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European business statistics compilers' manual for global value chains

2023 edition





European Business Statistics compilers' manual for global value chains 2023 edition

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Foreword

The increased global organisation and fragmentation of value chains is one of the most essential and complex measurement challenges for economic, business and trade statistics. The geographic and organisational unbundling of the value chain occurs across main goods- and services-producing activities, including support services such as information and communication technology (ICT), back-office functions, and research and development (R&D).

National statistical institutes have to deal with more specialisation and increasingly complex business linkages in geographically dispersed value chains that can be national, regional or worldwide. Understanding the role of global value chains (GVCs) is very useful when analysing the different stages of the production process, which may be located in different countries. Consequently, efforts to measure the flows of goods and services within these chains and to calculate the value added that is to be allocated to the end-product are some of the most important challenges for all statistical offices.

This manual is intended to help statistical experts compile GVC data. It provides an overview of the GVC statistics under the European Business Statistics (EBS) Regulation, definitions and data transmission, the use of statistical units, some validation rules, data dissemination, and basic information on metadata and quality reporting.

Several Eurostat experts drafted this manual in consultation with national experts. Eurostat appreciates the contributions of all participants.

Irene Madsen
Head of Unit G6, Trade in services; Globalisation
Eurostat

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Introduction

Introduction

This manual is a practical reference document for all national statistical authorities (NSAs) compiling global value chains (GVC) statistics. It provides the necessary definitions and practical instructions, consistency checks and dissemination channels for the preparation and transmission of GVC data to Eurostat.

Global value chains statistics in Europe

WHAT HAS EUROSTAT DONE SO FAR TO ESTIMATE GVC STATISTICS?

GVCs comprise the full range of cross-border activities required to bring a product or service from conception through the different production and delivery phases to final consumers. Eurostat has invested considerable effort in understanding and estimating the different components of GVCs, including the production of goods and services, international trade in goods and services (ITGS and ITSS), global input-output tables (FIGARO project), national accounts/BoP (Eurostat's IGA project), international sourcing and global value chains statistics and foreign affiliates statistics (FATS). International organisations have produced handbooks on global production and global accounting. The most recent example is the Handbook on Accounting for Global Value Chains (2019) issued by the United Nations Statistics Division (UNSD).

In Eurostat's business statistics, most of the work connected to GVC statistics has taken the form of an international sourcing survey. One of the first efforts to measure the GVC phenomenon in Europe was Eurostat's experimental international sourcing survey in 2007. Eurostat has since then supported and actively contributed to developing and establishing international sourcing surveys (also called GVC surveys or IS-GVC surveys). These experimental surveys were carried out in 2012, 2018 and 2021.

WHAT IS THE CURRENT STATE OF GVC STATISTICS IN EUROPE?

These efforts culminated in the international sourcing statistics (now called GVC statistics) being included as official statistics in Regulation (EU) 2019/2152 on European Business Statistics ('the EBS Regulation'). Under the EBS Regulation and as detailed in Regulation (EU) 2022/918 ('the GVC Implementing Regulation') adopted on 13 June 2022, the GVC survey's scope has increased to encompass the GVC arrangements and effects on these arrangements in the Member States. The survey will be carried out every 3 years, and targeted topics may change between consecutive surveys to better capture globalisation trends and policy requirements. The first reference period will be 2021-2023.

WHAT IS THE LEGAL BASIS FOR THE COLLECTION OF GVC STATISTICS?

As previously noted, the EBS Regulation is the current legal basis for transmitting GVC data. It has been in force since 1 January 2021.

In addition, for the GVC domain, the implementation is further detailed in the GVC Implementing Regulation, which lays down the technical specifications of data requirements for the GVC topic

pursuant to the EBS Regulation.

WHAT DATA ARE COLLECTED UNDER THE GVC STATISTICS?

The GVC Implementing Regulation requires the following 10 GVC variables to be produced:

Table 1. Variables under the GVC Implementing Regulation

Scope (GVC topic details)	Variable
(i) Business functions	(1) Number of employees and self-employed persons
(ii) GVCs	(2) Number of enterprises purchasing goods from abroad
	(3) Number of enterprises supplying goods abroad
	(4) Number of enterprises purchasing services from abroad
	(5) Number of enterprises supplying services abroad
(iii) International sourcing	(6) Number of enterprises carrying out international sourcing
	(7) Number of jobs created in the enterprise as a result of international sourcing
	(8) Number of jobs lost or relocated abroad as a result of international sourcing
	(9) Number of enterprises that have carried out or considered carrying out international sourcing
(iv) Events impacting GVC arrangements	(10) Number of active enterprises

The exact breakdowns and the technical specification for each variable are set in the technical specification document, which is available for NSAs in CIRCABC (Global Value Chains group → GVC Survey 2024 → Methodological documents).

In order to reduce potential overlap with other statistics and to improve data collection quality, it is recommended that GVC statistical collection should be well communicated between the different departments of the NSAs. This means that other relevant departments should be informed (e.g. international trade departments, large-cases units and units dealing with structural business statistics (SBS), R&D statistics and Community innovation survey) of any GVC statistics collection round.

HOW ARE THE DATA COLLECTED?

Most of the data are collected **via a survey** sent to enterprises in each EU country by their NSAs. The following data may be collected or obtained from registers or other statistical or administrative data sources:

- the main economic activity of the enterprise at the end of the last year of the reference period, year T;
- the number of employees and self-employed persons in the last year of the reference period, year T;
- information about participation in an enterprise group.

Other data (such as the core business function of the enterprise) may also be collected or obtained from registers or other statistical or administrative data sources instead of from the survey.

WHAT IS THE ENTERPRISE POPULATION OF THE DATA COLLECTION?

For all variables, the enterprise population refers to market producers ¹ of Nomenclature of Economic Activities (NACE) Sections B to N with 50 or more employees and self-employed persons in the last year of the reference period.

WHICH STATISTICAL UNIT IS USED FOR DATA DISSEMINATION?

The EBS Regulation defines the statistical unit for the domain of GVC as an 'enterprise' (when the word 'enterprise' is used in the rest of this document, it refers to the 'statistical unit enterprise').

Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units (SU) for the observation and analysis of the production system in the Community defines the 'enterprise' as in the box below.

The definition of an enterprise

'The enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, and which benefits from a certain degree of autonomy of 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.'

WHEN ARE THE DATA COLLECTED AND FOR WHAT REFERENCE PERIOD?

The data are collected for a 3-year reference period, every 3 years (triennially). The first reference period is 2021-2023. The reference period can be either a full period of 3 years or the last year of the reference period.

WHEN ARE THE DATA TRANSMITTED?

