE Division 47 (excl. 47.3); aggregate of NACE Class 47.11+</li> </ul>
	Group 47.2; aggregate of NACE Class 47.19+Groups
	47.4+47.5+47.6+47.7+47.8+47.9; for NACE Groups 47.2 and 47.3; and for NACE Classes 47.11, 47.19 and 47.91.
	January 2005 for the requirements of the variables non-domestic net turnover
	(value) (euro area) and non-domestic net turnover (value) (non-euro area).
	January 2021:
	<ul> <li>for aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; for NACE Sections G, H to M (excl. K, 70.1, 72 and 75) and N; for NACE Divisions 45, 46 and NACE divisions of Sections H to M (excl. K, 70.1, 72 and 75) and N; for NACE groups of Divisions 45, 46 and 47 (except 47.2 and 47.3).</li> </ul>
	For the Member States of the euro area, the variables non-domestic net turnover (value) (euro area) and non-domestic net turnover (value) (non-euro area) are
	required from the beginning of the year of entry into the euro area.

Variables	Building permits — number of dwellings
	Building permits — square metres
Statistical unit	KAU
Measurement unit	Absolute value: unadjusted, calendar adjusted and seasonally adjusted
Periodicity	Quarterly (monthly optional)
Reference period	Quarter (month optional)
Statistical population	For the variable building permits — number of dwellings:
	CPA 41.00.1 (excl. 41.00.14) — new residential buildings only.
	For the variable building permits — square metres:
	CPA 41.00.1 and 41.00.2 — new residential and non-residential buildings only.
Breakdowns	Breakdown by product
	For the variable building permits — number of dwellings (new residential buildings
	only)
	• CPA 41.00.1 excl. 41.00.14;
	• CPA 41.00.11;
	• CPA 41.00.12+CPA 41.00.13.
	For the variable building permits — square metres (new residential and non- residential buildings only)
	• CPA 41.00.1;
	• CPA 41.00.1 excl. 41.00.14;
	• CPA 41.00.11;
	• CPA 41.00.12+CPA 41.00.13;
	• CPA 41.00.14;
	• CPA 41.00.2;
	• CPA 41.00.2 excl. 41.00.23;
	• CPA 41.00.23.
Data transmission deadline	t+3 months.
First reference period	First quarter 2000, except for:
	<ul> <li>Greece: first quarter or month (optional) 2001 for building permits — square metres;</li> </ul>
	<ul> <li>Slovakia: first quarter or month (optional) 2003 for building permits — number of</li> </ul>
	dwellings and building permits — square metres;
	<ul> <li>Austria: first quarter or month (optional) 2005 for building permits — square</li> </ul>
	metres.

Table 9: short-term business statistics on real estate

	ss statistics on activities of enterprises
Variables	Number of active enterprises
	Number of employees and self-employed persons
	Number of employees
	<ul> <li>Number of employees in full-time equivalent units</li> </ul>
	<ul> <li>Hours worked by employees</li> </ul>
	Employee benefits expense
	Wages and salaries
	-
	Social security costs
	Total purchases of goods and services
	Net turnover
	• Gross margin on goods for resale (1 % rule based on net turnover and number of
	employees and self-employed persons at NACE division level may be applied)
	Value of output
	Value added
	Gross operating surplus
	Gross investment in tangible non-current assets
	• Gross investment in intangible non-current assets, other than goodwill (1 % rule
	based on net turnover and number of employees and self-employed persons at
	NACE division level may be applied)
	• Sales proceeds of tangible investments (1 % rule based on net turnover and
	number of employees and self-employed persons at NACE division level may be
	applied)
Statistical unit	Enterprise
Measurement unit	National currency (thousands), except for the variables number of active enterprises,
	number of employees and self-employed persons, number of employees, number of
	employees in full-time equivalent units, and hours worked by employees (absolute
	value)
Periodicity	Annually
Reference period	Calendar year
Statistical population	For all variables other than gross margin on goods for resale, gross investment in
	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible
	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95
	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible
	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.
	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96. For the variables gross margin on goods for resale and sales proceeds of tangible
	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.
	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96. For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.
	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96. For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G. For the variable gross investment in intangible non-current assets other than
Statistical population	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96. For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G. For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.
	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96. For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G. For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E. Breakdown by activity (CETO-flag may be applied)
Statistical population	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to SFor the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.Breakdown by activity (CETO-flag may be applied) oIndustry, construction and services (except public administration, defence,
Statistical population	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.Breakdown by activity (CETO-flag may be applied)oIndustry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities
Statistical population	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.Breakdown by activity (CETO-flag may be applied)oIndustry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies)
Statistical population	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.         For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.         For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.         For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.         Breakdown by activity (CETO-flag may be applied)         ○       Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);
Statistical population	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.         For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.         For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.         For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.         Breakdown by activity (CETO-flag may be applied)         ○       Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);         ○       ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1
Statistical population	<ul> <li>For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.</li> <li>For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.</li> <li><u>Breakdown by activity</u> (CETO-flag may be applied)         <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing + ICT services):</li> </ul> </li> </ul>
Statistical population	<ul> <li>For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.</li> <li>For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.</li> <li>Breakdown by activity (CETO-flag may be applied) <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing + ICT services):</li> <li>ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> </ul> </li> </ul>
Statistical population	<ul> <li>For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.</li> <li>For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.</li> <li>Breakdown by activity (CETO-flag may be applied) <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing + ICT services):</li> <li>ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);</li> </ul> </li> </ul>
Statistical population	<ul> <li>For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.</li> <li>For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.</li> <li>Breakdown by activity (CETO-flag may be applied) <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing + ICT services):</li> <li>ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);</li> <li>High and medium-high technology manufacturing (optional)</li> </ul> </li> </ul>
Statistical population	<ul> <li>For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.</li> <li>For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.</li> <li>Breakdown by activity (CETO-flag may be applied) <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing + ICT services):</li> <li>ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);</li> <li>High and medium-high technology manufacturing (optional) (= NACE 20+21+25.4+26+27+28+29+30 (excl. 30.1)+32.5);</li> </ul> </li> </ul>
Statistical population	<ul> <li>For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.</li> <li>For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.</li> <li>Breakdown by activity (CETO-flag may be applied) <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing + ICT services):</li> <li>ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);</li> <li>High and medium-high technology manufacturing (optional) (= NACE 20+21+25.4+26+27+28+29+30 (excl. 30.1)+32.5);</li> <li>High technology manufacturing (= NACE 21+26+30.3);</li> </ul> </li> </ul>
Statistical population	<ul> <li>For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.</li> <li>For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.</li> <li>Breakdown by activity (CETO-flag may be applied) <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);</li> <li>High and medium-high technology manufacturing (optional) (= NACE 20+21+25.4+26+27+28+29+30 (excl. 30.1)+32.5);</li> <li>High technology manufacturing (= NACE 21+26-30.3);</li> <li>Medium-high technology manufacturing</li> </ul></li></ul>
Statistical population	<ul> <li>For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.</li> <li>For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.</li> <li>Breakdown by activity (CETO-flag may be applied) <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);</li> <li>High and medium-high technology manufacturing (optional) (= NACE 20+21+25.4+26+27+28+29+30 (excl. 30.1)+32.5);</li> <li>Medium-high technology manufacturing (= NACE 20+25.4+27+28+29+30 (excl. 30.1)and 30.3)+32.5);</li> </ul> </li> </ul>
Statistical population	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.         For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.         For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.         Breakdown by activity (CETO-flag may be applied)         o       Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);         o       ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1) = ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);         o       ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);         o       ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);         o       High and medium-high technology manufacturing (optional) (= NACE 20+21+25.4+26+27+28+29+30 (excl. 30.1)+32.5);         o       High technology manufacturing (= NACE 21+26.4+26+30.3);         o       Medium-high technology manufacturing (optional) (= NACE 20+25.4+27+28+29+30 (excl. 30.1 and 30.3)+32.5);         o       Medium-high technology manufacturing (optional)         (= NACE 20+25.4+27+28+29+30 (excl. 30.1 and 30.3)+32.5);       Low
Statistical population	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.         For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.         For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.         For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.         Breakdown by activity (CETO-flag may be applied)         •       Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);         •       ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing + ICT services):         •       ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);         •       High and medium-high technology manufacturing (optional) (= NACE 20+21+25.4+26+27+28+29+30 (excl. 30.1)+32.5);         •       High technology manufacturing (= NACE 21+26+30.3);         •       Medium-high technology manufacturing (optional) (= NACE 20+25.4+27+28+29+30 (excl. 30.1 and 30.3)+32.5);         •       Low and medium-low technology manufacturing (optional) (= NACE 10+111+12+13+14+15+16+17+18+19+22+23+24+25 (excl. 25.4)+
Statistical population	<ul> <li>For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.</li> <li>For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.</li> <li>For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.</li> <li>Breakdown by activity (CETO-flag may be applied) <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing + ICT services);</li> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);</li> <li>High and medium-high technology manufacturing (optional) (= NACE 20+21+25.4+26+27+28+29+30 (excl. 30.1)+32.5);</li> <li>Hodium-high technology manufacturing (= NACE 21+26+30.3);</li> <li>Low and medium-low technology manufacturing (optional) (= NACE 10+11+12+13+14+15+16+17+18+19+22+23+24+25 (excl. 25.4)+ 30.1+31+32 (excl. 32.5)+33);</li> </ul> </li> </ul>
Statistical population	For all variables other than gross margin on goods for resale, gross investment in intangible non-current assets other than goodwill, and sales proceeds of tangible investments: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.         For the variables gross margin on goods for resale and sales proceeds of tangible investments: market producers of NACE Sections B to G.         For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to G.         For the variable gross investment in intangible non-current assets other than goodwill: market producers of NACE Sections B to E.         Breakdown by activity (CETO-flag may be applied)         •       Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);         •       ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+631+95.1 = ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);         •       ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);         •       High and medium-high technology manufacturing (optional) (= NACE 20+21+25.4+26+27+28+29+30 (excl. 30.1)+32.5);         •       High technology manufacturing (= NACE 21+26+30.3);         •       Medium-high technology manufacturing (optional) (= NACE 20+25.4+27+28+29+30 (excl. 30.1 and 30.3)+32.5);         •       Low and medium-low technology manufacturing (optional) (= NACE 10+11+12+13+14+15+16+17+18+19+22+23+24+25

Table 10: country-level business statistics on activities of enterprises

Breakdowns	• Low technology manufacturing
	(= NACE 10+11+12+13+14+15+16+17+18 (excl. 18.2)+31+32 (excl. 32.5));
	<ul> <li>Information sector (= NACE 58.1+59.1+59.2+60+63.9);</li> </ul>
	<ul> <li>Computer related services (= NACE 58.2+62+63.1);</li> </ul>
	• Total knowledge intensive services (optional)
	(= NACE 50+51+58+59+60+61+62+63+64+65+66+69+70+71+
	72+73+74+75+78+80+84+85+86+87+88+90+91+92+93);
	<ul> <li>Knowledge-intensive high technology services</li> </ul>
	(= NACE 59+60+61+62+63+72);
	<ul> <li>Knowledge intensive market services</li> </ul>
	(= NACE 50+51+69+70+71+73+74+78+80);
	<ul> <li>Other knowledge intensive services (optional)</li> </ul>
	(= NACE 58+75+84+85+86+87+88+90+91+92+93);
	<ul> <li>Knowledge intensive financial services (= NACE 64+65+66);</li> </ul>
	<ul> <li>Knowledge intensive activities — business industries</li> </ul>
	(= NACE
	09+19+21+26+51+58+59+60+61+62+63+64+65+66+69+70+71+72+
	73+74+75+78+79+90);
	<ul> <li>Knowledge intensive activities (optional)</li> </ul>
	(= NACE
	09+19+21+26+51+58+59+60+61+62+63+64+65+66+69+70+71+72+
	73+74+75+78+79+84+85+86+90+91+94+99);
	• Tourism industries (total) (optional) (= NACE 49.1+49.32+49.39+50.1+50.3+
	51.1+55.1+55.2+55.3+56.1+56.3+77.1+77.21+79);
	<ul> <li>Tourism industries (mainly tourism) (optional)</li> </ul>
	(= NACE 51.1+55.1+55.2+55.3+79.1);
	• Tourism industries (partially tourism) (optional)
	(= NACE 49.1+49.32+49.39+50.1+50.3+56.1+56.3+77.1+77.21+79.9);
	• Transport (total) (optional) (= NACE 49.1+49.32+49.39+50.1+50.3+51.1);
	<ul> <li>Land transport (optional) (= NACE 49.1+49.32+49.39);</li> </ul>
	• Water transport (optional) (= NACE 50.1+50.3);
	<ul> <li>Accommodation (optional) (= NACE 55.1+55.2+55.3);</li> </ul>
	• Food and beverage services (total) (optional) (= NACE 56.1+56.3);
	• Car and other rental (total)(optional) (= NACE 77.1+77.21);
	• Services (except public administration, defence, compulsory social security,
	activities of membership organisations, households as employers and extra-
	territorial organisations and bodies)
	(= NACE G+H+I+J+K+L+M+N+P+Q+R+95+96).
	For the variables number of active enterprises, number of employees and self-
	employed persons, number of employees, wages and salaries, net turnover and value
	added
	In addition, special aggregates for:
	<ul> <li>Cultural and creative sectors — total</li> </ul>
	(= NACE
	18+32.12+32.2+47.61+47.62+47.63+58.11+58.13+58.14+58.21+59+
	60+63.91+71.11+74.1+74.2+74.3+77.22+85.52+90+91);
	<ul> <li>Cultural and creative sectors — services</li> </ul>
	(= NACE 58.11+58.13+58.14+58.21+59+60+63.91+71.11+74.1+74.2+74.3+
	77.22+85.52+90+91).
	//.ZZTOJ.JZTJUTJI).
	For the variables aross investment in intangible non-surrent assets other than
	For the variables gross investment in intangible non-current assets other than
	goodwill and sales proceeds of tangible investments:
lles of approving tions and	• NACE sections and divisions.
Use of approximations and	For the activities of NACE Groups 64.2, 64.3 and 65.3 which are economically not
quality requirements	significant in terms of value added and number of employees and self-employed
	persons, zero (0) values may be provided except for the variables number of active
	enterprises and number of employees and self-employed persons. If the number of
	employees is not zero (0), this value should also be provided.
	In cases where the source data used for compiling the data are available for the

	fiscal year for some statistical units and this data cannot be recalculated to cover the calendar year, the calendar year data may be approximated by data for the fiscal year.
Data transmission deadline	<u>Preliminary data:</u> t+10 months for NACE sections, divisions and groups for the variables number of active enterprises, number of employees and self-employed persons, and net turnover; <u>Final and validated data:</u> t+18 months for all variables.
First reference period	2021.

Table 11: country-level business statistics on activities of enterprises broken down by size classes or broken down by legal form

legal form	
Variables	Number of active enterprises
	Number of employees and self-employed persons
	Number of employees
	Hours worked by employees
	Employee benefits expense
	Wages and salaries
	Social security costs
	<ul> <li>Total purchases of goods and services</li> </ul>
	Net turnover
	Value of output
	Value added
	Gross operating surplus
Statistical unit	Enterprise
Measurement unit	National currency (thousands), except for the variables number of active enterprises,
	number of employees and self-employed persons, number of employees, and hours worked by employees (absolute value)
Periodicity	Annually
Reference period	
Statistical population	Calendar year For breakdowns by i) activity and by size class (number of employees and self-
Statistical population	employed persons) for the variables number of active enterprises, number of
	employees and self-employed persons, net turnover and value added ii) activity and
	legal form and iii) activity and size class (number of employees) for the variables
	number of active enterprises, number of employees and self-employed persons and
	number of employees: market producers of NACE Sections B to N and P to R and
	Divisions 95 and 96.
	For breakdowns by activity and by size class (turnover) for the variables number of
	active enterprises, number of employees and self-employed persons, net turnover,
	and value added: market producers of NACE Section G.
	For breakdowns by activity and by size class (number of employees and self-
	employed persons) for variables other than the number of active enterprises, number
	of employees and self-employed persons, net turnover, and value added: market
	producers of NACE Sections B to F.
Breakdowns	1. Breakdown by activity and size class of number of employees and self-employed
	persons (CETO-flag may be applied)
	Data have to be provided as a combination of all breakdowns listed below.
	Activity breakdown:
	<ul> <li>For NACE Sections B to J, L to N and P to R: sections, divisions and groups;</li> </ul>
	• For NACE Section K: section, divisions and Groups 64.1, 64.2, 64.3, 64.9, 65.1,
	65.2 and 65.3;
	<ul> <li>For NACE Divisions 95 and 96: divisions and groups;</li> </ul>
	<ul> <li>Special aggregate as defined in Annex II of the EBS GIA Regulation:</li> </ul>
	<ul> <li>Industry, construction and services (except public administration, defence,</li> </ul>
	compulsory social security, activities of membership organisations, activities
	of households as employers and extra-territorial organisations and bodies)
	(= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96).
	Size class breakdown (number of employees and self-employed persons):
	<ul> <li>For NACE Sections F to J, L to N and P to R and Divisions 95 and 96 only for the</li> </ul>
	<ul> <li>For NACE Sections F to J, L to N and P to R and Divisions 95 and 96 only for the variables number of active enterprises and number of employees and self-</li> </ul>
	employed persons: total, 0-1 employees and self-employed persons, 2-9
	employees and self-employed persons, 10-19 employees and self-employed
	persons, 20-49 employees and self-employed persons, 50-249 employees and
	self-employed persons, 250 and more employees and self-employeed persons;
	Sea employed persons, 250 and more employees and sea employed persons,

Breakdowns	<ul> <li>For NACE Sections F to J, L to N and P to R and Divisions 95 and 96 for all variables other than the number of active enterprises and number of employees and self-employed persons: total, 0-9 employees and self-employed persons, 10-19 employees and self-employed persons, 20-49 employees and self-employed persons, 50-249 employees and self-employed persons, 250 and more employees and self-employed persons;</li> <li>For NACE Sections B to E and K: total, 0-9 employees and self-employed persons, 10-19 employees and self-employed persons, 20-49 employees and self-employed persons, 10-19 employees and self-employed persons, 20-30 employees and self-employed persons, 10-19 employees and self-employed persons, 20-30 employees and self-employees and self-employe</li></ul>
	2. Breakdown by activity and size class of number of employees (CETO-flag may be applied) For the variables number of active enterprises, number of employees and self- employed persons, and number of employees Data have to be provided as a combination of all breakdowns listed below.
	Activity breakdown:         • NACE sections;         • Aggregates of NACE Divisions:         ○ 10+11+12; 13+14; 17+18; 24+25; 29+30; 31+32;         • NACE Divisions:
	<ul> <li>NACE Divisions:</li> <li>15, 16, 19, 20, 21, 22, 23, 26, 27, 28, 33, 95, 96 and all NACE divisions of Sections G, H, I, J, K, L, M, N, P, Q and R;</li> <li>NACE groups of Divisions 47 and 62 and of Sections L, M and N;</li> <li>NACE classes of Division 62;</li> </ul>
	<ul> <li>Special aggregates:         <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>Services (except public administration, defence, compulsory social security, activities of membership organisations, households as employers and extra-territorial organisations and extra-territorial organisations and bodies) (= NACE G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>NACE G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>NACE G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> </ul> </li> </ul>
	<ul> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+63.1+95.1 = ICT manufacturing + ICT services);</li> <li>ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1).</li> </ul>
	<ul> <li>Size class breakdown (number of employees):</li> <li>Total, 0 employees, 1-4 employees, 5-9 employees, 10 and more employees.</li> </ul>
	<u>3. Breakdown by activity and legal form</u> (CETO-flag may be applied) For the variables number of active enterprises, number of employees and self- employed persons, and number of employees Data have to be provided as a combination of all breakdowns listed below.
	<ul><li>Activity breakdown:</li><li>Same activity breakdown as for breakdown 2.</li></ul>
	<ul> <li>Legal form breakdown:</li> <li>Total;</li> <li>Personally owned and no limit to personal liability;</li> <li>Private or publicly quoted joint stock companies with limited liability for those owning shares;</li> </ul>
	<ul> <li>Personally owned limited and unlimited liability partnerships (included are also other legal forms such as co-operatives, associations etc.).</li> </ul>

Breakdowns	4. Breakdown by activity and size class of turnover (CETO-flag; 1 % rule based on net
	turnover and number of employees and self-employed persons at NACE division level
	may be applied)
	For NACE Section G only
	Data have to be provided as a combination of all breakdowns listed below.
	Activity breakdown:
	NACE section, divisions and groups.
	Size class breakdown (turnover):
	• Annual turnover (in million euro): total, 0 to less than 1, 1 to less than 2, 2 to less than 5, 5 to less than 10, 10 to less than 20, 20 to less than 50, 50 to less than 200, 200 and more.
Use of approximations and	For the activities of NACE Groups 64.2, 64.3 and 65.3 which are economically not
quality requirements	significant in terms of value added and number of employees and self-employed
	persons, zero (0) values may be provided except for the variables number of active
	enterprises and number of employees and self-employed persons. If the number of
	employees is not zero (0), this value should also be provided.
	In cases where the source data used for compiling the data are available for the
	fiscal year for some statistical units and this data cannot be recalculated to cover the
	calendar year, the calendar year data may be approximated by data for the fiscal
	year.
Data transmission deadline	Preliminary data: t+10 months for activities and breakdowns by size class of number
	of employees and self-employed persons for the variables number of active
	enterprises, number of employees and self-employed persons, and net turnover;
	Final and validated data: t+18 months for all variables.
First reference period	2021.

Table 12: country-level business statistics on demographic events for enterprises	
Variables	Enterprise births
	Enterprise deaths
	Enterprise survivals
	<ul> <li>Number of enterprises having at least one employee</li> </ul>
	Enterprises having the first employee
	Enterprises having the mist employees anymore
	Survivals of enterprises having at least one employee
	Number of employees and self-employed persons in newly born enterprises
	Number of employees in newly born enterprises
	Number of employees and self-employed persons in enterprise deaths
	Number of employees in enterprise deaths
	Number of employees and self-employed persons in enterprise survivals
	<ul> <li>Number of employees and self-employed persons in enterprise survivals, in the year of birth</li> </ul>
	<ul> <li>Number of employees and self-employed persons in enterprises having at least one employee</li> </ul>
	employee
	Number of employees in enterprises having the first employee
	<ul> <li>Number of employees and self-employed persons in enterprises having no employees anymore</li> </ul>
	Number of employees in enterprises having no employees anymore
	Number of employees and self-employed persons in survivals of enterprises
	having at least one employee
	Number of employees and self-employed persons in survivals of enterprises
	having at least one employee, in the year of birth
Statistical unit	Enterprise
Measurement unit	Absolute value
Periodicity	Annually
Reference period	Calendar year
Statistical population	Market producers of NACE Sections B to N and P to R and Divisions 95 and 96
Breakdowns	1. Breakdown by activity and size class of number of employees (CETO-flag may be
Breakdowns	applied)
	For all variables, except for:
	enterprise survivals;
	survivals of enterprises having at least one employee;
	number of employees and self-employed persons in enterprise survivals;
	number of employees and self-employed persons in enterprise survivals, in the
	year of birth;
	<ul> <li>number of employees and self-employed persons in survivals of enterprises having at least one employee;</li> </ul>
	<ul> <li>number of employees and self-employed persons in survivals of enterprises</li> </ul>
	having at least one employee, in the year of birth. Data have to be provided as a combination of all breakdowns listed below.
	having at least one employee, in the year of birth. Data have to be provided as a combination of all breakdowns listed below. <i>Activity breakdown:</i>
	having at least one employee, in the year of birth. Data have to be provided as a combination of all breakdowns listed below.
	having at least one employee, in the year of birth. Data have to be provided as a combination of all breakdowns listed below. <i>Activity breakdown:</i>
	<ul> <li>having at least one employee, in the year of birth.</li> <li>Data have to be provided as a combination of all breakdowns listed below.</li> <li>Activity breakdown:</li> <li>NACE sections;</li> </ul>
	<ul> <li>having at least one employee, in the year of birth.</li> <li>Data have to be provided as a combination of all breakdowns listed below.</li> <li>Activity breakdown: <ul> <li>NACE sections;</li> <li>Aggregates of NACE Divisions:</li> </ul> </li> </ul>
	<ul> <li>having at least one employee, in the year of birth.</li> <li>Data have to be provided as a combination of all breakdowns listed below.</li> <li>Activity breakdown: <ul> <li>NACE sections;</li> <li>Aggregates of NACE Divisions: <ul> <li>10+11+12; 13+14; 17+18; 24+25; 29+30; 31+32;</li> </ul> </li> </ul></li></ul>
	<ul> <li>having at least one employee, in the year of birth.</li> <li>Data have to be provided as a combination of all breakdowns listed below.</li> <li>Activity breakdown: <ul> <li>NACE sections;</li> <li>Aggregates of NACE Divisions: <ul> <li>10+11+12; 13+14; 17+18; 24+25; 29+30; 31+32;</li> </ul> </li> <li>NACE Divisions: <ul> <li>15, 16, 19, 20, 21, 22, 23, 26, 27, 28, 33, 95, 96 and all NACE divisions of</li> </ul> </li> </ul></li></ul>
	<ul> <li>having at least one employee, in the year of birth.</li> <li>Data have to be provided as a combination of all breakdowns listed below.</li> <li>Activity breakdown: <ul> <li>NACE sections;</li> <li>Aggregates of NACE Divisions: <ul> <li>10+11+12; 13+14; 17+18; 24+25; 29+30; 31+32;</li> </ul> </li> <li>NACE Divisions:</li> </ul></li></ul>
	<ul> <li>having at least one employee, in the year of birth.</li> <li>Data have to be provided as a combination of all breakdowns listed below.</li> <li>Activity breakdown: <ul> <li>NACE sections;</li> <li>Aggregates of NACE Divisions: <ul> <li>10+11+12; 13+14; 17+18; 24+25; 29+30; 31+32;</li> </ul> </li> <li>NACE Divisions: <ul> <li>15, 16, 19, 20, 21, 22, 23, 26, 27, 28, 33, 95, 96 and all NACE divisions of Sections G, H, I, J, K, L, M, N, P, Q and R;</li> </ul> </li> </ul></li></ul>

Table 12: country-level business statistics on demographic events for enterprises

<ul> <li>Special aggregates: Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96); Services (except public administration, defence, compulsory social security, activities of membership organisations, households as employers and extra- territorial organisations and bodies) (= NACE G+H+I+J+K+L+M+N+P+Q+R+95+96); ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+63.1+95.1 = ICT manufacturing + ICT services); ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8+26.4+26.8);         </li> </ul>
<ul> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1).</li> <li>Size class breakdown (number of employees):</li> <li>Total, 0 employees, 1-4 employees, 5-9 employees, 10 and more employees;</li> <li>Size class 0 employees not to be provided for variables:         <ul> <li>number of enterprises having at least one employee;</li> <li>enterprises having the first employee;</li> </ul> </li> </ul>
<ul> <li>enterprises having no employees anymore;</li> <li>number of employees and self-employed persons in enterprises having at least one employee;</li> <li>number of employees in enterprises having at least one employee;</li> <li>number of employees and self-employed persons in enterprises having the first employee;</li> <li>number of employees in enterprises having the first employee;</li> <li>number of employees and self-employed persons in enterprises having the first employee;</li> <li>number of employees and self-employed persons in enterprises having no employees anymore;</li> <li>number of employees in enterprises having no employees anymore.</li> </ul>
<ul> <li>2. Breakdown by activity and legal form (CETO-flag may be applied)</li> <li>For all variables, except for: <ul> <li>enterprise survivals;</li> <li>survivals of enterprises having at least one employee;</li> <li>number of employees and self-employed persons in enterprise survivals;</li> <li>number of employees and self-employed persons in enterprise survivals, in the year of birth;</li> <li>number of employees and self-employed persons in survivals of enterprises having at least one employee;</li> <li>number of employees and self-employed persons in survivals of enterprises having at least one employee;</li> <li>number of employees and self-employed persons in survivals of enterprises having at least one employee, in the year of birth.</li> </ul> </li> <li>Data have to be provided as a combination of all breakdowns listed below.</li> </ul>
<ul> <li>Activity breakdown:</li> <li>Same activity breakdown as for breakdown 1.</li> <li>Legal form breakdown:</li> <li>Total;</li> <li>Personally owned and no limit to personal liability;</li> <li>Private or publicly quoted joint stock companies with limited liability for those owning shares;</li> <li>Personally owned limited and unlimited liability partnerships (included are also other legal forms such as co-operatives, associations etc.).</li> </ul>

Breakdowns	3. Breakdown by activity, size class of number of employees and number of calendar
BICURUOWIIS	<u>years of survival</u> (CETO-flag may be applied)
	For the variables:
	enterprise survivals;
	<ul> <li>survivals of enterprises having at least one employee;</li> </ul>
	<ul> <li>number of employees and self-employed persons in enterprise survivals;</li> </ul>
	<ul> <li>number of employees and self-employed persons in enterprise survivals, in the year of birth;</li> </ul>
	<ul> <li>number of employees and self-employed persons in survivals of enterprises having at least one employee;</li> </ul>
	<ul> <li>number of employees and self-employed persons in survivals of enterprises having at least one employee, in the year of birth.</li> </ul>
	Data have to be provided as a combination of all breakdowns listed below.
	Activity breakdown:
	• Same activity breakdown as for breakdown 1.
	Size class breakdown (number of employees):
	<ul> <li>Total, 0 employees, 1-4 employees, 5-9 employees, 10 and more employees.</li> <li>Size class 0 employees not to be provided for variables:</li> </ul>
	<ul> <li>survivals of enterprises having at least one employee;</li> </ul>
	<ul> <li>number of employees and self-employed persons in survivals of enterprises</li> </ul>
	<ul> <li>having at least one employee;</li> <li>number of employees and self-employed persons in survivals of enterprises</li> </ul>
	having at least one employee, in the year of birth.
	Breakdown by number of calendar years of survival
<b>5</b> • • • • • • • •	• 1 year, 2 years, 3 years, 4 years, 5 years.
Data transmission deadline	<ul> <li>Preliminary data:</li> <li>t+18 months for the variables enterprise deaths, number of employees and self-employed persons in enterprise deaths and number of employees in enterprise deaths;</li> </ul>
	<ul> <li>t+20 months for the variables enterprises having no employees anymore, number of employees and self-employed persons in enterprises having no employees anymore, and number of employees in enterprises having no employees anymore.</li> </ul>
	Einal and validated data:
	<ul> <li>Final and validated data:</li> <li>t+18 months for the variables enterprise births, enterprise survivals, number of employees and self-employed persons in newly born enterprises, number of employees in newly born enterprises, number of employees and self-employed persons in enterprise survivals, and number of employees and self-employed</li> </ul>
	• <i>t</i> +18 months for the variables enterprise births, enterprise survivals, number of employees and self-employed persons in newly born enterprises, number of employees in newly born enterprises, number of employees and self-employed persons in enterprise survivals, and number of employees and self-employed persons in enterprise survivals, in the year of birth;
	<ul> <li><i>t</i>+18 months for the variables enterprise births, enterprise survivals, number of employees and self-employed persons in newly born enterprises, number of employees in newly born enterprises, number of employees and self-employed persons in enterprise survivals, and number of employees and self-employed persons in enterprise survivals, in the year of birth;</li> <li><i>t</i>+20 months for the variables number of enterprises having at least one</li> </ul>
	<ul> <li>t+18 months for the variables enterprise births, enterprise survivals, number of employees and self-employed persons in newly born enterprises, number of employees in newly born enterprises, number of employees and self-employed persons in enterprise survivals, and number of employees and self-employed persons in enterprise survivals, in the year of birth;</li> <li>t+20 months for the variables number of enterprises having at least one employee, enterprises having the first employee, survivals of enterprises having at least one employee, number of employees and self-employed persons in</li> </ul>
	<ul> <li>t+18 months for the variables enterprise births, enterprise survivals, number of employees and self-employed persons in newly born enterprises, number of employees and self-employed persons in enterprise survivals, and number of employees and self-employed persons in enterprise survivals, in the year of birth;</li> <li>t+20 months for the variables number of enterprises having at least one employee, enterprises having the first employee, survivals of enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, survivals of enterprises having at least one employee, number of employees and self-employed persons in enterprises having at least one employee, number of employees in enterprises having at least one employee, number of employees and self-employed persons in enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, number of employees in enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, number of employees in enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, number of employees in enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, number of employees in enterprises</li> </ul>
	<ul> <li>t+18 months for the variables enterprise births, enterprise survivals, number of employees and self-employed persons in newly born enterprises, number of employees and self-employed persons in enterprise survivals, and number of employees and self-employed persons in enterprise survivals, in the year of birth;</li> <li>t+20 months for the variables number of enterprises having at least one employee, enterprises having the first employee, survivals of enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, survivals of enterprises having at least one employee, number of employees and self-employed persons in enterprises having at least one employee, number of employees and self-employed persons in enterprises having at least one employee, number of employees and self-employed persons in enterprises having at least one employee, number of employees and self-employed persons</li> </ul>
	<ul> <li>t+18 months for the variables enterprise births, enterprise survivals, number of employees and self-employed persons in newly born enterprises, number of employees and self-employed persons in enterprise survivals, and number of employees and self-employed persons in enterprise survivals, and number of employees and self-employed persons in enterprise survivals, in the year of birth;</li> <li>t+20 months for the variables number of enterprises having at least one employee, enterprises having the first employee, survivals of enterprises having at least one employee, number of employees and self-employed persons in enterprises having at least one employee, number of employees and self-employed persons in enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, number of employees in enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, number of employees and self-employed persons in survivals of enterprises having at least one employee, number of employees and self-employed persons in survivals of enterprises having at least one employee, number of employees in enterprises having the first employee, number of employees and self-employed persons in survivals of enterprises having at least one employees and self-employed persons in survivals of enterprises having at least one employees and self-employed persons in survivals of enterprises having at least one employees and self-employed persons in survivals of enterprises having at least one employees and self-employed persons in survivals of enterprises having at least one employees and self-employed persons in survivals of enterprises having at least one employees and self-employed persons in survivals of enterprises having at least one employees and self-employed persons in survivals of enterprises having at least one employees and self-employees and self-employees and self-employees and self-employ</li></ul>
	<ul> <li><i>t</i>+18 months for the variables enterprise births, enterprise survivals, number of employees and self-employed persons in newly born enterprises, number of employees and self-employed persons in enterprise survivals, and number of employees and self-employed persons in enterprise survivals, in the year of birth;</li> <li><i>t</i>+20 months for the variables number of enterprises having at least one employee, enterprises having the first employee, survivals of enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, survivals of enterprises having at least one employee, number of employees and self-employed persons in enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, number of employees in enterprises having at least one employee, number of employees and self-employed persons in enterprises having the first employee, number of employees in enterprises having the first employee, number of employees in enterprises having the first employee, number of employees and self-employed persons in survivals of enterprises having at least one employee, and number of employees and self-employees and self-employed persons in survivals of enterprises having at least one employee, in the year of birth;</li> <li><i>t</i>+30 months for the variables enterprise deaths, number of employees in enterprise</li> </ul>

Table 15. country-level busine	ss statistics on high-growth enterprises
Variables	Number of high-growth enterprises
	Number of young high-growth enterprises
	Number of employees in high-growth enterprises
	Number of employees in young high-growth enterprises
Statistical unit	Enterprise
Measurement unit	Absolute value
Periodicity	Annually
Reference period	Calendar year
Statistical population	Market producers of NACE Sections B to N and P to R and Divisions 95 and 96
Breakdowns	Breakdown by activity (CETO-flag may be applied)
	<ul> <li>NACE sections (only for NACE Sections B to N and P to R);</li> </ul>
	<ul> <li>NACE divisions and groups (except for NACE Sections P to R);</li> </ul>
	Special aggregates:
	<ul> <li>Industry, construction and services (except public administration, defence,</li> </ul>
	compulsory social security, activities of membership organisations, activities
	of households as employers and extra-territorial organisations and bodies)
	(= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);
	<ul> <li>Services (except public administration, defence, compulsory social security,</li> </ul>
	activities of membership organisations, households as employers and extra- territorial organisations and bodies)
	(= NACE G+H+I+J+K+L+M+N+P+Q+R+95+96).
Data transmission deadline	Preliminary data: t+12 months for the variables number of high-growth enterprises
	and number of employees in high-growth enterprises;
	Final and validated data: t+18 months for all variables.
First reference period	2021.

### Table 13: country-level business statistics on high-growth enterprises

	ess statistics on enterprises by country of ultimate control
Variables	Number of active enterprises
	Number of foreign-controlled enterprises
	Number of employees and self-employed persons
	Employee benefits expense
	Number of employees and self-employed persons in foreign-controlled
	enterprises
	Employee benefits expense in foreign-controlled enterprises
	<ul> <li>Intramural R&amp;D expenditure (1 % rule based on net turnover or number of employees and self-employed persons at relevant NACE A*38 level aggregates for NACE Sections B to F may be applied)</li> </ul>
	<ul> <li>R&amp;D personnel (1 % rule based on net turnover or number of employees and</li> </ul>
	self-employed persons at relevant NACE A*38 level aggregates for NACE Sections B to F may be applied)
	Intramural R&D expenditure in foreign-controlled enterprises (1 % rule based on net turnover or number of employees and self-employed persons at relevant
	<ul> <li>NACE A*38 level aggregates for NACE Sections B to F may be applied)</li> <li>R&amp;D personnel in foreign-controlled enterprises (1 % rule based on net turnover or number of employees and self-employed persons at relevant NACE A*38 level</li> </ul>
	aggregates for NACE Sections B to F may be applied)
	Total purchases of goods and services
	Purchases of goods and services for resale
	Total purchases of goods and services of foreign-controlled enterprises
	<ul> <li>Purchases of goods and services for resale of foreign-controlled enterprises</li> <li>Net turnover</li> </ul>
	Value of output     Value added
	Net turnover of foreign-controlled enterprises
	Value of output of foreign-controlled enterprises
	Value added of foreign-controlled enterprises
	Gross investment in tangible non-current assets
Statistical unit	Foreign-controlled enterprises' gross investment in tangible non-current assets
	Enterprise Absolute value for the variables number of active enterprises, number of foreign-
Measurement unit	controlled enterprises, number of employees and self-employed persons, number of employees and self-employed persons in foreign-controlled enterprises, R&D personnel, and R&D personnel in foreign-controlled enterprises.
	National currency (thousands) for other variables.
Periodicity	Annually
Reference period	Calendar year
Statistical population	For all variables except for intramural R&D expenditure, intramural R&D expenditure in foreign-controlled enterprises, R&D personnel, and R&D personnel in foreign- controlled enterprises: market producers of NACE Sections B to N and P to R and Divisions 95 and 96.
	For the variables intramural R&D expenditure, intramural R&D expenditure in foreign- controlled enterprises, R&D personnel, and R&D personnel in foreign-controlled enterprises: market producers of NACE Sections B to F.
Breakdowns	Data have to be provided with the detail by country of ultimate control, according to the concept of 'ultimate controlling institutional unit', and by activity of the enterprise.
	<u>1. Breakdown by activity and geographical breakdown</u> Data have to be provided as a combination of all breakdowns listed below. For all variables except for intramural R&D expenditure, intramural R&D expenditure in foreign-controlled enterprises, R&D personnel, and R&D personnel in foreign- controlled enterprises

Table 14: country-level business statistics on enterprises by country of ultimate control

Breakdowns	Activity breakdown:
	NACE sections;
	Aggregates of NACE Divisions:
	0 10+11+12; 13+14+15; 16+17+18; 22+23; 24+25; 29+30; 31+32; 52+53;
	59+60; 62+63; 69+70+71; 73+74+75; 78+79+80+81+82; 87+88; 95+96;
	NACE Divisions:
	<ul> <li>19, 20, 21, 26, 27, 28, 33, 49, 50, 51, 58, 61, 72, 77, 86;</li> </ul>
	Special aggregates:
	<ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>Services (except public administration, defence, compulsory social security, activities of membership organisations, households as employers and extra-territorial organisations and extra-territorial organisations and bodies) (= NACE G+H+I+J+K+L+M+N+P+Q+R+95+96).</li> </ul>
	For the variables intramural R&D expenditure, intramural R&D expenditure in foreign- controlled enterprises, R&D personnel, and R&D personnel in foreign-controlled enterprises
	Activity breakdown
	Activity breakdown:
	<ul> <li>NACE sections;</li> <li>Aggregates of NACE Divisions:</li> </ul>
	<ul> <li>Aggregates of NACL Divisions.</li> <li>10+11+12; 13+14+15; 16+17+18; 22+23; 24+25; 29+30; 31+32;</li> </ul>
	<ul> <li>NACE Divisions:</li> </ul>
	<ul> <li>19, 20, 21, 26, 27, 28, 33;</li> </ul>
	<ul> <li>Special aggregate:</li> </ul>
	<ul> <li>Industry and construction (= NACE B+C+D+E+F).</li> </ul>
	Geographical breakdown:
	For the variables number of active enterprises, number of employees and self- employed persons, employee benefits expense, intramural R&D expenditure, R&D personnel, total purchases of goods and services, purchases of goods and services for resale, net turnover, value of output, value added, and gross investment in tangible non-current assets: • geographic aggregates of World total and Domestically controlled.
	<ul> <li>For other variables:</li> <li>REST OF THE WORLD, Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain including Ceuta and Melilla, France including Mayotte, Saint Pierre and Miquelon and Saint Barthélemy, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, Iceland, Liechtenstein, Norway, Switzerland, Russian Federation, Turkey, United Kingdom (excl. Channel Islands and Isle of Man), Canada, United States, Israel, China, Hong Kong, Japan, Australia, New Zealand, INTRA-UNION, EXTRA-UNION, Equally-shared control of UCIs of more than one Member State, EXTRA-UNION NOT ALLOCATED, Offshore</li> </ul>

Breakdowns	2. Geographical breakdown
	For the variables number of foreign-controlled enterprises, number of employees and self-employed persons in foreign-controlled enterprises, employee benefits expense in
	foreign-controlled enterprises, intramural R&D expenditure in foreign-controlled enterprises, R&D personnel in foreign-controlled enterprises, total purchases of goods
	and services of foreign-controlled enterprises, purchases of goods and services for
	resale of foreign-controlled enterprises, net turnover of foreign-controlled
	enterprises, value of output of foreign-controlled enterprises, value added of foreign-
	controlled enterprises, and foreign-controlled enterprises' gross investment in
	tangible non-current assets:
	<ul> <li>REST OF THE WORLD, Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain including Ceuta and Melilla, France including Mayotte, Saint Pierre and Miquelon and Saint Barthélemy, Croatia, Italy, Cyprus, Latvia,</li> </ul>
	Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, Iceland, Liechtenstein, Norway,
	Switzerland, Albania, Andorra, Belarus, Bosnia and Herzegovina, Faroe Islands,
	Gibraltar, Guernsey, Holy See, Isle of Man, Jersey, North Macedonia, Moldova, Republic of Montenegro, Russian Federation, Serbia, San Marino, Turkey, Ukraine,
	United Kingdom (excl. Channel Islands and Isle of Man), Algeria, Egypt, Libyan
	Arab Jamahiriya, Morocco, Tunisia, Angola, Benin, Botswana, British Indian Ocean
	Territory, Burkina Faso, Burundi, Cameroon, Cabo Verde, Central African Republic,
	Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of Congo, Djibouti,
	Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania,
	Mauritius, Mozambique, Namibia, Niger, Nigeria, South Africa, Rwanda, Saint
	Helena, Ascension and Tristan da Cunha, Sao Tome and Principe, Senegal,
	Seychelles, Sierra Leone, Somalia, Sudan, South Sudan, Tanzania, United Republic
	of Togo, Uganda, Zambia, Zimbabwe, Canada, Greenland, United States, Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bonaire, Sint Eustatius and Saba, Virgin Islands, British Cayman Islands, Costa Rica, Cuba,
	Curaçao, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Haiti,
	Honduras, Jamaica, Mexico, Montserrat, Nicaragua, Panama, St Kitts and Nevis,
	Saint Lucia, Sint Maarten (Dutch part), St Vincent and the Grenadines, Trinidad
	and Tobago, Turks and Caicos Islands, Virgin Islands (US), Argentina, Bolivia ,
	Brazil, Chile, Colombia, Ecuador, Falkland Islands, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela, Bahrain, Iraq, Kuwait, Oman, Qatar, Saudi Arabia,
	United Arab Emirates, Yemen, Armenia, Azerbaijan, Georgia, Israel, Jordan,
	Lebanon, Occupied Palestinian Territory, Syrian Arab Republic, Afghanistan,
	Bangladesh, Bhutan, Brunei Darussalam, Myanmar, Cambodia, China, Hong Kong,
	India, Indonesia, Islamic Republic of Iran, Japan, Kazakhstan, Kyrgyzstan, Lao
	People's Democratic Republic, Macao, Malaysia, Maldives, Mongolia, Nepal, Democratic People's Republic of Korea, Pakistan, Philippines, Singapore, South
	Korea, Sri Lanka, Taiwan, Tajikistan, Thailand, Timor-Leste, Turkmenistan,
	Uzbekistan, Viet Nam, American Samoa, Guam, United States Minor Outlying
	Islands, Australia, Cocos (Keeling) Islands, Christmas Island, Heard Island and
	McDonald Islands, Norfolk Island, Fiji, French Polynesia, Kiribati, Marshall Islands,
	Federated States of Micronesia, Nauru, New Caledonia, New Zealand, Cook Islands, Niue, Tokelau, Northern Mariana Islands, Palau, Papua New Guinea,
	Pitcairn, Antarctica, Bouvet Island, South Georgia and South Sandwich Islands,
	French Southern Territories, Solomon Islands, Tonga, Tuvalu, Vanuatu, Samoa,
	Wallis and Futuna, INTRA-UNION, EXTRA-UNION, Equally-shared control of UCIs of
	more than one Member State, EXTRA-UNION NOT ALLOCATED, Offshore financial
Use of approximations and	centres. For NACE Division 64 the value of the two variables on net turnover can be
quality requirements	approximated by the value of output.
	For the activities of NACE Groups 64.2, 64.3 and 65.3 which are economically not
	significant in terms of value added and number of employees and self-employed
	persons, zero (0) values may be assumed except for the variables number of active
1	enterprises, number of employees and self-employed persons, number of foreign-

	foreign-controlled enterprises.
Use of approximations and quality requirements	For the activities of NACE Section K, it can be assumed that the value of the two variables on purchases of goods and services for resale is economically non-significant, therefore zero (0) values may be provided for these variables.
	Additional approximations for the activities of NACE Section K may be agreed between the European Commission (Eurostat) and the Member States taking into account the country conditions.
	In cases where the source data used for compiling the data are available for the fiscal year for some statistical units and this data cannot be recalculated to cover the calendar year, the calendar year data may be approximated by data for the fiscal year.
Data transmission deadline	t+20 months.
First reference period	2021.

Table 15: country-level business statistics on foreign-controlling enterprises and domestic affiliates active in the reporting country

reporting country	
Variables	<ul> <li>Number of foreign-controlling enterprises (UCI concept) and domestic affiliates</li> <li>Number of employees and self-employed persons in foreign-controlling enterprises (UCI concept) and domestic affiliates</li> <li>Net turnover of foreign-controlling enterprises (UCI concept) and domestic affiliates</li> </ul>
Statistical unit	Enterprise
Measurement unit	Absolute value for the variables number of foreign-controlling enterprises (UCI concept) and domestic affiliates, and number of employees and self-employed persons in foreign-controlling enterprises (UCI concept) and domestic affiliates.
	National currency (thousands) for the variables net turnover of foreign-controlling
Pariadicity	enterprises (UCI concept) and domestic affiliates. Annually
Periodicity Reference period	Calendar year
Statistical population	Market producers of NACE Sections B to N and P to S
Breakdowns	Breakdown by activity of the enterprise
DIEAKUUWIIS	NACE sections;
	Aggregates of NACE Divisions:
	<ul> <li>Aggregates of NACE Divisions:</li> <li>10+11+12; 13+14+15; 16+17+18; 22+23; 24+25; 29+30; 31+32; 52+53; 59+60; 62+63; 69+70+71; 73+74+75; 78+79+80+81+82; 87+88;</li> <li>NACE Divisions:</li> </ul>
	o 19, 20, 21, 26, 27, 28, 33, 49, 50, 51, 58, 61, 72, 77, 86;
	Special aggregates:
	<ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>Services (except public administration, defence, compulsory social security, activities of membership organisations, households as employers and extra-territorial organisations and bodies) (= NACE G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> </ul>
Use of approximations and	For NACE Division 64 the value of the variable net turnover can be approximated by
quality requirements	the value of output.
	For the activities of NACE Groups 64.2, 64.3 and 65.3 which are economically not significant in terms of value added and number of employees and self-employed persons, zero (0) values may be assumed for the variable net turnover of foreign-controlling enterprises (UCI concept) and domestic affiliates.
	Additional approximations for the activities of NACE Section K may be agreed between the Commission (Eurostat) and the Member States taking into account the country conditions.
	country conditions.
	In cases where the source data used for compiling the data are available for the fiscal year for some statistical units and this data cannot be recalculated to cover the calendar year, the calendar year data may be approximated by data on the fiscal year.
Data transmission deadline	In cases where the source data used for compiling the data are available for the fiscal year for some statistical units and this data cannot be recalculated to cover the calendar year, the calendar year data may be approximated by data on the fiscal

Variables	siness statistics on trade in goods by enterprise characteristics     • Number of enterprises importing goods
Variables	
	Number of enterprises exporting goods
	Statistical value of imports by enterprises
	Statistical value of exports by enterprises
Statistical unit	Enterprise
Measurement unit	Absolute value for the variables number of enterprises exporting goods and number
	of enterprises importing goods.
	National currency (units) for the variables statistical value of imports by enterprises
	and statistical value of exports by enterprises.
Periodicity	Annually
Reference period	Calendar year
Statistical population	Total exports or imports of goods;
	NACE Sections A to U
Breakdowns	Breakdowns 1 to 11 have each to be combined with the following geographical
DIEdkuowiis	breakdown
	Geographical breakdown:
	Geographical breakdown:
	World;
	o Intra-Union;
	o Extra-Union.
	<u>1. Breakdown by activity</u>
	• Total;
	• NACE sections;
	<ul> <li>NACE divisions;</li> </ul>
	<ul> <li>NACE groups of Sections C, D, E and G;</li> </ul>
	o Unknown.
	2. Breakdown by activity and size class of number of employees and self-employed
	persons
	Activity breakdown:
	Total;
	• NACE sections;
	• NACE divisions of Sections C and G;
	• NACE groups of Sections C, D, E and G;
	• Special aggregates as defined in Annex II.B of the EBS GIA Regulation:
	<ul> <li>Industry;</li> </ul>
	<ul> <li>Other than industry and trade;</li> </ul>
	$\circ$ Unknown.
	Size class breakdown (number of employees and self-employed persons):
	Total:
	<ul> <li>0-9 employees and self-employed persons;</li> <li>10.40 employees and self employed persons;</li> </ul>
	<ul> <li>10-49 employees and self-employed persons;</li> <li>50.240 employees and self-employed persons;</li> </ul>
	<ul> <li>50-249 employees and self-employed persons;</li> </ul>
	<ul> <li>250 and more employees and self-employed persons;</li> </ul>
	o <b>Unknown.</b>
	3. Breakdown by activity and additional geographical breakdown
	Activity breakdown:
	• Total;
	• NACE Section G;
	• Special aggregates as defined in Annex II.B of the EBS GIA Regulation:
	<ul> <li>Industry;</li> </ul>
	<ul> <li>Other than industry and trade;</li> </ul>
	· , · · · · - ,

 Table 16: country-level business statistics on trade in goods by enterprise characteristics

Breakdowns	Additional geographic breakdown:
	Individual Member States;
	Most important extra-Union partner countries and zones.
	4. Breakdown by size class of number of employees and self-employed persons and
	additional geographical breakdown
	Size class breakdown (number of employees and self-employed persons):
	Total:
	<ul> <li>0-9 employees and self-employed persons;</li> </ul>
	<ul> <li>10-49 employees and self-employed persons;</li> </ul>
	<ul> <li>50-249 employees and self-employed persons;</li> </ul>
	<ul> <li>250 and more employees and self-employed persons;</li> </ul>
	o Unknown.
	Additional geographic breakdown:
	Individual Member States;
	<ul> <li>Most important extra-Union partner countries and zones.</li> </ul>
	5. Breakdown by activity and number of partner countries Activity breakdown:
	<ul> <li>Same activity breakdown as for breakdown 3.</li> </ul>
	Number of partner countries breakdown: <ul> <li>Total;</li> </ul>
	<ul> <li>○ 1;</li> <li>○ 2;</li> </ul>
	o <b>3-5</b> ;
	o <b>6-9</b> ;
	○ <b>10-14</b> ;
	o <b>15-19</b> ;
	o <b>20+;</b>
	o Unknown.
	6. Breakdown by activity and concentration of trade for the variables statistical value
	of exports by enterprises and statistical value of imports by enterprises only
	Activity breakdown:
	• Same activity breakdown as for breakdown 3.
	Concentration of trade breakdown:
	Total:
	• Top 5 enterprises;
	<ul> <li>Top 10 enterprises;</li> </ul>
	<ul> <li>Top 20 enterprises;</li> </ul>
	• Top 50 enterprises;
	• Top 100 enterprises;
	<ul> <li>Top 500 enterprises;</li> </ul>
	• Top 1 000 enterprises.
	7. Breakdown by activity and type of trader
	Data have to be provided for imports, exports and for total trade.
	Activity breakdown:
	• Same activity breakdown as for breakdown 2.
	Type of trader breakdown:
	Total;
	• One way traders;
	• Two-way traders;
	<ul> <li>All types of traders.</li> </ul>

Breakdowns	8. Breakdown by activity and export intensity (share of exports in turnover)
	Activity breakdown:
	Same activity breakdown as for breakdown 2.
	Export intensity breakdown:
	• Total;
	• No exports (0);
	• 0 to less than 25;
	• 25 to less than 50;
	<ul> <li>50 to less than 75;</li> <li>35 or many</li> </ul>
	<ul> <li>75 or more;</li> <li>Unknown.</li> </ul>
	o Unknown.
	9. Breakdown by activity and type of control
	Activity breakdown:
	• Same activity breakdown as for breakdown 2.
	Type of control breakdown:
	Total:
	<ul> <li>Domestically controlled enterprises, additional breakdown, if available:</li> </ul>
	<ul> <li>Domestically controlled enterprises without own affiliates abroad;</li> </ul>
	<ul> <li>Domestically controlled enterprises with own affiliates abroad;</li> </ul>
	• Foreign-controlled enterprises;
	o Unknown.
	10 Dualdaum hu activity and commadity for the unviction statistical value of
	<u>10. Breakdown by activity and commodity for the variables statistical value of</u>
	exports by enterprises and statistical value of imports by enterprises only Activity breakdown:
	Same activity breakdown as for breakdown 2.
	• Same activity breakdown as for breakdown 2.
	Commodity breakdown:
	• Total
	• CPA division level for products of Divisions 10 to 32 of Section C;
	• CPA section level for products of Sections A, B, C, D and E;
	<ul> <li>Special aggregate as defined in Annex II of the EBS GIA Regulation;</li> </ul>
	<ul> <li>Other CPA products;</li> </ul>
	o Unknown.
	11. Trade population
	Data have to be provided for imports, exports and for total trade.
	Breakdown of match of trade data with business register in terms of number of
	enterprises and number of traders for specific populations of traders.
	Breakdown of match of trade data with business register in terms of statistical value
	for specific populations of traders.
Data transmission deadline	t+12 months.
First reference period	2022.

Variables	Statistical value of imports by enterprises
	Statistical value of exports by enterprises
Statistical unit	Enterprise
Measurement unit	National currency (thousands)
Periodicity	Annually
Reference period	Calendar year
Statistical population	Total exports or imports of services, traded between residents and non-residents;
	NACE Sections A to U
Breakdowns	<u>All breakdowns (1 to 3) have each to be combined with the following geographical</u> breakdown
	Geographical breakdown
	• World:
	o Intra-Union;
	• Extra-Union.
	1. Breakdown by activity and size class of number of employees and self-employed
	persons
	Activity breakdown:
	• Total;
	For the breakdowns below (CETO-flag may be applied):
	• Aggregates of NACE Sections:
	A+B; D+E; I+L+O+P+Q+R+S+T+U;
	• NACE Sections:
	• C, F, G, H, J, K, M, N;
	o Unknown.
	Size class breakdown (number of employees and self-employed persons):
	Total:
	For the breakdowns below (CETO-flag may be applied):
	<ul> <li>0-49 employees and self-employed persons;</li> </ul>
	<ul> <li>Optional: 0-9 employees and self-employed persons;</li> </ul>
	<ul> <li>Optional: 10-49 employees and self-employed persons;</li> </ul>
	<ul> <li>50-249 employees and self-employed persons;</li> </ul>
	<ul> <li>250 and more employees and self-employed persons;</li> </ul>
	o Unknown.

Table 17: country-level business statistics on trade in services by enterprise characteristics (STEC) — annual data

Breakdowns	2. Proakdown by activity, type of product and additional accompanyical breakdown
Breakdowns	2. Breakdown by activity, type of product and additional geographical breakdown
	Activity breakdown:
	Same activity breakdown as for breakdown 1.
	Product breakdown:
	Total services;
	For the breakdowns below (CETO-flag may be applied):
	• EBOPS 2010 main components:
	<ul> <li>I. Manufacturing services on physical inputs owned by others;</li> </ul>
	<ul> <li>2. Maintenance and repair services n.i.e.;</li> </ul>
	<ul> <li>3. Transport;</li> </ul>
	• 4. Travel;
	<ul> <li>5. Construction;</li> </ul>
	<ul> <li>6. Insurance and pension services;</li> </ul>
	<ul> <li>7. Financial services;</li> </ul>
	<ul> <li>8. Charges for the use of intellectual property n.i.e.;</li> </ul>
	<ul> <li>9. Telecommunications, computer, and information services;</li> </ul>
	<ul> <li>10. Other business services;</li> </ul>
	<ul> <li>11. Personal, cultural and recreational services;</li> </ul>
	<ul> <li>12. Government goods and services, n.i.e.;</li> </ul>
	• Unknown;
	<ul> <li>Optional: EBOPS 2010 detailed components:</li> </ul>
	<ul> <li>10.1. Research and development services;</li> <li>10.2. Due forestored and development services;</li> </ul>
	<ul> <li>10.2. Professional and management consulting services;</li> <li>10.3. Technical, trade-related, and other business services.</li> </ul>
	- 10.5. Technical, trade-related, and other business services.
	Optional: additional geographical breakdown (to be provided only for total services):
	<ul> <li>Individual Member States;</li> </ul>
	United States.
	3. Breakdown by activity and type of control
	Activity breakdown:
	• Same activity breakdown as for breakdown 1.
	Type of control breakdown:
	Total;     Total;
	For the breakdowns below (CETO-flag may be applied): o Domestically controlled enterprises;
	Optional: additional breakdown, if available:
	<ul> <li>Domestically controlled enterprises without own affiliates abroad;</li> </ul>
	<ul> <li>Domestically controlled enterprises with own affiliates abroad;</li> </ul>
	• Foreign-controlled enterprises;
	o Unknown.
Use of approximations and	The methods and estimations recommended in the Eurostat-OECD Compilers Guide for
quality requirements	Statistics on Services Trade by Enterprise Characteristics should be used. Countries
	may also use any other equivalent method or estimation, in line with the principles of
	the Manual on Statistics of International Trade in Services 2010 and Art. 4 of the EBS
	Regulation.
	In all cases, the methods used should be clearly described in the metadata.
Data transmission deadline	t+18 months.
First reference period	2022.

	ss statistics on intramural R&D expenditure
Variables	Intramural R&D expenditure
Statistical unit	Enterprise and institutional unit
Measurement unit	National currency (thousands)
Periodicity	Biennially (every odd-numbered year), with the following exceptions:
	breakdown by sector of performance — annually
Reference period	Calendar year
Statistical population	All R&D performing units classified in NACE Sections A to U
Breakdowns	1. Breakdown by sector of performance
	Total for all sectors listed below:
	• Business enterprise sector;
	• Higher education sector;
	• Government sector;
	• Private non-profit sector.
	2. Presidence by costor of nerformance and course of funds
	2. Breakdown by sector of performance and source of funds
	Data have to be provided as a combination of all breakdowns listed below.
	Sector of performance breakdown:
	<ul> <li>Same as for breakdown 1.</li> </ul>
	Source of funds breakdown:
	Total for all sources of funds listed below:
	<ul> <li>Business enterprise sector;</li> </ul>
	<ul> <li>Government sector;</li> </ul>
	<ul> <li>Private non-profit sector;</li> </ul>
	• Higher education sector;
	• Rest of the world;
	<ul> <li>Foreign business enterprises:</li> </ul>
	<ul> <li>Foreign enterprises within the same group (for business enterprise</li> </ul>
	sector only);
	<ul> <li>Other foreign enterprises (for business enterprise sector only);</li> </ul>
	<ul> <li>European Commission;</li> </ul>
	<ul> <li>International organisations;</li> </ul>
	<ul> <li>Other sources.</li> </ul>
	3. Breakdown by sector of performance and type of R&D (optional for higher
	education sector and for total)
	Data have to be provided as a combination of all breakdowns listed below.
	Sector of nerformance breakdown
	Sector of performance breakdown:
	Same as for breakdown 1.
	Type of R&D breakdown:
	Basic research;
	Applied research;     Experimental development
	Experimental development.
	4. Breakdown by sector of performance and type of cost
	Data have to be provided as a combination of all breakdowns listed below.
	Sector of performance breakdown:
	<ul> <li>Same as for breakdown 1.</li> </ul>
	Type of costs breakdown:
	Current costs (labour costs and other costs);
	<ul> <li>Capital expenditure.</li> </ul>

Table 18: country-level business statistics on intramural R&D expenditure

Breakdowns	<u>5. Breakdown by activity</u>
	(for business enterprise sector only)
	Total for all NACE Sections A to U;
	<ul> <li>Aggregates of NACE Sections: D+E; G+H+I+J+K+L+M+N; O+P; S+T+U;</li> </ul>
	• NACE Sections: A, B, C, E, F, G, H, I, J, K, M, N, Q, R, S, T;
	<ul> <li>Aggregates of NACE Divisions: 10+11+12; 10+11; 13+14+15; 16+17+18;</li> </ul>
	25+26+27+28+29+30; 35+36; 37+38+39; 58+59+60; 69+70+71; 73+74+75;
	87+88;
	<ul> <li>NACE Divisions: 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28,</li> </ul>
	29, 30, 31, 32, 33, 35, 61, 62, 63, 68, 71, 72, 84, 85, 86, 99;
	<ul> <li>NACE Groups: 25.4, 26.1, 26.2, 26.3, 26.4, 26.5, 26.6, 26.7, 26.8, 30.1, 30.2, 30.3, 30.4, 30.9, 32.5, 46.5, 58.2, 63.1, 72.1, 72.2, 95.1;</li> </ul>
	Special aggregates:
	• ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+63.1+95.1
	<ul><li>ICT manufacturing + ICT services);</li></ul>
	<ul> <li>ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> </ul>
	• ICT services (= NACE 46.5+58.2+61+62+63.1+95.1).
	<u>6. Breakdown by industry orientation (for business enterprise sector only) (optional)</u>
	Industry orientation breakdown:
	Same as for breakdown 5.
	7. Breakdown by size class of number of employees and self-employed persons
	(business enterprise sector only)
	Size class breakdown (number of employees and self-employed persons):
	• Total for all size classes listed below, including the optional size class 0-9:
	<ul> <li>0-9 employees and self-employed persons (optional);</li> </ul>
	<ul> <li>10-49 employees and self-employed persons;</li> </ul>
	<ul> <li>50-249 employees and self-employed persons;</li> </ul>
	<ul> <li>250 and more employees and self-employed persons.</li> </ul>
	8. Breakdown by source of funds and size class of number of employees and self-
	employed persons (for business enterprise sector only)
	Data have to be provided as a combination of all breakdowns listed below.
	Source of funds breakdown:
	<ul> <li>Total for all sources of funds listed below:</li> </ul>
	• Business enterprise sector;
	• Government sector;
	• Private non-profit sector;
	• Higher education sector;
	• Rest of the world.
	Size class breakdown (number of employees and self-employed persons):
	• Total for all size classes listed below, including the optional size class 0-9:
	<ul> <li>0-9 employees and self-employed persons (optional);</li> </ul>
	<ul> <li>10-49 employees and self-employed persons;</li> </ul>
	<ul> <li>50-249 employees and self-employed persons;</li> </ul>
	<ul> <li>250 and more employees and self-employed persons.</li> </ul>
	9. Breakdown by major field of research and development (for government and higher
	education sectors only)
	Natural science;
	Engineering and technology;
	Medical and health sciences;
	Agricultural and veterinary sciences;
	Social sciences;
	Humanities and the arts.
	10. Breakdown by socioeconomic objective (for government sector only) (optional)

	Chapter level of the nomenclature for the analysis and comparison of scientific programmes and budgets (NABS).
Data transmission deadline	All breakdowns (except sector of performance breakdown);
	• <u>Final and validated data</u> : <i>t</i> +18 months.
	Sector of performance breakdown:
	Annually;
	<u>Preliminary data</u> : <i>t</i> +10 months;
	<u>Final and validated data:</u> t+18 months.
First reference period	2021.

Variables	R&D personnel
vanables	Researchers
Statistical unit	Enterprise and institutional unit
Measurement unit	Absolute value
Periodicity	Biennially (every odd-numbered year), with the following exceptions:
i chouldry	<ul> <li>breakdown by sector of performance — annually</li> </ul>
Reference period	Calendar year
Statistical population	All R&D performing units classified in NACE Sections A to U
Breakdowns	1. Breakdown by sector of performance
Diculuowiij	Data to be provided in head count and full-time equivalent units
	Total for all sectors listed below:
	• Business enterprise sector;
	• Higher education sector;
	• Government sector;
	• Private non-profit sector.
	2. Breakdown by sector of performance and occupation
	For the variable R&D personnel only; data to be provided in full-time equivalent units
	Data have to be provided as a combination of all breakdowns listed below.
	Sector of performance breakdown:
	• Same as for breakdown 1.
	Occupation breakdown:
	Total for all occupations listed below:
	Researchers;
	Other R&D personnel:
	<ul> <li>Technicians and equivalent staff (optional);</li> </ul>
	<ul> <li>Other supporting staff (optional).</li> </ul>
	3. Breakdown by sector of performance and qualification (optional)
	Data to be provided in full-time equivalent units
	Data have to be provided as a combination of all breakdowns listed below.
	Sector of performance breakdown:
	• Same as for breakdown 1.
	Qualification breakdown:
	• Total for all qualification levels listed below:
	<ul> <li>PhD holders (ISCED 2011 level 8);</li> </ul>
	• Other university degrees and other tertiary diplomas
	(ISCED 2011 levels 5, 6 and 7);
	• Other qualifications.
	4. Breakdown by sector of performance, occupation and gender
	For the variable R&D personnel only; data to be provided in head counts
	Data have to be provided as a combination of all breakdowns listed below.
	Sector of performance breakdown:
	Same as for breakdown 1.
	Occupation breakdown:
	Same as for breakdown 2.
	Gender breakdown:
	• Total;
	• Female.

# Table 19: country level business statistics on employment in R&D

Breakdowns	5. Breakdown by sector of performance, gualification and gender (optional)
-	Data to be provided in head counts
	Data have to be provided as a combination of all breakdowns listed below.
	Sector of performance breakdown:
	Same as for breakdown 1.
	Qualification breakdown:
	Same as for breakdown 3.
	Gender breakdown:
	Same as for breakdown 4.
	<u>6. Breakdown by activity</u>
	Data to be provided for business enterprise sector only; data to be provided in head counts and full-time equivalent units
	Total for all NACE Sections A to U;
	<ul> <li>Aggregates of NACE Sections: D+E; G+H+I+J+K+L+M+N; O+P; S+T+U;</li> <li>NACE Sections: A, B, C, E, F, G, H, I, J, K, M, N, Q, R, S, T;</li> </ul>
	<ul> <li>Aggregates of NACE Divisions: 10+11+12; 10+11; 13+14+15; 16+17+18; 25+26+27+28+29+30; 35+36; 37+38+39; 58+59+60; 69+70+71; 73+74+75; 87+88;</li> </ul>
	<ul> <li>NACE Divisions: 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 61, 62, 63, 68, 71, 72, 84, 85, 86, 99;</li> </ul>
	<ul> <li>NACE Groups: 25.4, 26.1, 26.2, 26.3, 26.4, 26.5, 26.6, 26.7, 26.8, 30.1, 30.2, 30.3, 30.4, 30.9, 32.5, 46.5, 58.2, 63.1, 72.1, 72.2, 95.1;</li> </ul>
	Special aggregates:
	<ul> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+63.1+95.1</li> <li>ICT manufacturing + ICT services);</li> </ul>
	<ul> <li>ICT manufacturing + ICT services);</li> <li>ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> </ul>
	• ICT services (= NACE 46.5+58.2+61+62+63.1+95.1).
	7. Breakdown by major field of research and development and gender Data to be provided for government and higher education sectors only
	Head counts;
	<ul> <li>Full-time equivalent units (optional).</li> </ul>
	Data have to be provided as a combination of all breakdowns listed below.
	Major field of research and development breakdown:
	<ul> <li>Natural science;</li> <li>Engineering and technology;</li> </ul>
	<ul> <li>Medical and health sciences;</li> </ul>
	Agricultural and veterinary sciences;
	Social sciences;
	Humanities and the arts.
	Gender breakdown:
	Same as for breakdown 4.
	8. Breakdown by activity and gender
	Data to be provided in head counts and for the business enterprise sector only Data have to be provided as a combination of all breakdowns listed below.
	<ul> <li>Activity breakdown:</li> <li>Same as for breakdown 6.</li> </ul>
	Condex by a kidowe
	Gender breakdown: Same as for breakdown 4.
L	

Breakdowns	9. Breakdown by size class of number of employees and self-employed persons
	Data to be provided in full-time equivalent units and for the business enterprise sector only
	Size class breakdown (number of employees and self-employed persons):
	O-9 employees and self-employed persons (optional);
	• 10-49 employees and self-employed persons;
	• 50-249 employees and self-employed persons;
	• 250 and more employees and self-employed persons.
	The total for the business enterprise sector shall cover all size classes listed above, including the optional size class 0-9.
	10. Breakdown by sector of performance and gender
	For the variable researchers only; data to be provided in head counts and full-time equivalent units (optional)
	Data have to be provided as a combination of all breakdowns listed below.
	Sector of performance breakdown:
	Same as for breakdown 1.
	Gender breakdown:
	• Same as for breakdown 4.
	11. Breakdown by sector of performance, age group and gender (optional)
	For the variable researchers only; data to be provided in head counts
	Data have to be provided as a combination of all breakdowns listed below.
	Sector of performance breakdown:
	• Same as for breakdown 1.
	For the business enterprise sector and private non-profit sector: optional.
	Age group breakdown:
	Total for all age groups listed below:
	o < 25 years;
	• 25-34 years;
	• 35-44 years;
	<ul> <li>45-54 years;</li> <li>55-64 years;</li> </ul>
	$\circ \geq 65$ years.
	Gender breakdown:
	• Same as for breakdown 4.

Breakdowns	12. Breakdown by sector of performance, citizenship and gender (optional)         For the variable researchers only; data to be provided in head counts         Data have to be provided as a combination of all breakdowns listed below.         Sector of performance breakdown:         • Same as for breakdown 1.         Citizenship breakdown:         • Total for all citizenships and citizenship classes below:         • National citizenship;         • Citizenship of other EU Member States;         • Citizenship of North America;         • Citizenship of Central and South America;         • Citizenship of Asia;         • Other citizenship.
	<i>Gender breakdown:</i> Same as for breakdown 4.
Data transmission deadline	All breakdowns (except sector of performance breakdown);
	• <u>Final and validated data</u> : <i>t</i> +18 months.
	Sector of performance breakdown for researchers and total personnel in FTE:
	Annually;
	<u>Preliminary data</u> : t+10 months;
	<u>Final and validated data:</u> t+18 months.
First reference period	2021.

Table 20. Country level statis	
Variables	Government budget allocations for research and development (GBARD)
	National public funding to transnationally coordinated R&D
Statistical unit	Institutional unit
Measurement unit	National currency (thousands)
Periodicity	Annually
Reference period	Calendar year
Statistical population	All R&D performing units classified in NACE Sections A to U
Breakdowns	<u>1. Breakdown by socioeconomic objective for GBARD</u> For the variable government budget allocations for research and development (GBARD)
	• Categories of the nomenclature for the analysis and comparison of scientific programmes and budgets (NABS);
	Subcategories of the NABS (optional).
	2. Breakdown by funding mode for GBARD in final budget (optional)
	For the variable government budget allocations for research and development (GBARD)
	Project funding;
	Institutional funding.
	<u>3. Breakdown by type of programme/performer</u> For the variable national public funding to transnationally coordinated R&D
	National contributions to transnational public R&D performers;
	National contributions to Europe-wide transnational public R&D programmes;
	National contributions to bilateral or multilateral public R&D programmes     established between Member States governments (and with candidate countries     and EFTA countries).
Data transmission deadline	All breakdowns (and breakdown 1 in the final budget):
	Annually;
	<u>Final and validated data:</u> t+12 months.
	Breakdown 1 in the provisional budget:
	Annually;
	<u>Preliminary data</u> : <i>t</i> +6 months.
First reference period	2021.

# Table 20: country-level statistics on publicly funded R&D

# Table 21: country-level business statistics on purchases by enterprises

	ess statistics on purchases by enterprises
Variables	Purchases of goods and services for resale
	Expenses on services provided through agency workers
	• Expenses of long-term rental and operating leases (1 %-rule based on net
	turnover and number of employees and self-employed persons at NACE division level may be applied)
	• Purchases of energy products (1 % rule based on net turnover and number of
	employees and self-employed persons at NACE division level may be applied for
	NACE Sections D, E and F)
	<ul> <li>Payments to subcontractors (1 % rule based on net turnover and number of employees and self-employed persons at NACE division level may be applied)</li> </ul>
Statistical unit	Enterprise
Measurement unit	National currency (thousands)
Periodicity	Annually, with the following exceptions:
l'enouleity	<ul> <li>every three years for the variable payments to subcontractors</li> </ul>
Reference period	Calendar year
Statistical population	For the variable purchases of goods and services for resale: market producers of
Statistical population	NACE Sections B to J, L to N and P to R and Divisions 95 and 96.
	For the variable expenses on services provided through agency workers: market
	producers of NACE Sections B to N and P to R and Divisions 95 and 96.
	For the variables expenses of long-term rental and operating leases and payments to
	subcontractors: market producers of NACE Sections B to F.
Breakdowns	For the variable purchases of energy: market producers of NACE Sections B to F.
Breakdowns	<u>Breakdown by activity</u> (CETO-flag may be applied) For the variables purchases for goods and services for resale and expenses on
	services provided through agency workers
	services provided through agency workers
	<ul> <li>For NACE Sections B to J, L to N and P to R: sections, divisions, groups and classes;</li> </ul>
	<ul> <li>Only for the variable expenses on services provided through agency workers for</li> </ul>
	<ul> <li>Only for the variable expenses on services provided through agency workers for NACE Section K: section, divisions, Groups 64.1, 64.2, 64.3, 64.9, 65.1, 65.2, 65.3</li> </ul>
	and Classes 64.11, 64.19, 65.11, 65.12, 65.20 and 65.30;
	Special aggregates:
	<ul> <li>Industry, construction and services (except public administration, defence,</li> </ul>
	compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies)
	(= NACE B+C+D+E+F+G+H+I+J+K+L+M+ N+P+Q+R+95+96) (for purchase of goods for resale this special aggregate will exclude Section
	K); • ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+63.1+95.1
	= ICT manufacturing + ICT services);
	<ul> <li>ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> </ul>
	<ul> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);</li> </ul>
	<ul> <li>High and medium-high technology manufacturing (optional)</li> </ul>
	(= NACE 20+21+25.4+26+27+28+29+(30-30.1)+32.5);
	<ul> <li>High technology manufacturing (= NACE 21+26+30.3);</li> </ul>
	• Medium-high technology manufacturing
	(= NACE 20+25.4+27+28+29+(30-30.1-30.3)+32.5);
	• Low and medium-low technology manufacturing (optional)
	(= NACE 10+11+12+13+14+15+16+17+18+19+22+23+24+(25-25.4)+
	30.1+31+(32-32.5)+33);
	<ul> <li>Medium-low technology manufacturing</li> </ul>
	(= NACE 18.2+19+22+23+24+25-25.4+30.1+33);
	<ul> <li>Low technology manufacturing</li> </ul>
	(= NACE 10+11+12+13+14+15+16+17+(18-18.2)+31+(32-32.5));
	<ul> <li>Information sector (= NACE 58.1+59.1+59.2+60+63.9);</li> </ul>

	• Computer related services (= NACE 58.2+62+63.1);
Breakdowns	<ul> <li>Total knowledge intensive services (optional)</li> </ul>
	(= NACE 50+51+58+59+60+61+62+63+64+65+66+69+70+71+72+
	73+74+75+78+80+84+85+86+87+88+90+91+92+93);
	<ul> <li>Knowledge-intensive high technology services</li> </ul>
	(= NACE 59+60+61+62+63+72);
	• Knowledge intensive market services
	(= NACE 50+51+69+70+71+73+74+78+80);
	<ul> <li>Knowledge intensive financial services (= NACE 64+65+66);</li> </ul>
	• Other knowledge intensive services (optional)
	(= NACE 58+75+84+85+86+87+88+90+91+92+93);
	• Knowledge intensive activities — business industries
	(= NACE 09+19+21+26+51+58+59+60+61+62+63+64+65+66+69+70+
	71+72+73+74+75+78+79+90);
	<ul> <li>Knowledge intensive activities (optional)</li> </ul>
	(= NACE 09+19+21+26+51+58+59+60+61+62+63+64+65+66+69+70+
	71+72+73+74+75+78+79+84+85+86+90+91+94+99);
	<ul> <li>Tourism industries (total) (optional)</li> </ul>
	(= NACE 49.1+49.32+49.39+50.1+50.3+51.1+55.1+55.2+55.3+56.1+
	(= NACE 49.1+49.52+49.59+50.1+50.5+51.1+55.1+55.2+55.5+56.1+ 56.3+77.1+77.21+79);
	<ul> <li>Tourism industries (mainly tourism) (optional)</li> <li>(= NACE 51 1+55 1+55 3+70 1);</li> </ul>
	(= NACE 51.1+55.1+55.2+55.3+79.1);
	<ul> <li>Tourism industries (partially tourism) (optional)</li> <li>( NASE 40.1:40.70:40.70:50.1:50.7:55.1:55.7:77.1:77.01:70.0)</li> </ul>
	(= NACE 49.1+49.32+49.39+50.1+50.3+56.1+56.3+77.1+77.21+79.9);
	• Transport (total) (optional) (= NACE 49.1+49.32+49.39+50.1+50.3+51.1);
	<ul> <li>Land transport (optional) (= NACE 49.1+49.32+49.39);</li> </ul>
	<ul> <li>Water transport (optional) (= NACE 50.1+50.3);</li> </ul>
	<ul> <li>Accommodation (optional) (= NACE 55.1+55.2+55.3);</li> </ul>
	<ul> <li>Food and beverage services (total) (optional) (= NACE 56.1+56.3);</li> </ul>
	<ul> <li>Car and other rental (total)(optional) (= NACE 77.1+77.21);</li> </ul>
	• Services (except public administration, defence, compulsory social security,
	activities of membership organisations, households as employers and extra-
	territorial organisations and bodies)
	(= NACE G+H+I+J+K+L+M+N+P+Q+R+95+96).
	For the variables expenses of long-term rental and operating leases and payments to subcontractors (NACE Sections B to F)
	NACE sections and divisions.
	For the verifield numbers of energy numbers
	For the variable purchases of energy products
	• For NACE Sections B, C and F: sections, divisions, groups and classes;
	For NACE Sections D and E: sections and divisions.
Use of approximations and	For the activities of NACE Groups 64.2, 64.3 and 65.3 that are economically not
	significant in terms of value added and number of employees and self-employed
quality requirements	persons, zero (0) values may be provided.
	For the activities of NACE Costion K it can be accurred that the value of the variable
	For the activities of NACE Section K, it can be assumed that the value of the variable
	purchases of goods and services for resale is economically non-significant, therefore
	zero (0) values may be provided for this variable.
	In cases where the source data used for compiling the data are available for the
	fiscal year for some statistical units and this data cannot be recalculated to cover
	the calendar year, the calendar year data may be approximated by data on the fiscal
	year.
Data transmission deadline	t+18 months.
First reference period	2023 for the variable payment to subcontractors;
	2021 for all other variables.

Table 22: country-level busine	ess statistics on changes in stock of enterprises
Detailed topics	<ul> <li>Change in stock of goods (1 % rule based on net turnover and number of employees and self-employed persons at NACE division level may be applied)</li> <li>Change in stock of finished goods and work-in-progress</li> <li>Change in stock of goods for resale (1 % rule based on net turnover and number of employees and self-employed persons at NACE division level may be applied)</li> </ul>
Statistical unit	Enterprise
Measurement unit	National currency (thousands)
Periodicity	Annually
Reference period	Calendar year
Statistical population	For the variable change in stock of finished goods and work-in-progress: market producers of NACE Sections B to F.
	For the variables change in stock of goods and change in stocks of goods for resale: market producers of NACE Section G.
Breakdowns	Breakdown by activity (CETO-flag may be applied):         For the variable change in stock of finished goods and work-in-progress (NACE Sections B to F)         • NACE sections, divisions, groups and classes.         For the variables change in stock of goods and change in stocks of goods for resale (NACE Section G)         • NACE section and divisions.
Use of approximations and quality requirements	In cases where the source data used for compiling the data are available for the fiscal year for some statistical units and this data cannot be recalculated to cover the calendar year, the calendar year data may be approximated by data on the fiscal year.
Data transmission deadline	t+18 months.
First reference period	2021.

### Table 22: country-level business statistics on changes in stock of enterprises

Table 23: country-level business statistics on product and residence of client breakdown of net turnover of enterprises

enterprises	
Variables	<ul> <li>Net turnover by residence of client (1 % rule based on net turnover and number of employees and self-employed persons at NACE division level may be applied: for groups and classes the 1 % rule shall be applied at the corresponding division level)</li> <li>Net turnover by product (1 % rule based on net turnover and number of employees and self-employed persons at NACE division level may be applied: for groups and classes the 1 % rule shall be applied at the corresponding division level)</li> </ul>
Statistical unit	Enterprise
Measurement unit	National currency (thousands)
Periodicity	<ul> <li>Annually, with the following exceptions:</li> <li>biennially for product breakdown and residence of client breakdown for net turnover of NACE 69.1, 69.2, 70.2, 71.1, 71.2 and 73.2</li> </ul>
Reference period	Calendar year
Statistical population	Activity coverage: market producers of NACE Divisions 62, 78 and Groups 58.2, 63.1, 69.1, 69.2, 70.2, 71.1, 71.2, 73.1, 73.2.
	Size class coverage: enterprises with more than 20 employees and self-employed persons only.
Breakdowns	<u>Breakdown by activity</u> (CETO-flag may be applied): For the variable net turnover by product
	<ul> <li>1. Breakdown by product</li> <li>CPA for NACE Division 62 and Groups 58.2 and 63.1 (computer services): total, 58.21, 58.29, 58.29.1+58.29.2, 58.29.3+58.29.4, 58.29.5, 62.01, 62.02, 62.03, 62.09, 63.11, 63.12, 95.11, Resale (should include all resale (wholesale and retail) of software which is not developed by the enterprise), Other products n.e.c.</li> <li>CPA for NACE Group 69.1 (legal services): total, 69.10.11, 69.10.12, 69.10.13, 69.10.14, 69.10.15, 69.10.16, 69.10.17, 69.10.18, 69.10.19, Other products n.e.c.</li> <li>CPA for NACE Group 69.2 (accounting, bookkeeping and auditing activities; tax consultancy): total, 69.20.1, 69.20.2, 69.20.21+69.20.22+69.20.23, 69.20.24, 69.20.29, 69.20.3, 69.20.4, Other products n.e.c.</li> <li>CPA for NACE Group 70.2 (management consultancy activities): total, 70.21.1, 70.22.17, 70.22.13, 70.22.14, 70.22.15, 70.22.16, 70.22.17, 70.22.2, 70.22.3, Other products n.e.c.</li> <li>CPA for NACE Class 71.11 (architectural activities): total, 71.11.1, 71.11.2, 71.11.21, 71.11.23, 71.11.23, 71.11.24, 71.11.3, 71.11.4, Other products n.e.c.</li> <li>CPA for NACE Class 71.12 (engineering services and related technical consulting services): total, 71.12.17, 71.12.18, 71.12.19, 71.12.2, 71.12.3, 0ther products n.e.c.</li> <li>CPA for NACE Group 71.2 (technical testing and analysis): total, 71.20.1, 71.20.12, 73.12.1, 73.12.11, 73.12.12, 73.12.13, 73.12.14, 73.12.19, 73.11.13, 73.11.11, 73.11.12, 73.11.13, 73.11.11, 73.11.12, 73.11.13, 73.11.13, 73.11.11, 73.11.12, 73.11.13, 73.11.11, 73.11.12, 73.11.13, 73.11.19, 73.12.1, 73.12.11, 73.12.12, 73.12.13, 73.12.14, 73.12.19, 0ther products n.e.c.</li> <li>CPA for NACE Group 73.1 (advertising): total, 73.12.13, 73.12.14, 73.12.19, 0ther products n.e.c.</li> <li>CPA for NACE Group 73.1 (advertising): total, 73.11.1, 73.11.12, 73.11.13, 73.11.19, 73.12.17, 73.12.17, 73.12.17, 73.12.17, 73.12.19, 0ther products n.e.c.</li> <li>CPA for NACE Group 73.2 (market research and public opinion polling): total, 73.20.1, 73.20.11, 73.20.12, 7</li></ul>
	<ul> <li>products n.e.c.</li> <li>CPA for NACE Division 78 (employment activities): total, 78.10.1, 78.10.11, 78.10.12, 78.20.1, 78.20.11, 78.20.12, 78.20.13, 78.20.14, 78.20.15, 78.20.16, 78.20.19, 78.30.1, Other products n.e.c.</li> </ul>

Breakdowns	For the variable net turnover by residence of client
	2. Breakdown by residence of client
	• Total
	<ul> <li>Resident (as defined in ESA 2010 paragraph 1.62);</li> </ul>
	<ul> <li>Non-resident;</li> </ul>
	■ intra-EU;
	■ extra-EU.
Use of approximations and	In cases where the source data used for compiling the data are available for the
quality requirements	fiscal year for some statistical units and this data cannot be recalculated to cover the
	calendar year, the calendar year data may be approximated by data on the fiscal
	year.
Data transmission deadline	t+18 months.
First reference period	2021 for NACE Divisions 62 and 78 and Groups 58.2, 63.1, 71.1, 71.2, 73.1 and 73.2;
	2022 for NACE Groups 69.1, 69.2 and 70.2.

 Table 24: country-level business statistics on broad activity regroupings breakdown of net turnover of enterprises

Variables	Net turnover from agriculture, forestry, fishing and industrial activities
	Net turnover from industrial activities
	Net turnover from industrial activities excluding construction
	Net turnover from construction
	Net turnover from service activities
	Net turnover from trading activities of purchase and resale and from intermediary
	activities
	Net turnover from building
	Net turnover from civil engineering
	(1 % rule based on net turnover and number of employees and self-employed persons
	at NACE division level may be applied for all variables)
Statistical unit	Enterprise
Measurement unit	National currency (thousands)
Periodicity	Every five years
Reference period	Calendar year
Statistical population	For the variable net turnover from agriculture, forestry, fishing and industrial
	activities: market producers of NACE Section G.
	For the variables net turnover from industrial activities excluding construction, net
	turnover from construction, net turnover from building, and net turnover from civil
	engineering: market producers of NACE Section F.
	For the variable net turnover from industrial activities: market producers of NACE
	Sections B to E.
	For the variables net turnover from service activities and net turnover from trading
	activities of purchase and resale and from intermediary activities: market producers
	of NACE Sections B to G.
Breakdowns	<u>Breakdown by activity</u>
	Activity breakdown:
	NACE sections and divisions.
Use of approximations and	In cases where the source data used for compiling the data are available for the
quality requirements	fiscal year for some statistical units and this data cannot be recalculated to cover the
	calendar year, the calendar year data may be approximated by data on the fiscal
	year.
Data transmission deadline	t+18 months.
First reference period	2022 for NACE Division 47;
	2025 for NACE Division 45;
	2023 for all other activities.

Table 25. country level busine	ss statistics on type of turnover breakdown of enterprises
Variables	Net turnover from the principal activity at the NACE group level
	Net turnover from subcontracting
	(1 % rule based on net turnover and number of employees and self-employed persons
	at NACE division level may be applied for all variables)
Statistical unit	Enterprise
Measurement unit	National currency (thousands)
Periodicity	For the variable net turnover form the principal activity at the NACE group level: annually
	For the variable net turnover from subcontracting: every three years
Reference period	Calendar year
Statistical population	For the variable net turnover from the principal activity at the NACE group level: market producers of NACE Sections B to F.
	For the variable net turnover from subcontracting: market producers of NACE Section F.
Breakdowns	Breakdown by activity
	For the variable net turnover from subcontracting
	NACE sections and divisions.
	For the variable net turnover from the principal activity at the NACE group level
	NACE groups.
Use of approximations and	In cases where the source data used for compiling the data are available for the
quality requirements	fiscal year for some statistical units and this data cannot be recalculated to cover the
	calendar year, the calendar year data may be approximated by data on the fiscal
	year.
Data transmission deadline	t+18 months.
First reference period	2021 for the variable net turnover from the principal activity at the NACE group level;
	2023 for the variable net turnover from subcontracting.

Table 25: country-level business statistics on type of turnover breakdown of enterprises

Table 20. Country level busine	
Variables	Sold production
	Production under subcontracted operations
	Actual production
Statistical unit	KAU
Measurement unit	For the variable sold production: national currency (thousands) and (except for industrial services) quantity as defined in the PRODCOM list in force at the end of the reference period.
	For the variable production under subcontracted operations: (except for industrial services) national currency (thousands) and quantity as defined in the PRODCOM list in force at the end of the reference period.
	For the variable actual production: quantity as defined in the PRODCOM list in force at the end of the reference period.
Periodicity	Annually
Reference period	Calendar year
Statistical population	Products of the PRODCOM list under Divisions 05-33 of the CPA (exclusions are defined by the PRODCOM list).
	For the variable sold production, a subset of PRODCOM headings refers to industrial services.
	The variables production under subcontracted operations and actual production are to be provided for a subset of products of the PRODCOM list (defined by the PRODCOM list).
	CETO-flag and 1 % rule based on production at CPA class level may be applied.
Breakdowns	Breakdown by product
	PRODCOM list in force at the end of the reference period.
Use of approximations and quality requirements	Sufficient degree of representativeness required at CPA class level.
Data transmission deadline	t+6 months.
First reference period	2021.