The data are transmitted 21 months after the end of the reference period (T+21 months). For the reference period 2021-2023, this would be 30 September 2025.

Links

- Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November 2019 on European business statistics
- Commission Implementing Regulation (EU) 2022/918 of 13 June 2022 laying down technical specifications of data requirements for the topic Global Value Chains pursuant to Regulation (EU) 2019/2152
- the European Business Statistics Manual
- Eurostat's global value chains dedicated section
- Statistics Explained article on international sourcing, business functions and global value chains
- Statistics Explained article on linking statistics on international sourcing with other business statistics

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¹ See the European Business Statistics Manual, Chapter 2.4.

2

Definitions

Introduction

This chapter provides definitions for different elements used when collecting GVC statistics.

- The survey starts with questions on the distribution of business functions in the enterprise.
- This is followed by questions on GVC activities and international sourcing of business functions (including questions about motivations for and barriers against international sourcing).
- Finally, there is a set of questions to help measure the impact of recent events on international sourcing and GVC activities.

The survey includes the following modules (the modules should be appropriately adapted to national surveys):

- Module 1: business function contains questions on the distribution of employees and selfemployed persons per business function in the enterprise's structure;
- Module 2: GVC arrangements focuses on the purchasing and supply aspects of international trade in goods and services and tries to measure the GVC trade and some of its characteristics;
- Module 3: international sourcing contains questions that help measure international sourcing within and outside the enterprise group, business functions being internationally sourced, and locations of international sourcing and jobs that are relocated abroad or created as a result of international sourcing activity per business function;
- Module 4: motivation and barriers for international sourcing focuses on two key questions: 1) why are enterprises motivated to source internationally, and 2) what barriers are stopping them from sourcing or making it more difficult to do so;
- Module 5: impact of recent events on economic globalisation is a new module that tests a GVC's resilience to recent global events.

All modules could have optional questions or response options. The module names can be adapted to match their content.

Definitions of concepts and variables

GENERAL CONCEPTS

- Goods and materials relate to any movable property.
- Services result from a production activity that changes the conditions of the consuming units (transformation services) or facilitates the exchange of products or financial assets (margin services). Services are often difficult to separate from goods with which they may be associated to a varying degree. Typical examples of services are ICT services, administrative

services, marketing, sales, services in tourism, food services and R&D services.

- Global value chains (GVCs) comprise the full range of cross-border activities required to bring a product or service from conception through the different phases of production and delivery to final consumers.
- **GVC trade** refers to any international trading activity that takes place within a GVC. It most commonly includes trade in intermediate goods and services.
- Non-GVC trade refers to an international trading activity that does not take place within a GVC. It most commonly refers to purchases of goods and services for final use.
- The term 'abroad' refers either to the location of goods or service providers (for GVC arrangements questions) or to the location of the sourcing partner. It does not refer to the actual location of the goods or services traded.
 This term does not take into account the location of the ultimate controlling institutional (UCI) unit. For example, if a Slovak enterprise's sourcing partner is located in France, but the UCI of the sourcing partner is in the USA, the sourcing country is France. Regarding the location, if the goods or services are being bought directly from the partner in France, then France would be the location of the goods/services, not the USA.

BUSINESS FUNCTIONS

Business functions are defined as groupings of common tasks that enterprises must carry out regularly, either internally or externally, in order to bring goods or services to the market (e.g. administration and management, R&D, and marketing and sales). Business **functions** are typically distinguished from business **processes**, which refer to work organised temporarily to achieve a specific goal. Consequently, business functions are relatively stable in an organisation, while business processes last only until the goal is achieved (from the business functions classification manual).

There are two main types of business functions: core business functions and support business functions. Eight types of business functions are used in the survey. Detailed information on business functions, their use and identification options can be found in the Business Functions Classification Manual, which describes the Classification of Business Functions (CBF). GVC statistics in the EU use the CBF.

The business functions to be used in the GVC survey are listed in Table 2. This list also contains examples of what is included in each business function.

In order to make the 'other services' business function clearer to respondents, it is recommended that the most common examples of other services should be added to the question on business functions distribution. Some NSAs have found that the third-level breakdown helps them to collect more precise answers (taken from the CBF):

- 1) **facility management** (accommodation; food and beverage services; cleaning services; landscape services; real-estate rental services; libraries; museums; sports centres);
- 2) **maintenance and repair services** (maintenance and repair of non-ICT electronic equipment; transportation vehicles; personal and household goods);
- 3) other services not included elsewhere (water, waste collection and sewerage; remediation services; professional services (e.g. photography and translation); publishing of books and periodicals; travel agency activities; rental and operational leasing activities; security; education; human health activities and residential care; social services; creative and arts activities; gambling and betting; sports activities excluding facility management; activities of membership organisations; activities of households).

Table 2. List of business functions

No.	CBF	Production of goods		
	no.	Duadwetian of mode		
1	1	Production of goods		
		Manufacturing; processing; assembly; refining; printing and binding; casting of		
		metals; building of ships; mining; extraction of gas and oil; stone quarrying; power		
		generation (except trade in electricity); development of building projects; civil		
		engineering; specialised construction tasks (including demolition); growing of plants; raising of animals; hunting; forestry and logging; fishing.		
		Provision of services		
2	2.1	Management and administration		
		Financial services (e.g. banking, insurance, financial leasing and fund		
		management); activities of head offices; human resource management activities;		
		financial markets administration; legal tasks; bookkeeping, accounting and		
		auditing; office administration and business support services; public administration		
		services.		
	2.2	Engineering, and research and development (R&D)		
3	2.2.1	Engineering and related technical services		
		Support tasks for raw material extraction; sound recording and video production;		
4	2 2 2	architectural and engineering tasks and technical analysis.		
4	2.2.2	Research and development		
		Research and experimental development in the area of natural sciences and engineering, and social sciences and humanities.		
5	2.3	· · · · · · · · · · · · · · · · · · ·		
<u> </u>	2.3	Information and communication technology (ICT)		
		Software publishing and computer consultancy activities; programming and broadcasting tasks; telecommunications tasks; data processing and hosting; web		
		portals and related information service tasks; installation of mainframe computers;		
		maintenance and repair of computers and communications systems; computer		
		programming and related tasks.		
6	2.4	Marketing, sales and after-sales services		
•	2.7	Advertising and media representation; market research and public opinion polling;		
		call centres; retail and wholesale; gas and electricity trading; sales agents and		
		real-estate trading.		
7	2.5	Transportation, logistics and storage		
		Road, water, rail and air transport activities; passenger and cargo transport; postal		
		services; warehousing; storage; packaging.		
8	2.6	Other services		
		Accommodation (e.g. hotels and camps); food and beverage services (e.g. cafes		
		and restaurants); cleaning services; landscape services; real-estate rental		
		services; libraries; museums; sports centres; maintenance and repair of non-ICT		
		electronic equipment, transportation vehicles, and personal and household goods;		
		water, waste collection and sewerage; remediation services; professional services		
		(e.g. photography and translation); publishing of books and periodicals; travel		
		agency activities; rental and operational leasing activities; security; education;		
		human health activities and residential care; social services; creative and arts		
		activities; gambling and betting; sports activities (excluding facility management);		
		activities of membership organisations; activities of households.		
_				

The main business functions distinction is between **core** and **support** functions. Any of the above categories can be a core or support function, depending on the set-up of the enterprise.

The core business function is the revenue-producing activity of the enterprise and is usually the

enterprise's main activity as classified by the main activity code entered in the business register. A core business function is a set of tasks that produce goods or services intended for the market. It may span several activities and include related vertical activities (e.g. production of inputs). Enterprises incur costs from carrying out core business functions, but these functions' outputs can also be directly associated with turnover. An enterprise may have one or more core business functions.

Typically, enterprises that have multiple revenue streams have difficulty identifying a single function as the core. In fact, one benefit of business function surveys is to help identify situations where enterprises have multiple revenue streams and, therefore, identify multiple core business functions.

Support business functions permit or facilitate the production of goods or services. They directly generate costs but not turnover. However, the cost, efficiency and quality of support functions (especially management, marketing, logistics, R&D and other innovation-related activities) can significantly boost enterprises' competitiveness (any of these functions can also be a core business function). Support business functions do not correspond to the main or secondary activities of an enterprise (core business functions correspond to secondary activities), but they do generally correspond to ancillary activities.

For example, an enterprise that produces goods such as footwear and clothes would most probably have 'production of goods' as a <u>core</u> function, but 'production of goods' can sometimes also be a <u>support</u> function. For instance, if an enterprise creates special machinery or products that they would only use for internal purposes, they might report some jobs as a support function, 'production of goods'. In this case, the key distinction is that the produced machinery or products would not be brought to market (i.e. they would be consumed internally in order to support another business function).

Services can be both core and support business functions. For example, a big accounting and auditing enterprise would most likely report 'management and administration' as a <u>core</u> business function. However, a big marketing enterprise with an accounting department would report the jobs under the 'management and administration' support business function.

Core business function identification

There are two approaches to identifying the core business function in the survey. Both of these approaches can also be used simultaneously for better data accuracy.

The first approach – asking the survey respondents

The **first approach** is to directly ask the respondents to choose their core business function. For example, in Module 1 of the survey, which captures the number of employees and self-employed persons, an additional box could be added next to the list of business functions so that the respondents can directly choose the core business function (Table 3). More than one business function can be chosen as the core business function.

Table 3. Example of a survey question used to determine the core business function

	Persons employed:	Please tick what you consider to be your <u>core/key business</u> <u>function</u> .
Production of goods	0	[]
Management and administration	5	[]
Engineering and related technical services	10	[]
Research and development	100	[X]
Information and communication technology	20	[]
Marketing, sales and after-sales services	0	[]
Transportation, logistics and storage	0	[]

	Persons employed:	Please tick what you consider to be your <u>core/key business</u> <u>function</u> .
Other services	5	[]
TOTAL (automatic row)	140	

The second approach - a decision by the NSA

The second approach has been developed based on experience with the previous international sourcing and GVC surveys and based on the recommendation of the Statistical Manual on the Classification of Business Functions. In this approach, the core business function is chosen by the NSA using the method described below and without the need to directly ask the respondents.

The core business function should correspond to the main economic activity of the enterprise. For enterprises with multiple activities, it may be necessary to recognise more than one core function. If a business function does not correspond to the main economic activity or corresponds to an ancillary activity, it should be recorded as a support business function. The existence of a secondary activity could indicate that there is more than one core business function in the enterprise.

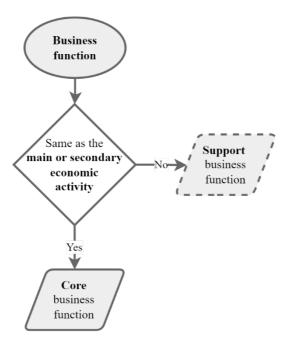


Figure 1. Automatic choice of the core business function - workflow

Both approaches are valid and can be used independently or in concert. For instance, the enterprises in the survey can be asked to identify the core function, and the NSA then verifies the answer using the second approach described above. If both approaches are used in concert for improved accuracy, then inconsistencies can be checked either by re-contacting the responding enterprises or by using the NSA's general or specific knowledge of the enterprise. In that case, surveys that include business functions could also be used to improve the accuracy of activity classification and, thus, the overall quality of the NBR.

The correspondence tables between NACE and CBF are available in the Showvoc application and in CIRCABC in Excel form.

It is generally recommended to use the first approach if the number of enterprises operating in the country is low and the level of familiarity with the term 'core business function' is high (for instance, where the NSA has previously performed the IS-GVC survey).

SOURCING

In the context of this work, sourcing refers to the **total or partial transfer of business functions from one enterprise to another enterprise**. This term relates to both outsourcing (sourcing outside of the enterprise group) and insourcing (sourcing within the enterprise group). These business functions will have been performed in the enterprise before they are sourced in the reference period. By contrast, if an enterprise has always sourced a business function (e.g. purchasing a service), then no sourcing is involved for the purposes of this work.

When developing a survey, the term 'sourcing' should be translated using the closest equivalent term in a country's language(s). This will probably be that language's word for 'outsourcing' because that is usually the term used for transferring a business function to another enterprise.

Four sourcing options

There are four basic sourcing options (Figure 2):

- 1) domestic insourcing: transfer of a business function to another legal unit <u>within</u> the enterprise or enterprise group <u>within</u> the compiling country;
- 2) domestic outsourcing: transfer of a business function to another legal unit <u>outside</u> the enterprise or enterprise group <u>within</u> the compiling country;
- 3) international insourcing: transfer of a business function to another legal unit <u>within</u> the enterprise or enterprise group <u>outside</u> the compiling country;
- 4) international outsourcing: transfer of a business function to another legal unit <u>outside</u> the enterprise or enterprise group <u>outside</u> the compiling country.

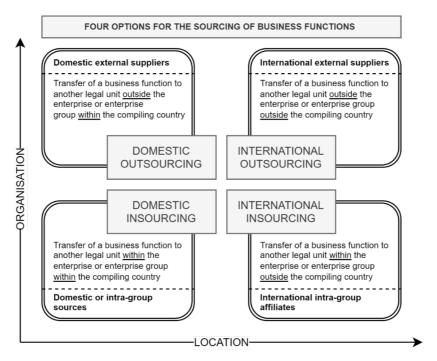


Figure 2. Organisation and location: four sourcing options

Source: adapted from Nielsen, 2008 and Eurostat's methodology for international sourcing surveys.