# Table 26: country-level business statistics on industrial production

Variables	Gross investment in land
	Gross investment in the acquisition of existing buildings
	<ul> <li>Gross investment in construction and improvement of buildings</li> </ul>
	Gross investment in machinery and equipment
	(1 % rule based on net turnover and number of employees and self-employed persons
	at NACE division level may be applied for all variables except for the variable gross
	investment in machinery and equipment)
Statistical unit	Enterprise
Measurement unit	National currency (thousands)
Periodicity	Annually
Reference period	Calendar year
Statistical population	For the variable gross investment in machinery and equipment: market producers of
	NACE Sections B to N and P to R and Divisions 95 and 96.
	For the variables gross investment in land, gross investment in the acquisition of
	existing buildings, and gross investment in construction and improvement of buildings
Proakdowne	market producers of NACE Sections B to G.
Breakdowns	<u>Breakdown by activity</u> (CETO-flag may be applied): For the variable gross investment in machinery and equipment (NACE Sections B to N
	and P to R and Divisions 95 and 96)
	• For NACE Sections B to J, L to N and P to R: NACE sections, divisions, groups and
	classes;
	• For NACE Section K: section, divisions, Groups 64.1, 64.2, 64.3, 64.9, 65.1, 65.2,
	65.3, Classes 64.11, 64.19, 64.20, 64.30, 65.11, 65.12, 65.20, 65.30;
	<ul> <li>For NACE Divisions 95 and 96: NACE divisions, groups and classes;</li> </ul>
	<ul> <li>Special aggregates as defined in Annex II.B of the EBS GIA Regulation for:</li> </ul>
	• Industry, construction and services (except public administration, defence,
	compulsory social security, activities of membership organisations, activities
	of households as employers and extra-territorial organisations and bodies)
	(= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96):
	<ul> <li>ICT total (= NACE 26.1+26.2+26.3+26.4+26.8+46.5+58.2+61+62+63.1+95.1</li> </ul>
	= ICT manufacturing + ICT services);
	<ul> <li>ICT manufacturing (= NACE 26.1+26.2+26.3+26.4+26.8);</li> </ul>
	<ul> <li>ICT services (= NACE 46.5+58.2+61+62+63.1+95.1);</li> </ul>
	• High and medium-high technology manufacturing (optional)
	(= NACE 20+21+25.4+26+27+28+29+30 (excl. 30.1)+32.5);
	• High technology manufacturing (= NACE 21+26+30.3);
	<ul> <li>Medium-high technology manufacturing</li> <li>Medium-high technology manufacturing</li> </ul>
	(= NACE 20+25.4+27+28+29+30 (excl. 30.1 and 30.3)+32.5);
	<ul> <li>Low and medium-low technology manufacturing (optional)</li> </ul>
	(= NACE 10+11+12+13+14+15+16+17+18+19+22+23+24+
	25 (excl. 25.4)+30.1+31+32 (excl. 32.5)+33);
	<ul> <li>Medium-low technology manufacturing</li> <li>(= NACE 10 -22 + 22 + 24 + 25 (avel -25 4) + 20 1 + 22)</li> </ul>
	(= NACE 18.2+19+22+23+24+25 (excl. 25.4)+30.1+33);
	• Low technology manufacturing
	(= NACE 10+11+12+13+14+15+16+17+18 (excl. 18.2)+31+32 (excl. 32.5));
	• Information sector (= NACE 58.1+59.1+59.2+60+63.9);
	<ul> <li>Computer related services (= NACE 58.2+62+63.1);</li> </ul>
	<ul> <li>Total knowledge intensive services (optional)</li> </ul>
	(= NACE
	50+51+58+59+60+61+62+63+64+65+66+69+70+71+72+73+74+75+
	78+80+84+85+86+87+88+90+91+92+93);
	• Knowledge-intensive high technology services
	(= NACE 59+60+61+62+63+72);
	• Knowledge intensive market services
	(= NACE 50+51+69+70+71+73+74+78+80);
	<ul> <li>Knowledge intensive financial services (= NACE 64+65+66);</li> </ul>
	<ul> <li>Other knowledge intensive services (optional)</li> </ul>

	(= NACE 58+75+84+85+86+87+88+90+91+92+93);
Breakdowns	<ul> <li>Knowledge intensive activities — business industries</li> </ul>
	(= NACE 09+19+21+26+51+58+59+60+61+62+63+64+
	65+66+69+70+71+72+73+74+75+78+79+90);
	<ul> <li>Knowledge intensive activities (optional)</li> </ul>
	(= NACE 09+19+21+26+51+58+59+60+61+62+63+64+65+66+69+70+
	71+72+73+74+75+78+79+84+85+86+90+91+94+99);
	<ul> <li>Tourism industries (total) (optional)</li> </ul>
	(= NACE 49.1+49.32+49.39+50.1+50.3+51.1+55.1+55.2+
	55.3+56.1+56.3+77.1+77.21+79);
	<ul> <li>Tourism industries (mainly tourism) (optional)</li> </ul>
	(= NACE 51.1+55.1+55.2+55.3+79.1);
	<ul> <li>Tourism industries (partially tourism) (optional)</li> </ul>
	(= NACE 49.1+49.32+49.39+50.1+50.3+56.1+56.3+77.1+77.21+79.9);
	<ul> <li>Transport (total) (optional)</li> </ul>
	(= NACE 49.1+49.32+49.39+50.1+50.3+51.1);
	<ul> <li>Land transport (optional) (= NACE 49.1+49.32+49.39);</li> </ul>
	<ul> <li>Water transport (optional) (= NACE 50.1+50.3);</li> </ul>
	<ul> <li>Accommodation (optional) (= NACE 55.1+55.2+55.3);</li> </ul>
	<ul> <li>Food and beverage services (total) (optional) (= NACE 56.1+56.3);</li> </ul>
	• Car and other rental (total)(optional) (= NACE 77.1+77.21).
	For the variables gross investment in land, gross investment in the acquisition of
	existing buildings and structures, and gross investment in construction and
	improvement of buildings (NACE Sections B to G only)
	NACE sections and divisions.
Use of approximations and	For the activities of NACE Groups 64.2, 64.3 and 65.3 which are economically not
quality requirements	significant in terms of value added and number of employees and self-employed
	persons, zero (0) values may be provided.
	In cases where the source data used for compiling the data are available for the
	fiscal year for some statistical units and this data cannot be recalculated to cover the
	calendar year, the calendar year data may be approximated by data on the fiscal
	year.
Data transmission deadline	t+18 months.
First reference period	2021.
rinse reference period	

Variables	<ul> <li>Investment in purchased software</li> <li>(1 % rule based on net turnover and number of employees and self-employed persons at NACE division level may be applied)</li> </ul>
Statistical unit	Enterprise
Measurement unit	National currency (thousands)
Periodicity	Every three years
Reference period	Calendar year
Statistical population	Market producers of NACE Sections B to F
Breakdowns	Breakdown by activity     NACE sections and divisions.
Use of approximations and quality requirements	In cases where the source data used for compiling the data are available for the fiscal year for some statistical units and this data cannot be recalculated to cover the calendar year, the calendar year data may be approximated by data on the fiscal year.
Data transmission deadline	t+18 months.
First reference period	2021.

Table 28: country-level business statistics on investment in intangible non-current assets

Variables	Number of local units (optional for NACE Section K)
	<ul> <li>Number of employees and self-employed persons in local units</li> </ul>
	Wages and salaries in local units
Statistical unit	Local unit
Measurement unit	National currency for the variable wages and salaries in local units.
	Absolute value for other variables.
Periodicity	Annually
Reference period	Calendar year
Statistical population	Local units of market producers of NACE Sections B to N and P to R and Divisions 95
	and 96 (optional for NACE Section K for the variable number of local units)
Breakdowns	Breakdown by region and activity
	Data have to be provided as a combination of all breakdowns listed below.
	Regional breakdown:
	• National data and NUTS levels 1 and 2 ( <sup>90</sup> ).
	Activity breakdown:
	NACE sections and divisions.
Use of approximations and	In cases where the source data used for compiling the data are available for the
quality requirements	fiscal year for some statistical units and this data cannot be recalculated to cover the
	calendar year, the calendar year data may be approximated by data on the fiscal
	year.
Data transmission deadline	t+18 months.
First reference period	2021.

## Table 29: regional business statistics on local units

<sup>(90)</sup> Regional data according to the NUTS classification applicable at the time when the transmission of the data is required by the GIA Regulation; revisions of data regarding previous reference years should use the NUTS classification applicable on the deadline for their legal transmission.

Table 30: regional business statistics on enterpris	es
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Table 30: regional business statistics on enterprises		
Variables	Number of active enterprises	
	Enterprise births	
	Enterprise deaths	
	Enterprise survivals (three-calendar year survival only)	
	Number of high-growth enterprises	
	Number of enterprises having at least one employee	
	Enterprises having the first employee	
	Enterprises having no employees anymore	
	<ul> <li>Survivals of enterprises having at least one employee (only for enterprises</li> </ul>	
	having survived for three calendar years)	
	<ul> <li>Number of employees and self-employed persons</li> </ul>	
	<ul> <li>Number of employees</li> </ul>	
	<ul> <li>Number of employees and self-employed persons in newly born enterprises</li> </ul>	
	<ul> <li>Number of employees in newly born enterprises</li> </ul>	
	<ul> <li>Number of employees and self-employed persons in enterprise deaths</li> </ul>	
	Number of employees in enterprise deaths	
	Number of employees and self-employed persons in enterprises survivals (only for enterprises baving survived for three calendar years)	
	for enterprises having survived for three calendar years)	
	Number of employees and self-employed persons in enterprises survivals, in the     user of birth (only for enterprises barries counter the selender users)	
	year of birth (only for enterprises having survived for three calendar years)	
	Number of employees and self-employed persons in enterprises having at least	
	one employee	
	Number of employees enterprises having at least one employee	
	• Number of employees and self-employed persons in enterprises having the first	
	employee	
	Number of employees in enterprises having the first employee	
	Number of employees and self-employed persons in enterprises having no	
	employees anymore	
	Number of employees in enterprises having no employees anymore	
	Number of employees and self-employed persons in survivals of enterprises	
	having at least one employee (only for enterprises having survived for three	
	calendar years)	
	Number of employees and self-employed persons in survivals of enterprises	
	having at least one employee, in the year of birth (only for enterprises having	
	survived for three calendar years)	
Statistical unit	Enterprise	
Measurement unit	Absolute value	
Periodicity	Annually	
Reference period	Calendar year	
Statistical population	Market producers of NACE Sections B to N and P to R and Divisions 95 and 96	
Breakdowns	<u>1. Breakdown by region and activity</u>	
	Data have to be provided as a combination of all breakdowns listed below.	
	Regional breakdown:	
	National data and NUTS levels 1 to 3.	
	Activity breakdown:	
	Aggregates of NACE:	
	<ul> <li>B+C+D+E; K+L; M+N; P+Q; R+95+96;</li> </ul>	
	NACE Sections:	
	o F, G, H, I, J;	
	Special aggregate:	
	• Industry, construction and services (except public administration, defence,	
	compulsory social security, activities of membership organisations, activities	
	of households as employers and extra-territorial organisations and bodies) (= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96).	

Breakdowns	2. Breakdown by region and size class of number of employees
Dieakuowiis	Data have to be provided as a combination of all breakdowns listed below.
	Regional breakdown:
	National data and NUTS levels 1 to 3.
	Size class of employees breakdown:
	• Total, 0 employees, 1-9 employees, 10 and more employees (zero (0) size class
	not required for the variables number of enterprises having at least one
	employee, enterprises having the first employee, enterprises having no
	employees anymore, survivals of enterprises having at least one employee (only
	for enterprises having survived for three calendar years), number of employees
	and self-employed persons in enterprises having at least one employee, number of employees in enterprises having at least one employee, number of employees
	and self-employed persons in enterprises having the first employee, number of
	employees in enterprises having the first employee, number of employees and
	self-employed persons in enterprises having no employees anymore, number of
	employees in enterprises having no employees anymore, number of employees
	and self-employed persons in survivals of enterprises having at least one
	employee (only for enterprises having survived for three calendar years), and
	number of employees and self-employed persons in survivals of enterprises
	having at least one employee, in the year of birth (only for enterprises having
	survived for three calendar years)).
Data transmission deadline	Preliminary data: for the variables enterprise deaths, enterprises having no
	employees anymore, number of employees and self-employed persons in enterprise
	deaths, number of employees in enterprise deaths, number of employees and self-
	employed persons in enterprises having no employees anymore and number of employees in enterprises having no employees anymore: <i>t</i> +22 months.
	בוואנטעכבי ווי בוונבואווזבי וומיוווש ווט בוואנטעצי מושווטוצ. נדבב ווטוונווג.
	Final and validated data: t+22 months except for the variables enterprise deaths,
	enterprises having no employees anymore, number of employees and self-employed
	persons in enterprise deaths, number of employees in enterprise deaths, number of
	employees and self-employed persons in enterprises having no employees anymore,
	and number of employees in enterprises having no employees anymore: <i>t</i> +34 months.
First reference period	2021.

able 51: regional business statistics on R&D expenditure	
Variables	Intramural R&D expenditure
Statistical unit	Enterprise or institutional unit
Measurement unit	National currency (thousands)
Periodicity	Biennially (every odd-numbered year)
Reference period	Calendar year
Statistical population	All R&D performing units classified in NACE Sections A to U
Breakdowns	Breakdown by region and sector of performance Data have to be provided as a combination of all breakdowns listed below.
	<ul><li>Regional breakdown:</li><li>National data and NUTS levels 1 and 2.</li></ul>
	Sector of performance breakdown:
	Total for all sectors listed below:
	<ul> <li>Business enterprise sector;</li> </ul>
	<ul> <li>Higher education sector;</li> </ul>
	<ul> <li>Government sector;</li> </ul>
	<ul> <li>Private non-profit sector.</li> </ul>
Data transmission deadline	Final and validated data: t+18 months.
First reference period	2021.

Table 31: regional business statistics on R&D expenditure

Variables	R&D personnel
	Researchers
Statistical unit	Enterprise
Measurement unit	Absolute value
Periodicity	Biennially (every odd-numbered year)
Reference period	Calendar year
Statistical population	All R&D performing units classified in NACE Sections A to U
Breakdowns	1. Breakdown by region and sector of performance
	Data to be provided for head counts and full-time equivalent units
	Data have to be provided as a combination of all breakdowns listed below.
	Regional breakdown:
	NUTS levels 1 and 2.
	Sector of performance breakdown:
	Total for all sectors listed below:
	• Business enterprise sector;
	<ul> <li>Higher education sector;</li> </ul>
	<ul> <li>Government sector;</li> </ul>
	• Private non-profit sector.
	2. Breakdown by region, sector of performance and gender (optional)
	For the variable R&D personnel data to be provided in head counts. For the variable
	researchers data to be provided in head counts and in full-time equivalent units
	Data have to be provided as a combination of all breakdowns listed below.
	Regional breakdown:
	NUTS levels 1 and 2.
	Sector of performance breakdown:
	• Same as for breakdown 1.
	Gender breakdown:
	• Total;
	• Female.
Data transmission deadline	Final and validated data: t+18 months.
First reference period	2021.

# Table 32: regional business statistics on employment in R&D

Table 33: statistics on international activities — control by institutional units of the reporting country on enterprises abroad

abroad	
Variables	<ul> <li>Number of enterprises abroad ultimately controlled by institutional units of the reporting country</li> <li>Number of employees and self-employed persons in enterprises abroad ultimately controlled by institutional units of the reporting country</li> <li>Employee benefits expense in enterprises abroad ultimately controlled by institutional units of the reporting country (1 % rule based on net turnover or number of employees and self-employed persons at relevant NACE A*38 level aggregates for NACE Sections B to N and P to S may be applied)</li> <li>Gross investment in tangible non-current assets of enterprises abroad ultimately controlled by institutional units of the reporting country (1% rule based on net turnover or number of employees and self-employed persons at relevant NACE A*38 level aggregates for NACE Sections B to N and P to S may be applied)</li> <li>Gross investment in tangible non-current assets of enterprises abroad ultimately controlled by institutional units of the reporting country (1% rule based on net turnover or number of employees and self-employed persons at relevant NACE A*38 level aggregates for NACE Sections B to N and P to S may be applied)</li> <li>Net turnover of enterprises abroad ultimately controlled by institutional units of the reporting country (1% rule based on net turnover of enterprises abroad ultimately controlled by institutional of the reporting country (1% rule based on net turnover of employees and self-employed persons at relevant NACE A*38 level aggregates for NACE Sections B to N and P to S may be applied)</li> </ul>
Statistical unit	Enterprise
Measurement unit	Absolute value for the variables number of enterprises abroad ultimately controlled by institutional units of the reporting country and number of employees and self- employed persons in enterprises abroad ultimately controlled by institutional units of the reporting country.
Deviadicity	National currency (thousands) for other variables.
Periodicity Reference period	Annually Calendar year
Statistical population	For all variables: market producers of NACE Sections B to N and P to S abroad (should cover the foreign affiliates of all ultimate controlling institutional units of the reporting country)
Breakdowns	<ul> <li>Data have to be provided with the detail by country of residence and by activity of the enterprise abroad.</li> <li><u>1. Breakdown by activity and geographical breakdown</u></li> <li>Data have to be provided as a combination of all breakdowns listed below.</li> <li>Activity breakdown: <ul> <li>NACE sections;</li> <li>Aggregates of NACE Divisions:</li> <li>10+11+12; 13+14+15; 16+17+18; 22+23; 24+25; 29+30; 31+32; 52+53; 59+60; 62+63, 69+70+71; 73+74+75; 78+79+80+81+82; 87+88;</li> </ul> </li> <li>NACE Divisions: <ul> <li>19, 20, 21, 26, 27, 28, 33, 49, 50, 51, 58, 61, 72, 77, 86;</li> </ul> </li> <li>Special aggregates as defined in Annex II.B of the EBS GIA Regulation: <ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of households as employers and extraterritorial organisations and bodies)</li> <li>(= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> <li>Services (except public administration, defence, compulsory social security, activities of households as employers social security, activities of households as employers and extraterritorial organisations and bodies)</li> <li>(= NACE B+C+D+E+F+G+H+I+J+K+L+M+N+P+Q+R+95+96);</li> </ul> </li> </ul>

Breakdowns	Geographical breakdown:
	• REST OF THE WORLD, Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia,
	Ireland, Greece, Spain including Ceuta and Melilla, France including Mayotte,
	Saint Pierre and Miquelon and Saint Barthélemy, Croatia, Italy, Cyprus, Latvia,
	Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal,
	Romania, Slovenia, Slovakia, Finland, Sweden, Iceland, Liechtenstein, Norway,
	Switzerland, Russian Federation, Turkey, United Kingdom (excl. Channel Islands
	and Isle of Man), Egypt, Morocco, Nigeria, South Africa, Canada, United States,
	Mexico, Argentina, Brazil, Chile, Uruguay, Venezuela, Israel, China, Hong Kong,
	India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan,
	Thailand, Australia, New Zealand, INTRA-UNION, EXTRA-UNION, Equally-shared
	control of UCIs of more than one Member State, EXTRA-UNION NOT ALLOCATED,
	Offshore financial centres.
	2. Geographical breakdown
	REST OF THE WORLD, Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland,
	Greece, Spain including Ceuta and Melilla, France including Mayotte, Saint Pierre and
	Miquelon and Saint Barthélemy, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg,
	Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia,
	Finland, Sweden, Iceland, Liechtenstein, Norway, Switzerland, Albania, Andorra,
	Belarus, Bosnia and Herzegovina, Faroe Islands, Gibraltar, Guernsey, Holy See, Isle of
	Man, Jersey, North Macedonia, Moldova, Republic of Montenegro, Russian Federation,
	Serbia, San Marino, Turkey, Ukraine, United Kingdom (excl. Channel Islands and Isle of
	Man), Algeria, Egypt, Libyan Arab Jamahiriya, Morocco, Tunisia, Angola, Benin,
	Botswana, British Indian Ocean Territory, Burkina Faso, Burundi, Cameroon, Cabo
	Verde, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic
	Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon,
	Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, South Africa,
	Rwanda, Saint Helena, Ascension and Tristan da Cunha, Sao Tome and Principe,
	Senegal, Seychelles, Sierra Leone, Somalia, Sudan, South Sudan, Tanzania, United
	Republic of Togo, Uganda, Zambia, Zimbabwe, Canada, Greenland, United States,
	Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bonaire,
	Sint Eustatius and Saba, Virgin Islands, British Cayman Islands, Costa Rica, Cuba,
	Curaçao, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Haiti,
	Honduras, Jamaica, Mexico, Montserrat, Nicaragua, Panama, St Kitts and Nevis, Saint
	Lucia, Sint Maarten (Dutch part), St Vincent and the Grenadines, Trinidad and Tobago,
	Turks and Caicos Islands, Virgin Islands (US), Argentina, Bolivia , Brazil, Chile,
	Colombia, Ecuador, Falkland Islands, Guyana, Paraguay, Peru, Suriname, Uruguay,
	Venezuela, Bahrain, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates,
	Yemen, Armenia, Azerbaijan, Georgia, Israel, Jordan, Lebanon, Occupied Palestinian
	Territory, Syrian Arab Republic, Afghanistan, Bangladesh, Bhutan, Brunei Darussalam,
	Myanmar, Cambodia, China, Hong Kong, India, Indonesia, Islamic Republic of Iran,
	Japan, Kazakhstan, Kyrgyzstan, Lao People's Democratic Republic, Macao, Malaysia,
	Maldives, Mongolia, Nepal, Democratic People's Republic of Korea, Pakistan,
	Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Tajikistan, Thailand, Timor-
	Leste, Turkmenistan, Uzbekistan, Viet Nam, American Samoa, Guam, United States
	Minor Outlying Islands, Australia, Cocos (Keeling) Islands, Christmas Island, Heard
	Island and McDonald Islands, Norfolk Island, Fiji, French Polynesia, Kiribati, Marshall
	Islands, Federated States of Micronesia, Nauru, New Caledonia, New Zealand, Cook
	Islands, Niue, Tokelau, Northern Mariana Islands, Palau, Papua New Guinea, Pitcairn, Antarctica, Bouvet Island, South Georgia and South Sandwich Islands, French
	Southern Territories, Solomon Islands, Tonga, Tuvalu, Vanuatu, Samoa, Wallis and
	Futuna, INTRA-UNION, EXTRA-UNION, Equally-shared control of UCIs of more than one
	Member State, EXTRA-UNION NOT ALLOCATED, Offshore financial centres.

Use of approximations and quality requirements	For NACE Division 64 the value of the variable net turnover can be approximated by the value of output.
	For the activities of NACE Groups 64.2, 64.3 and 65.3 which are economically not significant in terms of value added and number of employees and self-employed persons, zero (0) values may be assumed except for the variables number of enterprises abroad ultimately controlled by institutional units of the reporting country and number of employees and self-employed persons in enterprises abroad ultimately controlled by institutional units of the reporting country controlled by institutional units of the reporting country.
	Additional approximations for the activities of NACE Section K may be agreed between the Commission (Eurostat) and the Member States taking into account the country conditions.
	In cases where the data of the fiscal year cannot be recalculated to cover the calendar year, the calendar year data may be approximated by data on the fiscal
	year.
Data transmission deadline	t+20 months.
First reference period	2021.

	ational activities — intra-Union trade in goods — detailed data	
Variables	<ul> <li>Statistical value of intra-Union exports of goods — detailed data</li> <li>Quantity of intra-Union exports of goods — detailed data</li> <li>Statistical value of intra-Union imports of goods — detailed data</li> <li>Quantity of intra-Union imports of goods — detailed data</li> </ul>	
Statistical unit	N/A	
Measurement unit	<ul> <li>National currency (units)</li> <li>Quantity:</li> <li>net mass (kg);</li> <li>the quantity in supplementary units: where applicable, according to the combined nomenclature in force during the reference period (respective measurement unit).</li> </ul>	
Periodicity	Monthly	
Reference period	<ul> <li>The calendar month in which the import or export takes place.</li> <li>The calendar month during which the chargeable event occurs for the Union goods on which VAT becomes chargeable on intra-Community supplies and acquisitions, as referred to in the Council Directive 2006/112/EC. However, when the time lag between the import or the export of goods and the chargeable event is longer than two calendar months, the reference period shall be the month in which the import or export takes place; or</li> <li>The calendar month during which the declaration is accepted by customs where the customs declaration is used as data source.</li> <li>The reference period may be adapted for the purposes of specific goods or</li> </ul>	
Statistical population	movements. Total exports or imports of goods	
Breakdowns	<ul> <li>Data have to be provided as a combination of all breakdowns listed below; additionally combined with a breakdown by mode of transport at the border (optional).</li> <li>Breakdown by commodity: Breakdown by combined nomenclature 8-digit level, except for: <ul> <li>goods delivered to vessels and aircraft ('delivery of products for the crew and passengers for consumption during the journey, and for the operation of the engines, machines and other equipment of vessels or aircraft'), and goods delivered to offshore installations ('delivery of products for the crew, for the operation of engines, machines and other equipment of offshore installation'), which may be broken down by:</li> <li>goods from Chapters 1 to 24 of the combined nomenclature in force during the reference period;</li> <li>goods from Chapter 27 of the combined nomenclature in force during the reference period;</li> <li>goods classified elsewhere.</li> </ul> </li> <li>motor vehicle and aircraft parts ('motor vehicle parts' means parts falling within Chapter 87 of the combined nomenclature in force during the reference period;</li> <li>goods complete industrial plant ('industrial plant' means a combination of machines, apparatus, appliances, equipment, instruments and materials which together make up large-scale, stationary units producing goods or providing services and 'component part' means a delivery for an industrial plant which is made up of goods which all belong to the same chapter of the combined nomenclature in force during the reference period, is and 'component part' means a delivery' means a combination of machines, apparatus, appliances, equipment, instruments and materials which together make up large-scale, stationary units producing goods or providing services and 'component part' means a delivery for an industrial plant which is made up of goods which all belong to the same chapter of the combined nomenclature in force during the reference period, which have to be broken</li> </ul>	

Table 34: statistics on international activities — intra-Union trade in goods — detailed data

Breakdowns	<ul> <li>Breakdown by partner Member State and country of origin:</li> <li>For exports:</li> <li>the Member State of destination and the country of origin.</li> <li>For imports:</li> </ul>						
				the Member State of consignment; country of origin (optional).			
					acco	data on the partner Member States a rding to the nomenclature of countri national trade in goods.	
		Brea	kdown by nature of transaction:	r —	[_		
		Α		В			
	1.	Transactions involving actual change of ownership with financial compensation	1. 2.	Outright sale/purchase except direct trade with/by private consumers Direct trade with/by private consumers (incl. distance sale)			
	2.	Return and replacement of goods free of charge after registration of the original transaction	1. 2. 3.	Return of goods Replacement for returned goods Replacement (e.g. under warranty) fo goods not being returned			
	3.	Transactions involving intended change of ownership or change of ownership without financial compensation	1. 2. 3.	Movements to/from a warehouse (excluding call-off and consignment stock) Supply for sale on approval or after trial (including call-off and consignment stock) Financial leasing			
			4.	Transactions involving transfer of ownership without financial compensation			
	4.	Transactions with a view to processing under contract (not involving change of ownership)	1. 2.	Goods expected to return to the initia Member State/country of export Goods not expected to return to the initial Member State/country of export			
	5.	Transactions following processing under contract (not involving change of ownership)	1. 2.	Goods returning to the initial Member State/country of export Goods not returning to the initial Member State/country of export			
	6.	Particular transactions recorded for national purposes					
	7.	Transactions with a view to/following customs clearance (not involving change of ownership, related to goods in quasi-import or export)	1. 2.	Release of goods for free circulation in a Member State with a subsequent export to another Member State Transportation of goods from one Member State to another Member State to place the goods under the export procedure			
	8.	Transactions involving the supply of building materials and technical equipment under a general construction or civil engineering contract for which no separate invoicing of the goods is required and an invoice for the total contract is issued					
	9.	Other transactions which cannot be classified under other codes	1. 9.	Hire, loan, and operational leasing longer than 24 months Other			

Breakdowns	Breakdown by mode of transport at the border (optional) Where the data on the mode of transport is provided, it has to be provided according to the breakdown below. Mode of transport at the border — internal mode of transport:
	<ul> <li>Sea transport;</li> <li>Rail transport;</li> </ul>
	Road transport;
	Air transport;
	<ul> <li>Postal consignment;</li> </ul>
	Fixed transport installations;
	<ul> <li>Inland waterway transport;</li> </ul>
	Own propulsion.
Use of approximations and quality requirements	<ul> <li>Member States shall compile for each monthly reference period statistics which cover their total intra-Union exports and imports in goods by using estimates, where necessary. Estimates shall be marked and transmitted to Eurostat with at least a breakdown by partner Member State and commodity code at chapter level of the combined nomenclature in force during the reference period.</li> <li>Without prejudice to Article 10(5) of the EBS GIA Regulation, Member States shall provide data declared confidential to the Commission (Eurostat) so that they may be published at least at chapter level of the commodity breakdown by combined nomenclature provided confidentiality is thereby assured.</li> <li>In the case of information falling under military secrecy, in compliance with the definitions in force in the Member States, Member States may provide less detailed information than indicated in this table. However, as a minimum, data on the total monthly statistical value of the exports and imports shall be provided to the Commission (Eurostat).</li> </ul>
Data transmission deadline	<i>t</i> +70 days.
	When monthly results already provided to the Commission (Eurostat) are subject to revision, Member States shall provide the revised results no later than the month following the availability of the revised data.
First reference period	January 2022.

Variables	Statistical value of extra-Union exports of goods — detailed data     Statistical value of extra-Union exports of goods — detailed data
Variables	<ul> <li>Statistical value of extra-Union exports of goods — detailed data</li> <li>Quantity of extra-Union exports of goods — detailed data</li> </ul>
	Statistical value of extra-Union imports of goods — detailed data
Statistical unit	Quantity of extra-Union imports of goods — detailed data
Measurement unit	NA National currency (units)
Measurement unit	Quantity:
	<ul> <li>net mass (kg);</li> </ul>
	<ul> <li>the quantity in supplementary units: where applicable, according to the combined</li> </ul>
	nomenclature in force during the reference period (respective measurement unit).
Periodicity	Monthly
Reference period	The calendar month in which the import or export takes place.
	<ul> <li>The calendar month during which the declaration is accepted by customs where</li> </ul>
	the customs declaration is used as data source.
	The reference period may be adapted for the purposes of specific goods or
	movements.
Statistical population	Total exports or imports of goods
Breakdowns	Data have to be provided as a combination of all breakdowns listed below.
	Breakdown by commodity:
	For exports: breakdown by combined nomenclature 8-digit level, except for:
	• goods delivered to vessels and aircraft ('delivery of products for the crew and
	passengers for consumption during the journey, and for the operation of the
	engines, machines and other equipment of vessels or aircraft'), and goods
	delivered to offshore installations ('delivery of products for the crew, for the
	operation of engines, machines and other equipment of offshore installation'),
	which may be broken down by:
	<ul> <li>goods from Chapters 1 to 24 of the combined nomenclature in force during the unformation</li> </ul>
	the reference period;
	<ul> <li>goods from Chapter 27 of the combined nomenclature in force during the reference period.</li> </ul>
	<ul> <li>reference period;</li> <li>goods classified elsewhere.</li> </ul>
	<ul> <li>motor vehicle and aircraft parts ('motor vehicle parts' means parts falling within</li> </ul>
	Chapter 87 of the combined nomenclature in force during the reference period and
	'aircraft parts' means parts falling within Chapter 88 of the combined
	nomenclature in force during the reference period), and component parts of
	complete industrial plant ('industrial plant' means a combination of machines,
	apparatus, appliances, equipment, instruments and materials which together make
	up large-scale, stationary units producing goods or providing services and
	'component part' means a delivery for an industrial plant which is made up of
	goods which all belong to the same chapter of the combined nomenclature in force
	during the reference period), which have to be broken down by combined
	nomenclature at the chapter level.
	For imports: breakdown by Taric subheading (10-digit level), except for:
	• specific goods or movements (vessels and aircraft, goods delivered to vessels
	and aircraft, sea products, spacecraft, natural gas, electrical energy). With the
	exception of imports of goods delivered from another Member State's or non-
	member country's offshore installation to the reporting Member State and goods
	delivered to offshore installations ('delivery of products for the crew, for the
	operation of engines, machines and other equipment of offshore installation'),
	these specific goods or movements may be broken down by combined
	nomenclature 8-digit level;
	goods delivered to offshore installations, which may be broken down by:
	<ul> <li>goods from Chapters 1 to 24 of the combined nomenclature in force during the reference period.</li> </ul>
	the reference period;
	<ul> <li>goods from Chapter 27 of the combined nomenclature in force during the reference period.</li> </ul>
	<ul> <li>reference period;</li> <li>goods classified elsewhere.</li> </ul>
	• goods classified elsewhere.

 Table 35: statistics on international activities — extra-Union imports and exports of goods — detailed data

Breakdowns	Without prejudice to data dissemination at national level, detailed statistics by the Taric subheading shall not be disseminated by the Commission (Eurostat) if their disclosure would undermine the protection of the public interest as regards the commercial and agricultural policies of the Union.			
	<ul> <li>Breakdown by Member State of presumed destination and Member State of actual export – Member State where the customs declaration is lodged: For exports: <ul> <li>Member State of actual export;</li> <li>Member State of presumed destination;</li> <li>Member State of presumed destination;</li> <li>Member State where the customs declaration is lodged.</li> </ul> </li> <li>This breakdown is not applicable for specific goods or movements, if data sources other than the customs declarations are used.</li> <li>The data on exporting and importing Member States shall be coded according to the nomenclature of countries and territories for European statistics on international trade in goods.</li> </ul> Breakdown by partner country: <ul> <li>For exports: the country of consignment and the country of origin.</li> </ul>			
	The data on the partner country shall be coded according to the nomenclature of countries and territories for European statistics on international trade in goods. Breakdown by nature of transaction:			
	1.       Transactions involving actual change of ownership with financial compensation       1.       Outright sale/purchase except direct trade with/by private consumers         2.       Direct trade with/by private consumers (incl. distance sale)			
	2.Return and replacement of goods free of charge after registration of the original transaction1.Return of goods Replacement for returned goods Replacement (e.g. under warranty) for goods not being returned			
	3.Transactions involving intended change of ownership or change of ownership without financial compensation1.Movements to/from a warehouse (excluding call-off and consignment stock)2.Supply for sale on approval or after trial (including call-off and consignment stock)3.Financial leasing 4.4.Transactions involving transfer of ownership without financial compensation			
	4.       Transactions with a view to processing under contract (not involving change of ownership)       1.       Goods expected to return to the initial Member State/country of export         2.       Goods not expected to return to the initial Member State/country of export			
	5.Transactions following processing under contract (not involving change of ownership)1.Goods returning to the initial Member State/country of export2.Goods not returning to the initial Member State/country of export			
	6. Particular transactions recorded for national purposes			

Breakdowns	AB
	7.Transactions with a view to/following customs clearance (not involving change of ownership, related to goods in quasi-import or export)1.Release of goods for free circulation in a Member State with a subsequent export to another Member State2.Transportation of goods from one Member State to another Member State to place the goods under the export procedure
	8. Transactions involving the supply of building materials and technical equipment under a general construction or civil engineering contract for which no separate invoicing of the goods is required and an invoice for the total contract is issued
	9.       Other transactions which cannot be classified under other codes       1.       Hire, loan, and operational leasing longer than 24 months         9.       Other       9.       Other
	<ul> <li>numbers in column A and their subdivisions in column B.</li> <li>Breakdown by statistical procedure: <ul> <li>Normal exports or imports;</li> <li>Exports or imports covered by the customs procedure inward processing;</li> <li>Exports or imports covered by the customs procedure outward processing;</li> <li>Exports or imports not recorded from customs declarations.</li> </ul> </li> <li>Breakdown by preferential treatment on imports (for the variables statistical value of extra-Union imports of goods — detailed data and quantity of extra-Union imports of goods — detailed data only): <ul> <li>This breakdown is not applicable for specific goods or movements, if data sources other than the customs declarations are used.</li> </ul> </li> <li>Tariff treatment indicated by the preference code according to the classification laid down by the Union Customs Code.</li> <li>Without prejudice to data dissemination at national level, detailed statistics by the preferential treatment on imports shall not be disseminated by the Commission (Eurostat) if their disclosure would undermine the protection of the public interest as regards the commercial and agricultural policies of the Union.</li> </ul>
	<ul> <li>Breakdown by mode of transport:</li> <li>Mode of transport at the border;</li> <li>Internal mode of transport;</li> <li>Container.</li> <li>This breakdown is not applicable for specific goods or movements, if data sources other than the customs declarations are used.</li> <li>The data on the mode of transport shall be provided according to the breakdown below.</li> </ul>
	<ul> <li>Mode of transport at the border — internal mode of transport:</li> <li>Sea transport;</li> <li>Rail transport;</li> <li>Road transport;</li> <li>Air transport;</li> <li>Postal consignment;</li> <li>Fixed transport installations;</li> <li>Inland waterway transport;</li> </ul>

	Own propulsion.
Breakdowns	Container
	<ul> <li>Goods are not transported in containers when crossing the border of the statistical territory of the European Union.</li> </ul>
	• Goods are transported in containers when crossing the border of the statistical territory of the European Union.
Use of approximations and quality requirements	<ul> <li>Member States shall compile for each monthly reference period statistics which cover their total extra-Union trade in goods by using estimates, where necessary. Estimates shall be marked and transmitted to Eurostat with at least a breakdown by partner country and commodity code at chapter level of the combined nomenclature in force during the reference period for extra-Union trade.</li> <li>Without prejudice to Article 10(5) of the EBS GIA Regulation, Member States shall provide data declared confidential to the Commission (Eurostat) so that they may be published at least at chapter level of the combined nomenclature provided confidentiality is thereby assured.</li> <li>In the case of information falling under military secrecy, in compliance with the definitions in force in the Member States, Member States may provide less detailed information than indicated in this table. However, as a minimum, data on the total monthly statistical value of the exports and imports shall be provided to the Commission (Eurostat).</li> </ul>
Data transmission deadline	<i>t</i> +40 days.
	When monthly results already provided to the Commission (Eurostat) are subject to revision, Member States shall provide the revised results no later than the month following the availability of the revised data.
First reference period	January 2022.

aute Jo. statistics on interna	tional activities — exports and imports of goods — aggregated data	
Variables	Statistical value of exports of goods — aggregated data	
	Statistical value of imports of goods — aggregated data	
Statistical unit	N/A	
Measurement unit	National currency (units)	
Periodicity	Monthly	
Reference period	Calendar month	
Statistical population	Total exports or imports of goods	
Breakdowns	Data to be provided as a combination of all breakdowns specified in the following.	
	<ul> <li>Geographical breakdown:</li> <li>For all EU Member States: <ul> <li>Intra-Union;</li> <li>Extra-Union.</li> </ul> </li> <li>Additionally, for EU Member States belonging to the euro area: <ul> <li>Intra-euro area;</li> <li>Extra-euro area.</li> </ul> </li> </ul>	
	<ul> <li>Breakdown by commodity:</li> <li>Total;</li> <li>Additionally: Sections 0 to 9 of the standard international trade classification (SITC) in force during the reference period — mandatory only for extra-Union and extra-euro area partner zones.</li> </ul>	
Data transmission deadline	t+40 days.	
First reference period	January 2022.	

Table 36: statistics on international activities — exports and imports of goods — aggregated data

Variables	Statistical value of extra-Union exports of goods by invoicing currency     Statistical value of extra-Union exports of goods by invoicing currency		
	<ul> <li>Statistical value of extra-Union imports of goods by invoicing currency</li> </ul>		
Statistical unit	N/A		
Measurement unit	National currency (units)		
Periodicity	Biennially		
Reference period	Calendar year		
Statistical population	Total extra-Union exports or imports		
Breakdowns	Data to be provided as a combination of all breakdowns specified in the following.		
	Commodity breakdown:		
	According to standard international trade classification (SITC) in force during the		
	reference period:		
	Total:		
	• Sections 0 to 8;		
	• Division 33.		
	Invoicing currency breakdown:		
	If data sources other than customs declarations are used, the invoicing currency		
	breakdown shall be:		
	• euro;		
	• national currency (only for EU Member States not belonging to the euro area);		
	<ul> <li>other national currencies of non-euro area Member States;</li> </ul>		
	pound sterling;		
	US dollar;		
	• other.		
	If customs declarations are used as a data source, the invoicing currency breakdown shall be:		
	• euro;		
	• national currency (only for EU Member States not belonging to the euro area);		
	other national currencies of non-euro area Member States;		
	pound sterling;		
	• US dollar;		
	(Brazilian) real;		
	Canadian dollar;		
	Swiss franc;		
	(Chinese) renminbi-yuan;		
	<ul> <li>Indian rupee;</li> </ul>		
	(Japanese) yen;		
	South Korean won;		
	<ul> <li>Mexican peso;</li> </ul>		
	Norwegian krone;		
	Russian rouble;		
	<ul> <li>Singapore dollar;</li> </ul>		
Data transmission deadline	other.     t+3 months.		
Data transmission deadline			
First reference period	2022.		