For domestic insourcing and outsourcing, the business function is never transferred across a country's border. For international insourcing and outsourcing, the business function is transferred from the compiling country (domestic market) to another country (foreign market).

In theory, any of the four options is possible for any business function, and enterprises can source different functions using more than one option at any one time. International sourcing includes both international outsourcing and international insourcing. Domestic sourcing includes both domestic outsourcing and domestic insourcing.

Expansion abroad, subcontracting and GVCs vs sourcing

Expansion domestically or abroad is not considered to be sourcing because the enterprise either never performed the business function (e.g. a new production line is being set up for a new product) or it starts purchasing additional services that it already performs in-house (e.g. a sales office is being set up abroad, but the sales office in the country of origin is also maintained). Therefore, there is no transfer of jobs to or from the business function. A typical example of expansion is a new production line that is set up without transferring the business functions and without reducing activity or jobs in the concerned enterprise. If the enterprise reports international sourcing in the survey but does not report that jobs have been relocated abroad, this could indicate expansion rather than international sourcing.

It is clear from the definition of sourcing that the (out)sourcing enterprise must have performed the (out)sourced business function in-house at some point in the past. However, a similar term, subcontracting, relates to purchasing a product regardless of whether or not the product was previously produced in-house. In the context of the GVC survey, subcontracting can be understood as either expansion or outsourcing.

The main goal of the GVC survey is to capture an enterprise's international sourcing activity and GVC activity. When an enterprise engages in international sourcing activity, by definition, it participates in a GVC. However, GVC is a much broader term that includes more than international sourcing (e.g. purchasing IT services from abroad that have previously not been performed in-house). In other words, international sourcing activity is a 'sufficient' condition for GVC activity but is not a 'necessary' condition (i.e. an enterprise may very well engage in GVC activity without ever engaging in sourcing activity).

Recording jobs that have been relocated abroad and/or created in the enterprise due to international sourcing

When enterprises respond in the survey that they are engaged in international sourcing, they should report at least the **jobs relocated abroad** variable and also, if relevant, the **jobs created in the enterprise** variable. In other words, if an enterprise reports that it sources abroad, it must also report at least one **job relocated abroad**.

The term 'jobs' does not refer to 'persons' but rather to 'tasks' or 'posts' in the enterprise. Even though jobs can be relocated abroad (or created in the enterprise), this does not automatically mean that the number of employees in the enterprise increases or decreases by the same amount. When a job is relocated abroad, the person performing that job might indeed be made redundant but might instead be moved to another job/post in the enterprise – so the relocation of the job would not impact the number of employees.

- Example 1: an enterprise has outsourced 4 internal accounting positions abroad to another enterprise. The 4 posts in question that existed in the enterprise are eliminated, and the accountants performing are made redundant. This should be reported under the 'management and administration' business function as 4 jobs relocated abroad.
- Example 2: in an internal reorganisation, 2 engineering and 3 technical posts have been outsourced abroad, but 2 marketing and 1 high-skilled marketing specialist posts have been created as a result of the focus on core business as a motivator for the outsourcing. This should be reported as follows:
- 5 'engineering and related technical services' jobs relocated abroad, of which 2 are highskilled; and
- 3 'marketing, sales and after-sales service' jobs created in the enterprise, of which 1 is high-skilled.

- Example 3: an enterprise has outsourced abroad 2 marketing positions to another enterprise and eliminated the two positions in question within the enterprise. However, the 2 persons who held these posts were not made redundant but were instead transferred to administrative posts elsewhere within the enterprise that were created in order to avoid making them redundant. The enterprise should (1) report '2 jobs relocated abroad' under the 'marketing, sales and after-sales services' business function and (2) report '2 jobs created due to international sourcing' under the 'management and administration' business function.
- Example 4: this is the same scenario as Example 3, with the sole difference that the enterprise would have created the two administrative posts even if it had not transferred the 2 marketing positions abroad. The enterprise would still (1) report '2 jobs relocated abroad' under the 'marketing, sales and after-sales services' business function, but (2) not report '2 jobs created due to international sourcing' under the 'management and administration' business function. In other words, 'jobs created due to international sourcing' should have some link to the international sourcing activity, such as that they would not open the two administrative posts if they had not engaged in international sourcing, e.g. and saved on costs.

GEOGRAPHICAL AREAS

The following geographical breakdown will be used in the survey:

- EU Member States
- extra-EU (countries other than EU Member States)
- the United Kingdom (the UK)
- European countries other than EU Member States (including Russia and Türkiye) 2.
- China
- India
- Canada and the USA
- Central and South America (including Mexico)
- other Asian countries and Oceania (not including Russia and Türkiye)
- Δfrica
- the 'Rest of the World' (including all areas not specified in other categories in a question)

If a question contains a Rest of the World (ROW) category, this means that ROW includes all geographical areas not present in the other categories within that particular question (i.e. the definition of ROW may differ for different questions).

The 'extra-EU' and 'total' categories are also required for data delivery. The NSAs can calculate them from the received responses.

For example, an enterprise reports that it has sourced ICT services abroad to three areas: the EU, China and India. The data for 'extra-EU' should be computed as a single response because both China and India should be counted as one for the purposes of the 'extra-EU' category. The calculation of the 'extra-EU' destination uses the same logic as for the 'total' category.

NSAs can also consider additional geographical breakdowns for EFTA countries, Russia, the USA or any other destination. While avoiding imposing any unnecessary administrative burden on the survey respondents, NSAs can also add specific questions with country breakdowns and provide the aggregated data to Eurostat.

TYPE OF GOODS TRADED

In variables 2 and 3, the information on the type of goods traded is collected. The aim of variables $2\,$

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² This category changes meaning depending on the question. If the question includes the UK as an individual category, then 'other European countries' does not include the UK. If the question does not include the UK as an individual category, then 'other European countries' does include the UK.

and 3 is to estimate which **goods** could be traded **within GVCs** (i.e. what is the position of a transaction within a GVC).

The types of goods set out in Table 4 are present in these variables.

Table 4. Type of goods traded

Variables	Type of goods traded
(2) Number of enterprises purchasing goods from abroad	- Raw materials that are used in the enterprise's production process
	- Components that form part of the enterprise's product
	 Machinery and other technical equipment used internally by the enterprise
	 Final goods designed by the enterprise for resale on domestic or foreign markets
	 Final goods designed by another enterprise for resale on domestic or foreign markets
	- Other goods
(3) Number of enterprises	 Raw materials that are used by the enterprise's customers abroad in their own production process
supplying goods to customers abroad	 Components that are used by the enterprise's customers abroad as part of their own product
	 Machinery and other technical equipment used by the enterprise's customers abroad
	- Final goods designed by the enterprise for resale in foreign markets
	- Final goods designed by another enterprise for resale in foreign markets
	- Other goods

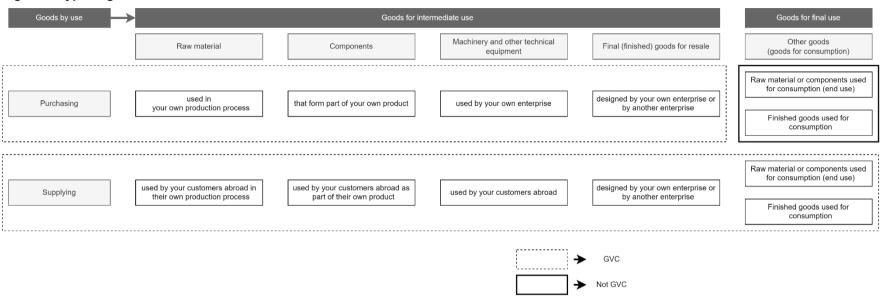
As seen in Table 4, in general, types of goods can be:

- 1.1. Raw materials
- 1.2. Components
- 1.3. Machinery and other technical equipment (used by the enterprise itself or by its customers abroad)
- 1.4. Final goods designed by own enterprise for resale
- 1.5. Final goods designed by another enterprise for resale
- 1.6. Other goods

The breakdown of goods by type takes into account the end-use of the good. All goods except the 'other goods' category are sold for intermediate use. This even includes the 'final goods' category, for which the more accurate name would be 'finished goods'. These goods are 'finished' in the sense that their production has been finished, but further value could be added via different services (e.g. marketing, logistics and distribution). Wholesalers tend to be the enterprises that report these transactions, but other enterprises could also report them. The schematics for the type of goods traded are presented in Figure 3.



Figure 3. Type of goods traded - GVC schematics



In order to make it easier to identify GVC trade and to improve data quality, a minimum annual threshold of EUR 100 000 is applied when reporting the type of goods traded. This does not refer to a specific type of good (e.g. coloured pencils vs other types of pencils) but rather to a type of good in the survey (e.g. raw materials vs components). For example, an enterprise might sell coloured pencils as 'final goods designed by own enterprise for resale' for EUR 60 000 and coloured pencils as 'final goods designed by another enterprise for resale' for EUR 110 000. The enterprise will only report the latter because only this amount exceeds the EUR 100 000 threshold.

1.1. Raw materials

This category of goods represents raw materials used in the enterprise's own production processes or used by customers abroad in their production processes. Raw materials are commonly natural resources that are extracted from the earth or nature or produced through chemical or similar processes (e.g. steel production). They are often transformed into finished products through manufacturing and production processes.

Typical examples of raw materials are:

- metals: this includes materials such as iron, aluminium and copper that are used in the production of a wide variety of products, from cars to electronics to construction materials;
- chemicals: this includes materials such as oil, gas and plastics that are used in the production of various products, from synthetic fibres to pharmaceuticals to fertilisers;
- wood: this includes materials such as lumber, plywood and particle board that are used in the construction of buildings, furniture and other products;
- agricultural products: this includes materials such as wheat, corn and soybeans that are used in the production of food and other consumer products;
- textiles and fabrics: this includes materials such as cotton, wool and silk that are used in the production of clothing, bedding and other textile products;
- minerals: this includes materials such as salt, coal and diamonds that are used in a wide range
 of industries, from energy to construction to jewellery;

The important factor here is the use of the product because only the intermediate use (which includes its transformation) of the raw material should be recorded in this goods category. If the enterprise consumes the raw material, it should be recorded in the other goods category.

Some examples of what <u>is included</u> in this category are listed below. The assumption is that the purchasing/supplying transactions are cross-border transactions.

- a) An enterprise sells apples to another enterprise abroad, which uses them to produce apple juice. Both enterprises are part of the same GVC. The enterprise that sells the apples will report the transaction under 'raw materials that are used by your customers abroad in their own production process'.
- b) An enterprise buys copper from abroad, which it uses to produce copper wire that is later sold on the enterprise's domestic market. The enterprise that buys the copper is part of a GVC and reports the transaction as a purchase of 'raw materials that are used in your own production process'.
- c) An enterprise buys apples from abroad and sells them in its domestic retail shop directly to consumers (for consumption). The enterprise is still adding value to the apples (e.g. via packaging or distribution), so it is still a part of the GVC. This enterprise will report the purchasing transaction under 'raw materials that are used in your own production process', even though the apples are not used in the production process but are resold (because the enterprise is still adding value to the apples). However, domestic consumers (whether they are individual persons or companies) are not a part of the GVC if they are buying apples for their own consumption and not further processing them (which would normally be the case

when buying raw products in retail shops).

Some examples of what is not included in this category are listed below.

- a) An enterprise buys water in large water containers (water coolers) from abroad, which are used in offices by employees and clients. The enterprise that buys the water is the final consumer. It does not add any value to the product and is, therefore, not a part of the global value chain. The enterprise will report the purchasing transaction under the 'other goods' category.
- b) An enterprise sells apples to customers abroad (for consumption). As the apples are not being resold or used in production processes, the enterprise will report the sales transaction as 'supplying other goods' abroad.

The vast majority of raw material bought by an enterprise will be categorised in this type of good because the threshold for buying and selling raw materials is EUR 100 000.

If raw material is purchased or sold for resale purposes, it should also be reported under this category.

1.2. Components

This category of goods represents components that form part of an enterprise's own products or that are used by its customers abroad as part of their products, for example:

- electronic components: this includes items such as resistors, capacitors and transistors that are used to build electronic circuits;
- mechanical components: this includes items such as gears, bearings and shafts that are used in machines and equipment;
- automotive components: this includes items such as engines, transmissions and braking systems that are used in cars, trucks and other vehicles;
- aerospace components: this includes items such as turbine blades, wings and landing gear that are used in aircraft;
- electrical components: this includes items such as switches, relays and transformers that are used in electrical systems;
- hydraulic and pneumatic components: this includes items such as valves, cylinders and hoses that are used in hydraulic and pneumatic systems;
- structural components: this includes items such as beams, columns and trusses that are used in construction and building projects;
- medical components: this includes items such as surgical instruments, prosthetics and implants or technical equipment that are used in medical procedures.