Table 37: statistics on international activities — extra-Union exports and imports of goods by invoicing currency

	ernational activities — international supply of services by mode of supply — annual data		
Variables	Imports and acquisition of services		
	Exports and provision of services		
Statistical unit	N/A		
Measurement unit	National currency (thousands)		
Periodicity	Annual		
, Reference period	Calendar year		
Statistical population	Total international supply of services by all four modes of supply		
Breakdowns	1. International supply of services by mode of supply and geographical breakdown		
DIEakuowiis	Data have to be provided as a combination of all breakdowns listed below.		
	Mode of supply breakdown:		
	- Total international supply of services (total of modes 1, 2, 3 and 4):		
	<ul> <li>Mode 1 ('cross border transactions');</li> </ul>		
	<ul> <li>Mode 3 ('commercial presence'); and</li> <li>Mode 4 ('uncommercial presence');</li> </ul>		
	• Mode 4 ('presence of natural persons').		
	Product breakdown:		
	- Total international supply of services.		
	Geographical breakdown (CETO-flag may be applied):		
	- REST OF THE WORLD		
	• EUROPE		
	<ul> <li>Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece,</li> </ul>		
	Spain including Ceuta and Melilla, France including Mayotte, Saint Pierre		
	and Miquelon and Saint Barthélemy, Croatia, Italy, Cyprus, Latvia,		
	Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland,		
	Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, Iceland,		
	Liechtenstein, Norway, Switzerland		
	<ul> <li>OTHER EUROPEAN COUNTRIES (not including Iceland, Liechtenstein,</li> </ul>		
	Norway and Switzerland)		
	<ul> <li>Russian Federation, Turkey, United Kingdom (excl. Channel Islands</li> </ul>		
	and Isle of Man)		
	• AFRICA		
	NORTH AFRICA		
	<ul> <li>Egypt, Morocco</li> </ul>		
	<ul> <li>OTHER AFRICAN COUNTRIES,</li> </ul>		
	<ul> <li>Nigeria, South Africa</li> </ul>		
	• AMERICA		
	NORTH AMERICAN COUNTRIES		
	<ul> <li>Canada, United States</li> </ul>		
	<ul> <li>CENTRAL AMERICAN COUNTRIES</li> </ul>		
	<ul> <li>SOUTH AMERICAN COUNTRIES</li> </ul>		
	<ul> <li>Argentina, Brazil, Chile, Uruguay, Venezuela</li> </ul>		
	<ul> <li>ASIA</li> <li>NEAR AND MIDDLE EAST COUNTRIES</li> </ul>		
	OTHER NEAR AND MIDDLE EAST COUNTRIES     OTHER ASIAN COUNTRIES		
	OTHER ASIAN COUNTRIES     Shine Hanne Maleucia Deliverine Deliverine		
	<ul> <li>China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines,</li> </ul>		
	Singapore, South Korea, Taiwan, Thailand		
	OCEANIA & POLAR REGIONS		
	<ul> <li>Australia, New Zealand</li> </ul>		
	• INTRA-UNION		
	• EXTRA-UNION		
	o Intra-euro area		

Table 38: statistics on international activities — international supply of services by mode of supply — annual data

Breakdowns	• Union Institutions (excluding ECB)
2. Cultowing	
	<ul> <li>European Investment Bank</li> </ul>
	<ul> <li>European Central Bank (ECB)</li> </ul>
	<ul> <li>INTRA-UNION NOT ALLOCATED</li> </ul>
	<ul> <li>EXTRA-UNION NOT ALLOCATED</li> </ul>
	<ul> <li>Offshore financial centres</li> </ul>
	<ul> <li>International Organisations (excluding Union Institutions)</li> </ul>
	<ul> <li>International Monetary Fund (IMF)</li> </ul>
	2. International supply of services by mode of supply, type of product and
	geographical breakdown (CETO-flag or 1 % rule on the level of total trade volume
	(imports + exports of services) may be applied)
	If 1 % rule is applied then breakdown 2 does not need to be reported (only
	breakdown 1 is required).
	Data have to be provided as a combination of all breakdowns listed below
	Data have to be provided as a combination of all breakdowns listed below.
	Modes of supply breakdown:
	Same as for breakdown 1.
	Same as for breakdown 1.
	Product breakdown:
	Total international supply of services
	• Total international supply of services
	EBOPS 2010 main components
	1. Manufacturing services on physical inputs owned by others
	2. Maintenance and repair services n.i.e.
	3. Transport
	Optional: valuation of freight transport services on a transaction basis
	4. Travel
	5. Construction
	6 Insurance and pension convices
	6. Insurance and pension services
	7. Financial services
	8. Charges for the use of intellectual property n.i.e.
	9. Telecommunications, computer, and information services
	10. Other business services
	11. Personal, cultural and recreational services
	12. Government goods and services, n.i.e.
	EBOPS 2010 complementary grouping:
	<ul> <li>C. Total trade-related transactions (optional item);</li> </ul>
	•
	<ul> <li>C.a Trade-related services (item 10.3.4 — optional item);</li> </ul>
	<ul> <li>C.b Distribution services.</li> </ul>
	Geographical breakdown:
	- REST OF THE WORLD
	○ EUROPE
	Spain including Ceuta and Melilla, France including Mayotte, Saint Pierre
	and Miguelon and Saint Barthélemy, Croatia, Italy, Cyprus, Latvia,
	Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland,
	Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, Iceland,
	Liechtenstein, Norway, Switzerland
	<ul> <li>OTHER EUROPEAN COUNTRIES (not including Iceland, Liechtenstein,</li> </ul>
	Norway and Switzerland)
	<ul> <li>Russian Federation, Turkey, United Kingdom (excl. Channel Islands</li> </ul>
	and Isle of Man)
	• AFRICA
	<ul> <li>NORTH AFRICA</li> </ul>
	<ul> <li>Egypt, Morocco</li> </ul>
	<ul> <li>OTHER AFRICAN COUNTRIES,</li> </ul>
	<ul> <li>Nigeria, South Africa</li> </ul>

Breakdowns	o AMERICA			
	<ul> <li>NORTH AMERICAN COUNTRIE</li> </ul>	S		
	<ul> <li>Canada, United States</li> </ul>	<ul> <li>Canada, United States</li> </ul>		
	<ul> <li>CENTRAL AMERICAN COUNTE</li> </ul>	CENTRAL AMERICAN COUNTRIES		
	<ul> <li>Mexico</li> </ul>			
		SOUTH AMERICAN COUNTRIES		
	_	<ul> <li>Argentina, Brazil, Chile, Uruguay, Venezuela</li> </ul>		
		NEAR AND MIDDLE EAST COUNTRIES     GULF ARABIAN COUNTRIES		
	<ul> <li>OTHER ASIAN COUNTRIES</li> </ul>			
		Indonesia, Japan, Malaysia, Philippines,		
	Singapore, South Korea,			
	<ul> <li>OCEANIA &amp; POLAR REGIONS</li> </ul>			
	<ul> <li>Australia, New Zealand</li> </ul>			
	<ul> <li>INTRA-UNION</li> </ul>			
	• EXTRA-UNION			
	o Intra-euro area			
	<ul> <li>Extra-euro area</li> <li>Union Institutions (evoluting EC)</li> </ul>	2)		
	<ul> <li>Union Institutions (excluding ECI</li> <li>European Investment Bank</li> </ul>	8)		
		• European Central Bank (ECB)		
	• EXTRA-UNION NOT ALLOCATED			
	Offshore financial centres			
	<ul> <li>International Organisations (exc</li> </ul>			
	3. International supply of services by mod breakdown and geographical breakdown ( trade volume (imports + exports of servic If 1 % rule is applied, then breakdown 3 c breakdown 1 is required).	CETO-flag or 1 % rule on the level of total es) may be applied)		
	bleakdown i is required).			
	Modes of supply breakdown:	Modes of supply breakdown:		
	Same as for breakdown 1.			
	Product breakdown:			
	Total international supply of services	i		
	EBOPS 2010 main components	EBOPS 2010 detailed components		
	1. Manufacturing services on physical inputs			
	owned by others			
	2. Maintenance and repair services n.i.e.	Optional: 2.a Of which: goods		
	3. Transport	3.1. Sea transport		
	Optional: valuation of freight transport services on a transaction-basis	3.2 Air transport		
		3.3. Other modes of transport		
		3.4. Postal and courier services		
	4. Travel	4.a. Of which: goods		
	5. Construction	5.a. Of which: goods		
	6. Insurance and pension services			
	7. Financial services			
	8. Charges for the use of intellectual			
	property n.i.e.			
	9. Telecommunications, computer, and information services	9.1. Telecommunications services		
		9.2. Computer services		
		9.3.Information services		

Breakdowns	EBOPS 2010 main components	EBOPS 2010 detailed components								
	10. Other business services	10.1. Research and development services								
		10.2. Professional and management								
		consulting services								
		Optional items:								
		10.2.1. Legal, accounting, management								
		consulting, and public relations services 10.2.2. Advertising, market research, and								
		public opinion polling services								
		10.3. Technical, trade-related, and other								
		business services								
		Optional items:								
		10.3.1. Architectural, engineering, scientific,								
		and other technical services								
		10.3.2. Waste treatment and de-pollution, agricultural and mining services								
		10.3.3. Operating leasing services								
		10.3.4. Trade-related services								
		10.3.5. Other business services n.i.e.								
	11. Personal, cultural and recreational	11.1. Audio-visual and related services								
	services	11.2. Other personal, cultural and								
		recreational services								
	12. Government goods and services, n.i.e.	12.a. Of which: goods								
	EBOPS 2010 complementary grou	ping:								
	<ul> <li>C. Total trade-related transaction</li> </ul>									
	<ul> <li>C.a Trade-related services (it</li> </ul>									
	• C.b Distribution services.									
	<ul> <li>REST OF THE WORLD         <ul> <li>EUROPE</li> <li>Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain including Ceuta and Melilla, France including Mayotte, Saint Pierre and Miquelon and Saint Barthélemy, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, Iceland, Liechtenstein, Norway, Switzerland</li> <li>OTHER EUROPEAN COUNTRIES (not including Iceland, Liechtenstein, Norway and Switzerland)</li> <li>Russian Federation, Turkey, United Kingdom (excl. Channel Islands and Isle of Man)</li> </ul> </li> </ul>									
						o AFRICA				
	NORTH AFRICA									
	<ul> <li>Egypt, Morocco</li> <li>OTHER AERICAN COUNTRIES</li> </ul>									
	<ul> <li>OTHER AFRICAN COUNTRIES,</li> <li>Nigeria, South Africa</li> </ul>									
	<ul> <li>Nigeria, South Africa</li> <li>AMERICA</li> </ul>									
	AMERICA     NORTH AMERICAN COUNTRIES									
	<ul> <li>Canada, United States</li> <li>CENTRAL AMERICAN COUNTRIES         <ul> <li>Mexico</li> <li>SOUTH AMERICAN COUNTRIES</li> <li>Argentina, Brazil, Chile, Uruguay, Venezuela</li> </ul> </li> </ul>									
						o ASIA				
								NEAR AND MIDDLE EAST COUNTRIES		
		GULF ARABIAN COUNT								
		DLE EAST COUNTRIES								
	<ul> <li>OTHER ASIAN COUNTRIES</li> </ul>									
		ia, Indonesia, Japan, Malaysia, Philippines,								
	Singapore, South Kore	ea, Taiwan, Thailand								
	OCEANIA & POLAR REGIONS     Australia New Zealan									
	<ul> <li>Australia, New Zealan</li> </ul>	d								

Breakdowns	o INTRA-UNION		
	o EXTRA-UNION		
	o Intra-euro area		
	o Extra-euro area		
	• Union Institutions (excluding ECB)		
	<ul> <li>European Investment Bank</li> </ul>		
	<ul> <li>European Central Bank (ECB)</li> <li>INTRA-UNION NOT ALLOCATED</li> </ul>		
	<ul> <li>EXTRA-UNION NOT ALLOCATED</li> </ul>		
	<ul> <li>Offshore financial centres</li> </ul>		
	<ul> <li>International Organisations (excluding Union Institutions)</li> </ul>		
	<ul> <li>International Monetary Fund (IMF)</li> </ul>		
Use of approximations and	The methods and estimations recommended in the Modes of Supply (MoS) Compilers		
quality requirements	<i>Guide</i> first and second edition, as described in Section 1 of Annex VI, should be used.		
	Countries may also use any other equivalent method or estimation, in line with the		
	principles of the <i>Manual on Statistics of International Trade in Services 2010</i> and Art. 4 of the EBS Regulation.		
	At any time, if a recommended method cannot be used, the corresponding generic estimation method can be used instead.		
	In all cases, the methods used should be clearly described in the metadata.		
Data transmission deadline	For breakdowns involving modes 1, 2 and 4: t+10 months;		
	For breakdowns involving mode 3 and 'Total international supply of services' (the		
	total of modes 1, 2, 3, and 4): t+22 months.		
First reference period	For breakdown 1: $y+2$ years, where y is the year of publication of the first edition of		
	the MoS Compilers Guide referred to in the EBS GIA Regulation (Section 1 of Annex		
	VI).		
	For breakdown 2: $z+2$ years, where z is the year of publication of the second edition		
	of the MoS Compilers Guide referred to in the EBS GIA Regulation (Section 1 of Annex		
	VI).		
	For breakdown 3: $z+4$ years, where z is the year of publication of the second edition		
	of the MoS Compilers Guide referred to in the EBS GIA Regulation (Section 1 of Annex		
	VI).		

# SECTION 3 — EBS GIA DATA REQUIREMENTS — MAIN INDUSTRIAL GROUPINGS (MIGS)

Definition of main industrial groupings (MIGs)

The allocation of NACE groups and divisions to the main industrial groupings (MIGs) is defined in the table below.

For the variables import prices, import prices (euro area) and import prices (non-euro area), the allocation of CPA groups and divisions to MIGs approximations can be derived based on the allocation of NACE groups and divisions.

# ALLOCATION OF NACE HEADINGS TO CATEGORIES OF AGGREGATE CLASSIFICATION

NACE headings	Aggregate classification
07 Mining of metal ores	Intermediate goods
08 Other mining and quarrying	Intermediate goods
09 Mining support service activities	Intermediate goods
10.6 Manufacture of grain mill products, starches and starch products	Intermediate goods
10.9 Manufacture of prepared animal feeds	Intermediate goods
13.1 Preparation and spinning of textile fibres	Intermediate goods
13.2 Weaving of textiles	Intermediate goods
13.3 Finishing of textiles	Intermediate goods
16 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	Intermediate goods
17 Manufacture of paper and paper products	Intermediate goods
20.1 Manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms	Intermediate goods
20.2 Manufacture of pesticides and other agrochemical products	Intermediate goods
20.3 Manufacture of paints, varnishes and similar coatings, printing ink and mastics	Intermediate goods
20.5 Manufacture of other chemical products	Intermediate goods
20.6 Manufacture of man-made fibres	Intermediate goods
22 Manufacture of rubber and plastics products	Intermediate goods
23 Manufacture of other non-metallic mineral products	Intermediate goods
24 Manufacture of basic metals	Intermediate goods
25.5 Forging, pressing, stamping and roll-forming of metal; powder metallurgy	Intermediate goods
25.6 Treatment and coating of metals; machining	Intermediate goods
25.7 Manufacture of cutlery, tools and general hardware	Intermediate goods
25.9 Manufacture of other fabricated metal products	Intermediate goods
26.1 Manufacture of electronic components and boards	Intermediate goods
26.8 Manufacture of magnetic and optical media	Intermediate goods
27.1 Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	Intermediate goods
27.2 Manufacture of batteries and accumulators	Intermediate goods
27.3 Manufacture of wiring and wiring devices	Intermediate goods
27.4 Manufacture of electric lighting equipment	Intermediate goods
27.9 Manufacture of other electrical equipment	Intermediate goods

NACE headings	Aggregate classification
05 Mining of coal and lignite	Energy
06 Extraction of crude petroleum and natural gas	Energy
19 Manufacture of coke and refined petroleum products	Energy
35 Electricity, gas, steam and air conditioning supply	Energy
36 Water collection, treatment and supply	Energy
25.1 Manufacture of structural metal products	Capital goods
25.2 Manufacture of tanks, reservoirs and containers of metal	Capital goods
25.3 Manufacture of steam generators, except central heating hot water boilers	Capital goods
25.4 Manufacture of weapons and ammunition	Capital goods
26.2 Manufacture of computers and peripheral equipment	Capital goods
26.3 Manufacture of communication equipment	Capital goods
26.5 Manufacture of instruments and appliances for measuring, testing, and navigation; watches and clocks	Capital goods
26.6 Manufacture of irradiation, electro medical and electrotherapeutic equipment	Capital goods
28 Manufacture of machinery and equipment n.e.c.	Capital goods
29 Manufacture of motor vehicles, trailers and semi-trailers	Capital goods
30.1 Building of ships and boats	Capital goods
30.2 Manufacture of railway locomotives and rolling stock	Capital goods
30.3 Manufacture of air and spacecraft and related machinery	Capital goods
30.4 Manufacture of military fighting vehicles	Capital goods
32.5 Manufacture of medical and dental instruments and supplies	Capital goods
33 Repair and installation of machinery and equipment	Capital goods
26.4 Manufacture of Consumer electronics	Consumer durables
26.7 Manufacture of optical instruments and photographic equipment	Consumer durables
27.5 Manufacture of domestic appliances	Consumer durables
30.9 Manufacture of transport equipment n.e.c.	Consumer durables
31 Manufacture of furniture	Consumer durables
32.1 Manufacture of jewellery, bijouterie and related articles	Consumer durables
32.2 Manufacture of musical instruments	Consumer durables

NACE headings	Aggregate classification
10.1 Processing and preserving of meat and meat products	Consumer non-durables
10.2 Processing and preserving of fish, crustaceans and molluscs	Consumer non-durables
10.3 Processing and preserving of fruit and vegetables	Consumer non-durables
10.4 Manufacture of vegetable and animal oils and fats	Consumer non-durables
10.5 Manufacture of dairy products	Consumer non-durables
10.7 Manufacture of bakery and farinaceous products	Consumer non-durables
10.8 Manufacture of other food products	Consumer non-durables
11 Manufacture of beverages	Consumer non-durables
12 Manufacture of tobacco products	Consumer non-durables
13.9 Manufacture of other textiles	Consumer non-durables
14 Manufacture of wearing apparel	Consumer non-durables
15 Manufacture of leather and related products	Consumer non-durables
18 Printing and reproduction of recorded media	Consumer non-durables
20.4 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	Consumer non-durables
21 Manufacture of basic pharmaceutical products and pharmaceutical preparations	Consumer non-durables
32.3 Manufacture of sports goods	Consumer non-durables
32.4 Manufacture of games and toys	Consumer non-durables
32.9 Manufacturing n.e.c.	Consumer non-durables

Non-availability of data at the NACE group level

EU Member States that do not compile the statistical data covered by the EBS Regulation to the level of detail of NACE groups are allowed to calculate national weights for NACE groups within a NACE division in order to allocate data from NACE divisions to NACE groups.

EU Member States that use this method — based on national weights — to compile data for the MIGs, in part or in full, shall inform Eurostat of the weights used for each NACE group.

## SECTION 4 — EBS GIA DATA REQUIREMENTS — SIMPLIFICATIONS

#### 1 % rule

EU Member States for which the value of certain indicator(s) at a certain level of a breakdown specified in a table is less than 1 % of the EU-27 total, do not need to send the variable indicated in that table.

This simplification rule may be applied for the following tables:

- Table 10:Country-level business statistics on activities of enterprises;
- Table 11:Country-level business statistics on activities of enterprises broken down by size classes or broken down by legal form;
- Table 14:Country-level business statistics on enterprises by country of ultimate control;
- Table 21:Country-level business statistics on purchases by enterprises;
- Table 22:Country-level business statistics on changes in stock of enterprises;
- Table 23:Country-level business statistics on product and residence of client breakdown of net turnover of enterprises;
- Table 24:Country-level business statistics on broad activity regroupings breakdown of net turnover of enterprises;
- Table 25:Country-level business statistics on type of turnover breakdown of enterprises;
- Table 26:Country-level business statistics on industrial production;
- Table 27:Country-level business statistics on investments in tangible non-current assets by enterprises;
- Table 28:Country-level business statistics on investment in intangible non-current assets;
- Table 33:Statistics on international activities control by institutional units of the reporting country on enterprises abroad;
- Table 38:Statistics on international activities international supply of services by mode of supply annual data.

#### Size categories for small, medium-sized and large countries (91)

The following size categories are identified for EU Member States.

#### Large countries

The country share of EU value added for NACE Sections B to N (excl. K) is larger than 4 %. Member States concerned: Germany, Spain, France, Italy and the Netherlands.

#### Medium-sized countries

The country share of EU value added for NACE Sections B to N (excl. K) is larger than 1 %, but smaller than 4 %. Member States concerned: Belgium, Czechia, Denmark, Ireland, Austria, Poland, Portugal, Finland and Sweden.

#### Small countries

The country share of EU value added for NACE Sections B to N (excl. K) is smaller than 1 %. Member States concerned: Bulgaria, Estonia, Greece, Croatia, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Romania, Slovenia and Slovakia.

<u>Safeguard clause</u>: if an EU Member State's share of EU gross value added in one of the following NACE Sections or one of the defined NACE aggregates corresponds to a smaller size category than for the whole of the non-financial business economy, the data requirements for that country shall correspond to those of the smaller size category for the Section (or Sections) in question. This simplification rule may apply to NACE Sections C (manufacturing), F (construction), G (distributive trades), and to the non-financial services aggregate of NACE Sections H to N (excl. K).

This simplification rule may be applied to the following tables:

- Table 2: Short-term business statistics on employment;
- Table 3: Short-term business statistics on hours worked and wages and salaries;
- Table 4: Short-term business statistics on import prices;
- Table 5: Short-term business statistics on producer prices;
- Table 6: Short-term business statistics on production (volume);
- Table 7: Short-term business statistics on volume of sales;
- Table 8: Short-term business statistics on net turnover (value);
- Table 9: Short-term business statistics on real estate.

<sup>(&</sup>lt;sup>91</sup>) Status as of November 2020.

#### Contribution to European totals only (CETO) flag

EU Member States may mark data for use as a 'contribution to European totals only' (CETO) for certain variables in specific tables. These data will not be published by Eurostat, but will be used to calculate EU aggregates for that variable. Member States cannot use the CETO-flag for data they publish nationally.

Conditions for using the CETO-flag for variables other than sold production, production under subcontracted operations, actual production, imports and acquisition of services, exports and provision of services, statistical value of imports by enterprises and statistical value of exports by enterprises

The number of statistics that can be marked with a CETO-flag by an EU Member State differs between small, medium-sized and large countries.

- 1. The variable to be used for the grouping of Member States by size category is value added.
- 2. Two thresholds set at 1 % and at 10 % respectively are used to distinguish between small, mediumsized and large Member States.
- 3. The overall size category for each Member State is based on their share of EU gross value added for the business economy (as defined by NACE Sections B to N and P to R and Divisions 95 and 96).
- The number of statistics that can be marked with a CETO-flag for the variable(s) specified in a table is:

   (a) For small countries all data at NACE class level and no more than 25 % of the data at NACE group level for the activity breakdown; all data at NACE group level, except for the total of all size classes for combined activity and size class breakdowns.
  - (b) For medium-sized countries no more than 25 % of data at NACE class level for the activity breakdown; no more than 25 % of data at NACE group level, except for the total of all size classes for combined activity and size class breakdowns for the size class breakdown at NACE group level. In addition, if, in any of these Member States, the share of a NACE class or the share of a size class at NACE group level is less than 0.1 % of the business economy of the Member State concerned, those data may additionally be sent as CETO-flagged.
  - (c) For large countries no more than 15 % of data at NACE class level for the activity breakdown; no more than 15 % of data at NACE group level, except for the total of all size classes for combined activity and size class breakdowns for the size class breakdown at NACE group level.

This simplification rule may be applied to the following tables:

- Table 10:Country-level business statistics on activities of enterprises;
- Table 11:Country-level business statistics on activities of enterprises broken down by size classes or broken down by legal form;
- Table 12:Country-level business statistics on demographic events for enterprises;
- Table 13:Country-level business statistics on high-growth enterprises;
- Table 17:Country-level business statistics on trade in services by enterprise characteristics (STEC) annual data;
- Table 14:Country-level business statistics on enterprises by country of ultimate control;
- Table 21:Country-level business statistics on purchases by enterprises;
- Table 22:Country-level business statistics on changes in stock of enterprises;
- Table 23:Country-level business statistics on product and residence of client breakdown of net turnover of enterprises;
- Table 26:Country-level business statistics on industrial production;
- Table 27:Country-level business statistics on investments in tangible non-current assets by enterprises.

Conditions for using the CETO flag for the variables sold production, production under subcontracted operations and actual production

- 1. The variable to be used for the grouping of EU Member States by size category is sold production;
- 2. Two thresholds set at 1 % and at 4 % respectively are used to distinguish between small, mediumsized and large Member States;
- 3. The overall size category for each Member State is based on their share of EU sold production of CPA Divisions (05 to 33) under the scope of the PRODCOM list;
- 4. The number of statistics that can be marked with a CETO-flag for the variable(s) specified in a table is: (a) for small countries — no more than 20 % of the data for individual PRODCOM headings.
  - (b) for medium-sized countries no more than 15 % of the data for individual PRODCOM headings. In addition, if, in any of these Member States, the share of sold production is less than 0.1 % of the total of all individual PRODCOM headings in the country concerned, those data may additionally be sent as CETO-flagged.
  - (c) for large countries no more than 10 % of data for individual PRODCOM headings.

This simplification rule may be applied to the following table:

Table 26:Country-level business statistics on industrial production.

Conditions for using the CETO flag for the variables imports and acquisition of services, exports and provision of services, statistical value of imports by enterprises and statistical value of exports by enterprises

- The variable to be used for the grouping of EU Member States by size category is the total services trade volume (exports plus imports of services, traded between residents and non-residents — expressed as the sum of the variables statistical value of imports by enterprises and statistical value of exports by enterprises);
- 2. Two thresholds set at 1 % and at 4 % respectively are used to distinguish between small, mediumsized and large Member States;
- **3**. The overall size category for each Member States is based on their share of EU total services trade volume;
- 4. The number of statistics that can be marked with a CETO-flag for the variable(s) specified in a table is: (a) for small countries: no more than 40 %;
  - (b) for medium-sized countries: no more than 15 %;
  - (c) for large countries: no more than 10 %.

This simplification rule may be applied to the following table:

Table 38:Statistics on international activities — international supply of services by mode of supply — annual data.

#### European sample schemes

European sample schemes may limit the scope of the data to be transmitted when compiling statistics for variable(s) specified in a table in order to reduce the costs for national statistical systems, to ensure that European data requirements are met and to enable the Commission (Eurostat) to produce credible European estimates for the indicators concerned.

Member States participating in the European sample scheme referred to above shall transmit data to the Commission (Eurostat) for at least the NACE activities and CPA products specified according to the following procedure:

- 1. reporting is limited in each country to those activities or products, the weight of which is equal to or more than 0.05 % of the total weight (euro area total industry) of the indicator during the previous base year;
- 2. the reporting requirements are updated routine-wise at the same time as updates to European weights for a new base year, on the basis of weights during the previous base year;
- 3. the first reference period for the new headings shall be no later than the beginning of the new base year, with effect from the introduction of that base year three years later;
- 4. updates to European sampling schemes along these lines do not require a specific legal act.

The terms of the European sample schemes, as set out, may be adapted to reflect changes of base year, of classification systems, or as a result of important structural changes in the euro area or the EU.

New members of the euro area/EU may enter any of the European sample schemes upon joining the euro area/EU. The Commission, after consultation with the EU Member State concerned, shall specify the NACE activities and CPA products for which data are to be transmitted according to the procedure described above, in order for that Member State to comply with the EBS Regulation within the framework of European sample schemes.

This simplification rule may be applied to the following tables:

- Table 4: Short-term business statistics on import prices;
- Table 5: Short-term business statistics on producer prices.

## Transnational arrangements

## Transitional arrangements for Tables 2, 3, 5, 6 and 8

If major adaptations of the national production system are necessary, the data for reference periods starting from January/1st quarter 2021 to December/4th quarter 2023 can be sent after the data transmission deadlines specified in Tables 2, 3, 5, 6 and 8, but not later than the transmission deadlines set in Tables 2, 3, 5, 6 and 8 for the reference periods starting from January/1st quarter 2024.

# Transitional arrangements for NACE Section F in Table 6

For reference periods before January 2024, the variable production (volume) of Annex I, Part B, Table 6 for NACE Section F shall be broken down between the production of building construction (B-115 can be approximated as the sum of Divisions 41 and 43) and civil engineering (B-116 can be approximated by Division 42) (<sup>92</sup>).

<sup>(92)</sup> The codes B-115 (building construction) and B-116 (civil engineering) stem from the old STS Regulation (Council Regulation (EC) No 1165/98 of 19 May 1998).

# SECTION 5 — EBS GIA DATA REQUIREMENTS — ANNEX VIII DATA REQUIREMENTS FOR THE EUROPEAN FRAMEWORK FOR STATISTICAL BUSINESS REGISTERS

Detailed data requirements for the European framework for statistical business registers Unmarked items are mandatory, items marked 'conditional' are mandatory if available in the Member States, items marked 'partially conditional' are mandatory except those parts of the item that are explicitly mentioned to be conditional and items marked 'optional' are recommended.

Detailed topic	Variables	;	
IDENTIFICATION	1.1		Identity number(s) (including the EGR identity number when relevant for the EGR)
	1.2		Name
	1.3		Address (at the most detailed level, including postcode)
	1.4	Optional	Telephone number, e-mail address, website and information to permit electronic collection of data
	1.5		Value added tax (VAT) registration number or, failing that, other administrative identity number
DEMOGRAPHIC EVENTS	1.6		Date of incorporation for legal persons or date of officia recognition as an economic operator for natural persons
	1.7		Date on which the legal unit ceased
STRATIFICATION PARAMETERS	1.8		Legal form
	1.9		Legal activity status
	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013
	1.11	Optional	Flag for special purpose entities within the meaning of points 2.17 to 2.20 of Chapter 2 of Annex A to Regulation (EU) No 549/2013
LINKS WITH ENTERPRISE	1.12	Conditional	Identity number(s) of the enterprise(s) (3.1) to which the unit belongs
	1.13	Conditional	Date of association to the enterprise(s)
	1.14	Conditional	Date of separation from the enterprise(s)
LINKS WITH OTHER REGISTERS			Reference to associated registers, in which the legal unit is recorded and which contain information that can be useful for statistical purpose
	1.15	Conditional	Reference to the register of intra-EU operators and reference to customs files or to the register of extra-EU operators
	1.16	Conditional	Reference to administrative global identifiers, reference to balance sheet data (for units required to publish accounts), reference to the balance of payments register or foreign direct investment register and reference to the farm register
LINK WITH ENTERPRISE GROUP	1.17		Identity number of the enterprise group (2.1) to which the unit belongs
	1.18		Date of association to the enterprise group
	1.19		Date of separation from the enterprise group

1. LEGAL UNIT				
Detailed topic	Variables	Variables		
CONTROL OF UNITS			The control links can be recorded either top-down (1.20a, 1.21a, 1.22a) or bottom-up (1.20b, 1.21b, 1.22b); only the first level of control, direct or indirect, is recorded for each unit (the whole chain of control can be obtained by combining these)	
	1.20a		Identity number(s) of resident legal unit(s) which are controlled by the legal unit	
	1.20b		Identity number of the resident legal unit, which controls the legal unit	
	1.21a	Partially conditional	Country(ies) of registration, identity number(s), name(s) and address(es) of the non-resident legal unit(s), which are controlled by the legal unit; conditional for EGR identity number(s)	
	1.21b	Partially conditional	Country of registration, identity number, name and address of the non-resident legal unit, which controls the legal unit; conditional for EGR identity number	
	1.22a	Conditional	VAT number(s) of non-resident legal unit(s), which are controlled by the legal unit	
	1.22b	Conditional	VAT number of the non-resident legal unit, which controls the legal unit	
OWNERSHIP OF UNITS			The ownership can be recorded either top-down (1.23a, 1.24a) or bottom-up (1.23b, 1.24b); the threshold is 10 % or more of direct ownership	
	1.23a	Conditional	(a) identity number(s), and (b) shares (%) of resident legal unit(s) owned by the legal unit	
	1.23b	Conditional	(a) identity number(s), and (b) shares (%) of resident legal unit(s), which own(s) the legal unit	
	1.24a	Conditional	<ul> <li>(a) country(ies) of registration, and</li> <li>(b) EGR identity number(s), and</li> <li>(c) name(s), address(es), VAT number(s), and</li> <li>(d) shares (%) of non-resident legal unit(s) owned by the legal unit, and</li> <li>(e) date of start — end of the shares</li> </ul>	
	1.24b	Conditional	<ul> <li>(a) country(ies) of registration, and</li> <li>(b) EGR identity number(s), and</li> <li>(c) name(s), address(es), VAT number(s), and</li> <li>(d) shares (%) of non-resident legal unit(s), which own(s) the legal unit, and</li> <li>(e) date of start — end of the shares</li> </ul>	

Detailed topic	Variables		
IDENTIFICATION	2.1	Partially conditional	Identity number(s) Conditional for EGR identity number if the enterprise group is multinational
	2.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise group
	2.3		Name of the enterprise group, for multinational groups the EGR name
	2.4	Optional	Short text description of the enterprise group
	2.5	Optional	Website address of the enterprise group
	2.6		Identity number of the legal unit being global decision centre; if the global decision centre is non-resident, the EGR identity number For natural persons that are not economic operators, the
			country of residence has to be recorded under 2.10a
	2.7		Country of registration of the global decision centre, if non-resident the EGR country of registration
	2.8	Optional	Postal and e-mail addresses of the global decision centre
	2.9		Identity number of the legal unit being the global group head; if the global group head is non-resident, the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.10	Optional	Country of registration, postal and e-mail address of the global group head; if non-resident, the EGR country of registration
	2.10a	Conditional	Country of residence of the ultimate controlling institutional (UCI) unit if the controlling unit is a natural person who is not an economic operator
	2.11		Type of enterprise group:
			1. all-resident group;
			2. multinational group domestically controlled;
	2.12		3. multinational group foreign controlled
DEMOGRAPHIC EVENTS	2.12		Date of commencement of the enterprise group
	2.13		Date of cessation of the enterprise group
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	2.14		Principal activity code of the enterprise group at NACE division level; if a multinational group, the EGR principal activity code
	2.15	Optional	Secondary activities of the enterprise group at NACE divisio level; if a multinational group, the EGR secondary activity code
	2.16	Conditional	Number of employees and self-employed persons in the enterprise group; if a multinational group, the EGR number of employees and self-employed persons
	2.17	Conditional	Net turnover (and currency) of the enterprise group; if a multinational group, the EGR net turnover (and currency)
	2.18	Conditional	Total assets (and currency) of the enterprise group; if a multinational group, the EGR total assets (and currency)
	2.19	Optional	Countries where non-resident enterprises or local units are located; for multinational groups, the EGR countries of

			registration
3. ENTERPRISE		1	
Detailed topic	Variables		
IDENTIFICATION	3.1	Partially conditional	Identity number(s) Conditional for the EGR identity number when recorded in the EGR
	3.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise
	3.3		Name
	3.4	Optional	Postal, e-mail and website address
LINK TO OTHER UNITS	3.5		Identity number(s) of the legal unit(s) of which the enterprise consist(s)
	3.6		Identity number of the enterprise group, to which the enterprise belongs
DEMOGRAPHIC EVENTS	3.7		Date of commencement of activities
	3.8		Date of final cessation of activities
STRATIFICATION PARAMETERS	3.9		Principal activity code at NACE class level
AND ECONOMIC VARIABLES	3.10	Conditional	Secondary activities, if any, at NACE class level
	3.11		Number of employees and self-employed persons
	3.12		Number of employees
	3.13	Optional	Number of employees in full-time equivalents
	3.14		Net turnover, except that provided in 3.15
	3.15	Optional	Net turnover for agriculture, hunting and forestry, fishing, and public administration and defence, compulsory social security, private households with employed persons and extra-territorial organisations
	3.16		Institutional sector and subsector within the meaning of Regulation (EU) No 549/2013
	3.17	Optional if 5.1- 5.9 are used	Size (for example, turnover, employment) of the principal activity and each of the secondary activities of the enterprise, which due to their size have a significant influence and whose kind-of-activity units (KAU) have a significant influence on the aggregated national data

4. LOCAL UNIT			
Detailed topic	Variables		
IDENTIFICATION	4.1		Identity number
	4.2		Name
	4.3		Address (at the most detailed level, including postcode)
	4.4	Optional	Telephone number e-mail address and information to permit electronic collection of data
DEMOGRAPHIC EVENTS	4.5		Date of commencement of activities
	4.6		Date of final cessation of activities
STRATIFICATION PARAMETERS	4.7		Principal activity code at NACE class level
AND ECONOMIC VARIABLES	4.8	Conditional	Secondary activities, if any, at NACE class level; this point concerns only local units which are the subject of surveys
	4.9	Optional	Activity carried out in the local unit constituting an ancillary activity of the enterprise to which it belongs (yes/no)
	4.10		Number of employees and self-employed persons
	4.11		Number of employees
	4.12	Optional	Number of employees in full-time equivalents
	4.13		Geographical location code
LINKS TO OTHER UNITS AND REGISTERS	4.14		Identity number(s) of the enterprise(s) (3.1) to which the local unit belongs
	4.15	Conditional	Reference to registers, in which the local unit appears and which contain information which can be used for statistical purposes

# 5. KIND-OF-ACTIVITY UNIT

KAU information is requested for those enterprises, which due to their size (for example, turnover, employment) have a significant influence and whose kind-of-activity units have a significant influence on the aggregated (national) data at NACE activity level

Detailed topic	Variables	Variables				
IDENTIFICATION	5.1	Optional if 3.17 is used	Identity number			
	5.2	Optional if 3.17 is used	Identity number(s) of the legal unit(s) able to report data on the KAU			
	5.3	Optional if 3.17 is used	Name			
	5.4	Optional if 3.17 is used	Address to permit data collection			
DEMOGRAPHIC EVENTS	5.5	Optional if 3.17 is used	Date of commencement of activities			
	5.6	Optional if 3.17 is used	Date of final cessation of activities			
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	5.7	Optional if 3.17 is used	Activity code at NACE class level			
	5.8	Optional if 3.17 is used	Size (for example, turnover, employment) of the KAU			
LINKS TO OTHER UNITS AND REGISTERS	5.9	Optional if 3.17 is used	Identity number of the enterprise of which the KAU is part			

# SECTION 6 — EBS GIA DATA REQUIREMENTS — ANNEX IX DATA REQUIREMENTS

Detailed data requirements for the exchange of confidential data for the purposes of the European framework of statistical business registers

Parts A, B, C and D below give the contents of the datasets that the Commission (Eurostat) and the national statistical authorities (NSAs) shall transmit.

Unmarked items listed in Parts A, B, C and D of this section are mandatory, items marked 'conditional' are mandatory if available in the Member States and items marked 'optional' are recommended. Items marked 'partially conditional' are mandatory except those parts of the item that are explicitly mentioned to be conditional.

The data processing of the EuroGroups register is a cyclical process, which the Commission (Eurostat) starts centrally. At the end of each cycle a population frame shall be available for compilers of statistics in the EU Member States.

At the beginning of each cycle, the Commission (Eurostat) transmits datasets with relevant metadata to the NSAs to ensure that the same metadata are available and used in all countries.

# Part A

Datasets of variables enumerated in paragraphs 1 and subparagraphs 3.1 and 3.2 of Annex IV of the EBS Regulation to be transmitted by NSAs to the Commission (Eurostat)

#### Data exchange on resident legal units for identification purposes

For the purpose of identification, the NSAs shall transmit information to the Commission (Eurostat) on their resident incorporated legal units for the EGR identification service. The NSAs shall transmit the following dataset with identification information for resident incorporated legal units including confidentiality flags. The variable 1.6 for this dataset can only be the date of incorporation for legal persons.

Dataset with information on resident legal units for the EGR identification service			
IDENTIFICATION	1.1		Identity number(s)
			(including the EGR identity number when relevant for the EGR)
	1.2		Name
	1.3		Address (at the most detailed level, including postcode)
	1.4	Optional	Telephone number, e-mail address, website and information to permit electronic collection of data
	1.5		Value added tax (VAT) registration number or, failing that, other administrative identity number
DEMOGRAPHIC EVENTS	1.6		Date of incorporation for legal persons or date of official recognition as an economic operator for natural persons
	1.7		Date on which the legal unit ceased
STRATIFICATION	1.8		Legal form
PARAMETERS	1.9		Legal activity status
	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013

## Data exchange on foreign legal units for identification purposes

For the purpose of identification, NSAs may transmit information to the Commission (Eurostat) on foreign incorporated legal units at any time of the EuroGroups register process. The NSAs transmit the following dataset on foreign incorporated legal units. The variable 1.6 for this dataset can only be the date of incorporation for legal persons.

Dataset with information on foreign legal units for the EGR identification service			
IDENTIFICATION	1.1	Optional	Identity number(s) (including the EGR identity number when relevant for the EGR)
	1.2		Name
	1.3		Address (at the most detailed level, including postcode)
	1.4	Optional	Telephone number, e-mail address, website and information to permit electronic collection of data
	1.5	Optional	Value added tax (VAT) registration number or, failing that, other administrative identity number
DEMOGRAPHIC EVENTS	1.6	Optional	Date of incorporation for legal persons or date of official recognition as an economic operator for natural persons
	1.7	Optional	Date on which the legal unit ceased
STRATIFICATION	1.8	Optional	Legal form
PARAMETERS	1.9		Legal activity status
	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013

### Data exchange on legal units and relationships belonging to multinational enterprise groups

Part of the transmission of information from NSAs to the Commission (Eurostat) concerns legal units and relationships between legal units. Two datasets shall be transmitted to the EuroGroups register, one dataset on legal units, one on relationships. The NSAs shall transmit the following datasets including confidentiality flags for legal units and relationships.

Dataset with information on legal units			
IDENTIFICATION	1.1		Identity number(s)
			(including the EGR identity number when relevant for the EGR)
	1.2		Name
	1.3		Address (at the most detailed level, including postcode)
	1.4	Optional	Telephone number, e-mail address, website and information to permit electronic collection of data
	1.5		Value added tax (VAT) registration number or, failing that, other administrative identity number
DEMOGRAPHIC EVENTS	1.6		Date of incorporation for legal persons or date of official recognition as an economic operator for natural persons
	1.7		Date on which the legal unit ceased
STRATIFICATION	1.8		Legal form
PARAMETERS	1.9		Legal activity status
	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013
	1.11	Optional	Flag for special purpose entities within the meaning of points 2.17 to 2.20 of Chapter 2 of Annex A to Regulation (EU) No 549/2013

CONTROL OF UNITS			The control links can be recorded either top-down (1.20a,
			1.21a, 1.22a) or bottom-up (1.20b, 1.21b, 1.22b); only the first level of control, direct or indirect, is recorded for each unit (the whole chain of control can be obtained by combining these)
	1.20a		Identity number(s) of resident legal unit(s) which are controlled by the legal unit
	1.20b		Identity number of the resident legal unit, which controls the legal unit
	1.21a	Partially conditional	Country(ies) of registration, identity number(s), name(s) and address(es) of the non-resident legal unit(s), which are controlled by the legal unit; conditional for EGR identity number(s)
	1.21b	Partially conditional	Country of registration, identity number, name and address of the non-resident legal unit, which controls the legal unit; conditional for EGR identity number
	1.22a	Conditional	Value added tax (VAT) registration number(s) of non- resident legal unit(s), which are controlled by the legal unit
	1.22b	Conditional	VAT number of the non-resident legal unit, which controls the legal unit
OWNERSHIP OF UNITS			The ownership can be recorded either top-down (1.23a, 1.24a) or bottom-up (1.23b, 1.24b); the threshold is 10 % or more of direct ownership
	1.23a	Conditional	(a) identity number(s), and (b) shares (%) of resident legal unit(s) owned by the legal unit
	1.23b	Conditional	(a) identity number(s), and (b) shares (%) of resident legal unit(s), which own(s) the legal unit
	1.24a	Conditional	<ul> <li>(a) country(ies) of registration, and</li> <li>(b) EGR identity number(s), and</li> <li>(c) name(s), address(es), VAT number(s), and</li> <li>(d) shares (%) of non-resident legal unit(s) owned by the legal unit, and</li> <li>(e) date of start — end of the shares</li> </ul>
	1.24b	Conditional	<ul> <li>(a) country(ies) of registration, and</li> <li>(b) EGR identity number(s), and</li> <li>(c) name(s), address(es), VAT number(s), and</li> <li>(d) shares (%) of non-resident legal unit(s), which own(s) the legal unit, and</li> <li>(e) date of start — end of the shares</li> </ul>

### Data exchange on resident enterprises belonging to multinational enterprise groups

Part of the transmission of information from NSAs to the Commission (Eurostat) concerns those enterprises to which the delivered legal units belong. Two datasets shall be transmitted to the EuroGroups register, one dataset on enterprises and one on the links between enterprises and legal units.

Dataset with information on	enterprises	5	
IDENTIFICATION	3.1	Partially conditional	Identity number(s) Conditional for the EGR identity number when recorded in the EGR
	3.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise
	3.3		Name
	3.4	Optional	Postal, e-mail and website address
LINK TO OTHER UNITS	3.5		Identity number(s) of the legal unit(s) of which the enterprise consists
	3.6		Identity number of the enterprise group, to which the enterprise belongs
DEMOGRAPHIC EVENTS	3.7		Date of commencement of activities
	3.8		Date of final cessation of activities
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	3.9		Principal activity code at NACE class level
	3.11		Number of employees and self-employed persons
	3.12		Number of employees
	3.14		Net turnover, except that provided in 3.15
	3.15	Optional	Net turnover for agriculture, hunting and forestry, fishing, and public administration and defence, compulsory social security, private households with employed persons and extra-territorial organisations
	3.16		Institutional sector and subsector within the meaning of Regulation (EU) No 549/2013
Dataset with information on	links betwo	een enterprises and	l legal units
LINKS WITH ENTERPRISE	1.12	Conditional	Identity number(s) of the enterprise(s) (3.1) to which the unit belongs
	3.5		Identity number(s) of the legal unit(s) of which the enterprise consists

### Integration of data from different sources and compilation of enterprise groups

Another step of the data processing is the integration of information coming from different EU Member States and other data providers centrally at the Commission (Eurostat). This information refers to control and ownership of legal units and to the enterprise as a type of statistical unit.

The subsequent stage of the processing is the compilation of enterprise groups by the Commission (Eurostat). The results of this compilation will be transmitted by the Commission (Eurostat) to the NSAs of EU Member States in the datasets defined in Parts C and D.

#### Data exchange for the correction of group structures and variables on multinational enterprise groups

For corrections of enterprise group structures, the NSAs shall transmit datasets with information on missing or invalid relationships including confidentiality flags. The format shall follow the format of the dataset with information on relationships defined above under the heading of 'Data exchange on legal units and relationships belonging to multinational enterprise groups'.

The NSAs shall transmit to the Commission (Eurostat) the following dataset with identification information for multinational enterprise groups when the global decision centre of the group is located in the territory of an EU Member State.

IDENTIFICATION	2.1	Partially conditional	Identity number(s) Conditional for EGR identity number if the enterprise group is multinational
	2.3		Name of the enterprise group, for multinational groups the EGR name
	2.4	Optional	Short text description of the enterprise group
	2.5	Optional	Website address of the enterprise group
	2.6		Identity number of the legal unit being the global decision centre
			If the global decision centre is non-resident the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.7		Country of registration of the global decision centre, if non- resident the EGR country of registration
	2.9		Identity number of the legal unit being the global group head If the global group head is non-resident the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.10	Optional	Country of registration, postal and e-mail addresses of the global group head; if non-resident, the EGR country of registration
	2.10a	Conditional	Country of residence of the ultimate controlling institutional (UCI) unit, if the controlling unit is a natural person who is not an economic operator
STRATIFICATION PARAMETERS AND ECONOMIC	2.14		Principal activity code of the enterprise group at NACE division level; if a multinational group, the EGR principal activity code
VARIABLES	2.15	Optional	Secondary activities of the enterprise group at NACE division level; if a multinational group, the EGR secondary activity code
	2.16	Conditional	Number of employees and self-employed persons in the enterprise group; if a multinational group, the EGR number of employees and self-employed persons
	2.17	Conditional	Net turnover (and currency) of the enterprise group; if a multinational group, the EGR net turnover (and currency)
	2.18	Conditional	Total assets (and currency) of the enterprise group; if a multinational group, the EGR total assets (and currency)
	2.19	Optional	Countries where non-resident enterprises or local units are located; for multinational groups, the EGR countries of registration

# Data exchange on invalid and out of scope resident legal units

NSAs may transmit information to the Commission (Eurostat) on invalid or out of scope resident legal units at any time during the EuroGroups register process. NSAs should transmit the following datasets with identification information on such legal units.

Dataset with information on invalid legal units for the EuroGroups register			
IDENTIFICATION	1.1	Ider	tity number(s)
		(inc	uding the EGR identity number when relevant for the EGR)
Dataset with information on out of scope legal units for the EuroGroups register			
IDENTIFICATION	1.1	Ider	tity number(s)
		(inc	uding the EGR identity number when relevant for the EGR)

## Integration of data from different sources and compilation of final multinational enterprise groups

The next step of the data processing is the integration of relationship and enterprise group information coming from different EU Member States centrally at the Commission (Eurostat). The last stage of the processing is the final compilation of information on enterprise groups by the Commission (Eurostat).

At the end of the cycle, the Commission (Eurostat) shall transmit the results of the final compilation of enterprise groups to the NSAs. The Commission (Eurostat) shall transmit data to NSAs as defined in Parts C and D.

# Part B

Datasets of variables enumerated in subparagraph 3.3 of Annex IV of the EBS Regulation to be transmitted by the Commission (Eurostat) to the NSAs for the purpose of identification of legal units On request of the NSAs, the Commission (Eurostat) transmits the identification results from the EGR identification service to the competent staff contributing to the production of the EGR, the following dataset including confidentiality flags.

Dataset with information on legal units from the EGR identification service to NSAs

IDENTIFICATION	1.1		Identity number(s) (including the EGR identity number when relevant for the EGR)
	1.2		Name
	1.3		Address (at the most detailed level, including postcode)
	1.4	Optional	Telephone number, e-mail address, website and information to permit electronic collection of data
	1.5		Value added tax (VAT) registration number or, failing that, other administrative identity number
DEMOGRAPHIC EVENTS	1.6		Date of incorporation for legal persons or date of official recognition as an economic operator for natural persons
	1.7		Date on which the legal unit ceased
STRATIFICATION PARAMETERS	1.8		Legal form

# Part C

Datasets of variables enumerated in paragraph 2 of Annex IV of the EBS Regulation to be transmitted by the Commission (Eurostat) to the NSAs and to central banks for the purposes of the use of the EuroGroups register as referred to in Article 8(4) of the EBS Regulation

The Commission (Eurostat) shall transmit to the NSAs of EU Member States, exclusively for statistical purposes, the following variables, including confidentiality flags, concerning multinational enterprise groups and their constituent units when at least one legal unit of the group is located in the territory of that Member State.

The Commission (Eurostat) may transmit to the national central banks and the European Central Bank, exclusively for statistical purposes, the following variables, including confidentiality flags, concerning multinational enterprise groups and their constituent units, provided that the transmission is explicitly authorised by the NSA and that, in the case of data transmitted to a national central bank, at least one legal unit of a multinational enterprise group is located in the territory of the EU Member State of that national central bank.