Components can also be semi-finished products that are a part of a finished (final) product, such as:

- agricultural intermediate goods: this includes items such as flour, dough fertilisers, animal feed and pesticides;
- textiles and fabric as intermediate goods: this includes items such as textile yarns, fabric dyes, chemicals and fabric finishing agents;
- other intermediate goods that form a part of the final product: this includes items such as paper pulp, wood panels, plastic resin, plastic containers, casings and glass.

Some examples of what to include in this category are listed below.

- a) An enterprise sells semiconductors to another enterprise, which uses these semiconductors to produce microchips.
- b) An enterprise buys power cables, which it then sells in a bundle with the computers that are

its main products. This represents buying components to be resold together as a part of the product. These power cables are basically purchased for resale (bundled with the main product) and should also be reported in this category because they are a part of the enterprise's product. The transaction would still be reported even if the power cables were purchased for resale (without bundling them with other products) because we can assume that the enterprise adds value to the power cables by transporting, storing and distributing them or by using them to market the product.

c) The responding <u>enterprise purchases</u> components from abroad. The components are then <u>'handed over' to another enterprise</u> for further processing (assembly) either abroad or in the domestic economy. Both the components and the final processed products remain under the ownership of the responding enterprise. The subcontracted processing can be labelled in terms of global production terminology as 'contract manufacturing', 'goods sent for processing' or 'factoryless-goods production' (according to the particular circumstances of each case).

This example involves two elements.

- 1) The responding enterprise purchases components from abroad. It does not use the components purchased from abroad in its own production process (they are used in the production process of the processing enterprise), but it is still part of a GVC. However, since the component purchased from abroad will ultimately be used as part of the final product that the responding enterprise sells, this case should be reported in the 'components that form part of your own product' goods category.
- 2) The responding enterprise is 'handing over' components to a processing enterprise located abroad. That other enterprise does not use the components to manufacture its own product but does use the components to produce 'a product' (owned by the responding enterprise) and is, therefore, part of a GVC. This case should be reported in the 'components that are used by your customers abroad as part of their own product' category. Consequently, the term 'own product' can be interpreted as the 'product owned by the enterprise' or simply as the 'product sold by the enterprise', regardless of the product ownership.

The following is an example of what not to include in this category.

a) An <u>enterprise sells</u> surgical instruments to a local hospital. Since the enterprise can be fairly certain that the instruments will be used (consumed) by the hospital, it should not consider this transaction as international trade and should not report it in the survey.

Components should also be included in this category if they are purchased or sold for resale purposes.

1.3. Machinery and other technical equipment

This category of goods represents machinery and other technical equipment used by an enterprise itself or used by customers abroad. Machinery and other technical equipment is a broad category that encompasses a wide variety of tools, devices and machines used for various purposes in manufacturing and other industrial processes.

Unlike intermediate goods, machinery and technical equipment are long-term capital goods which are used to produce other goods and services. They are often expensive investments that require regular maintenance and upgrading. Some examples of machinery and technical equipment include:

- manufacturing machinery: this includes machines such as lathes, milling machines and presses that are used in the production of goods;
- packaging machinery: this includes machines such as filling machines, labelling machines and sealing machines that are used to package finished products;
- material handling equipment: this includes equipment such as forklift trucks, conveyor belts and cranes that are used to move materials and products within a manufacturing facility;

- industrial robots: these are automated machines that are used to perform tasks such as welding, painting and assembly in manufacturing processes;
- 3D printers: these machines use computer-controlled processes to create three-dimensional objects from digital designs;
- computer equipment: this includes computers, servers and other equipment used to control and manage manufacturing processes;
- testing and measurement equipment: this includes equipment such as gauges, meters and sensors that are used to measure and test the quality of products during the manufacturing process;
- medical equipment: this includes equipment such as MRI machines, X-ray machines and surgical equipment used in the healthcare industry.

The following are examples of what should be included in this category.

- a) An enterprise purchases surgery gloves and other medical equipment from abroad for use when it provides dental services. As the enterprise uses medical equipment in its business activities, the enterprise will report the purchase of medical equipment under 'machinery and other technical equipment used by your own company'.
- b) An enterprise supplies 3D printers to its partners abroad, who will use them to produce their own products. The enterprise should report the transactions under the category of 'supplying machinery and other technical equipment used by your customers abroad'.
- c) An enterprise purchases a crane for more than EUR 100 000 from abroad to build an apartment complex. The enterprise has never before engaged in international trade and will not sell its products abroad (the apartment buildings are in its domestic economy). Although the crane purchase from abroad was a one-off event, the enterprise should still report the purchase under the 'machinery and other technical equipment used by your own company' category of goods because the purchase of the crane is part of the 'apartment complex GVC' and it is likely that many of the other components used in the construction will have been purchased from abroad.

<u>Note</u>: a typical GVC will have one or more international transactions and many domestic transactions (e.g. buying local material, such as cement). The moment an international transaction is recorded in a domestic value chain, it becomes a global value chain and all the enterprises involved in the domestic value chain also then become part of the GVC (including enterprises that only operate and make transactions in the domestic market). However, the GVC survey will only capture the international transactions of the GVC and not the domestic transactions. This is true for all types of goods and services.

If machinery and other technical equipment are purchased or sold for resale purposes, they should also be included in this category.

1.4. Final (finished) goods designed by the enterprise ³ for resale

This category of goods represents the 'final goods (also called finished goods) designed by the enterprise for resale'. The category refers to products that the responding enterprise has designed and developed itself with the intention of selling them to intermediate or final consumers. Conceptually, the terms 'resale' and 'sale' are the same, except that 'resale' means buying final/finished products, adding value to them (e.g. via packaging, transport or distribution) and then selling them to customers (persons or other enterprises). When enterprises supply goods for resale, they are the suppliers of other enterprises who then add additional value to the goods and 'resell' them (typically to consumers).

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³ This refers to the enterprise that responds to the survey.

These transactions usually occur when wholesalers supply retailers.

These products are manufactured by the enterprise or a third-party manufacturer and are then usually (but not necessarily) marketed and sold under the enterprise's brand name. These cases can often be linked with 'contract manufacturing', 'goods sent for processing' or 'factoryless-goods production'. Examples of goods designed by an enterprise for resale include:

- clothing and accessories: a fashion enterprise designing and producing its own line of clothing and accessories, such as hats, handbags and jewellery;
- electronics: an electronics enterprise creating its own line of smartphones, laptops and other gadgets;
- home goods: an enterprise designing and selling its own furniture, home decor and other household products;
- food and beverages: a food enterprise developing and selling its own line of snacks, packaged food products and beverages;
- health and beauty: a beauty enterprise creating and selling its own line of cosmetics, skincare products and personal care items;
- sporting goods: a sporting goods enterprise designing and manufacturing its own line of athletic apparel, footwear and equipment;
- toys and games: a toy enterprise designing and producing its own line of toys, games and puzzles.

The following are examples of what <u>should be included</u> in this category (if the annual transaction values are above EUR 100 000).

- a) A clothing <u>enterprise</u> designs and <u>sells</u> handbags in its domestic shop. It has created a handbag design and asked one of its contracted suppliers to produce the handbags in its factories abroad. The clothing enterprise takes the produced handbags and sells them under its own logo in its domestic shop. The clothing enterprise will report the purchasing transaction in the GVC survey as a 'purchase of final goods designed by own enterprise for resale'. It will not report the sales transaction because the handbags are sold domestically. Had the enterprise sold many handbags via its online shop to foreign customers, it would also report that it had supplied 'other goods' (because this would most probably refer to goods sold for consumption rather than for resale).
- b) A furniture <u>manufacturer</u> designs and produces chairs, which it <u>sells</u> to a foreign retail chain. It will report the transaction as a 'supply of final goods designed by own enterprise for resale'.
- c) A local cucumber <u>producer</u> designs the jars for its pickled cucumbers and <u>sells</u> the jars containing cucumbers to a foreign wholesaler. The foreign wholesaler sells them in its shop under its own brand name. The local cucumber producer will report the transaction as a 'supply of final goods designed by own enterprise for resale'.

<u>Note</u>: the final goods designed by another enterprise for resale can be sold under that other enterprise's own brand name (examples a and b) but also under another brand name (example c).

1.5. Final (finished) goods designed by another enterprise for resale

This category of goods represents the 'final (also called finished) goods designed by another enterprise for resale'. The category refers to products that an enterprise purchases – with the intention of reselling them – from another enterprise that has designed them or that a third party designed. Examples of goods designed by another enterprise for resale include:

- consumer electronics: a retailer purchasing smartphones, laptops and other gadgets from a manufacturer and selling them under its own brand name;
- clothing and accessories: a boutique shop purchasing clothing and accessories from a

manufacturer and selling them under its own brand name;

- home goods: a retailer purchasing furniture, decor and other household products from a manufacturer and selling them under its own brand name;
- food and beverages: a grocery shop purchasing snacks, packaged food products and beverages from a manufacturer and selling them under its own brand name;
- health and beauty: a drugstore purchasing cosmetics, skincare products and personal care items from a manufacturer and selling them under its own brand name;
- sporting goods: a sports retailer purchasing athletic apparel, footwear and equipment from a manufacturer and selling them under its own brand name;
- toys and games: a toy retailer purchasing toys, games and puzzles from a manufacturer and selling them under its own brand name.

The following are examples of what <u>should be included</u> in this category (if the annual transaction values are above EUR 100 000).

- a) A <u>retailer purchases</u> generic toilet paper from abroad. It then proceeds to pack it under its own brand name and sell it to customers in its shop. The retailer will record this in the GVC survey as a 'purchase of final goods designed by another enterprise for resale'.
- b) A pharmaceutical <u>wholesaler purchases</u> painkillers from domestic suppliers and <u>sells</u> them abroad to a retail pharmacy. As the painkillers were not designed by the wholesaler and considering that they are supplying the pharmacy abroad during which they are adding value to the product via transport and storage the wholesaler will record this in the GVC survey as 'supply of final goods designed by another enterprise for resale'.

In both cases, the enterprise purchasing the goods does not design or manufacture the goods themselves but rather purchases them from a manufacturer and resells them.

1.6. Other goods

This category of goods represents all goods and materials that cannot be categorised in the other five categories. These types of goods are most likely used for final consumption or resale without any value being added to the goods – so they do not form a part of a GVC if they are purchased by an enterprise that consumes them. A good that is sold by an enterprise should be considered as part of a GVC because the enterprise will most likely be performing the function of sales and distribution (e.g. retail shops).

In general, this category refers to various products that are typically purchased and consumed by enterprises as part of their operations. Examples of other goods that are used by enterprises for consumption, assuming the annual transaction values are above EUR 100 000 (enterprises 'purchasing other goods from abroad'), include:

- office supplies: purchasing pens, paper, staplers, notepads and other stationery items for use within the organisation;
- cleaning products: purchasing cleaning agents, detergents, brooms, mops and vacuum cleaners for use in their offices or facilities;
- food and beverages: buying food and beverages for their employee kitchens or cafeterias, providing meals or snacks for their staff during working hours;
- fuel: operating a fleet of vehicles may purchase fuel for their transportation needs, whether for company cars, delivery trucks or machines;
- vehicle parts and maintenance: maintaining a fleet of vehicles, purchasing replacement parts, tyres and other maintenance supplies required to keep their vehicles operational;
- software licences: procuring software licences to use various applications or programs for

internal operations, such as productivity tools, accounting software or customer relationship management (CRM) systems;

- office furniture and equipment: acquiring desks, chairs, filing cabinets, computers, printers and other equipment needed for their employees to carry out their tasks efficiently;
- uniforms and workwear: purchasing uniforms or specialised clothing for their employees, particularly in industries such as hospitality, healthcare and manufacturing;
- consumable materials: manufacturers and other producers often purchase raw materials (such as chemicals, fabrics, metals or plastics) which are consumed during the manufacturing process;
- training materials: purchasing training materials, books, manuals, online courses, or subscriptions to educational platforms to enhance the skills and knowledge of their employees.

From the supply side, there are cases where enterprises should report these transactions under the 'other goods' category:

- a) An enterprise performs all the stages of the value chain domestically and in-house and only sells products to final users abroad. As the only transaction in the value chain is the sale abroad, the sales transaction does not add value (i.e. the whole value is in the sales transaction). The enterprise will record the transaction as 'supplying other goods' abroad.
- b) An <u>enterprise</u> buys finished products and <u>sells</u> them to consumers abroad without adding any value to the product (e.g. if the initial supplier of the good has included the transport and storage services in the price). The enterprise selling finished goods to consumers abroad will record the transaction as 'supplying other goods' abroad.