1. LEGAL UNITS			
IDENTIFICATION	1.1		Identity number(s) (including the EGR identity number when relevant for the EGR)
	1.2		Name
	1.3		Address (at the most detailed level, including postcode)
	1.4	Optional	Telephone number, e-mail address, website and information to permit electronic collection of data
	1.5		Value added tax (VAT) registration number or, failing that, other administrative identity number
DEMOGRAPHIC EVENTS	1.6		Date of incorporation for legal persons or date of official recognition as an economic operator for natural persons
	1.7		Date on which the legal unit ceased
STRATIFICATION	1.8		Legal form
PARAMETERS	1.9		Legal activity status
	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013
	1.11	Optional	Flag for special purpose entities within the meaning of points 2.17 to 2.20 of Chapter 2 of Annex A to Regulation (EU) No 549/2013
LINKS WITH ENTERPRISE	1.12	Conditional	Identity number(s) of the enterprise(s) (3.1) to which the unit belongs
	1.13	Conditional	Date of association to the enterprise(s)
	1.14	Conditional	Date of separation from the enterprise(s)
LINKS WITH OTHER REGISTERS			Reference to associated registers, in which the legal unit is recorded and which contain information that can be useful for statistical purposes
	1.15	Conditional	Reference to the register of intra-EU operators and reference to customs files or to the register of extra-EU operators
	1.16	Conditional	Reference to administrative global identifiers, reference to balance sheet data (for units required to publish accounts), reference to the balance of payments register or foreign direct investment register, and reference to the farm register
LINK WITH ENTERPRISE GROUP	1.17		Identity number of the enterprise group (2.1), to which the unit belongs
	1.18		Date of association to the enterprise group
	1.19		Date of separation from the enterprise group

1. LEGAL UNITS			
CONTROL OF UNITS			The control links can be recorded either top-down (1.20a, 1.21a, 1.22a) or bottom-up (1.20b, 1.21b, 1.22b); only the first level of control, direct or indirect, is recorded for each unit (the whole chain of control can be obtained by combining these)
	1.20a		Identity number(s) of resident legal unit(s) which are controlled by the legal unit
	1.20b		Identity number of the resident legal unit, which controls the legal unit
	1.21a	Partially conditional	Country(ies) of registration, identity number(s), name(s) and address(es) of the non-resident legal unit(s), which are controlled by the legal unit; conditional for EGR identity number(s)
	1.21b	Partially conditional	Country of registration, identity number, name and address of the non-resident legal unit, which controls the legal unit; conditional for EGR identity number
	1.22a	Conditional	VAT number(s) of non-resident legal unit(s), which are controlled by the legal unit
	1.22b	Conditional	VAT number of the non-resident legal unit, which controls the legal unit
OWNERSHIP OF UNITS			The ownership can be recorded either top-down (1.23a, 1.24a) or bottom-up (1.23b, 1.24b). The threshold is 10 % or more of direct ownership.
	1.23a	Conditional	(a) identity number(s), and (b) shares (%) of resident legal unit(s) owned by the legal unit
	1.23b	Conditional	(a) identity number(s), and (b) shares (%) of resident legal unit(s), which own(s) the legal unit
	1.24a	Conditional	<ul> <li>(a) country(ies) of registration, and</li> <li>(b) EGR identity number(s), and</li> <li>(c) name(s), address(es), VAT number(s), and</li> <li>(d) shares (%) of non-resident legal unit(s) owned by the legal unit, and</li> <li>(e) date of start — end of the shares</li> </ul>
	1.24b	Conditional	<ul> <li>(a) country(ies) of registration, and</li> <li>(b) EGR identity number(s), and</li> <li>(c) name(s), address(es), VAT number(s), and</li> <li>(d) shares (%) of non-resident legal unit(s), which own(s) the legal unit, and</li> <li>(e) date of start — end of the shares</li> </ul>

2. ENTERPRISE GROUP			
IDENTIFICATION	2.1	Partially conditional	Identity number(s) Conditional for EGR identity number if the enterprise group is multinational
	2.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise group
	2.3		Name of the enterprise group, for multinational groups the EGR name
	2.4	Optional	Short text description of the enterprise group
	2.5	Optional	Website address of the enterprise group
	2.6		Identity number of the legal unit being the global decision centre
			If the global decision centre is non-resident the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.7		Country of registration of the global decision centre, if non- resident the EGR country of registration
	2.8	Optional	Postal and e-mail addresses of the global decision centre
	2.9		Identity number of the legal unit being the global group head If the global group head is non-resident the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.10	Optional	Country of registration, postal and e-mail address of the global group head; if non-resident, the EGR country of registration
	2.10a	Conditional	Country of residence of the ultimate controlling institutional (UCI) unit if the controlling unit is a natural person who is not an economic operator
DEMOGRAPHIC EVENTS	2.12		Date of commencement of the enterprise group
	2.13		Date of cessation of the enterprise group
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	2.14		Principal activity code of the enterprise group at NACE division level; if a multinational group, the EGR principal activity code
	2.15	Optional	Secondary activities of the enterprise group at NACE division level; if a multinational group, the EGR secondary activity code
	2.16	Conditional	Number of employees and self-employed persons in the enterprise group; if a multinational group, the EGR number of employees and self-employed persons
	2.17	Conditional	Net turnover (and currency) of the enterprise group; if a multinational group, the EGR net turnover (and currency)
	2.18	Conditional	Total assets (and currency) of the enterprise group; if a multinational group, the EGR total assets (and currency)
	2.19	Optional	Countries where non-resident enterprises or local units are located; for multinational groups, the EGR countries of registration

3. ENTERPRISE			
IDENTIFICATION	3.1	Partially conditional	Identity number Conditional for the EGR identity number when recorded in the EGR
	3.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise
	3.3		Name
	3.4	Optional	Postal, e-mail and website address
LINK TO OTHER UNITS	3.5		Identity number(s) of the legal unit(s) of which the enterprise consists
	3.6		Identity number of the enterprise group, to which the enterprise belongs
DEMOGRAPHIC EVENTS	3.7		Date of commencement of activities
	3.8		Date of final cessation of activities
STRATIFICATION	3.9		Principal activity code at NACE class level
PARAMETERS AND ECONOMIC VARIABLES	3.10	Conditional	Secondary activities, if any, at NACE class level
	3.11		Number of employees and self-employed persons
	3.12		Number of employees
	3.13	Optional	Number of employees in full-time equivalents
	3.14		Net turnover, except that provided in 3.15
	3.15	Optional	Net turnover for agriculture, hunting and forestry, fishing, and public administration and defence, compulsory social security, private households with employed persons and extra-territorial organisations
	3.16		Institutional sector and subsector within the meaning of Regulation (EU) No 549/2013

# Part D

Datasets of variables enumerated in paragraph 2 of Annex IV of the EBS Regulation to be transmitted by the Commission (Eurostat) to the NSAs for the purpose of the production of the EuroGroups register In order to ensure efficiency and high quality in the production of the EuroGroups register, the Commission (Eurostat) shall transmit to the competent staff contributing to the production of the EuroGroups register in the NSAs, the following variables, including confidentiality flags, concerning multinational enterprise groups and their constituent units.

# 1. LEGAL UNITS

I. LEGAL UNITS			
IDENTIFICATION	1.1		Identity number(s)
			(including the EGR identity number when relevant for the EGR)
	1.2		Name
	1.3		Address (at the most detailed level, including postcode)
	1.4	Optional	Telephone number, e-mail address, website and information to permit electronic collection of data
	1.5		Value added tax (VAT) registration number or, failing that, other administrative identity number
DEMOGRAPHIC EVENTS	1.6		Date of incorporation for legal persons or date of official recognition as an economic operator for natural persons
	1.7		Date on which the legal unit ceased
STRATIFICATION	1.8		Legal form
PARAMETERS	1.9		Legal activity status
	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013
	1.11	Optional	Flag for special purpose entities within the meaning of points 2.17 to 2.20 of Chapter 2 of Annex A to Regulation (EU) No 549/2013
LINKS WITH ENTERPRISE	1.12	Conditional	Identity number(s) of the enterprise(s) (3.1) to which the unit belongs
	1.13	Conditional	Date of association to the enterprise(s)
	1.14	Conditional	Date of separation from the enterprise(s)
LINKS WITH OTHER REGISTERS			Reference to associated registers, in which the legal unit is recorded and which contain information that can be useful for statistical purposes
	1.15	Conditional	Reference to the register of intra-EU operators and reference to customs files or to the register of extra-EU operators
	1.16	Conditional	Reference to administrative global identifiers, reference to balance sheet data (for units required to publish accounts), reference to the balance of payments register or foreign direct investment register, and reference to the farm register
LINK WITH ENTERPRISE GROUP	1.17		Identity number of the enterprise group (2.1), to which the unit belongs
	1.18		Date of association to the enterprise group
	1.19		Date of separation from the enterprise group

1. LEGAL UNITS			
CONTROL OF UNITS			The control links can be recorded either top-down (1.20a, 1.21a, 1.22a) or bottom-up (1.20b, 1.21b, 1.22b); only the first level of control, direct or indirect, is recorded for each unit (the whole chain of control can be obtained by combining these)
	1.20a		Identity number(s) of resident legal unit(s), which are controlled by the legal unit
	1.20b		Identity number of the resident legal unit, which controls the legal unit
	1.21a	Partially conditional	Country(ies) of registration, identity number(s), name(s) and address(es) of the non-resident legal unit(s), which are controlled by the legal unit; conditional for EGR identity number(s)
	1.21b	Partially conditional	Country of registration, identity number, name and address of the non-resident legal unit, which controls the legal unit; conditional for EGR identity number
	1.22a	Conditional	VAT number(s) of non-resident legal unit(s), which are controlled by the legal unit
	1.22b	Conditional	VAT number of the non-resident legal unit, which controls the legal unit
OWNERSHIP OF UNITS			The ownership can be recorded either top-down (1.23a, 1.24a) or bottom-up (1.23b, 1.24b); the threshold is 10 % or more of direct ownership
	1.23a	Conditional	(a) identity number(s), and (b) shares (%) of resident legal unit(s) owned by the legal unit
	1.23b	Conditional	(a) identity number(s), and (b) shares (%) of resident legal unit(s), which own(s) the legal unit
	1.24a	Conditional	<ul> <li>(a) country(ies) of registration, and</li> <li>(b) EGR identity number(s), and</li> <li>(c) name(s), address(es), VAT number(s), and</li> <li>(d) shares (%) of non-resident legal unit(s) owned by the legal unit, and</li> <li>(e) date of start — end of the shares</li> </ul>
	1.24b	Conditional	<ul> <li>(a) country(ies) of registration, and</li> <li>(b) EGR identity number(s), and</li> <li>(c) name(s), address(es), VAT number(s), and</li> <li>(d) shares (%) of non-resident legal unit(s), which own(s) the legal unit, and</li> <li>(e) date of start — end of the shares</li> </ul>

2. ENTERPRISE GROUP			
IDENTIFICATION	2.1	Partially conditional	Identity number(s) Conditional for EGR identity number if the enterprise group is multinational
	2.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise group
	2.3		Name of the enterprise group, for multinational groups the EGR name
	2.4	Optional	Short text description of the enterprise group
	2.5	Optional	Website address of the enterprise group
	2.6		Identity number of the legal unit being the global decision centre If the global decision centre is non-resident the EGR identity
			number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.7		Country of registration of the global decision centre, if non- resident the EGR country of registration
	2.8	Optional	Postal, e-mail and website addresses of the global decision centre
	2.9		Identity number of the legal unit being the global group head If the global group head is non-resident the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.10	Optional	Country of registration, postal and e-mail addresses of the global group head, if non-resident the EGR country of registration
	2.10a	Conditional	Country of residence of the ultimate controlling institutional (UCI) unit if the controlling unit is a natural person who is not an economic operator
DEMOGRAPHIC EVENTS	2.12		Date of commencement of the enterprise group
	2.13		Date of cessation of the enterprise group
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	2.14		Principal activity code of the enterprise group at NACE division level; if a multinational group, the EGR principal activity code
	2.15	Optional	Secondary activities of the enterprise group at NACE division level; if a multinational group, the EGR secondary activity code
	2.16	Conditional	Number of employees and self-employed persons in the enterprise group; if a multinational group, the EGR number of employees and self-employed persons
	2.17	Conditional	Net turnover (and currency) of the enterprise group; if a multinational group, the EGR net turnover (and currency)
	2.18	Conditional	Total assets (and currency) of the enterprise group; if a multinational group, the EGR total assets (and currency)
	2.19	Optional	Countries where non-resident enterprises or local units are located; for multinational groups, the EGR countries of registration

3. ENTERPRISE			
IDENTIFICATION	3.1	Partially conditional	Identity number(s) Conditional for the EGR identity number when recorded in the EGR
	3.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise
	3.3		Name
	3.4	Optional	Postal, email and website address
LINK TO OTHER UNITS	3.5		Identity number(s) of the legal unit(s) of which the enterprise consists
	3.6		Identity number of the enterprise group, to which the enterprise belongs
DEMOGRAPHIC EVENTS	3.7		Date of commencement of activities
	3.8		Date of final cessation of activities
STRATIFICATION	3.9		Principal activity code at NACE class level
PARAMETERS AND ECONOMIC VARIABLES	3.10	Conditional	Secondary activities, if any, at NACE class level
	3.11		Number of employees and self-employed persons
	3.12		Number of employees
	3.13	Optional	Number of employees in full-time equivalents
	3.14		Net turnover, except that provided in 3.15
	3.15	Optional	Net turnover for agriculture, hunting and forestry, fishing, and public administration and defence, compulsory social security, private households with employed persons and extra-territorial organisations
	3.16		Institutional sector and subsector within the meaning of Regulation (EU) No 549/2013

# SECTION 7 — EBS GIA — DEFINITIONS

# Definitions (in alphabetical order)

#### **Actual production**

The actual production includes any production, carried out during the reference period and within the economic territory of each country, which is incorporated into the manufacture of other products. It includes those products which, either in the kind-of-activity unit itself, or in another kind-of-activity unit belonging to the same enterprise:

- are intended for sale,
- are processed into another product,
- are fitted into another product, or
- are put into stock.

#### Bankruptcies

The number of legal units that have started the procedure of being declared bankrupt, by issuing a court declaration, at any time during the reference quarter q (which is often provisional and does not always mean cessation of an activity).

#### Building permits — number of dwellings

A building permit is an authorisation to start work on a building project. As such, a permit is the final stage of planning and building authorisations from public authorities, prior to the start of work. Other information, for example detailed planning approval granted and building starts, may be used to complement the data sources on new building projects.

These building permits should provide a good indication of the workload for the building industry in the near future, although this may not be the case when a large proportion of permits are not used or when there is a long time lag between permits and building starts.

The EBS Regulation requests data only on new buildings and conversions of non-residential building into residential buildings, even if building permits may be granted for other constructions and works.

Buildings are subdivided into residential and non-residential buildings.

Residential buildings are constructions at least half of which is used for residential purposes. If less than half of the overall useful floor area is used for residential purposes, the building is classified under non-residential buildings in accordance with its purpose-oriented design.

It is the objective of the building permits — number of dwellings variable to show the future development of construction activity in terms of unit numbers.

This variable is compiled from the number of dwellings in new residential buildings for which building permits have been granted (covering one-dwelling residential buildings and residential buildings with two and more dwellings). A dwelling is a room or suite of rooms and its accessories in a permanent building or structurally separated part thereof which by the way it has been built, rebuilt, converted and so on, is intended for private habitation. It should have separate access to a street (direct or via a garden or grounds) or to a common space within the building (staircase, passage, gallery, and so on). Detached rooms for habitation which are clearly to be used as a part of the dwelling should be counted as part of the dwelling. A dwelling may thus be constituted of separate buildings within the same enclosure, provided they are clearly intended for habitation by the same private household.

Extensions of existing residential buildings for which no building permit is required are not considered as dwellings for these statistics.

#### Building permits — square metres (of useful floor area or alternative size measure)

'Building permits' are defined above for the variable building permits — number of dwellings. It is the objective of the variable building permits — useful floor area to show the future development of construction activity in terms of volume.

This variable is compiled from the square metres of useful floor area of new residential and non-residential buildings for which permits have been granted. The useful floor area of a building is measured within its external walls, excluding:

- construction areas (for example, areas of demarcation components, supports, columns, pillars, shafts, chimneys);
- functional areas for ancillary use (for example, areas occupied by heating and air-conditioning installations, or by power generators);
- thoroughfares (for example, areas of stairwells, lifts, escalators).

The part of the overall useful area of a building used for residential purposes includes the area used for kitchens, living rooms, bedrooms and ancillary rooms, cellars and common rooms of the residential units.

If the information on useful floor area is not directly available from the collected data, it may be estimated on the basis of available sources.

#### Change in stock of finished goods and work-in-progress

This variable is defined as the change in the value of the stock of finished products or in the course of production, which have been produced by the statistical unit and which have not yet been sold, between the first and last days of the reference period. It is a part of the variable: change in stock of goods.

These products include work in progress belonging to the statistical unit, even if the products in question are in the possession of third parties. Equally, products held by the statistical unit which belong to third parties are excluded.

Stocks are valued at production cost and are valued prior to value adjustments (such as depreciation).

Further explanations for the definition and links to financial statements and other regulations Links to financial statements

The change in the stock of finished goods and work in progress is recorded in the financial statements of the profit and loss account (statement of comprehensive income) prepared based on the nature of expense method, under the heading:

- variation in stocks of finished goods and work in progress (European Accounting Directive 2013/34/EU, Annex V); or
- changes in inventories of finished goods and work in progress (International Accounting Standards (IAS) 1.102).

If the profit and loss account (statement of comprehensive income) is prepared based on the function of expense method, this variable would be included in the cost of sales and could not be isolated.

Alternatively, the variable could be calculated as the difference in the value of finished goods and work in progress at the end and the beginning of the reference period, from either the balance sheet (statement of financial position) or from the explanatory note regarding inventories, if it is separately disclosed.

Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The name of the variable was changed from change in stocks of finished products and work in progress manufactured by the unit. The changes proposed for this variable refer to its links with financial statements, where the new description provides a more accurate way of finding the variable within the financial statements. The rewording of its definition does not alter the meaning of the variable.

## Change in stock of goods

The change in the stock of goods is the difference of the total value of inventories recognised by the statistical unit at the end and at the beginning of the reference period. The value of said inventories is the one at which they have been recognised in the financial statements.

#### Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The name of the variable was changed from change in stock of goods and services. The change in the name of the variable and the rewording of its definition do, however, not imply a change to its meaning. In fact, the change is necessary due to reasons rooted in currently used accounting methods. According to accounting standards, services received cannot be stocked, that is, they cannot be recognised as current assets (inventories). The usual accounting treatment of services received is to recognise them as an expense in the period in which they were incurred. Exceptionally, if certain (strict and in some cases quite complex) criteria are met, the expenses can be capitalised, in other words, they can be recognised as non-current (long-term and usually intangible) assets.

#### Change in stock of goods for resale

The change in the stock of goods for resale is the difference of the total value of inventories recognised by the statistical unit at the end and at the beginning of the reference period as items intended for resale to third parties without further processing. The value of said inventories is the one at which they have been recognised in the financial statements. It is a part of the variable: change in stock of goods.

# Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The name of the variable was changed from change in stocks of goods and services for resale in the same condition as received, but this does not change the meaning of the concept. In fact, the change is necessary due to reasons rooted in currently used accounting methods. According to accounting standards, services received cannot be stocked, that is, they cannot be recognised as current assets (inventories). The usual accounting treatment of services received is to recognise them as an expense in the period in which they were incurred. Exceptionally, if certain (strict and in some cases quite complex) criteria are met, the expenses can be capitalised, in other words, they can be recognised as non-current (long-term and usually intangible) assets.

The term 'services for resale' has little if any meaning in accounting. That is because, in the overwhelming majority of cases, services are either used in the production of certain goods or bundled into the services provided by the unit itself, or both. Even if, in their substance the services purchased remain the same as the ones provided (for example, the distribution of energy or communications), in their details they are usually changed to a significant degree (for example, an electric energy distributor will need to transform the service it receives from generating power plants in order to make it usable for its clients, in other words, the distributor will need to reduce the voltage; in a similar fashion, an internet service provider will need to adjust the bandwidth). Accounting rules, therefore, do not require any split of the services received, in contrast to what is required for goods (inventories) — into goods for consumption and for resale. Instead, the services received — irrespective of their destination — should be apportioned to the unit costs of products and services sold by the entity, in order to allow pricing decisions and mark-up / gross margin calculations.

#### **Domestic net turnover**

See definition of net turnover.

**Domestic producer prices** 

See definition of producer prices.

# Employee benefits expense

This variable contains all expenses arising in relation with employee benefits, recognised by the statistical unit during the reference period.

Employee benefits are all forms of consideration given by the statistical unit in exchange for services rendered by employees or for the termination of employment.

Further explanations for the definition and links to financial statements and other regulations <u>Further explanations for the definition</u>

The term employee has the same meaning as in the further explanations given for the definition of the variable: number of employees.

From a business accounting perspective and as a non-exhaustive list of examples, employee benefits can be broken down into:

- short-term employee benefits (for example, wages, salaries, social security contributions, paid annual and sick leave, profit-sharing, bonuses, non-monetary benefits);
- post-employment benefits (for example, retirement benefits, post-employment insurance or medical care);
- other long-term employee benefits (for example, long-term paid absences, long service benefits, long-term disability benefits, share options);
- termination benefits (which do not include costs incurred in the course of restructuring);

or:

- wages and salaries; and
- social security costs.

The latter breakdown is similar to the one used for the purposes of national accounts and labour cost statistics, where the term compensation of employees instead of employee benefits is used and it contains:

- wages and salaries (including direct remuneration, bonuses, allowances, payments to employees' saving schemes, payments for days not worked, wages and salaries in kind, company products, staff housing, company cars, stock options and purchase schemes);
- employers' social security contributions (statutory, collectively agreed, voluntary, for sickness, for pensions, for health care, payments to employees leaving the enterprise, other), be they actually paid or imputed.

# Links to financial statements

Employee benefits expense is recorded in the financial statements on the profit and loss account (statement of comprehensive income) prepared based on the nature of expense method, under the heading:

- staff costs, which is further broken down to the subheadings of wages and salaries and social security costs, with a separate indication of those relating to pensions (European Accounting Directive — 2013/34/EU, Annex V); or
- employee benefits expense (IAS 1.102).

If the profit and loss account (statement of comprehensive income) is prepared based on the function of expense method, this variable would be included in the cost of sales and could not be isolated. Alternatively, the value of the variable can be obtained from the explanatory note regarding employee benefits.

#### Links to other regulations

The breakdowns foreseen for the purposes of national accounts and labour cost statistics are stipulated in paragraphs 4.02 through 4.13 of Regulation (EU) No 549/2013 (ESA 2010) and in Annex I to Commission Regulation No 1726/99, as amended, regarding the definition and transmission of information on labour costs, respectively.

The variable employee benefits expense corresponds to the transaction compensation of employees in national accounts (ESA 2010, code D.1). It partly covers labour costs defined in Commission Regulation No 1726/99, as amended, that includes in addition: taxes less subsidies on labour, as well as vocational training and other expenditure incurred by the employer (such as recruitment costs or working clothes).

#### Changes compared with regulations repealed by EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The name of the variable was changed from personnel costs. The change in the name of the variable and the proposed changes to the definition might seem radical, but in their substance they are not (so different). The objective in having this new and significantly shorter definition with the appended explanations was to enhance

understanding and accuracy. In practice, the total amount of expenses of employee benefits should be the same, irrespective of the methodological framework used.

Employee benefits expense in foreign-controlled enterprises

See definitions of employee benefits expense and number of foreign-controlled enterprises.

Employee benefits expense of enterprises abroad ultimately controlled by institutional units of the reporting country

See definitions of employee benefits expense and number of enterprises abroad ultimately controlled by institutional units of the reporting country.

#### Enterprise births

A count of the number of enterprise births registered to the population concerned in the business register corrected for errors. A birth amounts to the creation of a combination of production factors with the restriction that no other enterprises are involved in the event. Births do not include entries into the population due to mergers, break-ups, split-off or restructuring of a set of enterprises. Births do not include entries into a subpopulation resulting only from a change of activity.

#### **Enterprise deaths**

A count of the number of enterprise deaths registered to the population concerned in the business register corrected for errors. A death amounts to the dissolution of a combination of production factors with the restriction that no other enterprises are involved in the event. Deaths do not include exits from the population due to mergers, take-overs, break-ups or restructuring of a set of enterprises. Deaths do not include exits from a subpopulation resulting only from a change of activity.

#### **Enterprise survivals**

Enterprise survival occurs if an enterprise is active in the year of birth (t-1 to t-5) and the following year(s). Two types of survival can be distinguished:

- an enterprise born in year t-1 is considered to have survived in year t if it is active in any part of year t (= survival without changes);
- an enterprise is also considered to have survived if the linked legal unit(s) have ceased to be active, but their activity has been taken over by a new legal unit set up specifically to take over the factors of production of that enterprise (= survival by take-over).

#### Enterprises having no employees anymore

A count of enterprises that have no employees anymore from any point in time in a given reference period t and that had at least one employee at an earlier point in time in a given reference period t. This can concern deaths of enterprises with at least one employee, but also enterprises if an enterprise remains active, but has no employees anymore from a point in time in a given reference period t and the two following reference periods: t+1 and t+2. The same applies if the contract of employment of the last employee ends on 31 December in t.

#### Enterprises having the first employee

A count of enterprises that had the first employee at any time during a given reference period *t*. This can concern births of enterprises, but also enterprises if an enterprise has already been active in previous reference periods, but did not have any employee(s) in the two previous reference periods.

### Expenses of long-term rental and operating leases

The expenses of long-term rental include all expenses recognised by the statistical unit during the reference period, relating to the renting of non-current assets. Included in this variable are the payments under an operating leases contract related to non-current assets.

For this variable a lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership of an underlying asset.

Further explanations for the definition and links to financial statements and other regulations <u>Further explanations for the definition</u>

The term non-current assets has the same meaning as in the further explanations given for the definition of the variable: total purchases of goods and services.

A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership. Conversely, if a lease transfers substantially all the risks and rewards incidental to ownership, it is classified as a finance lease.

Whether a lease is a finance lease or an operating lease depends on the substance of the transaction rather than the form of the contract. Specific criteria for distinguishing the two types of leases from each other are established in the applicable accounting or reporting framework and are beyond the scope of this definition.

#### Links to financial statements

This variable can be isolated from the explanatory note on leases in financial statements based on International Financial Reporting Standards (IFRS). The relevant disclosure requirement is specified in IAS 17.35.

Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The name of the variable was changed from payments for long-term rental and operational leasing of goods. The change in the name of the variable and the proposed changes to the definition might seem radical, but in their substance they are not (so different). The objective in having this new and significantly shorter definition with the appended explanations was to enhance understanding and accuracy. In practice, the total amount of expenses of long-term rental and operating leases should be the same, irrespective of the methodological framework used.

#### Expenses on services provided through agency workers

This variable contains all expenses recognised by the statistical unit during the reference period, referring to services provided to it by temporary employment agencies and similar organisations supplying workers to clients' businesses for limited periods of time to supplement or temporarily replace the workforce of the client, where the individuals provided are employees of the temporary employment service unit. Expenses on services provided through agency workers are a part of the variable: total purchases of goods and services.

However, these agencies and organisations do not provide direct supervision of their employees at the clients' work sites. Only the expenses incurred for the provision of personnel which is not linked to the provision of a particular industrial or other non-industrial service are included in this variable.

Further explanations for the definition and links to financial statements and other regulations

## Links to financial statements

The variable expenses of services provided through agency workers can neither be found, nor calculated from the data disclosed in financial statements.

#### Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The name of the variable was changed from payments for agency workers. The change in the name of the variable and the proposed changes to the definition might seem radical, but in their substance they are not (so different). The objective in having this new and significantly shorter definition with the appended explanations was to enhance understanding and accuracy. In practice, the total amount of expenses on services provided through agency workers should be the same, irrespective of the methodological framework used.

## Foreign-controlled enterprises gross investment in tangible non-current assets

See definitions of gross investment in tangible non-current assets and number of foreign-controlled enterprises.

## Government budget allocations for research and development (GBARD)

Government budget allocations for R&D (GBARD) are all appropriations allocated to R&D funding (to all sectors) in the budget of the government sector. The government sector comprises the central (federal) government, regional (state) government and local (municipal) government subsectors (R&D funding by the latter may not be included in GBARD if not deemed to be significant or if data cannot be collected). GBARD refers to budget data, from budget forecasts to actual expenditures — but data collection is usually focused on initial budget appropriations and final budget appropriations.

## Gross investment in construction and improvement of buildings

Gross investment in construction and improvement of buildings includes all:

- additions to construction of new buildings for own use (self-constructed);
- acquisitions of new buildings (usually the result of a construction contract, the beneficiary of which is the reporting statistical unit);
- capitalised additions, alterations, improvements and renovations to existing buildings (if additional economic benefits associated with them are likely to flow to the statistical unit), recognised as such by the statistical unit during the reference period.

# Gross investment in construction and improvement of buildings is a part of the variable: gross investment in tangible non-current assets.

## Further explanations for the definition and links to financial statements and other regulations Links to financial statements

Due to alternative classifications, this variable will likely be presented, in the explanatory note of the financial statements referring to tangible non-current assets, together with other asset classes (usually disclosed as one item comprising land and buildings or property, plant and equipment).

## Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The name of the variable was changed from gross investment in construction and alteration of buildings. The change in the definition was done for the purpose of clarification and simplification. There is no need to go into lengthy descriptions of expense capitalisation or asset recognition and valuation criteria. Those are the responsibility of the accountant, not of the statistician. In addition, it was necessary to better clarify the distinction between this variable and the variable gross investment in the acquisition of existing buildings.

There was a slight name change (to change the word alteration to improvement) to emphasise that only those alterations are included which bring some kind of improvement to the assets themselves, as this is the accounting requirement to be able to treat these outlays as investments; otherwise they would have to be considered as expenses.

#### Gross investment in intangible non-current assets, other than goodwill

Gross investment in intangible non-current assets, other than goodwill, includes all additions to intangible noncurrent assets, recognised as such by the statistical unit during the reference period, except goodwill.

The additions include, but are not limited to, acquisitions, finance leases, improvements, additions, alterations, renovations, constructions, self-constructions and any capitalised expenses, as allowed by the applicable accounting standards which define the recognition and valuation criteria and wherein the term goodwill is also defined.

Further explanations for the definition and links to financial statements and other regulations Further explanations for the definition

The term non-current assets has the same meaning as in the further explanations given for the definition of the variable: total purchases of goods and services.

While the term goodwill is defined in the applicable accounting standards, it is usually equal to the difference between the price paid and the net fair value at acquisition of the subsidiaries consolidated by the parent.

#### Links to financial statements

Gross investment in intangible non-current assets, other than goodwill is disclosed as the additions, during the reference period, to intangible non-current assets, in the explanatory note of the financial statements referring to such assets. In the same note, transfers, revaluations and value adjustments (impairment losses or reversals thereof) are usually required to be disclosed separately, thereby allowing for the indirect isolation of the variable.

Financial statements based on IFRS (IAS 1 and IAS 38) or on the European Accounting Directive — 2013/34/EU should either contain such a specific line item in the explanatory notes (IFRS) or through the exclusion of goodwill allow for the calculation of the variable.

#### Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The change in the definition was done for the purpose of clarification and simplification. There is no need to go into lengthy descriptions of expense capitalisation or asset recognition and valuation criteria. Those are the responsibility of the accountant, not of the statistician.

The content/definition of the variable has been widened, in the meantime however, goodwill (a term which only appears in the case of consolidated financial statements and usually means the difference between the price paid and the net fair value at acquisition of the subsidiaries consolidated by the parent) has been excluded, with the aim to allow for the collection of the variable from financial statements, where, it should be disclosed either directly or broken down into its components. The variable gross investment in concessions, patents, licenses, trademarks and similar rights defined in Regulation No 250/2009 could not be gathered from financial statements. Thus, the aim of the aforementioned change was to make this variable easier to collect from financial statements.

## Gross investment in land

Gross investment in land includes all additions to land, underground deposits, forests and inland waters, tangible exploration and evaluation assets, mining, oil and gas assets and others alike, recognised as such by the statistical unit during the reference period. Gross investment in land is a part of the variable: gross investment in tangible non-current assets.

Further explanations for the definition and links to financial statements and other regulations Links to financial statements

Gross investment in land might be disclosed as the additions, during the reference period, to land, in the explanatory note of the financial statements referring to tangible non-current assets. Due to alternative classifications, the variable might be presented together with other asset classes (usually disclosed as one item comprising land and buildings or property, plant and equipment).

#### Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The change in the definition was done for the purpose of clarification and simplification. There is no need to go into lengthy descriptions of expense capitalisation or asset recognition and valuation criteria. Those are the responsibility of the accountant, not of the statistician.

#### Gross investment in machinery and equipment

Gross investment in machinery and equipment includes all additions to machinery, vehicles, fixtures and fittings, office equipment, computer, communication and network equipment and others alike, recognised as such by the statistical unit during the reference period.

Gross investment in machinery and equipment is a part of the variable: gross investment in tangible non-current assets.

# Further explanations for the definition and links to financial statements and other regulations <u>Links to financial statements</u>

Due to alternative classifications, this variable might be presented in the explanatory note of the financial statements referring to tangible non-current assets, together with other asset classes or broken down to several of its components.

Changes compared with Regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The change in the definition was done for the purpose of clarification and simplification. There is no need to go into lengthy descriptions of expense capitalisation or asset recognition and valuation criteria. Those are the responsibility of the accountant, not of the statistician.

#### Gross investment in tangible non-current assets

Gross investment in tangible non-current assets includes all additions to tangible non-current assets, recognised as such by the statistical unit during the reference period, except any increases from revaluations or reversals of previously recognised impairment losses and from reclassifications (transfers) of other tangible non-current assets.

The additions include, but are not limited to, acquisitions, finance leases, improvements, alterations, renovations, constructions, self-constructions and any capitalised expenses, as allowed by the applicable accounting standards which define the recognition and valuation criteria.

Further explanations for the definition and links to financial statements and other regulations <u>Further explanations for the definition</u>

The term non-current assets has the same meaning as in the further explanations given for the definition of the variable: total purchases of goods and services.

## Links to financial statements

Gross investment in tangible non-current assets is disclosed as the additions, during the reference period, to tangible non-current assets, in the explanatory note of the financial statements referring to such assets. In the same note, transfers, revaluations and value adjustments (impairment losses or reversals thereof) are usually required to be disclosed separately, thereby allowing for the direct isolation of the variable.

#### Changes compared with regulations repealed by the EBS Regulation

The change in the definition was done for the purpose of clarification and simplification. There is no need to go into lengthy descriptions of expense capitalisation or asset recognition and valuation criteria. Those are the responsibility of the accountant, not of the statistician.

Gross investment in tangible non-current assets of enterprises abroad ultimately controlled by institutional units of the reporting country

See definitions of gross investment in tangible non-current assets and number of enterprises abroad ultimately controlled by institutional units of the reporting country.

#### Gross investment in the acquisition of existing buildings

Gross investment in the acquisition of existing buildings includes all additions to or acquisitions of buildings and similar structures already used (in other words, not new) at the moment of acquisition, recognised as such by the statistical unit during the reference period.

Gross investment in the acquisition of existing buildings is a part of the variable: gross investment in tangible noncurrent assets.

Further explanations for the definition and links to financial statements and other regulations <u>Links to financial statements</u>

Due to alternative classifications, this variable will likely be presented, in the explanatory note of the financial statements referring to tangible non-current assets, together with other asset classes (usually disclosed as one item comprising land and buildings or property, plant and equipment).

## Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The name of the variable was changed from gross investment in existing building and structures. The change in the definition was done for the purpose of clarification and simplification. There is no need to go into lengthy descriptions of expense capitalisation or asset recognition and valuation criteria. Those are the responsibility of the accountant, not of the statistician. In addition, it was necessary to clarify better the distinction between this variable and the variable gross investment in construction and improvements of buildings.

#### Gross margin on goods for resale

The gross margin on goods for resale corresponds to the return on the activity of purchase and resale without further processing. It is calculated from net turnover related to trading activities of purchase and resale without further processing, total purchases for resale, and changes in the stock of goods and services purchased for resale.

Included in the gross margin on goods for resale are sales, purchases, and changes in the stock of goods and services related to goods and services which are purchased in order to be rendered to third parties in the same condition.

This variable is also called the gross trading margin.

Further explanations for the definition and links to financial statements and other regulations <u>Links to financial statements</u>

The variable gross margin on goods for resale can neither be found, nor calculated from the data disclosed in financial statements.

#### Gross operating surplus

The gross operating surplus is the surplus generated by operating activities after the labour factor input has been recompensed. It can be calculated from value added less the employees benefits expense. It is the balance available to the unit which allows it to recompense the providers of own funds and debt, to pay taxes and eventually to finance all or a part of its investment.

Further explanations for the definition and links to financial statements and other regulations <u>Links to financial statements</u>

Gross operating surplus could be calculated from the income statement (profit and loss account) as follows:

- ± profit (loss) from operating activities
- + depreciation and amortization expense
- other operating income (adjusted with income from product- or turnover-related subsidies and, if necessary, with capitalised output).

The profit (loss) from operating activities stands for the result achieved by the statistical unit from its operating (not financial or extraordinary) activities and is usually presented as a separate line item on the face of the income statement (profit and loss account), irrespective of the method used to present the expenses (whether according to their nature or function).

Depreciation and amortization (substitutes in meaning, former used for tangible assets, latter for intangible assets) are expenses recognised by the statistical unit during the reference period with the systematic allocation of the acquisition value of the long-term asset to which the expense refers to, over the asset's useful life.

Depreciation and amortization are all components of (being subtracted from net turnover to arrive at) the profit (loss) from operating activities. But as they are not part of intermediate consumption, they need to be added back.

If the income statement (profit or loss account) is prepared according to the function of expense method, depreciation and amortization will not be presented separately and need to be collected by other means (for example, from the explanatory notes attached to the financial statements).

Other operating income is a component of the profit (loss) from operating activities and a separate line item of the income statement (profit and loss account) representing the total income from operating activities not included elsewhere (in other words, in other line items). The types of income usually included here are not part of output and hence should not be included in value added. However, for income from product- or turnover-related subsidies which is usually classified to other operating income, an adjustment is needed. In a similar fashion, an adjustment is needed for capitalised output, as well, if it is also classified to other operating income (in other words, on income statement (profit and loss accounts) if prepared based on the function of expense method).

Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

As the gross operating surplus is the difference of value added and the employees benefits expense and value added is, in turn, the difference of the value of output and intermediate consumption, all the changes made from the production value variable of Regulation (EC) No 295/2008 to the value of output variable in the EBS Regulation also hold for the gross operating surplus, namely:

- extraordinary income is now wholly excluded;
- part of operating income (more precisely, a part of the profit and loss line item for other operating income) is also excluded; except for
- income from operating subsidies (which, while being usually classified onto the same profit and loss line item of other (operating) income) is now included.

Other changes in the new definition of value added as compared with the existing SBS definition of value added at factor cost are thus related to the intermediate consumption part and are the exact opposites of the income enumerated above, namely expenses regarding:

- sales of long-term assets;
- reversals of erroneously recognised operating income;
- donations, compensations or redress (depending on the nature of the underlying asset) and others alike.

Other examples could also be enumerated here. However, due to the specificities of national generally accepted accounting principles (GAAPs) and because many accounting standards allow for or require a significant amount of

judgment on the part of the statistical unit when classifying expenses and income, establishing an exhaustive list to illustrate the exact differences is not possible here.

#### Hours worked by employees

The total hours worked by employees represents the number of hours actually worked by employees, for the output of the statistical unit during the reference period.

Time spent on adjacent work, indirectly contributing to the output (for example, planning, preparation, administrative and alike), as well as time spent without actual work, but deemed and remunerated as such by the statistical unit (for example, short breaks, short disruptions due to slack periods of production, training and alike) is included.

Time spent on work, be it adjacent work, without actual remuneration (for example, unpaid overtime) is also included.

Remunerated time spent without actual work and not deemed as such by the statistical unit (for example, annual leave, sick leave, maternity leave, official holidays, longer breaks, meal breaks, strikes, commuting and alike) is excluded.

Infra-annual statistics may not be able to take into account all these items such as unpaid overtime.

Further explanations for the definition and links to financial statements and other regulations <u>Further explanations for the definition</u>

The term employee has the same meaning as in the further explanations given for the definition of the variable: number of employees.

Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The name of the variable has changed from number of hours worked by employees. The change in name and the rewording of its definition does not alter the meaning of the variable.

Changes compared with Regulation No 1165/98 on short-term statistics

The name of the variable has changed from hours worked. Hours worked by self-employed persons should not be included anymore.

## Import prices

It is the objective of import price indices to measure the monthly transaction price development of goods purchased by residents from non-residents. All the related services are initially excluded from the scope except for those covered by CIF (cost, insurance, freight) trade agreements. These price indices should track the price movements of comparable items over time.

It is essential that all price-determining characteristics of the products are taken into account, including the quantity of units sold, transport provided, rebates, service conditions, guarantee conditions origin and destination. The specification must be such that in subsequent reference periods, the observation unit is able uniquely to identify the product and to provide the appropriate price per unit.

The following limitations apply for the scope of import prices:

- imports by households, government units and non-profit institutions are excluded;
- the underlying trade system is the special trade system so normal imports as well as imports for inward processing and after outward processing, when the reporting unit acquires the ownership of goods, are included — imports for repair are not covered;
- the product coverage is limited to products as defined by CPA Sections B, C and D related services are excluded.

The following rules apply for the definition of import prices:

- the appropriate price is the CIF price at the border excluding all duties and taxes on the goods and services to be shouldered by the reporting unit;
- in order to show the true development of price movements, it should be an actual transaction price, and not a list price, therefore discounts should be deducted from the price;
- in order to show pure price movements the price index compilation should take into account and adjust for quality changes in products;
- other price-determining characteristics of the products should be treated in a consistent way as well;

- imports are recorded when the ownership of the goods is transferred (in other words, when the parties record transaction in their books or account);
- the transfer of ownership of vessels and aircraft, as well as spacecraft from a person established in another country to a person established in an EU Member State is counted as an import.

These indices should, in principle, reflect the average price during the reference period. In practice, the information actually collected may refer to a particular day in the middle of the reference period that should be determined as a representative figure for the reference period. For products with a significant impact on the national economy that are known to have, at least occasionally, a volatile price development, it is important that the index does indeed reflect average prices.

Import prices (euro area) (optional for non-euro countries) Import prices (non-euro area) (optional for non-euro area countries)

The indices of the import prices require a separate calculation according to the country of consignment of the goods (euro area and non-euro area). The country of consignment is determined in a consistent way with customs rules.

#### Import prices (euro area)

See definition of import prices.

Import prices (non-euro area)

See definition of import prices.

#### Intramural R&D expenditure

Research and experimental development (R&D) comprises creative and systematic work undertaken in order to increase the stock of knowledge — including the knowledge of humankind, culture and society — and to devise new applications of available knowledge.

Expenditures on intramural R&D represent the amount of money spent on R&D that is performed within a statistical unit.

Intramural R&D expenditures are all current expenditures plus gross fixed capital expenditures for R&D performed within a statistical unit during a specific reference period whatever the source of funds. R&D current expenditures include labour costs for internal R&D personnel and other current costs (costs for external R&D personnel, purchase of services). Gross fixed capital expenditures for R&D include: the acquisition of land, acquisition of buildings, acquisition of information and communication equipment, acquisition of transport equipment, acquisition of other machinery and equipment, acquisition of capitalised computer software, acquisition of other intellectual property products.

#### Intramural R&D expenditure in foreign-controlled enterprises

See definitions of intramural R&D expenditure and number of foreign-controlled enterprises.

#### Investment in purchased software

Investment in purchased software is recognised as an intangible asset if and only if it is probable that the future economic benefits that are attributable to the asset will flow to the enterprise and if the cost of the asset can be measured reliably. If the purchase of software does not meet these conditions, it is recognised as an expense when it is incurred and included in the value of total purchases of goods and services.

The investment in purchased software comprises its purchase price, including any import duties and non-refundable purchase taxes, and any directly attributable expenditure on preparing the software for its intended use. Directly attributable expenditure includes, for example, professional fees for its installation. Any trade discounts and rebates are deducted.

# Mode of supply

Services supplied internationally can be broken down by the following four modes of supply:

- mode 1 cross-border supply takes place when a service is supplied from the territory of one country into the territory of any other country. This is similar to trade in goods where the product is delivered across borders and the consumer and the supplier remain in their respective territories.
- mode 2 consumption abroad takes place when the service is supplied in the territory of one country to
  the service consumer of any other country, which means that either the consumer or his property is abroad.
  Tourist activities such as visits to museums and theatres, and travel abroad to receive medical treatment or
  follow language courses, are typical examples. Services such as ship repair abroad, where only the property of
  the consumer moves, or is situated abroad, are also covered.
- mode 3 commercial presence takes place through the supply of a service by a service supplier of one country, through a commercial presence in the territory of any other country. It is often necessary for service suppliers to establish a commercial presence abroad to ensure closer contact with the consumer at the various stages of production, distribution, marketing, sale and delivery, as well as in the context of after-sales services. Commercial presence in a market abroad covers not only juridical persons in the strict legal sense, but also legal entities that share some of the same characteristics, such as representative offices and branches. Relevant in this context are, for example, financial services provided by a branch or subsidiary of a foreign bank, medical services provided by a foreign-owned hospital and courses offered by a foreign-owned school.
- mode 4 presence of natural persons takes place when an individual is temporarily present in the territory
  of an economy other than his/her own to provide a commercial service. This mode is defined as the supply of
  a service by a service supplier of one country, through the presence of natural persons in the territory of any
  other country. It is generally understood as covering:
  - contractual service suppliers, whether employees of a foreign service supplier or self-employed;
  - intra-corporate transferees and foreign employees directly recruited by foreign established companies;
  - service sellers who enter the host country to establish contractual relationships for a service contract, or persons responsible for setting-up a commercial presence.

#### National public funding to transnationally coordinated R&D

National public funding to transnationally coordinated R&D is defined as the total budget funding by the government sector, as measured by GBARD, aimed at supporting: transnational public R&D performers, Europe-wide transnational public R&D programmes and bilateral or multilateral public R&D programmes established between EU Member States, candidate countries or EFTA countries.

#### Net turnover

For all activities — except for NACE Divisions 64, 65 and some activities of NACE Division 66 — net turnover consists of all income arising during the reference period in the course of ordinary activities of the statistical unit, and is presented net of all price reductions, discounts and rebates granted by it.

Income is defined as increases in economic benefits during the reference period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants.

The inflows referred to are arising from contracts with customers and are realised through the satisfaction by the statistical unit of performance obligations as foreseen in said contracts. Usually, a performance obligation is represented by the sale (transfer) of goods or the rendering of services; however, gross inflows can also contain revenues obtained as a yield on the use by others of the statistical unit's assets.

Excluded from net turnover are:

- all taxes, duties or levies linked directly to revenue;
- any amounts collected on behalf of any principal, if the statistical unit is acting as an agent in its relationship with said principal;
- all income not arising in the course of ordinary activities of the statistical unit. Usually, these types of income are classified as other (operating) income, financial income, extraordinary income or under a similar heading, depending on the respective set of GAAPs used to prepare the financial statements.

Infra-annual statistics may not be able to take into account aspects such as annual price reductions, subsidies, rebates and discounts.

For the activities of NACE Classes 64.11, 64.19 and Group 64.9, net turnover is defined as the value of output minus subsidies or government grants.

For the activities of NACE Groups 64.2 and 64.3, net turnover can be approximated by total operating costs, if net turnover is not available in the financial statements.

For the activities of NACE Classes 65.11, 65.12 and Group 65.2, net turnover is defined as gross premiums earned.

For the activities of NACE Group 65.3, the net turnover is defined as total pension contributions.

For the activities of NACE Division 66 for which net turnover is not available in the financial statements, net turnover is defined as the value of output minus subsidies or government grants. For the activities of NACE Division 66 for which net turnover is available in the financial statements, the standard definition of net turnover applies.

Domestic net turnover Non-domestic net turnover Non-domestic net turnover (euro area) Non-domestic net turnover (non-euro area)

The indices of domestic and non-domestic net turnover require net turnover to be split according to the first destination of the product based on the change of ownership (whether or not there are also corresponding physical movements of goods across frontiers). The destination is determined by the residency of the third party that purchased the goods and services.

Further explanations for the definition and links to financial statements and other regulations <u>Further explanations for the definition</u>

The concept of net turnover relies on the accrual basis of accounting, which is a principle requiring that income and expenses be recorded in the period in which these occur, rather than the period in which the underlying documents are prepared or issued, or in which the related cash flows are taking place.

To serve as general guidance to the definition of net turnover, several types of income are enumerated below, as non-exhaustive lists of examples of items to be included and excluded, respectively, from the amount of this variable.

The overarching requirement for inclusion of income in this variable is that it arises in the course of ordinary activities of the statistical unit. In this context, ordinary activities means activities that are undertaken by the statistical unit as part of its business or to meet its objectives and related activities in which the statistical unit engages in furtherance of, incidental to, or arising from activities undertaken to meet its objectives. Whether an activity performed by the statistical unit or event that happens to it qualifies as ordinary, depends on several factors (such as the type of statistical unit, its declared activities and objectives, the nature and amount of the realised income and related expenses, if any, the nature of the activity or the event and so on) and requires a significant amount of judgment.

Depending on whether it arises in the course of ordinary activities of the statistical unit, as described above, the value of net turnover includes income realised from:

- the sale of goods (finished goods, semi-finished goods, residual products, goods purchased for resale, raw materials, waste materials, scrap materials, consumables, animals, packaging, other inventory items, and so on);
- the rendering of services (administration, advertising, advisory, care, communication, construction, design, education, employment, entertainment, financial, hospitality, information, maintenance, management, marketing, online, planning, publication, real estate, research, repair, representation, tourism, travel, security, and so on), in which case the income usually takes the form of fee or commission;
- the use by others of the statistical unit's assets (through the form of renting, leasing, licensing, loaning, letting, and so on).

Whether a certain activity of a statistical unit qualifies as the sale of goods or a service being rendered, cannot be inferred exclusively from a list of examples. This usually depends on several factors, such as the type of statistical unit, the best practice of the industry in which it is active and the contractual terms agreed with its clients. For example, income realised from the sale of software can be categorised under:

- sales of finished goods (if the software is a standard product and is made by the statistical unit); or under
- the sale of goods purchased for resale (if the software was acquired as such by a statistical unit, which only acts as retailing intermediary between the producer and the users of the software); or under
- sales from services rendered (if the software is developed by the statistical unit, individually, according to the specifications of the client).

In a similar fashion, it is possible that an asset exchanging ownership (being sold) is categorised differently by the parties, depending on their role in the transaction. For example, a car, is usually considered a long-term tangible asset by the acquiring unit, while it is accounted for as a finished good sold by the car manufacturer. Therefore, the above enumerated terms should be considered with due reference to the circumstances which might influence their substance.

Excluded from the value of net turnover is any income realised from:

- subsidies or government grants (even if directly linked with sales);
- collecting amounts on behalf of third parties (taxes, duties, levies, fees, and so on) (this could be the case even if the third party is not a public sector entity, if the statistical unit is acting as the agent of the third party; for example, a travel agent selling airplane tickets on behalf of several airline companies, while collecting amounts containing its own fees, the ticket prices and usually value added tax, will only recognise as its income the fees, because the other components are collected on behalf of third parties (in this case the airline companies and the government));
- sales of own long-term assets (tangible and intangible);
- damages received through insurance agreements;
- penalties, late charges, fines and alike, if these are receivable by the statistical unit;
- repayments of overpaid taxes, fines, charges and alike, if initially accounted for as expense by the statistical unit;
- dividends and interest receivable;
- sales of assets held as investments;
- gains as effects of changes in foreign exchange rates;
- reversals of any loss generating value adjustments (provisions, allowances, impairment losses, and so on);
- other sources, if the income is classified as other (operating) income, financial income, extraordinary income or under a similar heading, depending on the respective set of GAAPs used to prepare the financial statements.

Determining whether a statistical unit is acting as a principal or as an agent requires judgment and consideration of all relevant facts and circumstances. Usually, a statistical unit is acting as an agent when it does not have exposure to the significant risks and rewards associated with the sale of goods or the rendering of services. One feature indicating that the statistical unit is acting as an agent is that the amount the unit earns is predetermined, being either a fixed fee per transaction or a stated percentage of the amount billed to the customer.

Infra-annual statistics may not be able to take into account annual price reductions, rebates and discounts.

Income arising from long-term contracts shall be recognised as the performance obligations identified in said contracts are satisfied by the statistical unit.

#### Links to financial statements

Net turnover, as defined above is presented as the first line item of the:

- profit and loss account, as laid out in the European Accounting Directive 2013/34/EU, Annexes V and VI);
- statement of comprehensive income, as laid out in International Accounting Standard 1 (IAS 1.102 and 1.103);
- irrespective of the method in which the expenses are presented.

#### Changes compared with regulations replaced by the EBS Regulation

The change in the name of the variable from turnover to net turnover serves a double purpose: on the one hand to express that the gross revenues are adjusted, on the other, because this is the exact heading used in the profit and loss account, as foreseen in the European Accounting Directive.

In order to better reflect the fact that the variable includes revenues which are net of all amounts collected on behalf of third parties, its name should also be changed to net turnover.

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

Net turnover equals turnover as defined for structural business statistics minus excise duties and other taxes on products linked to turnover but not deductible.

Changes compared with Regulation (EC) No 1165/98 on short-term business statistics

Net turnover equals turnover as defined for short-term business statistics plus income from product- or turnoverrelated subsidies and other operating income minus annual price reductions, rebates and discounts.

However, infra-annual statistics may not be able to take into account aspects such as annual price reductions, subsidies, rebates and discounts and therefore these elements need not be taken into account because of the use of administrative sources.

Net turnover by product

See definition of net turnover. The breakdown by product is based on the CPA.

Net turnover by residence of client

See definition of net turnover. The concept of residence is in accordance with Regulation (EU) No 549/2013.

Net turnover from agriculture, forestry, fishing and industrial activities

The part of net turnover derived from activities classified to NACE Sections A to F.

Net turnover derived from the resale of goods and services purchased for resale in the same condition is excluded.

#### Net turnover from building

The part of net turnover derived from activities classified to NACE Division 41.

Net turnover derived from the sale of goods and services which have been subject to a subcontracting relationship is included.

Net turnover derived from the resale of goods and services purchased for resale in the same condition is excluded.

Net turnover from civil engineering

The part of net turnover derived from activities classified to NACE Division 42.

Net turnover derived from the sale of goods and services which have been subject to a subcontracting relationship is included.

Net turnover derived from the resale of goods and services purchased for resale in the same condition is excluded.

Net turnover from construction

The part of net turnover derived from activities classified to NACE Section F.

Net turnover derived from the sale of goods and services which have been subject to a subcontracting relationship is included.

Net turnover derived from the resale of goods and services purchased for resale in the same condition is excluded.

Net turnover from industrial activities

The part of net turnover derived from activities classified to NACE Sections B to F.

Net turnover derived from the sale of goods and services which have been subject to a subcontracting relationship is included.

Net turnover derived from the resale of goods and services purchased for resale in the same condition is excluded.

Net turnover from industrial activities excluding construction

The part of net turnover derived from activities classified to NACE Sections B to E.

Net turnover derived from the sale of goods and services which have been subject to a subcontracting relationship is included.

Net turnover derived from the resale of goods and services purchased for resale in the same condition is excluded.

## Net turnover from service activities

Revenue from all services rendered (banking and insurance services, business and personal services).

This variable encompasses net turnover from service activities resulting from a principal or secondary activity; some service activities may be performed by industrial units. These activities are classified to NACE Sections H to N and Sections P to S, as well as NACE Groups 45.2 and 45.4 (the maintenance and repair of motor vehicles and motorcycles).

#### Net turnover from subcontracting

For statistics on construction activities (NACE Section F), net turnover from subcontracting is the net turnover generated by the unit's own construction works provided to a third party under a subcontracting relationship.

Two enterprises are linked by a subcontracting relationship, whenever conditions A, B, C and D are simultaneously satisfied:

- A. the customer enterprise contracts with the supplier enterprise, hereafter referred to as 'subcontractor', for the execution of works or services which are incorporated specifically in the construction process;
- B. the customer enterprise is responsible for the final product of the construction process, the responsibility covers also the parts carried out by the subcontractors the subcontractor can in some cases carry some responsibility;
- C. the customer enterprise provides specifications to the subcontractor, for example, the work or service executed by the subcontractor must be tailor-made for the purposes of the specific project and cannot thus be a standardised or catalogue work or services;
- D. the reciprocal contract is not otherwise ruled by an agreement of an associative type, such as a common answer for a call for tender, a consortium or joint venture, and so on.

#### Net turnover from the principal activity at the NACE group level

The part of net turnover derived from the principal activity of the unit. The principal activity of a unit is determined according to the rules laid down in Regulation (EEC) No 696/93.

Net turnover derived from the sale of goods and services which have been subject to a subcontracting relationship is included.

Net turnover derived from the resale of goods and services purchased for resale in the same condition is excluded.

## Net turnover from trading activities of purchase and resale and from intermediary activities

The part of net turnover derived from the trading activities of purchase and resale of the unit and the intermediary activity of the unit. This corresponds to the sales of goods purchased by the unit in its own name and for its own account and resold in the same condition in which they were purchased, or after such labelling, packaging and wrapping as is usually practised in distributive trade enterprises as well as any commissions on purchases and sales made in the name and on behalf of third parties, and similar activities.

Resales may be broken down into:

- resales to other traders, professional users, and so on (wholesale sales);
- resales to households or small-scale users (retail sales).

These activities are classified in NACE Section G (except for NACE Groups 45.2 and 45.4 concerning the maintenance and repair of motor vehicles and motorcycles).

Net turnover of enterprises abroad ultimately controlled by institutional units of the reporting country

See definition of net turnover and number of enterprises abroad ultimately controlled by institutional units of the reporting country.

Net turnover of foreign-controlled enterprises

See definitions of net turnover and number of foreign-controlled enterprises.

Net turnover of foreign-controlling enterprises (UCI concept and domestic affiliates)

See definitions of net turnover and number of foreign-controlling enterprises (UCI concept and domestic affiliates).

Non-domestic net turnover

See definition of net turnover.

Non-domestic net turnover (euro area)

See definition of net turnover.

Non-domestic net turnover (non-euro area)

See definition of net turnover.

Non-domestic producer prices

See definition of producer prices.

Non-domestic producer prices (euro area) (optional for non-euro area countries)

See definition of producer prices.

Non-domestic producer prices (non-euro area) (optional for non-euro area countries)

See definition of producer prices.

### Number of active enterprises

The number of active enterprises is the number of statistical units which at any time during the reference period were enterprises, as defined in Regulation (EEC) No 696/93, and which were active.

A statistical unit is considered to have been active during the reference period, if in said period it either realised positive net turnover, or produced outputs, or had employees, or performed investments.

Further explanations for the definition and links to financial statements and other regulations Further explanations for the definition

During the reference period, being active is demonstrated by:

- the realisation of net turnover; or
- a change in stocks of finished goods and work-in-progress; or
- incurring wages and salaries; or
- performing gross investment in tangible non-current assets; or
- performing gross investment in intangible non-current assets, other than goodwill.

The term employee has the same meaning as in the further explanations given for the definition of the variable: number of employees.

The primary reference in identifying the type of statistical unit and its activity status is the business register.

#### Changes compared with regulations repealed by the EBS Regulation

The number of enterprises is the sum of all enterprises which were active during the reference period. All changes (including the name change) are clarifying this aspect. No substantial changes were made compared with the definitions previously used for structural business statistics, foreign affiliates statistics and business demography.

#### Number of employees

The number of employees represents the average number of persons who were, at some time during the reference period, employees of the statistical unit.

### Explanatory note

While the employment relationship, which qualifies the parties (into employee and employer), is defined in specific legislation or a contract, the term employee usually means a person hired by the statistical unit to provide services to it on a regular basis, in exchange for benefits and where the services provided are not part of an independent business. For the sake of clarity, apprentices, if hired under such conditions, are considered employees.

Further explanations for the definitions and links to financial statements and other regulations <u>Further explanations for the definition</u>

The contract between employee (a person) and employer (an enterprise, which may be a person), entered into voluntarily by both parties, may be formal or informal. The services provided are working services and should not be confounded with the general purchase of services (for example, from a hairdresser) from enterprises. The benefits are in the form of remuneration in cash or in kind. The number of employees also includes paid trainees.

The average number of employees should be calculated as the arithmetic mean of the number of employees over the shortest time periods of equal length fitting into the reference period, for which regular observations are practicable (for example, daily, weekly, monthly, quarterly, and so on).

### Links to other regulations

The definition corresponds with the definition of employees in Regulation (EU) No 549/2013 (ESA 2010, paragraph 11.12).

# Number of employees and self-employed persons

The number of employees and self-employed persons is the sum of the number of employees and number of selfemployed persons. The number of employees is defined as for the variable: number of employees. The number of self-employed persons is the average number of persons who were, at some time during the reference period, the sole owners or joint owners of the statistical unit in which they work. Family workers and outworkers whose income is a function of the value of the outputs of the statistical unit are also included.

Further explanations for the definition and links to financial statements and other regulations Further explanations for the definition

The average should be calculated as described in the further explanations for the definition of the variable: number of employees.

An outworker is a person who agrees to work for or to supply a certain quantity of goods or services to a particular statistical unit, by prior arrangement or contract with said statistical unit, but whose place of work is not within any of the establishments which make up that statistical unit. The statistical unit neither controls the time spent at work by an outworker, nor assumes responsibility for the conditions in which that work is carried out.

### Links to other regulations

The concept of self-employed persons is consistent with the self-employed concept used in ESA 2010, paragraphs 11.15, 11.16.

Changes compared with regulations repealed by the EBS Regulation

This variable replaces the previous variable called the number of persons employed in order to reflect the difference between the concepts labelled employees and persons employed, which for the normal user is not self-evident. The content/definition of the variable remains unchanged.

Number of employees and self-employed persons in enterprise deaths

See definitions of the number of employees and self-employed persons and enterprise deaths.

Number of employees and self-employed persons in enterprise survivals

See definitions of the number of employees and self-employed persons and enterprise survivals.

Number of employees and self-employed persons in enterprise survivals, in the year of birth

See definitions of the number of employees and self-employed persons and enterprise survivals. For this variable the number of employees and self-employed persons is that of the year of the enterprise birth.

Number of employees and self-employed persons in enterprises abroad ultimately controlled by institutional units of the reporting country

See definitions of the number of employees and self-employed persons and the number of enterprises abroad ultimately controlled by institutional units of the reporting country.

Number of employees and self-employed persons in enterprises having at least one employee

See definitions of the number of employees and self-employed persons and the number of enterprises having at least one employee.

Number of employees and self-employed persons in enterprises having no employees anymore

See definitions of the number of employees and self-employed persons and the number of enterprises having no employees anymore.

Number of employees and self-employed persons in enterprises having the first employee

See definitions of the number of employees and self-employed persons and the number of enterprises having the first employee.

Number of employees and self-employed persons in foreign-controlled enterprises

See definitions of the number of employees and self-employed persons and the number of foreign-controlled enterprises.

Number of employees and self-employed persons in foreign-controlling enterprises (UCI concept) and domestic affiliates

See definitions of the number of employees and self-employed persons and the number of foreign-controlling enterprises (UCI concept) and domestic affiliates.

Number of employees and self-employed persons in local units

See definitions of the number of employees and self-employed persons and the number of local units.

Number of employees and self-employed persons in newly born enterprises

See definitions of the number of employees and self-employed persons and newly born enterprises (enterprise births).

Number of employees and self-employed persons in survivals of enterprises having at least one employee, in the year of birth

See definitions of the number of employees and self-employed persons and survivals of enterprises having at least one employee. For this variable the number of employees and self-employed persons is that of the year of the enterprise birth meaning the year the enterprise had its first employee (as defined for enterprises having the first employee).

Number of employees and self-employed persons in survivals of enterprises having at least one employee

See definitions of the number of employees and self-employed persons and survivals of enterprises having at least one employee.

Number of employees in enterprise deaths

See definitions of the number of employees and enterprise deaths.

Number of employees in enterprises having at least one employee

See definitions of the number of employees and the number of enterprises having at least one employee.

Number of employees in enterprises having no employees anymore

See definitions of the number of employees and the number of enterprises having no employees anymore.

Number of employees in enterprises having the first employee

See definitions of the number of employees and the number of enterprises having the first employee.

Number of employees in full time equivalent units

The number of employees converted into full-time equivalents (FTE).

Figures for the number of persons working less than the standard working time of a full-year, full-time employee, should be converted into full-time equivalents, with regard to the working time of a full-time, full-year employee in the unit. This variable is the total number of hours worked divided by the average annual number of hours worked by full-time employees within the economic territory. Since the duration (in hours per week) of a full-time employee has changed over time and differs between industries, methods which establish the average proportion and average hours of less than full-time jobs in each job group have to be used. A normal full-time working week must first be estimated for each job group. If possible, a job group can be defined, inside an industry, according to sex and (or) kind of work. Hours contractually agreed upon can constitute for employee jobs, the appropriate criteria for determining these figures. Full-time equivalents are calculated separately for each job group, and are then summed.

Included in this category are people working less than a standard working day, less than the standard number of working days in a week, or less than the standard number of weeks/months in a year. The conversion should be carried out on the basis of the number of hours, days, weeks or months worked.

### Number of employees in high-growth enterprises

See definitions of the number of employees and the number of high-growth enterprises.

Number of employees in newly born enterprises

See definitions of the number of employees and newly born enterprises (enterprise births).

Number of employees in young high-growth enterprises

See definitions of the number of employees and the number of young high-growth enterprises.

Number of enterprises abroad ultimately controlled by institutional units of the reporting country

An enterprise abroad ultimately controlled by an institutional unit of the reporting country shall mean an enterprise not resident in the compiling country ultimately controlled by an institutional unit resident in the compiling country. Control, enterprise, branch and ultimate controlling institutional (UCI) unit are defined under the variable: number of foreign-controlled enterprises.

In statistics on international activities, outward foreign affiliates statistics shall mean statistics describing the activity of foreign affiliates abroad ultimately controlled by an institutional unit resident in the compiling country.

Number of enterprises having at least one employee

A count of enterprises that had at least one employee at any time during a given reference period t.

### Number of foreign-controlled enterprises

At the country level, business statistics for foreign-controlled enterprises shall mean an enterprise resident in the compiling country over which an UCI unit not resident in the compiling country has control. Enterprises shall mean active enterprises.

Control shall mean the ability to determine the general policy of an enterprise, for example by choosing appropriate directors, if necessary. In this context, enterprise A is deemed to be controlled by an institutional unit B when B controls, directly or indirectly, more than half of the shareholders' voting power, or by other means secures the control over A.

Foreign control shall mean that the ultimate controlling institutional unit is resident in a different country from the one where the institutional unit over which it has control is resident.

Branches shall mean local units of foreign enterprises not constituting separate legal entities. They are treated as quasi-corporate enterprises within the meaning of Regulation (EU) No 549/2013 and shall be deemed to be enterprises for the purposes of foreign affiliates statistics.

An UCI unit of an affiliate shall mean the institutional unit, proceeding up an affiliate's chain of control, which is not controlled by another institutional unit.

Foreign affiliate shall mean an enterprise resident in the compiling country over which an institutional unit not resident in the compiling country has ultimate control, or an enterprise not resident in the compiling country over which an institutional unit resident in the compiling country has ultimate control.

Country of ultimate control shall mean the country of residence of the UCI unit, or group of units acting in concert.

Institutional unit and local unit shall each have the same meaning as in Regulation (EEC) No 696/93.

Inward foreign affiliates statistics shall mean statistics describing the activity of foreign affiliates resident in the compiling country.

Number of foreign-controlling enterprises (UCI concept and domestic affiliates)

A foreign-controlling enterprise shall mean a resident ultimate controlling institutional (UCI) unit which has at least one foreign affiliate and which is an active enterprise. Control, enterprise, branch and ultimate controlling institutional (UCI) unit are defined under the variable: number of foreign-controlled enterprises. Domestic affiliate shall mean an enterprise resident in the compiling country over which a UCI resident in the same compiling country has control.

At the country level, business statistics for outward foreign affiliates statistics shall mean statistics describing the activity of domestic affiliates of every resident UCI unit which has at least one foreign affiliate and the activity of foreign-controlling enterprises resident in the compiling country.

### Number of high-growth enterprises

A count of enterprises, having at least 10 employees in t-3, with average annual growth for the number of employees greater than 10 % per annum, over a three year period (t-3 to t). It does not include enterprises, as defined by enterprise births, in t-3.

#### Number of local units

A count of the number of local units as defined in Regulation (EEC) No 696/93 registered to the population concerned in the business register corrected for errors, in particular frame errors. Local units must be included even if they have no paid employees. This statistic should include all units active during at least a part of the reference period.

### Number of young high-growth enterprises

Young high-growth enterprises (gazelles) as a subset of high-growth enterprises must fulfil the additional conditions that they were enterprises, as defined by enterprise births, in *t*-4 or *t*-5.

### Payments to subcontractors

For the activities of NACE Sections B to E, payments to subcontractors are payments made by the unit to third parties in return for industrial goods and services supplied as part of a subcontracting relationship defined as follows.

Two enterprises are linked by a subcontracting relationship whenever conditions A and B are met together:

- A. the customer enterprise, also referred to as the main contractor, participates in the conception of the product providing, even partially, technical specifications to the supplier enterprise, also referred to as the subcontractor, and/or provides it with the materials to be processed;
- B. the customer enterprise sells the subcontracted product, either as such or as part of a more complex product, and takes on the after-sales liability for the product.

Note: the mere stipulation of a colour, size or catalogue number does not constitute a technical specification in itself. The manufacture of a tailor-made product does not, of itself, necessarily imply a subcontracting relationship.

For the activities of NACE Section F, payments to subcontractors are payments made by the unit to third parties in return for construction works supplied as a part of a subcontracting relationship.

Two enterprises are linked by a subcontracting relationship, whenever conditions A, B, C and D are simultaneously satisfied:

- A. the customer enterprise contracts with the supplier enterprise, hereafter referred to as the subcontractor, for the execution of works or services which are incorporated specifically in the construction process;
- B. the customer enterprise is responsible for the final product of the construction process, the responsibility covers also those parts carried out by subcontractors; the subcontractor can in some cases carry some responsibility;
- C. the customer enterprise provides specifications to the subcontractor, for example, the work or service executed by the subcontractor must be tailor-made for the purposes of the specific project and cannot thus be a standardised or catalogue work or services;
- D. the reciprocal contract is not otherwise ruled by an agreement of an associative type, such as a common answer for a call for tender, a consortium or joint venture, and so on.

## **Producer prices**

It is the objective of the producer price index to measure the development of transaction prices of economic activities in industry, construction, and services.

The following rules apply for the definition of producer prices:

- All price-determining characteristics of the products are taken into account, including, for example, the quantity of units sold, transport provided, surcharges, discounts, rebates, service conditions, guarantee conditions, destination and so on.
- Producer prices measure the price development from the point of view of the producer/seller. The appropriate price is the basic price that excludes VAT and similar deductible taxes directly linked to turnover as well as all duties and taxes on the goods and services invoiced by the unit, whereas subsidies on products received by the producer, if there are any, should be added.
- In order to show the true development of price movements, it should be an actual transaction price, and not a list price.
- In order to show pure price movements, the producer price index compilation should take into account and adjust for quality changes in products.
- The specification must be such that in subsequent reference periods, the observation unit is able uniquely to identify the product and to provide the appropriate price per unit.
- The index should in principle reflect the average price during the reference period. In practice the information actually collected may refer to a particular day in the middle of the reference period that should be determined as a representative figure for the reference period. For products with a significant impact on the national economy that are known to have, at least occasionally, a volatile price development, it is important that the index does indeed reflect average prices.
- Price data should reflect prices at the moment of the actual transaction, in other words, when claims and obligations arise, are transformed or cancelled.
- Service producer prices should in principle be recorded when the service is provided. If the service delivery
  spans over several time periods or when services are bought in advance of the service delivery, appropriate
  adjustments have to be made.
- The service producer price index for an economic activity measures the average price development of all services business-to-all (B2All) which is composed of business-to-business (B2B) and business-to-consumers (B2C) sales. Sales to the public sector business-to-government (B2G) are included in B2B.

Domestic producer prices

### Non-domestic producer prices

Non-domestic producer prices (euro area) (optional for non-euro area countries)

Non-domestic producer prices (non-euro area) (optional for non-euro area countries)

The domestic producer price index for an economic activity measures the average price development of all goods and related services resulting from that activity and sold on the domestic market. The non-domestic price index shows the average price development (converted to local currency) of all goods and related services resulting from that activity and sold outside of the domestic market.

When combined, these two indices show the average price development of all goods and related services resulting from an activity. For non-domestic producer prices, the price should be calculated at national frontiers, FOB (free on board).

The indices of domestic and non-domestic producer prices require separate price indices to be compiled according to the destination of the product. The destination is determined by the residency of the third party that has ordered or purchased the product.

Producer prices or costs of new residential buildings

Producer price indices for construction measure only the development of new residential buildings and exclude residences for communities, non-residential buildings, land prices and architect's and other fees. They reflect the prices paid by the client to the construction company. They therefore do not only reflect the variations in the cost factors of construction, but also the changes in productivity and profit margins. In addition, a temporal difference exists between the output price and the corresponding costs of production. The total construction costs of new residential buildings can be used as a proxy for producer prices.

It is the objective of the total construction cost index to show the development of costs incurred by the contractor to carry out the construction process.

Costs that constitute the total construction costs of new residential buildings are material costs, labour costs, plant and equipment, transport, energy and other costs. Costs of residences for communities, non-residential buildings, land prices and architect's and other fees are not considered to be part of the construction costs.

Material costs are generally calculated using material prices. Prices of materials should be based on actual prices rather than list prices. Prices should be based on a sample of products and suppliers. Prices are valued excluding VAT.

Labour costs should cover wages and salaries and social security charges for all employees and self-employed persons. Social security charges include: i) statutory social contributions payable by the employer, ii) collectively agreed, contractual and voluntary social contributions payable by the employer, and iii) imputed social contributions (social benefits paid directly by the employer).

A new residential building is any building which is constructed for permanent or temporary residential use or a building which is converted from another use to a permanent or temporary residential use, and for which a building or planning permit is required in national legislation.

### Production (volume)

Production in short-term business statistics is required as an index. The production volume index is the reference indicator for economic development and is used, in particular, to identify turning points in economic development at an early stage. It should be presented in the form of a Laspeyres type index, comparing the current volume of production to the corresponding volume of production in the base period.

Theoretical target for the production volume index:

- In the view of business cycle statistics, own output should be measured. The terms production or output in the sense of business cycle statistics do not include inputs from other units.
- The objective of the production volume index is therefore to measure changes in the volume of value added at close and regular intervals.
- The changes in volume of value added measured should in general approximate the value added measured by the national accounts concepts of value added.

Principles for the calculation of the production volume index:

- Data necessary for the compilation of the index as defined under the theoretical target are usually not available on a monthly basis.
- Therefore, value added at basic prices is calculated only for the base period especially for updating the weights. If value added at basic prices is not available, gross value added at factor cost may be used as a proxy.
- The monthly continuation of value added in base period is done by suitable proxy values.

Calculation of the proxy values for continuation. Suitable proxy values for the continuation of the indices are:

- continuation with gross production values (deflated);
- continuation with volumes;
- continuation with turnover (deflated);
- continuation with work input;
- continuation with raw material input;
- continuation with energy input.

The correlation of these proxy measures with the development of value added may differ depending on the market activity. For each market activity a proxy with a high correlation should be chosen.

Relations to national accounts:

- the common understanding of the term production index as an evolution of value added contradicts the definition of production in the framework of national accounts or structural business statistics;
- in the terms of national accounts, the production index refers to the development of value added in constant prices, whereas value added is in principle output minus intermediate consumption at basic prices.

### Production under subcontracted operations

Production carried out by a subcontractor, within the economic territory of each country, which has been sold (invoiced) during the reference period to the principal in line under the conditions for subcontracted operations as specified by the CPA guidelines. The production may be carried out under the primary or secondary activities of the enterprise.

### Purchases of energy products

Purchases of all energy products during the reference period should be included in this variable only if they are purchased to be used as fuel. Energy products purchased as a raw material or for resale without transformation should be excluded. This statistic should be given as a value only.

### Purchases of goods and services for resale

Purchases of goods and services purchased for resale in the same condition as received are purchases of goods for resale to third parties without further processing. This variable also includes purchases of services by invoicing service companies, in other words, those whose turnover is composed not only of agency fees charged on a service transaction (as in the case of estate agents) but also the actual amount involved in the service transaction (for example, transport purchases by travel agents).

Excluded is the value of goods and services which are sold to third parties on a commission basis, since these goods are neither bought nor sold by the agent receiving the commission.

Purchases of goods and services purchased for resale in the same condition as received are a part of the variable: total purchases of goods and services. This variable is used in the calculation of other aggregates and balances.

### Further explanations for the definition and links to financial statements and other regulations <u>Further explanations for the definition</u>

Purchases of goods and services purchased for resale in the same condition as received are valued at the purchase price excluding deductible VAT and other deductible taxes linked directly to turnover. All other taxes and duties on the products are therefore not deducted from the valuation of the purchases of goods and services. The treatment of taxes on production is not relevant in the valuation of these purchases. Merchanting is included in purchases of goods and services for resale in the same condition as received.

Purchases of goods and services for resale of foreign-controlled enterprises

See definitions of purchases of goods and services for resale and the number of foreign-controlled enterprises.

### R&D personnel

Research and experimental development (R&D) comprises creative and systematic work undertaken in order to increase the stock of knowledge — including the knowledge of humankind, culture and society — and to devise new applications of available knowledge.

R&D personnel in a statistical unit include all persons engaged directly in R&D, whether employed by the statistical unit or external contributors fully integrated into the statistical unit's R&D activities, as well as those providing direct services for the R&D activities (such as R&D managers, administrators, technicians and clerical staff).

Persons providing indirect support and ancillary services, such as canteen, maintenance, administrative and security staff, should be excluded, even though their wages and salaries are included in other current costs when measuring intramural R&D expenditure.

R&D personnel includes two main groups of individuals:

- employees and self-employed persons for the statistical unit who contribute to a unit's intramural R&D activities (internal R&D personnel);
- external contributors that are fully integrated into the unit's intramural R&D activities (external R&D
  personnel) that can be either independent (self-employed) or dependent (receiving wages/salaries but not
  from the statistical unit performing the R&D).

### R&D personnel in foreign-controlled enterprises

See definitions of R&D personnel and the number of foreign-controlled enterprises.

### Registrations

The number of entered legal units in the registration register at any time during the reference quarter *q*, according to the respective administrative or legal procedure.

#### Researchers

Researchers are professionals engaged in the conception or creation of new knowledge. They conduct research and improve or develop concepts, theories, models, techniques, instrumentation, software or operational models.

Managers and administrators engaged in the planning and management of the scientific and technical aspects of a researcher's work are also classified as researchers.

### Sales proceeds of tangible investments

Sales proceeds of tangible investments include the value of existing tangible capital goods, sold to third parties. Sales of tangible capital goods are valued at the price actually received (excluding VAT), and not at book value, after deducting any costs of ownership transfer incurred by the seller. Value adjustments and disposals other than by sale are excluded.

#### Social security costs

Employers' social security costs correspond to an amount equal to the value of the social contributions incurred by employers in order to secure for their employees the entitlement to social benefits.

Social security costs for the employer include the employer's social security contributions to schemes for retirement pensions, sickness, maternity, disability, unemployment, occupational accidents and diseases, family allowances as well as other schemes.

Included are the costs for all employees including homeworkers and apprentices.

Charges are included for all schemes, regardless of whether they are statutory, collectively agreed, contractual or voluntary in nature. Wages and salaries which the employer continues to pay in the event of illness, occupational accident, maternity leave or short-time working may be recorded here or under wages and salaries, dependent upon the unit's accounting practices.

# Sold production

Sold production is defined as the production carried out at any time and within the economic territory of each country, which has been sold (invoiced) during the reference period. The production may be carried out under the primary or secondary activities of the enterprise. It includes production sold (invoiced) between different kind-of-activity units belonging to the same enterprise.

#### Survivals of enterprises having at least one employee

A count of enterprises having had at least one employee at any point in time in every year from the year of having the first employee (t-1 to t-5) until a given reference period t. The population of enterprises that have the first employee in t is defined above. An enterprise is also considered to have survived if the linked legal unit(s) have ceased to be active, but their activity has been taken over by a new legal unit set up specifically to take over the factors of production of that enterprise (= survival by take-over).

### Total purchases of goods and services

Total purchases of goods and services includes the total amount of goods and services purchased by the statistical unit, recognised in accounting as either current assets or expenses during the reference period.

Included in these purchases of goods, as a non-exhaustive list of examples, are: raw, auxiliary and packaging materials, consumables, fuel, spare parts, seeds and fodder, animals, small inventory items and goods purchased for resale.

Included in the purchases of services, as a non-exhaustive list of examples, are: services with electricity, heating, water, maintenance, repairs, royalties, rental, insurance, research (if performed by third parties), agency work, advertising, promotion, transport, communication, banking, legal, accounting and any other service performed by third parties and recognised as an expense during the reference period.

Increases in finished goods and work in progress, as well as any financial assets and non-current assets are not included. As an exception, assets from other classes reclassified to any of the items listed above as included, are also included.

The purchases of goods and services referred to by this definition are valued according to the rules laid down to this effect in the accounting standards based on which the aforementioned assets and expenses were recognised.

Further explanations for the definition and links to financial statements and other regulations <u>Further explanations for the definition</u>

The term current assets referred to in the definition means any asset which the statistical unit classifies as such, because it:

- expects to realise the asset, or intends to sell or consume it, in its normal operating cycle;
- holds the asset primarily for the purpose of trading;
- expects to realise the asset within 12 months after the reporting period; or
- the asset is cash or a cash equivalent (as defined in the applicable business accounting framework) unless the
  asset is restricted from being exchanged or used to settle a liability for at least 12 months after the reporting
  period.

An asset that does not satisfy any of the above criteria is classified as a non-current asset.

In business accounting terms it is also customary to use short-term instead of current and long-term instead of noncurrent.

The term expenses referred to in the definition means decreases in economic benefits during the reference period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

### Links to financial statements

Total purchases of goods and services is a complex statistical variable which in practice can usually neither be found, nor calculated from the data disclosed in financial statements. Under limited circumstances and with certain conditions being met (a detailed enough breakdown of all expenses, whether in the profit and loss account (statement of comprehensive income) or in the explanatory notes) the variable might be calculated.

Total purchases of goods and services of foreign-controlled enterprises

See definitions of total purchases of goods and services and the number of foreign-controlled enterprises.

### Value added

Value added is a composite indicator of net operating income, adjusted for depreciation, amortization and employee benefits, all components being recognised as such by the statistical unit during the reference period. Its value is given by the formula:

- + net turnover
- + income from product- or turnover-related subsidies
- + capitalised output
- ± change in stock of goods
- total purchases of goods and services.

Further explanations for the definition and links to financial statements and other regulations <u>Further explanations for the definition</u>

Income from product- or turnover-related subsidies and capitalised output have the same meaning as in the definition for the variable: value of output.

### Links to financial statements

As an alternative to the definition, value added could be calculated from the income statement (profit and loss account) as follows:

- ± profit (loss) from operating activities
  - + depreciation and amortization expense
  - + employee benefits expense

- other operating income (adjusted with income from product- or turnover-related subsidies and, if necessary, with capitalised output).

The profit (loss) from operating activities stands for the result achieved by the statistical unit from its operating (not financial or extraordinary) activities and is usually presented as a separate line item on the face of the income statement (profit and loss account), irrespective of the method used to present the expenses (whether according to their nature or function).

Depreciation and amortization (substitutes in meaning, the former is used for tangible assets, the latter for intangible assets) are expenses recognised by the statistical unit during the reference period with the systematic allocation of the acquisition value of the long-term asset to which the expense refers to, over the asset's useful life.

Depreciation, amortization and employee benefits are all components of (being subtracted from net turnover to arrive at) the profit (loss) from operating activities. But as they are not part of intermediate consumption, they need to be added back.

If the income statement (profit or loss account) is prepared according to the function of expense method, depreciation, amortization and employee benefits will not be presented separately and need to be collected by other means (for example, from the explanatory notes attached to the financial statements).

Other operating income is a component of the profit (loss) from operating activities and a separate line item of the income statement (profit and loss account) representing the total income from operating activities not included elsewhere (in other words, in other line items). The types of income usually included here are not part of output and hence should not be included in value added. However, for income from product- or turnover-related subsidies which is usually classified to other operating income, an adjustment is needed. In a similar fashion, an adjustment is needed for capitalised output, as well, if it is also classified to other operating income (in other words, on income statement (profit and loss accounts) if prepared based on the function of expense method).

### Links to other regulations

According to Regulation (EU) No 549/2013 (ESA 2010, paragraph 3.03), gross value added is the balancing item of the production account. It is defined as output (P.1) less intermediate consumption (P.2) and valued at basic prices (in other words, the net result of output valued at basic prices less intermediate consumption valued at purchasers' prices).

Due to discrepancies between the valuation rules (as described in the subheading for 'links to other regulations' for the variable: value of output), as well as practical limitations in its precise calculation, the value of this variable will not exactly match that of gross value added (B.1g), as defined in ESA 2010.

# Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

Value added equals gross value added as defined for Regulation (EC) No 295/2008 minus other operating income adjusted with income from product- or turnover-related subsidies and, if necessary, with capitalised output plus other operating expenses than amortization expense.

Value added of foreign-controlled enterprises

See definitions of value added and the number of foreign-controlled enterprises.

# Value of output

The value of output represents the value of the total output of the statistical unit, generated during the reference period.

For all activities except for the activities of NACE Divisions 64, 65 and 66, it is the sum of:

- + net turnover
- ± change in stock of finished goods and work in progress
- ± change in stock of goods for resale
- + income from product- or turnover-related subsidies
- + capitalised output
- purchases of goods and services purchased for resale.

Income from product- or turnover-related subsidies is any income originating from government assistance granted to and recognised as such by the statistical unit during the reference period.

Capitalised output is the total increase of all self-generated long-term assets, recognised as such by the statistical unit during the reference period.

For the activities of NACE Class 64.11, the value of output is defined as other administrative expenses than staff costs plus fees and commission expenses plus staff costs plus the depreciation of tangible and intangible fixed assets.

For the activities of NACE Class 64.19 and Group 64.9, the value of output is defined as interest receivable and similar income minus interest payable and similar charges plus commissions receivable plus income from shares and other variable-yield securities plus net profit or net loss on financial operations plus income from product- or turnover-related subsidies. For some activities of NACE Class 64.99, the value of output is net turnover plus subsidies or government grants or can be approximated by the total operating costs, if net turnover is not available in the financial statements.

For the activities of NACE Groups 64.2 and 64.3, the value of output is net turnover plus subsidies or government grants or can be approximated by the total operating cost, if net turnover is not available in the financial statements.

For the activities of NACE Class 65.11, the value of output is defined as gross premiums earned plus investment income minus income from participating interest minus value re-adjustments on investments plus investment income of reinsurers on their share of the gross technical provisions of the enterprise plus unrealised gains on investments plus other technical income — net of reinsurance minus claims paid plus/minus the change in the provision for claims (increase needs to be subtracted, decrease needs to be added) plus/minus changes in other technical provisions net of reinsurance (costs need to be subtracted, income should be added) plus/minus (if available) changes in other technical provisions — reinsurers' share (costs needs to be subtracted, income needs to be added) plus/minus (if available) the change in funds for future appropriations (costs should be subtracted, income should be added) minus bonuses and rebates — net of reinsurance minus losses on the realisation of investments minus the unrealised loss on investments plus other income.

For the activities of NACE Class 65.12 and Group 65.2, the value of output is defined as gross premiums earned plus investment income minus income from participating interest minus value re-adjustments on investments plus investment income of reinsurers on their share of the gross technical provisions of the enterprise plus other technical income — net of reinsurance plus other income minus claims paid plus/minus the change in the provision for claims (increase needs to be subtracted, decrease needs to be added) minus losses on the realisation of investments minus bonuses and rebates — net amount plus/minus the change in the equalisation provision (costs should be subtracted, income should be added) plus/minus changes in other technical provisions not shown under other headings (costs should be subtracted, income should be added).

For the activities of NACE Group 65.3, the value of output is defined as net turnover minus insurance premiums payable plus investment income plus other income plus insurance claims receivable minus total expenditure on pensions minus the net change in technical provisions (increases in technical provisions should be subtracted, decreases should be added). Alternatively, the value of output can be calculated as the sum of costs.

For the activities of NACE Division 66 for which net turnover is not available in the financial statements, the value of output is defined as interest receivable and similar income minus interest payable and similar charges plus commissions receivable plus income from shares and other variable-yield securities plus net profit or net loss on financial operations plus income from product- or turnover-related subsidies.

For the activities of NACE Division 66 for which net turnover is available in the financial statements, the value of output is defined as net turnover plus capitalised output plus income from product- or turnover-related subsidies.

Further explanations for the definition and links to financial statements and other regulations <u>Further explanations for the definition</u>

As specified in their respective definitions, the valuation of every component of the value of output is performed according to the applicable accounting and reporting standards used by the statistical unit. As a consequence, net turnover and income from product- or turnover-related subsidies is measured at the fair value of the amounts receivable (sales price) and the other components at cost (purchase price), excluding taxes.

Subsidies are defined as assistance by government in the form of transfers of resources to a statistical unit, in return for past or future compliance with certain conditions relating to the operating activities of the statistical unit. They exclude those forms of government assistance which cannot reasonably have a value placed upon them and transactions with government which cannot be distinguished from the normal trading transactions of the statistical unit.

Government assistance takes many forms varying both in the nature of the assistance given and in the conditions which are usually attached to it. The purpose of the assistance may be to encourage an entity to embark on a course of action which it would not normally have taken if the assistance was not provided.

Subsidies are sometimes called by other names such as government grants, subventions or premiums.

In business accounting terms, capitalised output is the part of the debit movement of long-term assets or long-term assets in progress which have been generated (constructed, produced) by the statistical unit itself during the reference period. It has its counterpart in the income statement (profit and loss account) if prepared based on the nature of expense method, as presented below in the subheading 'links to financial statements'.

The term capitalisation has the same meaning as in the definition for the variable: gross investment in construction and improvement of buildings.

When calculating the value of output, changes in stocks can be either an increase or a reduction. When the change is an increase, it needs to be added to net turnover and when it is a reduction, it needs to be deducted from net turnover.

### Links to financial statements

The variable for the value of output is a composite variable which cannot as such be found in financial statements. As explained for some of its component variables, several of these can be obtained directly or indirectly from the data presented in financial statements.

The value of capitalised output is the line item for other work performed by entity and capitalised on the income statement (financial statements based on IFRS, IAS 1.IG6) or work performed by the undertaking for its own purposes and capitalised on the profit and loss account (financial statements based on the European Accounting Directive — 2013/34/EU, Annex V) if prepared based on the nature of expense method. If the function of expense method is used, capitalised output will be part of other line items and cannot be isolated.

If not specifically disclosed, income from product- or turnover-related subsidies will be presented on the face of the income statement (profit and loss account) under the heading other income (IFRS) or other operating income (European Accounting Directive) and cannot be isolated. According to some national GAAPs, however, the variable has to be separately disclosed in the income statement (profit and loss account) or in the explanatory notes attached to the financial statements.

### Links to other regulations

The variable value of output corresponds to transaction output in national accounts (Regulation (EU) No 549/2013 (ESA 2010, paragraph 3.14, code P.1). Its components and valuation rules, for the purpose of national accounts, are further defined in subsequent paragraphs (up to paragraph 3.87) of the same regulation.

Income from product- or turnover-related subsidies will usually include income both from subsidies on products (ESA 2010, paragraph 4.33, code D.31) and from other subsidies on production (ESA 2010, paragraph 4.36, code D.39).

Due to discrepancies between the valuation rules for national accounts (see the previous two paragraphs) and those used in business accounting (see 'further explanations for the definition' above) as regards variables for the change in stock, the value of purchases of goods and services purchased for resale and capitalised output will not exactly match the value of output (as defined in ESA 2010, code P.1); however, in practice, at the aggregate level, the difference is negligible.

# Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 295/2008 on structural business statistics

The value of output equals production value as defined for Regulation (EC) No 295/2008 plus income from productor turnover-related subsidies minus other operating income (except income from product- or turnover-related subsidies) and minus excise duties and other taxes on products linked to turnover but not deductible.

# Value of output of foreign-controlled enterprises

See definitions of value of output and the number of foreign-controlled enterprises.

### Volume of sales

The volume of sales represents the value of net turnover in constant prices and as such is a quantity index. It can be calculated as net turnover at current prices, deflated by the appropriate price indicator, or as a quantity index derived directly from the quantity of goods sold.

### Wages and salaries

Wages and salaries represent all expenses incurred during the reference period for total gross remuneration, in cash or in kind, of all employees of the statistical unit. Wages and salaries are a part of the variable: employee benefits expense.

The total gross remuneration, in cash or in kind, contains as examples, but is not limited to the following items: direct remuneration, bonuses, allowances, gratuities, tips, commissions, payments to employees' saving schemes, payments for days not worked, wages and salaries in kind, company products, staff housing, company cars, stock options and purchase schemes, amounts to be withheld by the employer (social security contributions of the employee, personal income tax, and so on). Infra-annual statistics may not be able to take into account all these items.

Expenses regarding services provided through agency workers, as well as the expenses of social security contributions and other similar fiscal obligations (tied directly or indirectly to wages and salaries), if incurred by the employer, are excluded.

Further explanations for the definition and links to financial statements and other regulations

### Further explanations for the definition

Wages and salaries may include amounts employers temporarily continue to pay in certain situations (for example, in the event of sickness, maternity, industrial injury, disability, redundancy, and so on) to their employees, if so required by law or if separating these values would clearly be impracticable.

The term employee has the same meaning as in the further explanations given for the definition of the variable: <u>number of employees</u>.

### Links to financial statements

Wages and salaries are recorded in the financial statements on the profit and loss account prepared based on the nature of expense method, under the subheading wages and salaries (European Accounting Directive — 2013/34/EU, Annex V).

If the profit and loss account is prepared based on the function of expense method, the variable will be part of other line items and cannot be isolated.

Alternatively, and in the case of IFRS-based financial statements, the value of the variable can be obtained from the explanatory note regarding employee benefits.

### Links to other regulations

The variable wages and salaries corresponds to the transaction having the same name in national accounts (ESA 2010, paragraphs 4.03-4.07, code D.11). For the purpose of labour statistics, its components are defined in Commission Regulation (EC) No 1726/99, as amended, where the variable also bears the same name.

Changes compared with regulations repealed by the EBS Regulation

Changes compared with Regulation (EC) No 1165/98 on short-term business statistics

The variable gross wages and salaries has been renamed wages and salaries. There are no changes to the content/definition of the variable.

# Wages and salaries in local units

See definitions for wages and salaries and number of local units.

# Annex II — EBS Regulation — general implementing act (EBS GIA) — new requirements (deltas)

# SECTION 1 — EBS GIA NEW REQUIREMENTS (DELTAS) — SHORT-TERM BUSINESS STATISTICS NEW REQUIREMENTS AND TRANSITION FROM THE STS REGULATION

# STS data requirements

Overview of the legal requirements, during and after the transitional period to EBS implementation (January/Q1 2021 to December/Q4 2023 and onwards)

This annex tracks the changes that will occur during the transitional period, that is from January/Q1 2021 to December/Q4 2023, and after this period, namely from January/Q1 2024 onwards, comparing the new requirements for short-term business statistics (under the EBS Regulation) with those for the STS Regulation ((EC) No 1165/98) and its amendments.

For the reference periods January/Q1 2021 to December/Q4 2023, EBS data requirements have priority over the requirements laid down in the STS Regulation (no double reporting, if both datasets are available).

For services, when the transitional arrangements set out in Annex VII (3.a) of the EBS GIA are applied, the requirements laid down in the STS Regulation continue to apply until the reference period December/Q4 2023.

For the variable production in construction, the transitional arrangements set out in Annex VII (3.b) of the EBS GIA will apply until December/Q4 2023.

Overview of the legal requirements for which Eurostat does not foresee a transition period and which have to be provided from reference periods starting on January/Q1 2021 onwards:

- Transmitting unadjusted, calendar and seasonally adjusted indices (except for the new services indicators).
- Shortening of the deadlines (in other words, deletion of the extra 15-days for industrial production and turnover, producer prices, import prices, construction production, building permits, trade turnover indicators).
- Transmitting indices according to their periodicity (in other words, voluntary monthly indices should also be sent monthly and not each quarter three monthly indices).
- Transmitting service producer prices as B2All (for reference periods before 2021 estimated by B2B indicators) applies to all concerned activities.
- Transmitting monthly deflated and nominal turnover for trade (NACE Section G, Divisions 45, 46 and 47) with a NACE group breakdown for medium-sized and large countries. Also breakdowns for: food and non-food retailing; the retail sale of automotive fuel in specialised stores (NACE Group 47.3); total retail trade excluding the retail sale of automotive fuel in specialised stores (NACE Division 47 (excl. 47.3)). Identification of internet trade.
- Keeping the base year as 2015 for all indices until the general re-basing exercise in 2024, when the base year will shift to 2021.

## Change of weightings and base year

- Annual update of weights (in combination with chain-linking) is recommended (but no formal requirement) for STS price and volume indicators.
- The legal requirement of the STS Regulation is such that the weights are updated every five years using as base years the years ending with a 0 or a 5; rebasing within three years after the end of the new base year. With the EBS Regulation, the first base year is 2015, the second base year is 2021 and the third base year is 2025 (base year 2020 is not required). From thereon, every five years, EU Member States shall rebase indices using as base years the years ending with a 0 or a 5; all indices must be rebased on the new base year within three years after the end of the new base years.
- Countries implementing chain-linking for STS indicators shall follow the target methodology elaborated by the STS Task Force on chain-linking.

## **Derogations**

- The derogations in the STS Regulation will be included in the EBS GIA, Annex I, Tables 1 to 9.
- For the EBS Regulation requirements not covered by the transitional arrangements, and for which major adaptations of the national production system are necessary, EU Member States will need to request a derogation.

## Thresholds for country size categories

- The variable to be used for the grouping of EU Member States by size category is gross value added.
- Two thresholds set at 1 % and at 4 % respectively are used to distinguish between small (S), medium-sized (M) and large (L) countries.
- The overall size category for each Member State is based on their share in EU gross value added for the non-financial business economy (as defined by NACE Sections B to N (excl. K).
- <u>Safeguard clause</u>: if an EU Member State's share of EU gross value added in one of the following NACE Sections or one of the defined NACE aggregates corresponds to a smaller size category than for the whole of the non-financial business economy, the data requirements for that country shall correspond to those of the smaller size category for the section (or sections) in question. This simplification rule may apply to NACE Sections C (manufacturing), F (construction), G (distributive trades), and to the non-financial services aggregate of NACE Sections H to N (excl. K).

# STS Regulation requirements until December/Q4 2020

# Annex A — Industry

Size category	Definition	Group members (base year 2015)	Additional comments
S	Less than 1 % of EU-28 value added in NACE Sections B to E	BG, EE, EL, HR, CY, LV, LT, LU, MT, SI, SK	-
М	1 % or more of EU- 28 value added in NACE Sections B to E (but less than 4 % of EU-28 value added in NACE Section C)	BE, CZ, DK, HU, NL, AT, PL, PT, RO, FI, SE	Concerning deadlines, the threshold between the size categories for M and L is less than 3 % (of value added in NACE Sections B to E). There are two EU Member States in size category M who, in terms of the deadlines, have to comply with the L requirements: NL and PL
L	4 % and more of EU-28 value added in NACE Section C	DE, IE, ES, FR, IT, UK	-

# EBS Regulation requirements for the period January/Q1 2021 to December/Q4 2023

# Industry, construction, distributive trades and services

Size category	Group members (base year 2015)	Additional comments
S	BG, EE, EL, HR, CY, LV, LT, LU, HU, MT, RO, SI, SK	-
М	BE, CZ, DK, IE, AT, PL, PT, FI, SE	CZ: size category S according to safeguard- clause for NACE Sections H-N PT: size category S according to safeguard- clause for NACE Sections F and H-N
L	DE, ES, FR, IT, NL	NL: size category M according to safeguard- clause for NACE Section C

# STS Regulation requirements until December/Q4 2020

# Annex B — Construction

Size category	Definition	Group members (base year 2015)	Additional comments
S	Less than 1 % of EU-28 value added in NACE Section F	BG, EE, EL, HR, CY, LV, LT, LU, HU, MT, RO, SI, SK	_
М	1 % or more, but less than 3 % of EU-28 value added in NACE Section F	CZ, DK, IE, AT, PL, PT, FI	EU Member States whose value added in NACE Section F is less than 2 % of the EU total, need only supply variables B- 110: production, B-115: building construction and B-116: civil engineering for the reference period of a quarter: CZ, DK, IE, and FI
			There are two EU Member States in size category S who consequently, in terms of the reference period, have to provide monthly data for variables B-110: production, B-115: building construction and B-116: civil engineering: AT and PL
L	3 % and more of EU-28 value added in NACE Section F	BE, DE, ES, FR, IT, NL, SE, UK	-

# Annex C — Retail trade and repair

Size category	Definition	Group members (base year 2015)	Additional comments
5	Less than 1 % of EU-28 <u>turnover</u> in NACE Division 47	BG, EE, HR, CY, LV, LT, LU, HU, MT, SI, SK	-
М	1 % or more, but less than 3 % of EU-28 <u>turnover</u> in NACE Division 47	CZ, DK, IE, EL, AT, PT, RO, FI, SE	-
L	3 % and more of EU-28 <u>turnover</u> in NACE Division 47	BE, DE, ES, FR, IT, NL, PL, UK	-

# STS Regulation requirements until December/Q4 2020

# Annex D — Other services

Size category	Definition	Group members (base year 2015)	Additional comments
S, M	Less than 4 % of:	BE, BG, CZ, DK,	With regard to variable
	<ul> <li>EU-28 <u>turnover</u> in NACE</li> <li>Divisions 45 and 46</li> <li>respectively</li> </ul>	EE, IE, EL, HR, CY, LV, LT, LU, HU, MT, AT, PL, PT, RO, SI, SK, FI, SE	Turnover: BE has to provide size category L details for NACE Divisions 45 and 46
	(> level of detail of turnover)		Output prices: IE has to provide size category L details for NACE Division 63
	<ul> <li>EU-28 total <u>value added</u> in NACE Sections H and J respectively</li> </ul>		-
	<ul><li>(&gt; level of detail of number of persons employed)</li></ul>		-
	- EU-28 <u>turnover</u> in NACE Division 63		-
	(> level of detail of output prices)		-
L	4 % and more of the	DE, ES, FR, IT, NL,	With regard to variable
	respective EU-28 total	UK	Output prices: ES and NL are not required to provide size category L details for NACE Division 63

# Industry

<u>Scope:</u> applies to all activities listed in NACE Sections B, C, D and E respectively and to all products in the equivalent CPA sections. <u>Statistical unit and base year (BY)</u>:

- KAU (revised definition plus operational rules) and 2015 BY: reference periods until December/Q4 2020 (STS Regulation);
- KAU (revised definition plus operational rules) and 2015 BY: reference periods January/Q1 2021 to December/Q4 2023 (EBS Regulation);
- KAU (revised definition plus operational rules) and 2021 BY: January/Q1 2024 onwards (EBS Regulation).

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
140101 Production (volume) (PROD) ( <sup>1</sup> )	Level of detail	S	Total industry (NACE Sections B+C+D); MIGs (MIG energy excl. NACE Section E); NACE sections [NACE Group 35.3 and Section E excluded]	Total industry (NACE Sections B+C+D); MIGs (MIG energy excl. NACE Section E); NACE sections [NACE Group 35.3 and Section E excluded]	Total industry (NACE Sections B+C+D); MIGs (MIG energy excl. NACE Section E); NACE sections [NACE Group35.3 and Section E excluded]
		М	As for size category S; Additionally: NACE divisions	As for size category S; Additionally: NACE divisions	As for size category S; Additionally: NACE divisions
		L	As for size category M; Additionally: NACE groups and classes representing at least 90 % of total value added of NACE Section C	As for size category M; Additionally: NACE groups and classes representing at least 90 % of total value added of NACE Section C	As for size category M; Additionally: NACE groups and classes representing at least 90 % of total value added of NACE Section C
	Periodicity	S, M, L	Month	Month	Month
	Form	S, M, L	Unadjusted and working-day adjusted [index]	Indices: unadjusted; calendar adjusted; seasonally adjusted	Indices: unadjusted; calendar adjusted; seasonally adjusted
	Deadlines	S, M L	As for size category L plus 15 days ( <sup>2</sup> ) 1 month and 10 days (plus 15 days for NACE groups and classes)	1 month and 10 days	1 month and 10 days
	First reference period	S, M, L	January 2000	January 2000	January 2000

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
140301 Net turnover (value) (TOVT)	Level of detail	S	Total industry excluding NACE Sections D and E (NACE Sections B+C); MIGs (MIG energy excl. NACE Sections D and E);	Total industry excluding NACE Sections D and E (NACE Sections B+C); MIGs (MIG energy excl. NACE Sections D and E);	Total industry excluding NACE Sections D and E (NACE Sections B+C); MIGs (MIG energy excl. NACE Sections D and E);
140302 Domestic net turnover			NACE Sections B and C [NACE Sections D and E excluded]	NACE Sections B and C [NACE Sections D and E excluded]	NACE Sections B and C [NACE Sections D and E excluded]
(value) (TOVD) 140303		M, L	As for size category S Additionally: NACE divisions	As for size category S Additionally: NACE divisions	As for size category S Additionally: NACE divisions
Non-domestic net	Periodicity	S, M, L	Month	Month	Month
turnover (value) (TOVE)	Form	S, M, L	Unadjusted [index or absolute]	Indices: unadjusted; calendar adjusted	Indices: unadjusted; calendar adjusted
	Deadlines	S, M	As for size category L plus 15 days	2 months	2 months
140304 Non-domestic net		L	2 months		
turnover (value) (euro area) (optional for non- euro area countries) (TOVZ) ( <sup>3</sup> )	First reference period	S, M, L	January 2000 — variables: turnover (A-120), domestic turnover (A-121), non-domestic turnover (A- 122) ( <sup>5</sup> )	January 2000 — variables: net turnover (value) (140301), domestic net turnover (value) (140302), non- domestic net turnover (value) (140303)	January 2000 — variables: net turnover (value) (140301), domestic net turnover (value) (140302), non- domestic net turnover (value) (140303)
140305 Non-domestic net turnover (value) (non- euro area) (optional for non-euro area countries) (TOVX) ( <sup>3</sup> )			January 2005 — variables: non-domestic turnover (euro-zone) (A-122), non-domestic turnover (non- euro zone) (A-122)	January 2005 — variables: non- domestic net turnover (value) (euro area) (140304), non-domestic net turnover (value) (non-euro area) (TOVX) (140305)	January 2005 — variables: non- domestic net turnover (value) (euro area) (140304), non-domestic net turnover (value) (non-euro area) (TOVX) (140305)
120101 Number of employees and self-employed persons (EMPL) ( <sup>4</sup> )	Level of detail	S	Total industry (NACE Sections B+C+D+ Division 36); MIGs; NACE sections [NACE Divisions 37, 38 and 39 excluded]	Total industry (NACE Sections B+C+D+ Division 36); MIGs; NACE sections; NACE Division 36 [NACE Divisions 37, 38 and 39 excluded]	Total industry (NACE Sections B+C+D+ Division 36); MIGs; NACE sections; NACE Division 36 [NACE Divisions 37, 38 and 39 excluded]

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
		M, L	As for size category S Additionally: NACE divisions	As for size category S Additionally: NACE divisions	As for size category S Additionally: NACE divisions
	Periodicity	S, M, L	Quarter (or month) (6)	Quarter (or month)	Quarter (or month)
	Form	S, M, L	Unadjusted [index or absolute]	Indices: unadjusted	Indices: unadjusted
	Deadlines	S, M	As for size category L plus 15 days	As for size category L plus 15 days	As for size category L plus 15 days
		L	2 months	2 months	2 months
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000	First quarter (or month) 2000
120201 Hours worked by employees	Level of detail	5	Total industry (NACE Sections B+C+D+ Division 36);	Total industry (NACE Sections B+C+D+ Division 36);	Total industry (NACE Sections B+C+D+ Division 36);
(HOWK)			MIGs; NACE sections	MIGs;	MIGs; NACE sections:
			NACE Sections [NACE Divisions 37, 38 and 39 excluded]	NACE sections; NACE Division 36	NACE Sections; NACE Division 36
			[NACE DIVISIONS 37, 36 and 39 excluded]	[NACE Division 36 [NACE Divisions 37, 38 and 39 excluded]	[NACE Division 36 [NACE Divisions 37, 38 and 39 excluded]
		M, L	As for size category S Additionally: NACE divisions	As for size category S Additionally: NACE divisions	As for size category S Additionally: NACE divisions
	Periodicity	S, M, L	Quarter (or month)	Quarter (or month)	Quarter (or month)
	Form	S, M, L	Unadjusted and working-day-adjusted [index or absolute]	Indices: unadjusted; calendar adjusted	Indices: unadjusted; calendar adjusted
	Deadlines	S, M	As for size category L plus 15 days	As for size category L plus 15 days	As for size category L plus 15 days
		L	3 months	3 months	3 months
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000	First quarter (or month) 2000

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
120301 Wages and salaries (WAGE)	Level of detail	S M, L	Total industry (NACE Sections B+C+D+ Division 36); MIGs; NACE sections [NACE Divisions 37, 38 and 39 excluded] As for size category S	Total industry (NACE Sections B+C+D+ Division 36); MIGs; NACE sections; NACE Division 36 [NACE Divisions 37, 38 and 39 excluded] As for size category S	Total industry (NACE Sections B+C+D+ Division 36); MIGs; NACE sections; NACE Division 36 [NACE Divisions 37, 38 and 39 excluded] As for size category S
			Additionally: NACE divisions	Additionally: NACE divisions	Additionally: NACE divisions
	Periodicity	S, M, L	Quarter (or month)	Quarter (or month)	Quarter (or month)
	Form	S, M, L	Unadjusted [index or absolute]	Indices: unadjusted; calendar adjusted	Indices: unadjusted; calendar adjusted
	Deadlines	S, M	As for size category L plus 15 days	As for size category L plus 15 days	As for size category L plus 15 days
		L	3 months	3 months	3 months
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000	First quarter (or month) 2000
130201 Producer prices (PRON) ( <sup>7</sup> ) 130202 Domestic producer prices (PRIN) ( <sup>7</sup> )	Level of detail	S	Total industry (NACE Sections B+C+D+ Division 36); MIGs; NACE sections [NACE Classes 07.21, 24.46, Groups 25.4, 30.1, 30.3, 30.4, Divisions 37, 38 and 39 excluded]	Total industry (NACE Sections B+C+D+ Division 36); MIGs; NACE sections; NACE Division 36 [NACE Classes 07.21, 24.46, Groups 25.4, 30.1, 30.3, 30.4, Divisions 37, 38 and 39 excluded]	Total industry (NACE Sections B+C+D+ Division 36); MIGs; NACE sections; NACE Division 36 [NACE Classes 07.21, 24.46, Groups 25.4, 30.1, 30.3, 30.4, Divisions 37, 38 and 39 excluded]
130203 Non-domestic producer prices (PREN) ( <sup>7</sup> )		М	As for size category S Additionally: NACE divisions	As for size category S Additionally: NACE divisions	As for size category S Additionally: NACE divisions
		L	As for size category M Additionally: NACE groups and classes representing at least 90 % of total value added of NACE Section C	As for size category M Additionally: NACE groups and classes representing at least 90 % of total value added of NACE Section C	As for size category M Additionally: NACE groups and classes representing at least 90 % of total value added of NACE Section C

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
	Periodicity	S, M, L	Month	Month	Month
	Form	S, M, L	Unadjusted [index]	Indices: unadjusted	Indices: unadjusted
	Deadlines	S, M	As for size category L plus 15 days	1 month	1 month
		L	1 month and 15 days (plus 15 days for NACE groups and classes), except for variables output prices of the domestic market (A-311) and output prices of the non-domestic market (A-312): 1 month and 5 days (plus 15 days for NACE groups and classes)		
	First reference period	S, M, L	January 2000	January 2005	January 2005
130204 Non-domestic producer	Level of detail	5	Total industry (NACE Sections B+C+D+ Division 36);	Total industry (NACE Sections B+C+D+ Division 36);	Total industry (NACE Sections B+C+D+ Division 36);
prices (euro area) (optional for non-euro	(only euro area)		MIGs; NACE sections	MIGs; NACE sections;	MIGs; NACE sections:
area countries)	u.cu,		NACE Sections [NACE Classes 07.21, 24.46, Groups	NACE Sections; NACE Division 36	NACE Sections; NACE Division 36
(PREZ) ( <sup>3</sup> )( <sup>7</sup> ) 130205 Non-domestic producer prices (non-euro area) (optional for non-euro area countries) (PREX) ( <sup>3</sup> )( <sup>7</sup> )			25.4, 30.1, 30.3, 30.4, Divisions 37, 38 and 39 excluded]	[NACE Classes 07.21, 24.46, Groups 25.4, 30.1, 30.3, 30.4, Divisions 37, 38 and 39 excluded]	[NACE Classes 07.21, 24.46, Groups 25.4, 30.1, 30.3, 30.4, Divisions 37, 38 and 39 excluded]
		M, L	As for size category S Additionally: NACE divisions	As for size category S Additionally: NACE divisions	As for size category S Additionally: NACE divisions
	Periodicity	S, M, L	Month	Month	Month
	Form	S, M, L	Unadjusted [index]	Indices: unadjusted	Indices: unadjusted
	Deadlines	S, M	As for size category L plus 15 days	1 month	1 month
	(only euro area)	L	1 month and 15 days		
	First reference period	S, M, L	January 2005	January 2005	January 2005

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
130101 Import prices (optional for non-euro area countries and countries applying the European sampling schemes) (IMPR) ( <sup>3</sup> )( <sup>7</sup> )	Level of detail (only euro area)	5	Total industry (CPA Sections B+C+D); MIGs; CPA sections [CPA 07.21, 09, 18, 24.46, 25.4, 30.1, 30.3, 30.4, 33, 36, 37, 38 and 39 excluded]	Total industry (CPA Sections B+C+D); MIGs; CPA sections [CPA 07.21, 09, 18, 24.46, 25.4, 30.1, 30.3, 30.4, 33, 36, 37, 38 and 39 excluded]	Total industry (CPA Sections B+C+D); MIGs; CPA sections [CPA 07.21, 09, 18, 24.46, 25.4, 30.1, 30.3, 30.4, 33, 36, 37, 38 and 39 excluded]
130102		M, L	As for size category S Additionally: CPA divisions	As for size category S Additionally: CPA divisions	As for size category S Additionally: CPA divisions
Import prices (euro	Periodicity	S, M, L	Month	Month	Month
area) (optional for non- euro area countries and	Form	S, M, L	Unadjusted [index]	Indices: unadjusted	Indices: unadjusted
countries applying the European sample schemes) (IMPZ) ( <sup>3</sup> )( <sup>7</sup> )	Deadlines (only euro area)	S, M L	As for size category L plus 15 days 1 month and 15 days	1 month and 15 days	1 month and 15 days
130103 Import prices (non-euro area) (optional for non- euro area countries)) (IMPX) ( <sup>3</sup> )( <sup>7</sup> )	First reference period	S, M, L	January 2006	January 2006	January 2006

(1) Alphabetical codes (for example, PROD, TOVT) as used in the processing environment are not subject of the legal basis.

(<sup>2</sup>) Days referred to under the heading of deadlines refer to calendar days.

(3) For new members of the euro area, the variables: 130101 (import prices), 130102 (import prices (euro area)), 130103 (import prices (non-euro area)), 130204 (non-domestic producer prices (euro area)), 130205 (non-domestic producer prices (non-euro area)), 140304 (non-domestic net turnover (value) (euro area)) and 140305 (non-domestic net turnover (value) (non-euro area)) are required from the beginning of the year of the entry into the euro area.

(4) Use of approximations and quality requirements: number of employees and self-employed persons may be approximated by the number of employees.

(<sup>5</sup>) The codes A-120, A-121 and A122 stem from the old STS Regulation (Annex A).

(<sup>6</sup>) If monthly data are provided (on a voluntary basis), these data are to be transmitted on a monthly basis.

(7) Scope of data provision limited by European sampling schemes for specific countries.

# Construction

<u>Scope:</u> applies to all activities listed in Section F of NACE respectively and to all products in the equivalent CPA section. <u>Statistical unit and base year (BY):</u>

- KAU (revised definition plus operational rules) and 2015 BY: reference periods until December/Q4 2020 (STS Regulation);
- KAU (revised definition plus operational rules) and 2015 BY: reference periods January/Q1 2021 to December/Q4 2023 (EBS Regulation);
- KAU (revised definition plus operational rules) and 2021 BY: January/Q1 2024 onwards (EBS Regulation).

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
140101	Level of	S	Total construction (NACE Section F)	Total construction (NACE Section F)	Total construction (NACE Section F)
Production (volume) (PROD) ( <sup>1</sup> )( <sup>2</sup> )	detail	M, L	As for size category S Additionally: production of building construction (B-115) for buildings (F_CC1), production of civil engineering (B-116) for civil engineering works (F_CC2)	As for size category S Additionally: NACE divisions <u>TRANSITIONAL ARRANGEMENTS</u> : As defined in Annex VII (3.b) of the EBS GIA — NACE divisions shall be broken down into the production of building construction (B-115; F_CC1) which can be approximated as the sum of NACE Divisions 41 and 43; the production of civil engineering (B-116; F_CC2) which can be approximated by NACE Division 42	As for size category S Additionally: NACE divisions
	Periodicity	S	Quarter (or month) ( <sup>3</sup> )	Quarter (or month)	Quarter (or month)
		м		Month	Month
		L	Month	Month	Month
	Form	S, M, L	Unadjusted and working-day adjusted [index]	Indices: unadjusted; calendar adjusted; seasonally adjusted	Indices: unadjusted; calendar adjusted; seasonally adjusted
	Deadlines	S	As for size category L plus 15 days (4)	2 months	2 months
		м	As for size category L plus 15 days	1 month and 15 days	1 month and 15 days
		L	1 month and 15 days		

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
	First	S	First quarter 2000 (or month 2005)	First quarter 2000 (or month 2005)	First quarter 2000 (or month 2005)
	reference period	м		January 2005	January 2005 for NACE Section F
	penou	L	January 2005	First month 2021 for NACE divisions	
120101 Number of employees	Level of detail	S, M, L	Total construction (NACE Section F)	Total construction (NACE Section F)	Total construction (NACE Section F)
and self-employed persons	Periodicity	S, M, L	Quarter (or month)	Quarter (or month)	Quarter (or month)
(EMPL) ( <sup>5</sup> )	Form	S, M, L	Unadjusted [index or absolute]	Indices: unadjusted	Indices: unadjusted
	Deadlines	S, M	As for size category L plus 15 days	As for size category L plus 15 days	As for size category L plus 15 days
		L	2 months	2 months	2 months
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000	First quarter (or month) 2000
120201 Hours worked by	Level of detail	S, M, L	Total construction (NACE Section F)	Total construction (NACE Section F)	Total construction (NACE Section F)
employees (HOWK)	Periodicity	S, M, L	Quarter (or month)	Quarter (or month)	Quarter (or month)
(nowk)	Form	S, M, L	Unadjusted (if available) and working- day adjusted [index or absolute]	Indices: unadjusted; calendar adjusted	Indices: unadjusted; calendar adjusted
	Deadlines	S, M	As for size category L plus 15 days	As for size category L plus 15 days	As for size category L plus 15 days
		L	3 months	3 months	3 months
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000	First quarter (or month) 2000
120301 Wages and salaries	Level of detail	S, M, L	Total construction (NACE Section F)	Total construction (NACE Section F)	Total construction (NACE Section F)
(WAGE)	Periodicity	S, M, L	Quarter (or month)	Quarter (or month)	Quarter (or month)
	Form	S, M, L	Unadjusted [index or absolute]	Indices: unadjusted; calendar adjusted	Indices: unadjusted; calendar adjusted
	Deadlines	S, M	As for size category L plus 15 days	As for size category L plus 15 days	As for size category L plus 15 days

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
		L	3 months	3 months	3 months
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000	First quarter (or month) 2000
	Level of detail	S, M, L	Sum of one-dwelling buildings (F_CC111) and two- and more dwelling buildings (F_CC112); in other words, residential buildings excluding residences for communities (F_CC 11 excl. F_CC113)	CPA 41.00.1 excl. 41.00.14 New buildings only	CPA 41.00.1 excl. 41.00.14 New buildings only
	Periodicity	S, M, L	Quarter (or month)	Quarter (or month)	Quarter (or month)
	Form	S, M, L	Unadjusted [index]	Indices: unadjusted	Indices: unadjusted
	Deadlines	S, M	As for size category L plus 15 days	As for size category L plus 15 days	As for size category L plus 15 days
		L	3 months	3 months	3 months
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000	First quarter (or month) 2000
150101	Level of detail	S, M, L	Sum of one-dwelling buildings (F_CC111) and two- and more dwelling buildings (F_CC112); in other words, residential buildings excluding residences for communities (F_CC 11 excl. F_CC113); One-dwelling buildings (F_CC111); Two- and more dwelling buildings (F_CC 112)	CPA 41.00.1 excl. 41.00.14; CPA 41.00.11; CPA 41.00.12+41.00.13 New residential buildings only	CPA 41.00.1 excl. 41.00.14; CPA 41.00.11; CPA 41.00.12+41.00.13 New residential buildings only
	Periodicity	S, M, L	Quarter (or month)	Quarter (or month)	Quarter (or month)
	Form	S, M, L	Unadjusted [absolute]	Absolute value: unadjusted; calendar adjusted; seasonally adjusted	Absolute value: unadjusted; calendar adjusted; seasonally adjusted
	Deadlines	S, M	As for size category L plus 15 days	3 months	3 months

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
		L	3 months		
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000	First quarter (or month) 2000
150102	Level of	S, M, L	Building (F_CC1);	CPA 41.00.1;	CPA 41.00.1;
Building permits —	detail		One-dwelling buildings (F_CC111);	CPA 41.00.1 excl. 41.00.14;	CPA 41.00.1 excl. 41.00.14;
square metre			Two- or more dwelling buildings	CPA 41.00.11;	CPA 41.00.11;
(PSQM)			(F_CC112);	CPA 41.00.12+41.00.13;	CPA 41.00.12+41.00.13;
			Residences for communities (F_CC113);	CPA 41.00.14;	CPA 41.00.14;
			Office buildings (F_CC122);	CPA 41.00.2;	CPA 41.00.2;
			Non-residential buildings, except office	CPA 41.00.2 excl. 41.00.23;	CPA 41.00.2 excl. 41.00.23;
			buildings (aggregate of F_CC121, F_CC123, F_CC124, F_CC125, F_CC126, F_CC127 = F_CC12 excl. F_CC122)	CPA 41.00.23	CPA 41.00.23
				New residential and non-residential buildings only	New residential and non-residential buildings only
	Periodicity	S, M, L	Quarter (or month)	Quarter (or month)	Quarter (or month)
	Form	S, M, L	Unadjusted [absolute]	Absolute value: unadjusted; calendar adjusted; seasonally adjusted	Absolute value: unadjusted; calendar adjusted; seasonally adjusted
	Deadlines	S, M	As for size category L plus 15 days	3 months	3 months
		L	3 months		
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000	First quarter (or month) 2000

(1) Alphabetical codes (for example, PROD, TOVT) as used in the processing environment are not subject of the legal basis.

(2) Transitional arrangements in Annex VII (3.b) of the EBS GIA: For reference periods before January 2024, the variable 140101 Production (volume) of Annex 1, Part B, Table 6 for NACE Section F shall be broken down by B-115 (B-115 can be approximated as the sum of Divisions 41 and 43) and B-116 (B-116 can be approximated by Division 42).

(<sup>3</sup>) If monthly data are provided (on a voluntary basis), these data are to be transmitted on a monthly basis.

(4) Days referred to under the heading of deadlines refer to calendar days.

(<sup>5</sup>) Use of approximations and quality requirements: number of employees and self-employed persons may be approximated by the number of employees.

(<sup>6</sup>) Use of approximations and quality requirements: the total construction costs (material costs and labour costs) can be used as a proxy for producer prices in construction (CPA 41.00.1 excl. 41.00.14). Costs that constitute components of the construction costs are also plant and equipment, transport, energy and other costs (excluding architect's fees).

# Wholesale and retail trade; repair of motor vehicles and motorcycles

Scope: applies to the all activities listed in Section G of NACE.

Statistical unit and base year (BY):

- Enterprise and 2015 BY: reference periods until December/Q4 2020 (STS Regulation);
- Enterprise may be used instead of KAU and 2015 BY: reference periods January/Q1 2021 to December/Q4 2023 (EBS Regulation);
- KAU (revised definition plus operational rules) and 2021 BY: January/Q1 2024 onwards (EBS Regulation).

The changeover from enterprise to KAU can be presented as a break in time series and not in the data before reference period January/Q1 2021.

The change of the statistical unit from the enterprise to KAU can be implemented with the change of the base year 2021 (in January/Q1 2024).

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
140201 Volume of sales (TOVV) 140301 Net turnover (value) (TOVT) ( <sup>1</sup> )	Level of detail	S, M, L M, L	Aggregate of NACE Class 47.11+Group 47.2; Aggregate of NACE Class 47.19+Groups 47.4 to 47.9; NACE Division 47; NACE Division 47 (excl. 47.3) As for size category S Additionally: NACE Classes 47.11, 47.19, 47.91; NACE Groups 47.2, 47.3; Aggregate of NACE Classes 47.73 to 47.75; Aggregate of NACE Classes 47.51, 47.71 and 47.72; Aggregate of NACE Classes 47.41, 47.42, 47.53, 47.61, 47.62, 47.64, 47.65, 47.76, 47.77 and 47.78;	Aggregate of NACE Class 47.11+ Group 47.2; Aggregate of NACE Class 47.19+Groups 47.4 to 47.9; NACE Division 47; NACE Division 47 (excl. 47.3); NACE Group 47.3 As for size category S Additionally: NACE groups in Section G; NACE Classes 47.11, 47.19, 47.91	Aggregate of NACE Class 47.11+Group 47.2; Aggregate of NACE Class 47.19+Groups 47.4 to 47.9; NACE Division 47; NACE Division 47 (excl. 47.3); NACE Group 47.3 As for size category S Additionally: NACE groups in Section G; NACE Classes 47.11, 47.19, 47.91
			Aggregate of NACE Classes 47.43, 47.52, 47.54, 47.59 and 47.63		
	Periodicity	S, M, L	Month	Month	Month
	Form	S, M, L	Unadjusted and working-day adjusted	Indices: unadjusted; calendar adjusted;	Indices: unadjusted; calendar adjusted;

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
			[index or absolute]	seasonally adjusted	seasonally adjusted
	Deadlines	S, M, L	1 month	1 month	1 month
		м	2 months and 15 days (²)	2 months	2 months
		L	2 months		
	First	S	January 2000	January 2000	January 2000
	reference			NACE Division 47;	NACE Division 47;
	period			NACE Division 47 (excl. 47.3);	NACE Division 47 (excl. 47.3);
				Aggregate of NACE Class 47.11+Group 47.2;	Aggregate of NACE Class 47.11+Group 47.2;
				Aggregate of NACE Class 47.19+Groups 47.4 to 47.9;	Aggregate of NACE Class 47.19+Groups 47.4 to 47.9;
				NACE Group 47.3	NACE Group 47.3
				Data before reference period 2021 need to be provided; the enterprise may be used instead of the KAU; when switching from the enterprise to the KAU, the data before reference period 2021 and after need to be linked	

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
		M, L		January 2000 NACE Division 47; NACE Division 47 (excl. 47.3); Aggregate of NACE Class 47.11+Group 47.2; Aggregate of NACE Class 47.19+Groups 47.4 to 47.9; NACE Groups 47.2, 47.3; NACE Classes 47.11, 47.19, 47.91 January 2021 NACE groups in Division 47 (except Groups 47.2 and 47.3) Data before reference period 2021 need to be provided; the enterprise may be used instead of the KAU; when switching from the enterprise to the KAU, the data before and after need to be linked	January 2000 NACE Division 47; NACE Division 47 (excl. 47.3); Aggregate of NACE Class 47.11+Group 47.2; Aggregate of NACE Class 47.19+Groups 47.4 to 47.9; NACE Groups 47.2, 47.3; NACE Classes 47.11, 47.19, 47.91 January 2021 NACE groups in Division 47 (except Groups 47.2 and 47.3)
140201	Level of	S	NACE Divisions 45, 46	NACE Section G and Divisions 45, 46	NACE Section G and Divisions 45, 46
Volume of sales (TOVV) — not collected under the STS Regulation, only under the EBS Regulation	detail	M L	NACE Division 45; NACE Group 45.2; Aggregate of NACE Groups 45.1, 45.3 and 45.4 (G45_X_G452); NACE groups in Division 46	As for size category S Additionally: NACE groups for Divisions 45 and 46	As for size category S Additionally: NACE groups for Divisions 45 and 46
Net turnover (value) (TOVT)	Periodicity	S, M, L	Quarter	Month	Month
	Form	S, M, L	Unadjusted (if available) and working- day adjusted [index or absolute]	Indices: unadjusted; calendar adjusted; seasonally adjusted	Indices: unadjusted; calendar adjusted; seasonally adjusted
	Deadlines	S, M, L	2 months	2 months	2 months

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
	First reference period	S, M, L	First quarter (or month) 2000	January 2021 or earlier for the already available data provided to Eurostat	January 2021 or earlier for the already available data provided to Eurostat
120101 Number of employees and self-employed persons	Level of detail	S, M, L	NACE Divisions 45, 46, 47; NACE Division 47 (excl. 47.3)	NACE Section G; NACE Divisions 45, 46, 47; NACE Division 47 (excl. 47.3)	NACE Section G; NACE Divisions 45, 46, 47; NACE Division 47 (excl. 47.3)
(EMPL) ( <sup>3</sup> )	Periodicity	S, M, L	Quarter	Quarter (or month) (4)	Quarter (or month)
	Form	S, M, L	Unadjusted [index or absolute]	Indices: unadjusted	Indices: unadjusted
	Deadlines	S, M	2 months and 15 days (NACE Division 47); 2 months (NACE Divisions 45, 46)	2 months and 15 days	2 months and 15 days
		L	2 months	2 months	2 months
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000 Data before reference period 2021 need to be provided; the enterprise may be used instead of the KAU; when switching from the enterprise to the KAU, the data before and after need to be linked	First quarter (or month) 2000
120201 Hours worked by employees (HOWK)	Level of detail	S, M, L	NACE Divisions 45, 46, 47	NACE Section G; NACE Divisions 45, 46, 47; NACE Division 47 (excl. 47.3)	NACE Section G; NACE Divisions 45, 46, 47; NACE Division 47 (excl. 47.3)
	Periodicity	S, M, L	Quarter	Quarter (or month)	Quarter (or month)
	Form	S, M, L	Unadjusted and working-day adjusted [index or absolute]	Indices: unadjusted; calendar adjusted	Indices: unadjusted; calendar adjusted
	Deadlines	S, M	3 months	3 months and 15 days	3 months and 15 days
		L		3 months	3 months

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
	First reference period	S, M, L	First quarter (or month) 2010	First quarter (or month) 2010, except for NACE Division 47 (excl. 47.3) first quarter (or month) 2021 Data before reference period 2021 need to be provided; the enterprise may be used instead of the KAU; when switching from the enterprise to the KAU, the data before and after need to be linked	First quarter (or month) 2010, except for NACE Division 47 (excl. 47.3) first quarter (or month) 2021
120301 Wages and salaries (WAGE)	Level of detail	S, M, L	NACE Divisions 45, 46, 47	NACE Section G; NACE Divisions 45, 46, 47; NACE Division 47 (excl. 47.3)	NACE Section G; NACE Divisions 45, 46, 47; NACE Division 47 (excl. 47.3)
	Periodicity	S, M, L	Quarter	Quarter (or month)	Quarter (or month)
	Form	S, M, L	Unadjusted [index or absolute]	Indices: unadjusted; calendar adjusted	Indices: unadjusted; calendar adjusted
	Deadlines	S, M	3 months	3 months and 15 days	3 months and 15 days
		L		3 months	3 months
	First reference period	S, M, L	First quarter (or month) 2010	First quarter (or month) 2010, except for NACE Division 47 (excl. 47.3) first quarter (or month) 2021 Data before reference period 2021 need to be provided; the enterprise may be used instead of the KAU; when switching from the enterprise to the KAU, the data before and after need to be linked	First quarter (or month) 2010, except for NACE Division 47 (excl. 47.3) first quarter (or month) 2021

(1) Alphabetical codes (for example, PROD, TOVT) as used in the processing environment are not subject of the legal basis.

(<sup>2</sup>) Days referred to under the heading of deadlines refer to calendar days.

(<sup>3</sup>) Use of approximations and quality requirements: number of employees and self-employed persons may be approximated by the number of employees.

(4) If monthly data are provided (on a voluntary basis), these data are to be transmitted on a monthly basis.

# Services

<u>Scope:</u> applies to all activities in NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N. <u>Statistical unit and base year (BY):</u>

- Enterprise and 2015 BY: reference periods until December/Q4 2020 and January/Q1 2021 to December/Q4 2023 (STS Regulation);
- Enterprise may be used instead of KAU and 2015 BY: reference periods January/Q1 2021 to December/Q4 2023 (EBS Regulation);
- KAU (revised definition plus operational rules) and 2021 BY: January/Q1 2024 onwards (EBS Regulation).

For services indicators, when the transitional arrangements set out in Annex VII (3.a) of the EBS GIA are applied, the requirements of the STS Regulation and its amendments will continue to apply until the reference period December/Q4 2023. Otherwise, the EBS requirements will apply.

The changeover from enterprise to KAU can be presented as a break in time series and not in the data before reference period January/Q1 2021.

The change of the statistical unit from the enterprise to KAU can be implemented with the change of the base year 2021 (in January/Q1 2024).

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
140101 Production (volume)	Level of detail	S, M, L	-	Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N;	Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N;
(PROD) ( <sup>1</sup> )( <sup>2</sup> )				NACE sections and divisions in Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N <u>TRANSITIONAL ARRANGEMENTS:</u> as defined in Annex VII (3.a) of the EBS GIA	NACE sections and divisions in Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N
				<ul> <li>the following are to be included:</li> <li>an aggregate of NACE Sections</li> <li>H+I+J+L+M (excl. 70.1, 72 and 75)+N;</li> </ul>	
				NACE sections and divisions in Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N	
	Periodicity	S, M, L	-	Month	Month
	Form	S, M, L	-	Indices: unadjusted; calendar adjusted; seasonally adjusted	Indices: unadjusted; calendar adjusted; seasonally adjusted
	Deadlines	S, M, L	-	2 months	2 months
	First reference period	S, M, L	-	January 2021 or earlier for the already available data provided to Eurostat	January 2021 or earlier for the already available data provided to Eurostat

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
	Level of detail	S, M, L	NACE divisions in Section H (Divisions 49, 50, 51, 52, 53); NACE Section I; NACE divisions in Section J (Divisions 58, 59, 60, 61, 62, 63); NACE divisions in Section M (Divisions 71, 73, 74), Aggregate of NACE Division 69 and Group 70.2; NACE divisions in Section N (Divisions	Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE sections and divisions in Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N <u>TRANSITIONAL ARRANGEMENTS:</u> as defined in Annex VII (3.a) of the EBS GIA — the following are to be included: an aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE sections and divisions in Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N	Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE sections and divisions in Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N
	Periodicity	S, M, L	78, 79, 80, Group 81.2, Division 82) Quarter	Month	Month
	Form	S, M, L	Unadjusted (if available) and working- day adjusted [index or absolute]	Indices: unadjusted; calendar adjusted; seasonally adjusted	Indices: unadjusted; calendar adjusted; seasonally adjusted
	Deadlines	S, M, L	2 months	2 months	2 months
	First reference period	S, M, L	First quarter (or month) 2000	January 2021 or earlier for the already available data provided to Eurostat	January 2021 or earlier for the already available data provided to Eurostat
120101 Number of employees and self-employed persons (EMPL) ( <sup>2</sup> )( <sup>3</sup> )	Level of detail	S, М 	Aggregate of NACE Division 69, Group 70.2, Divisions 71, 73 and 74; Aggregate of NACE Divisions 78, 79, 80, Group 81.2 and Section 82); NACE Sections H, I and J As for size categories S, M	Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE sections and divisions in Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N <u>TRANSITIONAL ARRANGEMENTS:</u> as defined in Annex VII (3.a) of the EBS GIA, NACE Section L, Division 77 and Groups 81.1 and 81.3 are to be included in their aggregates as of first quarter or month (optional) 2021 As for size categories S, M	Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE sections and divisions in Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N As for size categories S, M
			Additionally: NACE divisions in Sections H and J	Additionally: NACE divisions in Sections H, I, J	Additionally: NACE divisions in Sections H, I, J

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
	Periodicity	S, M, L	Quarter	Quarter (or month) ( <sup>4</sup> )	Quarter (or month) (4)
	Form	S, M, L	Unadjusted [index or absolute]	Indices: unadjusted	Indices: unadjusted
	Deadlines	S, M	2 months	As for size category L plus 15 days ( <sup>5</sup> )	As for size category L plus 15 days (⁵)
		L		2 months	2 months
	First reference period	S, M, L	First quarter (or month) 2000	First quarter (or month) 2000, except for NACE Section L, Division 77 and Groups 81.1 and 81.3 that are to be included in their aggregates as of first quarter (or month) 2021 Data before reference period 2021 need to be provided; the enterprise may be used instead of the KAU; when switching from the enterprise to the KAU, the data before and after need to be linked	First quarter (or month) 2000, except for NACE Section L, Division 77 and Groups 81.1 and 81.3 that are to be included in their aggregates as of first quarter (or month) 2021
120201 Hours worked by employees (HOWK) ( <sup>2</sup> ) 120301 Wages and salaries (WAGE) ( <sup>2</sup> )	Level of detail	S, M	NACE Sections H, I, J; Aggregate of NACE Division 69, Group70.2, Divisions 71, 73 and 74; Aggregate of NACE Divisions 78, 79, 80, Group 81.2 and Division 82	Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N <u>TRANSITIONAL ARRANGEMENTS:</u> as defined in Annex VII (3.a) of the EBS GIA, NACE Section L, Division 77 and Groups 81.1 and 81.3 are <u>to be included</u> in their aggregates as of first quarter or month (optional) 2021	Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N
		L		As for size categories S, M Additionally: NACE divisions in Sections H, I, J	As for size categories S, M Additionally: NACE divisions in Sections H, I, J
	Periodicity	S, M, L	Quarter	Quarter (or month)	Quarter (or month)
	Form	S, M, L	HOWK: unadjusted and working-day adjusted [index or absolute]	Indices: unadjusted; calendar adjusted	Indices: unadjusted; calendar adjusted

WAGE: unadjusted (if available)

#### Annexes

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
			[index or absolute]		
	Deadlines	S, M	3 months	As for size category L plus 15 days	As for size category L plus 15 days
		L		3 months	3 months
	First reference period	S, M, L	First quarter (or month) 2010	First quarter (or month) 2010, except for NACE Section L, Division 77 and Groups 81.1 and 81.3 that are to be included in their aggregates as of first quarter (or month) 2021 Data before reference period 2021 need to be provided; the enterprise may be used instead of the KAU; when switching from the enterprise to the KAU, the data before and after need to be linked	First quarter (or month) 2010, except for NACE Section L, Division 77 and Groups 81.1 and 81.3 that are to be included in their aggregates as of first quarter (or month) 2021
130201 Producer prices (PRON) ( <sup>2</sup> )( <sup>6</sup> )( <sup>7</sup> )	Level of detail	S, М L	NACE Group 49.4, Division 51, Group 52.1, Class 52.24, Groups 53.1, 53.2, Divisions 61, 62, 63, 71, 73, 78, 80, Group 81.2; Aggregate of NACE Groups 50.1 and 50.2; Aggregate of NACE Division 69 and Group 70.2 As for size categories Additionally: NACE Groups 63.1, 63.9	Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE sections and divisions in Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N <u>TRANSITIONAL ARRANGEMENTS:</u> as defined in Annex VII (3.a) of the EBS GIA, the following are <u>to be included:</u> aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N; NACE Divisions 49, 50, 52, 55, 56, 58, 59, 60, 68, 74, 77, 79, 81, 82	Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE sections and divisions in Sections H, I, J, L, M (excl. 70.1, 72 and 75) and N
	Periodicity	S, M, L	Quarter	Quarter	Quarter
	Form	S, M, L	Unadjusted [index]	Indices: unadjusted	Indices: unadjusted
	Deadlines	S, M, L	3 months	3 months	3 months

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements for the period January/Q1 2021 to December/Q4 2023 (EBS Regulation)	Requirements from January/Q1 2024 onwards (EBS Regulation)
	First reference period	S, M, L	First quarter (or month) 2006	First quarter (or month) 2010, except the following, first quarter (or month) 2021: Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE Divisions 49, 50, 52, 55, 56, 58, 59, 60, 68, 74, 77, 79, 81, 82 Data before reference period 2021 need to be provided; the enterprise may be used instead of the KAU; when switching from the enterprise to the KAU, the data before and after need to be linked	First quarter (or month) 2010, except the following, first quarter (or month) 2021: Aggregate of NACE Sections H+I+J+L+M (excl. 70.1, 72 and 75)+N; NACE Divisions 49, 50, 52, 55, 56, 58, 59, 60, 68, 74, 77, 79, 81, 82

(1) Alphabetical codes (for example, PROD, TOVT) as used in the processing environment are not subject of the legal basis.

(<sup>2</sup>) Transitional arrangements: If major adaptations of the national production system are necessary, the data for reference periods starting from January/1st Quarter 2021 to December/4th Quarter 2023 can be sent after the data transmission deadlines specified in Tables 2, 3, 5, 6 and 8, but not later than the transmission deadlines set in the Tables 2, 3, 5, 6 and 8 for the reference periods January/1st Quarter 2024; EBS GIA Annex VII 3.a.
 (<sup>3</sup>) Use of approximations and quality requirements: number of employees and self-employed persons may be approximated by the number of employees.

(4) If monthly data are provided (on a voluntary basis), these data are to be transmitted on a monthly basis.

(5) Days referred to under the heading of deadlines refer to calendar days.

(<sup>6</sup>) Use of approximations and quality requirements: indices based on actual producer prices are preferable. If those are not available, approximations may be used for Divisions 49, 50, 52, 55, 56, 58, 59, 60, 68, 74, 77, 79, 81 and 82. Products (CPA) may be used to approximate economic activities (NACE).

(<sup>7</sup>) Services producer price indicators (SPPIs) are business-to-all (B2All). Where the share of transactions with private consumers (B2C) is negligible, SPPIs may be approximated by business-to-business (B2B) indicators. For reference periods before 2021, SPPIs may be approximated by B2B indicators instead of B2All indicators.

# Short-term business statistics for the business population

<u>Scope:</u> applies to all market activities listed in NACE Sections B to N and P to R and Divisions 95 and 96. <u>Statistical unit:</u> legal unit

Variable	Data elements	Size category	Requirements until December/Q4 2020 (STS Regulation)	Requirements from January/Q1 2021 onwards (EBS Regulation)
110101 Registrations	Level of detail	S, M, L	_	Aggregates — NACE Sections B+C+D+E; NACE Sections K+L+M+N; NACE Sections P+Q+R+Divisions 95+96; NACE Sections F, G, H, I and J;
110102 Bankruptcies				Special aggregate as defined in Annex II.B of the EBS GIA: industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies)
	Periodicity	S, M, L	-	Quarter
	Form	S, M, L	-	Absolute value: unadjusted
	Deadlines	S, M, L	-	40 days
	First reference period	S, M, L	-	First quarter 2021

## SECTION 2 — EBS GIA NEW REQUIREMENTS (DELTAS) — TABLES

Variables **Changes** Title Old title (if different) Change in definition Other change Number of active Number of enterprises New definition = old definition plus enterprises enterprises that only produce output or perform investments without having turnover or employment Number of employees Number of persons and self-employed employed persons Number of employees Number of employees in full-time equivalent units Hours worked by \_ \_ \_ employees Employee benefits Personnel costs \_ \_ expense Wages and salaries \_ \_ \_ Social security costs \_ \_ \_ Total purchases of \_ goods and services New definition = old Turnover Net turnover definition minus excise duties and other taxes on products linked to turnover but not deductible Gross margin on 1%-rule may be \_ goods for resale applied for NACE Sections B to E Value of output Production value New definition = old definition plus income from product- or turnover-related subsidies *minus* other operating income (except income from product-or turnoverrelated subsidies) minus excise duties and other taxes on products linked to turnover but not deductible

Table 10: country-level business statistics on activities of enterprises

	Value added Gross operating surplus Gross investment in	Value added at factor cost - Gross investment in	New definition = old definition <i>minus</i> other operating income adjusted with income from product- or turnover-related subsidies and, if necessary, with capitalised output <i>plus</i> other operating expenses than amortization expense Same changes as for value added	-		
	tangible non-current	tangible goods				
	assets					
	Gross investment in	Gross investment in	Definition is wider, but	1%-rule may be		
	intangible non-current	concessions, patents,	easier to collect from	applied for NACE		
	assets, other than goodwill	licenses and trademarks and similar rights	financial statements	Sections B to E		
	Sales proceeds of tangible investments	-	-	1%-rule may be applied for NACE Sections B to E		
	Simplification		1			
	Deletion of environmental protection expenditure variables for NACE Sections B to E (except for					
		39), as they are covered	-			
	• The variable for the number of retail stores for NACE Division 47 is discontinued.					
	<ul> <li>All sector-specific variables for insurance services, credit institutions and pension funds are discontinued.</li> </ul>					
Statistical unit	The data on KAUs for NA	CE Sections B to F are dis	continued.			
Statistical	Additional activities to be					
population	For all variables:					
	• NACE Groups 64.2, 64.3, 64.9 and Division 66;					
	NACE Sections P, Q and R;					
	NACE Division 96. For hours worked by employees:					
	Also NACE Rev.2 Sec	•				
Breakdowns	New data requirements					
			gible non-current assets, o	other than goodwill; sales		
	<ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-</li> </ul>					
	<ul> <li>territorial organisations and bodies);</li> <li>Services (except public administration, defence, compulsory social security, activities of membership organisations, households as employers and extra-territorial organisations and</li> </ul>					
	bodies). For the variables: number of active enterprises; number of employees and self-employed persons; number of employees; wages and salaries; net turnover; value added					
	New special aggregates:					
	Cultural and creative					
	Cultural and creative     Simplification	e sectors — services.				
	Simplification For the variables: gross in	vestment in intanoible n	on-current assets, other t	han qoodwill: sales		
			down simplified from NAC			
	(no longer required) to N/			J		
Data	Simplification			_		
transmission deadline	For NACE Classes 64.11 a preliminary data that are		18 months instead of 10 r	nonths, except for the		

Table 11: country-level business statistics on activities of enterprises broken down by size classes or broken down by legal form

Title	Old title (if different)	Change in definition	Other change
Number of active	Number of enterprises	New definition = old	-
enterprises		definition <i>plus</i>	
		enterprises that only	
		produce output or	
		perform investments	
		without having turnover	
		or employment	
Number of employee	s Number of persons	-	-
and self-employed	employed		
persons			
Number of employee	·s –	-	-
Hours worked by	-	-	-
employees			
Employee benefits	Personnel costs	-	-
expense			
Wages and salaries	-	-	-
Social security costs	-	-	-
Total purchases of	-	-	-
goods and services			
Net turnover	Turnover	New definition = old	_
		definition minus excise	
		duties and other taxes	
		on products linked to	
		turnover but not	
		deductible	
Value of output	Production value	New definition = old	-
		definition <i>plus</i> income	
		from product- or	
		turnover-related	
		subsidies <i>minus</i> other	
		operating income	
		(except income from	
		product-or turnover-	
		related subsidies) minus	
		excise duties and other	
		taxes on products linked	
		to turnover but not	
		deductible	
Value added	Value added at factor	New definition = old	-
	cost	definition minus other	
		operating income	
		adjusted with income	
		from product- or	
		turnover-related	
		subsidies and, if	
		necessary, with	
		capitalised output plus	
		other operating	
		expenses than	
		amortization expense	
Gross operating	-	Same changes as for	-
surplus		value added	

	Simplification
	• Deletion of environmental protection expenditure variables for NACE Sections B to E (except for
	Divisions 37, 38 and 39), as they are covered in other EU legislation.
	Size class breakdown for the variables payments to subcontractors and income from
	subcontracting for NACE Section F are discontinued.
	Breakdowns of sector-specific variables for insurance services, credit institutions and pension funds
	are discontinued.
Statistical	Additional activities to be covered
population	For all variables:
	• NACE Groups 64.2, 64.3, 64.9 and Division 66;
	NACE Sections P, Q and R;
	NACE Division 96.
Breakdowns	New data requirements
	Breakdown by activity and size class for the number of employees and self-employed persons
	Additional size class breakdown:
	• 0-1, 2-9 for NACE Section F for the variables: number of active enterprises; number of
	employees and self-employed persons.
	Simplification of size class breakdown:
	• 0-9 instead of 0-1 and 2-9 for NACE Sections G to N and Division 95 for variables other than:
	number of active enterprises; number of employees and self-employed persons.
	New special aggregates:
	Industry, construction and services (except public administration, defence, compulsory social
	security, activities of membership organisations, activities of households as employers and
	extra-territorial organisations and bodies).
	Breakdown by activity and size class for the number of employees and breakdown by activity and
	legal form
	New activity breakdown:
	<ul> <li>NACE Divisions 20 and 21 separately instead of NACE Divisions 20+21.</li> </ul>
	New special aggregates for the activity breakdown:
	Industry, construction and services (except public administration, defence, compulsory social
	security, activities of membership organisations, activities of households as employers and
	extra-territorial organisations and bodies);
	Services (except public administration, defence, compulsory social security, activities of
	membership organisations, households as employers and extra-territorial organisations and
	bodies).
Data	New data requirements
transmission	Preliminary data (t+10 months) for the breakdown by activity and size class of the number of
deadline	employees and self-employed persons for the variables: number of active enterprises; number of
	employees and self-employed persons; net turnover.

	New title	Old title (if different)
	Enterprise births	Number of births of enterprises in <i>t</i>
	Enterprise deaths	Number of deaths of enterprises in t
	Enterprise survivals	Number of enterprises newly born in $t-1$ (, $t-5$ having survived to $t$
	Number of enterprises having at least one employee	Population of active enterprises having at least one employee in <i>t</i>
	Enterprises having the first employee	Number of active enterprises that have the first employee in <i>t</i>
	Enterprises having no employees anymore	Number of enterprises having no employees anymore in <i>t</i>
	Survivals of enterprises having at least one employee	Number of enterprises that had the first employee in $t-1$ (, $t-5$ ) and that had also at least one employee in $t$
	Number of employees and self-employed persons in newly born enterprises	Number of persons employed in the population of births in <i>t</i>
	Number of employees in newly born enterprises	Number of employees in the population of birthe in <i>t</i>
	Number of employees and self-employed persons in enterprise deaths	Number of persons employed in the population of deaths in <i>t</i>
	Number of employees in enterprise deaths	Number of employees in the population of deaths in <i>t</i>
	Number of employees and self-employed persons in enterprise survivals	Number of persons employed in the population of enterprises newly born in <i>t</i> -1 (, <i>t</i> -5) having survived to <i>t</i>
	Number of employees and self-employed persons in enterprise survivals, in the year of birth	Number of persons employed in the year of birth in the population of enterprises newly born in $t-1$ (, $t-5$ ) having survived to $t$
	Number of employees and self-employed persons in enterprises having at least one employee	Number of persons employed in <i>t</i> in the population of active enterprises having at least one employee in <i>t</i>
	Number of employees in enterprises having at least one employee	Number of employees in <i>t</i> in the population of active enterprises having at least one employee in <i>t</i>
	Number of employees and self-employed persons in enterprises having the first employee	Number of persons employed in <i>t</i> in the population of enterprises that have the first employee in <i>t</i>
	Number of employees in enterprises having the first employee	Number of employees in <i>t</i> in the population of enterprises that have the first employee in <i>t</i>
	Number of employees and self-employed persons in enterprises having no employees anymore	Number of persons employed in <i>t</i> in the population of enterprises that have no employees anymore in <i>t</i>
	Number of employees in enterprises having no employees anymore	Number of employees in <i>t</i> in the population of enterprises that have no employees anymore in <i>t</i>
	Number of employees and self-employed persons in survivals of enterprises having at least one employee	Number of persons employed in $t$ in the population of enterprises that had the first employee in $t-1$ (, $t-5$ ) and that had also at least one employee in $t$
	Number of employees and self-employed persons in survivals of enterprises having at least one employee, in the year of birth	Number of persons employed in $t-1$ (, $t-5$ ) in the population of enterprises that had the first employee in $t-1$ and that had also at least one employee in $t$
Statistical population	Additional activities to be covered For all variables: • NACE Sections P, Q and R;	
	<ul> <li>NACE Divisions 95 and 96.</li> </ul>	

Table 12: country-level business statistics on demographic events for enterprises

Breakdown by activity and size class for the number of employees and breakdown by activity and legal form New activity breakdown: • NACE Divisions 20 and 21 separately instead of NACE Divisions 20+21.
<ul> <li>New special aggregates for the activity breakdown:</li> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies);</li> </ul>
<ul> <li>Services (except public administration, defence, compulsory social security, activities of membership organisations, households as employers and extra-territorial organisations and bodies).</li> </ul>

	ry-level business statistics on high-growth ente	erprises			
Variables	New data requirements				
	Number of young high-growth enterprises;				
	Number of employees in young high-grow	vth enterprises.			
	<u>Changes</u>				
	New title	Old title			
	Number of high-growth enterprises	Number of high growth enterprises measured in employment in <i>t</i>			
	Number of employees in high-growth enterprises	Number of employees in the population of high growth enterprises measured in employment in t			
Statistical	New activities to be covered				
population	For all variables:				
	<ul> <li>NACE Sections P, Q and R;</li> <li>NACE Divisions 95 and 96.</li> </ul>				
Breakdowns	New data requirements				
	New special aggregates:				
	<ul> <li>Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies);</li> </ul>				
	<ul> <li>Services (except public administration, defence, compulsory social security, activities of membership organisations, households as employers and extra-territorial organisations and bodies).</li> </ul>				

 Table 13: country-level business statistics on high-growth enterprises

	Title	Old title (if different)	Change in definition
	Number of active enterprises/number of foreign controlled enterprises	Number of enterprises	New definition = old definition <i>plus</i> enterprises that only produce output or perform investments without having turnover or employment
	Number of employees and self- employed persons (in foreign- controlled enterprises)	Number of persons employed	-
	Number of employees (in foreign-controlled enterprises)	-	-
	Employee benefits expense (in foreign-controlled enterprises)	Personnel costs	-
	Intramural R&D expenditure (in foreign-controlled enterprises) R&D personnel (in foreign-	-	-
	controlled enterprises) Total purchases of goods and	-	-
	services (of foreign-controlled enterprises)		
	Total purchases of goods and services for resale (of foreign- controlled enterprises)	Total purchases of goods and services for resale in the same condition as received	-
	Net turnover (of foreign- controlled enterprises)	Turnover	New definition = old definition <i>minus</i> excise duties and other taxes on products linked to turnover but not deductible
	Value of output (of foreign- controlled enterprises)	Production value	New definition = old definition <i>plus</i> income from product- or turnover-related subsidies <i>minus</i> other operating income (except income from product-or turnover-related subsidies) <i>minus</i> excise duties and othe taxes on products linked to turnover but not deductible
	Value added (of foreign- controlled enterprises)	Value added at factor cost	New definition = old definition <i>minus</i> other operating income adjusted with income from product- or turnover-related subsidies and, if necessary, with capitalised output <i>plus</i> other operating expenses than amortization expense
	Gross investment in tangible non-current assets (of foreign- controlled enterprises)	Gross investment in tangible goods	-
atistical pulation	<ul> <li><u>New activities to be covered</u></li> <li>For all variables, except intramura</li> <li>NACE Sections P, Q and R;</li> <li>NACE Divisions 95 and 96.</li> </ul>	R&D expenditure and R&D persor	nnel:

Table 14: country-level business statistics on enterprises by country of ultimate control

Breakdowns	Simplification				
	Activity breakdown:				
	New requirements	Old requirements			
	NACE Divisions 10+11+12	instead of NACE Divisions 10, 11 and 12 separately			
	NACE Divisions 13+14+15	instead of NACE Divisions 13, 14 and 15 separately			
	NACE Divisions 16+17+18	instead of NACE Divisions 16, 17 and 18 separately			
	NACE Divisions 22+23	instead of NACE Divisions 22 and 23 separately			
	NACE Divisions 24+25	instead of NACE Divisions 24 and 25 separately			
	NACE Divisions 29+30	instead of NACE Divisions 29 and 30 separately			
	NACE Divisions 31+32	instead of NACE Divisions 31 and 32 separately			
	NACE Section E	instead of NACE divisions within Section E			
	NACE Section F	instead of NACE groups within Section F			
	NACE Section G	instead of NACE groups within Section G			
	NACE Division 49	instead of NACE groups within Division 49			
	NACE Divisions 52+53	instead of NACE Divisions 52 and 53 separately			
	NACE Division 55	instead of NACE groups within Division 55			
	NACE Division 56	instead of NACE groups within Division 56			
	NACE Division 58	instead of NACE groups within Division 58			
	NACE Divisions 59+60	instead of NACE divisions 59 and 60 separately			
	NACE Divisions 62+63	instead of NACE Division 62 and NACE groups within			
		Division 63 separately			
	NACE Section K	instead of NACE divisions within Section K			
	NACE Divisions 69+70+71	instead of NACE Divisions 69, 70 and 71 separately			
	NACE Divisions 73+74+75	instead of NACE Divisions 73, 74 and 75separately			
	NACE Division 77	instead of NACE groups within Division 77			
	NACE Divisions 78+79+80+81+82	instead of NACE Divisions 78, 79, 80, 81 and 82			
		separately			
	NACE Divisions 95+96	instead of NACE Division 95			
	New data requirements				
	New special aggregates:				
		s (except public administration, defence, compulsory social			
		organisations, activities of households as employers and extra			
	territorial organisations and bodies);				
	-	tion, defence, compulsory social security, activities of			
	membership organisations, households as employers and extra-territorial organisations and				
	bodies).				

 Table 15: country-level business statistics on foreign-controlling enterprises and domestic affiliates active in the reporting country

New data requirements.

Table 16: countr	v-level business	statistics on	trade in	aoods by	enterprise	characteristics
Tuble 10. countri	y .c.vc. busincss	Statistics on	u uuc III	goods by	cificipiise	cilalacteristics

Breakdowns	New data requirements
	Additional breakdowns:
	trade by activity;
	• trade by activity and type of control;
	trade by activity and export intensity;
	• trade by partner countries and for the number of employees and self-employed persons.
Data	<i>t</i> +12 months instead of <i>t</i> +18 months.
transmission	
deadline	

Table 17: country-level business statistics on trade in services by enterprise characteristics (STEC) — annual data New data requirements.

Breakdowns	<u>Changes</u>
	Changes to size class breakdown:
	• from number of employees to number of employees and self-employed persons;
	merge the following size classes (previously required separately):
	$\circ$ 0 and 1-9;
	• 250-499 and 500+.
	Changes to activity breakdown:
	• the following NACE aggregates are discontinued:
	• NACE Divisions 35+36;
	• NACE Divisions 37+38+39;
	• NACE Divisions 84+85;
	• NACE Divisions 94+95+96+97+98+99.
	• the following NACE codes and NACE aggregates are required:
	• NACE Division 35;
	• NACE Divisions 36+37+38+39;
	• NACE Divisions 58+59+60;
	• NACE Divisions 69+70+71;
	• NACE Divisions 73+74+75;
	• NACE Division 84;
	• NACE Division 85;
	• NACE Divisions 94+95+96;
	• NACE Divisions 97+98;
	• NACE Division 99.

Table 18: country-level business statistics on intramural R&D expenditure

Breakdowns	<u>Changes</u>
	Changes to size class breakdown:
	<ul> <li>from number of employees to number of employees and self-employed persons;</li> </ul>
	merge the following size classes (previously required separately):
	• 0 and 1-9;
	<ul> <li>250-499 and 500+.</li> </ul>
	Changes to activity breakdown:
	the following NACE aggregates are discontinued:
	• NACE Divisions 35+36;
	• NACE Divisions 37+38+39;
	• NACE Divisions 84+85;
	• NACE Divisions 94+95+96+97+98+99.
	the following NACE codes and NACE aggregates are required:
	• NACE Division 35;
	• NACE Divisions 36+37+38+39;
	• NACE Divisions 58+59+60;
	• NACE Divisions 69+70+71;
	• NACE Divisions 73+74+75;
	• NACE Division 84;
	• NACE Division 85;
	• NACE Divisions 94+95+96;
	• NACE Divisions 97+98;
	• NACE Division 99.

## Table 19: country level business statistics on employment in R&D

Table 20: country-level statistics on publicly funded R&D No change.

Variables	<u>Changes</u>				
	New title	Old title (if different)	Other changes		
	Purchases of goods and	Purchases of goods and	-		
	services for resale	services for sale in the same			
		condition as received			
	Expenses on services provided	Payments for agency workers	-		
	through agency workers Expenses of long-term rental	Payments for long-term rental	1%-rule may additionally be		
	and operating leases	and operational leasing	applied for activities in NACE Sections B to E		
	Purchases of energy products	-	1%-rule may additionally be applied for activities in NACE Sections B to E		
	Payments to subcontractors	-	1%-rule may additionally be applied for activities in NACE Sections B to E		
Statistical	Additional activities to be covered				
population	For the variable purchases of goods and services for resale:				
	NACE Sections P to R and Division 96.				
	For the variable expenses on services provided through agency workers:				
	NACE Sections K, P to R and D	Division 96.			
Breakdowns	New data requirements For the variables: purchases of go agency workers New special aggregates:	ods and services for resale; expen	ses on services provided through		
	Industry, construction and ser		n, defence, compulsory social ouseholds as employers and extra-		
	<ul> <li>Services (except public administration, defence, compulsory social security, activities of membership organisations, households as employers and extra-territorial organisations and bodies).</li> </ul>				
	Simplification For the variables: expenses of long activity breakdown simplified from and division levels.		ses; payments to subcontractors — longer required) to NACE section		

Table 21: country-level business statistics on purchases by enterprises

Variables	<u>Changes</u>		
	New title	Old title (if different)	Other changes
	Change in stock of goods	Change in stocks of goods and services	1%-rule may be applied
	Change in stock of finished goods and work-in-progress	Change in stocks of finished products and work in progress manufactured by the unit	-
	Change in stock of goods for resale	Change in stocks of goods and services purchased for resale in the same condition as received	1%-rule may be applied
Breakdowns	5	k of goods; change in stock of good m NACE group and class levels (no	

Table 22: country-level business statistics on changes in stock of enterprises

 Table 23: country-level business statistics on product and residence of client breakdown of net turnover of enterprises

Variables	<u>Changes</u>		
	New title	Old title	Other changes
	Net turnover	Turnover	1%-rule may be applied for the breakdowns
Statistical population	Simplification The product breakdown for NA years) is discontinued.	CE Divisions 45, 46 and 47 (tha	at was previously required every five

Variables	<u>Changes</u>		
	New title	Old title	Other changes
	Net turnover	Turnover	1%-rule may also be applied
			for NACE Sections B to E
Breakdowns	Simplification Activity breakdown simplifi and division levels.	ed from NACE group and class leve	els (no longer required) to NACE sectio

 Table 24: country-level business statistics on broad activity regroupings breakdown of net turnover of enterprises

Variables	<u>Changes</u>		
	New title	Old title	Other changes
	Net turnover	Turnover	1%-rule may also be applied
			for NACE Sections B to E
Breakdowns	Simplification For the variable net turnover fr and class levels (no longer requ		oreakdown simplified from NACE group sion levels.

## Table 25: country-level business statistics on type of turnover breakdown of enterprises

Table 26: country	Table 26: country-level business statistics on industrial production	
Variables	New data requirements	
	Production under subcontracted operations	
Statistical unit	KAU instead of enterprise	
Use of approximations and quality requirements	No explicit reference anymore to the coverage (in percentage terms) of the production value.	

Table 26: country-level business statistics on industrial production

Table 27: country	y-level business statistics on investments in tangible non-current assets by enterprises
Variables	Simplification
	• 1%-rule may be applied to all variables except for gross investment in machinery and equipment
	1%-rule may also be applied for NACE Sections B to E
Statistical	New activities to be covered
population	For the variable gross investment in machinery and equipment:
	NACE Sections H to N and P to R;
	NACE Divisions 95 and 96.
Breakdowns	New data requirements
	For the variable gross investment in machinery and equipment:
	New special aggregate
	• Industry, construction and services (except public administration, defence, compulsory social security, activities of membership organisations, activities of households as employers and extra-territorial organisations and bodies).
	Simplification
	For the variables: gross investment in land; gross investment in the acquisition of existing buildings and structures; gross investment in construction and improvement alteration of buildings — activity breakdown simplified from NACE group and class levels (no longer required) to NACE section and division levels.

Table 27: country-level business statistics on investments in tangible non-current assets by enterprises

Table 28; country-level business statistics on investment in intangible non-current assets		
Variables	1%-rule may also be applied for NACE Sections B to E	
Breakdowns	Simplification	
	Simplified from NACE group and class levels (no longer required) to NACE section and division levels.	

Table 28; country-level business statistics on investment in intangible non-current assets

## Table 29: regional business statistics on local units

Variables	<u>Changes</u>				
	New title	Old title			
	Number of employees and self-employed	Number of persons employed			
	persons in local units				
	Wages and salaries in local units	Wages and salaries			
	Simplification Turnover for NACE Divisions 45 and 47 and sales space for NACE Division 47 (that was previously required every five years) is discontinued.				
Statistical	Additional activities to be covered				
population	For all variables:				
	NACE Section K (other than for the number of local units);				
	NACE Sections P to R;				
	NACE Division 95.				
Breakdowns	Simplification				
	Data for NACE Section G at NUTS level 3 (that was previously required every five years) is				
	discontinued.				

Table 30: regional business statistics on enterprisesNew data requirements.

Table 31: regional business statistics on R&D expenditureStatistical unitEnterprise instead of local unit

Table 32: regional business statistics on employment in R&DNew data requirements.

 Table 33: statistics on international activities — control by institutional units of the reporting country on enterprises

 abroad

Variables	<ul> <li><u>New data requirements</u></li> <li>Employee benefits expense in enterprises abroad ultimately controlled by institutional units of the reporting country</li> <li>Gross investment in tangible non-current assets of enterprises abroad ultimately controlled by institutional units of the reporting country</li> </ul>				
	<u>Changes</u>				
	Title		Id title (if different)	Change in definition	
	Number of enterprises abroad ultimately controlled by institutional units of the reporting country	Number of enterprises		New definition = old definition <i>plus</i> enterprises that only produce output or perform investments without having turnover or employment	
	Number of employees and self-employed persons in enterprises abroad ultimately controlled by institutional units of the reporting country	Number of persons employed Turnover		-	
	Net turnover of enterprises abroad ultimately controlled by institutional units of the reporting country			New definition = old definition minus excise duties and other taxes on products linked to turnover but not deductible	
Breakdowns	Simplification				
	Activity breakdown:				
	New requirements			requirements	
	NACE Divisions 13+14+15		instead of NACE Divisior separately	ns 13+14 and Division 15	
	NACE Divisions 16+17+18			ns 16, 17 and 18 separately	
	NACE Divisions 22+23	instead of NACE Divisior		ns 22 and 23 separately	
	NACE Divisions 24+25		instead of NACE Division	ns 24 and 25 separately	
	NACE Divisions 29+30	instead of NACE Divisior		ns 29 and 30 separately	
	NACE Divisions 31+32 and Divisions separately	on 33	instead of NACE Divisior	ıs 31+32+33	
	NACE Section E		instead of NACE Divisior separately	1 36 and Divisions 37+38+39	
	NACE Divisions 52+53		instead of NACE Divisior	ns 52 and 53 separately	
	NACE Divisions 59+60		instead of NACE Divisior		
	NACE Divisions 62+63	instead of NACE Divisior			
	NACE Section K		instead of NACE Group 6 and 66 separately	64.2 and NACE Divisions 64, 65	
	NACE Divisions 69+70+71	instead of NACE Groups Division 71 separately		69.1, 69.2, 70.1, 70.2 and NACE	
	NACE Divisions 73+74+75		instead of NACE Groups 74+75 separately	73.1, 73.2 and NACE Divisions	
	NACE Division 86 and Divisions 8 separately	7+88	instead of NACE Section	Q	
	NACE Section R	instead of NACE Division separately		ns 90, 91 and Divisions 92+93	
	NACE Section S			ns 94 and Divisions 95+96	

Use of	For the activities of NACE Groups 64.2, 64.3 and 65.3 which are economically not significant in term	
approximations	of value added and number of employees and self-employed persons, zero (0) values may be	
and quality	assumed except for the variables number of enterprises abroad ultimately controlled by institutional	
requirements	units of the reporting country and number of employees and self-employed persons in enterprises	
	abroad ultimately controlled by institutional units of the reporting country. Additional approximations for the activities in NACE Section K may be agreed between the Commission (Eurostat) and the EU Member States.	

Table 34: statistics on international activities — intra-Union trade in goods — detailed data No changes.

Table 35: statistics on international activities — extra-Union imports and exports of goods — detailed data No changes.

Table 36: statistics on international activities — exports and imports of goods — aggregated data No changes.

	cs on international activities — extra-Union exports and imports of goods by invoicing currency
Breakdowns	New data requirements
	Invoicing currency breakdown:
	If data sources other than customs declarations are used, the invoicing currency breakdown shall be:
	other national currencies of non-euro area Member States;
	pound sterling.
	If customs declarations are used as a data source, the invoicing currency breakdown shall be:
	• other national currencies of non-euro area Member States;
	pound sterling;
	US dollar;
	• (Brazilian) real;
	Canadian dollar;
	Swiss franc;
	(Chinese) renminbi-yuan;
	Indian rupee;
	• (Japanese) yen;
	South Korean won;
	Mexican peso;
	Norwegian krone;
	Russian rouble;
	Singapore dollar;
	Turkish lira;
	• other.

Table 37: statistics on international activities — extra-Union exports and imports of goods by invoicing currency

Table 38: statistics on international activities — international supply of services by mode of supply — annual data New data requirements.

# SECTION 3 — EBS GIA NEW REQUIREMENTS (DELTAS) — NEW VARIABLES FOR NATIONAL STATISTICAL BUSINESS REGISTERS (DELTAS)

<u>Note:</u> only the new variables for national statistical business registers (Annex VIII to the EBS GIA) are listed compared with the Business Registers Regulation ((EC) No 177/2008).

1. LEGAL UNIT			
Detailed topic	Variables		
STRATIFICATION PARAMETERS	1.9		Legal activity status
	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013
	1.11	Optional	Flag for special purpose entities within the meaning of points 2.17 to 2.20 of Chapter 2 of Annex A to Regulation (EU) No 549/2013
LINKS WITH ENTERPRISE	1.12	Conditional	Identity number(s) of the enterprise(s) to which the unit belongs
	1.13	Conditional	Date of association to the enterprise(s)
LINKS WITH OTHER REGISTERS	1.16	Conditional	Reference to administrative global identifiers, reference to balance sheet data (for units required to publish accounts), reference to the balance of payments register or foreign direct investment register and reference to the farm register
OWNERSHIP OF UNITS	1.24a	Conditional	 (e) date of start — end of the shares
	1.24b	Conditional	 (e) date of start — end of the shares

2. ENTERPRISE GROUP			
Detailed topic	Variables		
IDENTIFICATION	2.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise group
	2.4	Optional	Short text description of the enterprise group
	2.6	Mandatory	Identity number of the legal unit being global decision centre; if the global decision centre is non-resident, the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.7	Mandatory	Country of registration of the global decision centre, if non-resident the EGR country of registration
	2.9	Mandatory	Identity number of the legal unit being the global group head; if the global group head is non-resident, the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.10a	Conditional	Country of residence of the ultimate controlling institutional (UCI) unit if the controlling unit is a natural person who is not an economic operator
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	2.17	Conditional	Net turnover (and currency) of the enterprise group; if a multinational group, the EGR net turnover (and currency)
	2.18	Conditional	Total assets (and currency) of the enterprise group; if a multinational group, the EGR total assets (and currency)

3. ENTERPRISE				
Detailed topic	Variables	Variables		
IDENTIFICATION	3.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise	
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	3.17	Optional if 5.1- 5.9 are used	Size (for example, turnover, employment) of the principal activity and each of the secondary activities of the enterprise, which due to their size have a significant influence and whose kind-of-activity units (KAU) have a significant influence on the aggregated national data	

# 5. KIND-OF-ACTIVITY UNIT

KAU information is requested for those enterprises, which due to their size (for example, turnover, employment) have a significant influence and whose kind-of-activity units have a significant influence on the aggregated (national) data at NACE class level

Detailed topic	Variables		
IDENTIFICATION	5.1	Optional if 3.17 is used.	Identity number
	5.2	Optional if 3.17 is used.	Identity number(s) of the legal unit(s) able to report data on the KAU
	5.3	Optional if 3.17 is used.	Name
	5.4	Optional if 3.17 is used.	Address to permit data collection
DEMOGRAPHIC EVENTS	5.5	Optional if 3.17 is used.	Date of commencement of activities
	5.6	Optional if 3.17 is used.	Date of final cessation of activities
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	5.7	Optional if 3.17 is used.	Activity code at NACE class level
	5.8	Optional if 3.17 is used.	Size (for example, turnover, employment) of the KAU
LINKS TO OTHER UNITS AND REGISTERS	5.9	Optional if 3.17 is used.	Identity number of the enterprise of which the KAU is part

# SECTION 4 — EBS GIA NEW REQUIREMENTS (DELTAS) — NEW VARIABLES FOR THE EXCHANGE OF CONFIDENTIAL DATA FOR THE PURPOSE OF THE EUROPEAN FRAMEWORK FOR STATISTICAL BUSINESS REGISTERS (DELTAS)

<u>Note:</u> only the new variables are listed compared with the characteristics of datasets listed in Regulation (EC) 192/2009 and Regulation (EU) 1097/2010.

### Part A

Datasets of variables enumerated in paragraphs 1 and subparagraphs 3.1 and 3.2 of Annex IV of the EBS Regulation to be transmitted by NSAs to the Commission (Eurostat)

#### Data exchange on resident legal units for identification purposes

For the purpose of identification, the national statistical authorities (NSAs) shall transmit information to the Commission (Eurostat) on their resident incorporated legal units for the EGR identification service. The NSAs shall transmit the following dataset with identification information for resident incorporated legal units including confidentiality flags. The variable 1.6 for this dataset can only be the date of incorporation for legal persons.

# Dataset with information on resident legal units for the EGR identification service — <u>new variables</u>

STRATIFICATION	1.9		Legal activity status
PARAMETERS	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013

# Data exchange on foreign legal units for identification purposes

For the purpose of identification, NSAs may transmit information to the Commission (Eurostat) on foreign incorporated legal units at any time of the EuroGroups register process. The NSAs transmit the following dataset on foreign incorporated legal units. The variable 1.6 for this dataset can only be the date of incorporation for legal persons.

Dataset with information on foreign legal units for the EGR identification service $-$ <u>new variables</u>				
STRATIFICATION	1.9		Legal activity status	
PARAMETERS	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013	

#### Data exchange on legal units and relationships belonging to multinational enterprise groups

Part of the transmission of information from NSAs to the Commission (Eurostat) concerns legal units and relationships between legal units. Two datasets shall be transmitted to the EuroGroups register, one dataset on legal units, one on relationships. The NSAs shall transmit the following datasets including confidentiality flags for legal units and relationships.

Dataset with information on legal units — <u>new variables</u>			
STRATIFICATION	1.9		Legal activity status
PARAMETERS	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013
	1.11	Optional	Flag for special purpose entities within the meaning of points 2.17 to 2.20 of Chapter 2 of Annex A to Regulation (EU) No 549/2013
OWNERSHIP OF UNITS	1.24a	Conditional	 (e) date of start — end of the shares
	1.24b	Conditional	 (e) date of start — end of the shares

#### Data exchange on resident enterprises belonging to multinational enterprise groups

Part of the transmission of information from NSAs to the Commission (Eurostat) concerns those enterprises to which the delivered legal units belong. Two datasets shall be transmitted to the EuroGroups register, one dataset on enterprises and one on the links between enterprises and legal units.

Dataset with information on enterprises — <u>new variables</u>				
IDENTIFICATION	3.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise	
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	3.12		Number of employees	
Dataset with information on links between enterprises and legal units				
LINKS WITH ENTERPRISE	1.12	Conditional	Identity number(s) of the enterprise(s) to which the unit belongs	

#### Integration of data from different sources and compilation of enterprise groups

Another step of the data processing is the integration of information coming from different EU Member States and other data providers centrally at the Commission (Eurostat). This information refers to control and ownership of legal units and to the enterprise as a type of statistical unit.

The subsequent stage of the processing is the compilation of enterprise groups by the Commission (Eurostat). The results of this compilation will be transmitted by the Commission (Eurostat) to the NSAs of EU Member States in the datasets defined in Parts C and D.

#### Data exchange for the correction of group structures and variables on multinational enterprise groups

For corrections of enterprise group structures, the NSAs shall transmit datasets with information on missing or invalid relationships including confidentiality flags. The format shall follow the format of the dataset with information on relationships defined above under the heading of 'Data exchange on legal units and relationships belonging to multinational enterprise groups'.

The NSAs shall transmit to the Commission (Eurostat) the following dataset with identification information for multinational enterprise groups when the global decision centre of the group is located in the territory of an EU Member State.

Dataset with information on enterprise groups for the EuroGroups register — <u>new variables</u>				
IDENTIFICATION	2.4	Optional	Short text description of the enterprise group	
	2.5	Optional	Website address of the enterprise group	
	2.6		Identity number of the legal unit being global decision centre If the global decision centre is non-resident the EGR identity number For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a	
	2.7		Country of registration of the global decision centre, if non- resident the EGR country of registration	
	2.9		Identity number of the legal unit being the global group head If the global group head is non-resident the EGR identity number For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a	
	2.10a	Conditional	Country of residence of the ultimate controlling institutional (UCI) unit if the controlling unit is a natural person who is not an economic operator	
STRATIFICATION PARAMETERS AND ECONOMIC	2.17	Conditional	Net turnover (and currency) of the enterprise group; if a multinational group, the EGR net turnover (and currency)	
VARIABLES	2.18	Conditional	Total assets (and currency) of the enterprise group; if a multinational group, the EGR total assets (and currency)	

# Part B

Datasets of variables enumerated in subparagraph 3.3 of Annex IV of the EBS Regulation to be transmitted by the Commission (Eurostat) to the NSAs for the purpose of identification of legal units On request of the NSAs, the Commission (Eurostat) transmits the identification results from the EGR identification service to the competent staff contributing to the production of the EGR, the following dataset including confidentiality flags.

<u>Note</u>: no new variables were added to this dataset with information on legal units from the EGR identification service to NSAs, compared with the characteristics of datasets listed in Regulation (EC) 192/2009.

# Part C

Datasets of variables enumerated in paragraph 2 of Annex IV of the EBS Regulation to be transmitted by the Commission (Eurostat) to the NSAs and to central banks for the purposes of the use of the EuroGroups register as referred to in Article 8(4) of the EBS Regulation

The Commission (Eurostat) shall transmit to the NSAs of EU Member States, exclusively for statistical purposes, the following variables, including confidentiality flags, concerning multinational enterprise groups and their constituent units when at least one legal unit of the group is located in the territory of that Member State.

The Commission (Eurostat) may transmit to the national central banks and the European Central Bank, exclusively for statistical purposes, the following variables, including confidentiality flags, concerning multinational enterprise groups and their constituent units, provided that the transmission is explicitly authorised by the NSA and that, in the case of data transmitted to a national central bank, at least one legal unit of a multinational enterprise group is located in the territory of the EU Member State of that national central bank.

1. LEGAL UNITS			
STRATIFICATION PARAMETERS	1.9		Legal activity status
	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013
	1.11	Optional	Flag for special purpose entities within the meaning of points 2.17 to 2.20 of Chapter 2 of Annex A to Regulation (EU) No 549/2013
LINKS WITH ENTERPRISE	1.12	Conditional	Identity number(s) of the enterprise(s) to which the unit belongs
	1.13	Conditional	Date of association to the enterprise(s)
LINKS WITH OTHER REGISTERS	1.16	Conditional	Reference to administrative global identifiers, reference to balance sheet data (for units required to publish accounts), reference to the balance of payments register or foreign direct investment register, and reference to the farm register
OWNERSHIP OF UNITS	1.24a	Conditional	 (e) date of start — end of the shares
	1.24b	Conditional	 (e) date of start — end of the shares
2. ENTERPRISE GROUP		-	-
IDENTIFICATION	2.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise group
	2.4	Optional	Short text description of the enterprise group
	2.5	Optional	Website address of the enterprise group
	2.6		Identity number of the legal unit being the global decision centre
			If the global decision centre is non-resident the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a

New variables:

2. ENTERPRISE GROUP			
IDENTIFICATION	2.7		Country of registration of the global decision centre, if non- resident the EGR country of registration
	2.8	Optional	Postal and e-mail addresses of the global decision centre
	2.9		Identity number of the legal unit being the global group head If the global group head is non-resident the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.10a	Conditional	Country of residence of the ultimate controlling institutional (UCI) unit if the controlling unit is a natural person who is not an economic operator
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	2.15	Optional	Secondary activities of the enterprise group at NACE division level; if a multinational group, the EGR secondary activity code
	2.17	Conditional	Net turnover (and currency) of the enterprise group; if a multinational group, the EGR net turnover (and currency)
	2.18	Conditional	Total assets (and currency) of the enterprise group; if a multinational group, the EGR total assets (and currency)
3. ENTERPRISE			
IDENTIFICATION	3.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise
STRATIFICATION	3.10	Conditional	Secondary activities, if any, at NACE class level
PARAMETERS AND ECONOMIC VARIABLES	3.12		Number of employees
	3.13	Optional	Number of employees in full-time equivalents
	3.14		Net turnover, except that provided in 3.15
	3.15	Optional	Net turnover for agriculture, hunting and forestry, fishing, and public administration and defence, compulsory social security, private households with employed persons and extra-territorial organisations

# Part D

Datasets of variables enumerated in paragraph 2 of Annex IV of the EBS Regulation to be transmitted by the Commission (Eurostat) to the NSAs for the purpose of the production of the EuroGroups register In order to ensure efficiency and high quality in the production of the EuroGroups register, the Commission (Eurostat) shall transmit to the competent staff contributing to the production of the EuroGroups register in the NSAs, the following variables, including confidentiality flags, concerning multinational enterprise groups and their constituent units.

#### New variables:

1. LEGAL UNITS			
STRATIFICATION PARAMETERS	1.9		Legal activity status
	1.10	Conditional	Flag for branches within the meaning of point 18.12 of Chapter 18 of Annex A to Regulation (EU) No 549/2013
	1.11	Optional	Flag for special purpose entities within the meaning of points 2.17 to 2.20 of Chapter 2 of Annex A to Regulation (EU) No 549/2013
LINKS WITH ENTERPRISE	1.12	Conditional	Identity number(s) of the enterprise(s) (3.1) to which the unit belongs
	1.13	Conditional	Date of association to the enterprise(s)
LINKS WITH OTHER REGISTERS	1.16	Conditional	Reference to administrative global identifiers, reference to balance sheet data (for units required to publish accounts), reference to the balance of payments register or foreign direct investment register, and reference to the farm register
OWNERSHIP OF UNITS	1.24a	Conditional	 (e) date of start — end of the shares
	1.24b	Conditional	 (e) date of start — end of the shares
2. ENTERPRISE GROUP			-
IDENTIFICATION	2.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise group
	2.4	Optional	Short text description of the enterprise group
	2.5	Optional	Website address of the enterprise group
	2.6		Identity number of the legal unit being the global decision centre If the global decision centre is non-resident the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a
	2.7		Country of registration of the global decision centre, if non- resident the EGR country of registration
	2.8	Optional	Postal, e-mail and website addresses of the global decision centre
	2.9		Identity number of the legal unit being the global group head If the global group head is non-resident the EGR identity number
			For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a

2. ENTERPRISE GROUP				
IDENTIFICATION	2.10a	Conditional	Country of residence of the ultimate controlling institutional (UCI) unit if the controlling unit is a natural person who is not an economic operator	
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	2.15	Optional	Secondary activities of the enterprise group at NACE division level; if a multinational group, the EGR secondary activity code	
	2.17	Conditional	Net turnover (and currency) of the enterprise group; if a multinational group, the EGR net turnover (and currency)	
	2.18	Conditional	Total assets (and currency) of the enterprise group; if a multinational group, the EGR total assets (and currency)	
3. ENTERPRISE				
IDENTIFICATION	3.2	Optional	Identity number(s) of the legal unit(s) able to report data on the enterprise	
STRATIFICATION PARAMETERS AND ECONOMIC VARIABLES	3.10	Conditional	Secondary activities, if any, at NACE class level	
	3.12		Number of employees	
	3.13	Optional	Number of employees in full-time equivalents	
	3.14		Net turnover, except that provided in 3.15	
	3.15	Optional	Net turnover for agriculture, hunting and forestry, fishing, and public administration and defence, compulsory social security, private households with employed persons and extra-territorial organisations	