Any raw materials and components can also be purchased by enterprises and recorded under 'other goods' instead of the specific categories. For example:

- a) A <u>manufacturer purchases</u> components from abroad to use them in their own production process. The manufacturer will report the purchased components as 'other goods'. The key factor here is that the manufacturer is not using the components in its own 'products' but rather in the 'production process'. However, components that are directly used in the product are reported under the 'components that form a part of your product/customer's product'. For example, a manufacturer that uses semiconductors as parts of the microchips that it sells would report the purchased items as 'components that form part of its own product'. If the same manufacturer purchases power cables to enable the operation of the microchip-related production machinery, then the power cables will be reported as purchases under the 'other good' category (they are 'consumed' in the production process).
- b) A <u>manufacturer sells</u> components that were manufactured in its production process abroad (e.g. to a factoryless-goods producer (FGP)). If the buyer uses the components as part of its product, the final sales value will be included in the sales price of the buyer's product, and this sale will be reported under 'supplying components used by customers abroad as part of their own product'. If the buyer uses the components in its production process (e.g. to enable the use of manufacturing machinery), the sale of the components will be reported under 'other goods' because the components are consumed in the production process.

TYPE OF SERVICES TRADED

Variables 4 and 5 collect information on trade in services. The categories correspond exactly to the service categories of business functions, and the examples of tasks from the Classification of business functions can be used in the survey to describe trade in services categories. The only exception to this correspondence is trading in manufacturing services, which should be reported as 'other services'. They may also be reported on a voluntary basis as 'production of goods' services. For example, if an enterprise (a processor or a contractor) produces products for another enterprise and owns neither the input material nor the output products, it is selling manufacturing services rather

than products/goods. Similarly, if an enterprise outsources the production of products to another enterprise but continues to own the input materials, it is purchasing manufacturing services rather than products/goods.

To make it easier to identify GVC trade and to improve data quality, an annual minimum threshold of EUR 100 000 for reporting the type of services traded has been set. This does not refer to a specific type of service (e.g. bookkeeping vs legal services) but rather to the type of service in the survey (e.g. administrative and management services vs ICT services). For example, if the sum of all services provided abroad in one year that fall under the 'administrative and management services' category is higher than EUR 100 000, the enterprise will report that it supplies 'administration and management services' abroad.

ENTERPRISE GROUP

An enterprise group is an association of enterprises connected by legal and/or financial links. An enterprise group can have more than one decision-making centre, especially for policy on production, sales and profits. It may centralise 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: Council Regulation (EEC) No 696/93). Details on the identification of the enterprise group are provided in the EBS manual).

JOBS AND HIGH-SKILLED JOBS

A job is defined as 'a set of tasks and duties performed, or meant to be performed, by one person, including for an employer or in self-employment' (ISCO-08). Jobs are performed in the observation/statistical unit (i.e. in the enterprise). A skill is defined as the 'ability to carry out the tasks and duties of a job' (ISCO-08).

High-skilled people are those with a university diploma (i.e. with tertiary education) (Eurostat's Skills dedicated section). Consequently, high-skill jobs mostly comprise expert occupations such as professionals, associate professionals, managers, senior officials, researchers, IT experts and other technical occupations. In order to reduce the reporting burden for respondents, the survey will not collect the exact educational level of the jobs sourced. The more general formulation 'high-skilled jobs' is used instead because the main policy interest is to understand to what extent more knowledge-intensive jobs have been sourced internationally.

High-skilled jobs will generally require a high level of education (ISCED 5 and higher).

Main data categories

NUMBER OF EMPLOYEES AND SELF-EMPLOYED PERSONS

This category corresponds to variable (1) from the GVC Implementing Regulation.

The number of employees and self-employed persons is the sum of the number of employees and the number of self-employed persons. The number of self-employed persons is the average number of persons who were at some time during the reference period the sole or joint owners of the statistical unit in which they work. Family workers and out-workers whose income is a function of the statistical unit outputs' value are also included. The definition for this variable is exactly the same as for the 'variable person employed' variable used by the previous SBS and international sourcing surveys and the corresponding SBS variable in the EBS GIA (variable 120101).

In order to maintain comparability with other business statistics (e.g. SBS) and to improve accuracy when collecting data from enterprises engaged in seasonal activities, the NSAs should use the approach used for the SBS statistics for the last year of the reference period (for most countries this is the average of the persons employed in that year). For the first reference period, this is the year 2023.

NUMBER OF ACTIVE ENTERPRISES

This category corresponds to variables (2), (3), (4), (5), (6), (9) and (10) in the GVC Implementation Regulation.

The number of active enterprises is the number of all statistical units which were at any time during the reference period 'enterprises' as defined in Council Regulation (EEC) No 696/93 and were also active during the same reference period. A statistical unit is considered to have been active during the reference period if it had a positive net turnover, produced output, had employees or performed investments in that period. In the 2024 GVC survey, the enterprise must still have been active on 31 December 2023.

NUMBER OF JOBS CREATED IN THE ENTERPRISE DUE TO INTERNATIONAL

This category corresponds to variable (7) in the GVC Implementing Regulation.

Information about jobs created due to international sourcing is collected in Module 3 on international sourcing. In effect, the responding enterprises are asked to estimate the total number (gross) of domestic jobs created in them as a result of international sourcing. Domestic jobs created in the responding enterprise due to reasons other than international sourcing (e.g. expansion abroad) should not be included here. A common reason for job creation is the increased availability of funds due to international sourcing. These funds can, in turn, sometimes make it possible to create new jobs in another business function (e.g. outsourcing some IT personnel has led to some cost-savings, which enabled the employer to hire more sales staff). This variable is estimated by the respondent because it is difficult to substantiate a direct link between international sourcing and job creation with hard data.

NUMBER OF JOBS RELOCATED ABROAD DUE TO INTERNATIONAL SOURCING

This category corresponds to variable (8) in the GVC Implementing Regulation.

Information about jobs relocated abroad due to international sourcing is collected in Module 3 on international sourcing. Enterprises are asked to estimate the total number (gross) of domestic jobs that they have relocated abroad as a result of international sourcing. Other reasons (e.g. domestic redundancies and a challenging business environment) are not included here. If jobs (business functions) have been moved abroad, the persons previously performing these functions may still be employed in the enterprise carrying out other tasks (they may be carrying out new work related to jobs created because of international sourcing), but the jobs should be counted as jobs relocated abroad. Therefore, generally, there is no connection between the 'jobs relocated abroad' concept and the observed change in the number of employees and self-employed persons of the enterprise. For example, an enterprise may record 'jobs relocated abroad' due to international sourcing but also record an increase in its 'number of employees and self-employed persons'.

Reference period

Reference period 'T' (one year; for the first reference period it is 1.1.2023 – 31.12.2023):

- Module 1: number of employees and self-employed persons by business function this
 module collects quantitative data on employment per business function (there is no advantage
 in gathering cumulative data for all 3 years of the reference period);
- Module 2: GVC arrangements the primary reason for choosing a reference period for only one year is to reduce the burden for enterprises and increase data collection accuracy (it would be more challenging to get accurate data on GVC trade in previous periods). Exceptionally, for optional questions in this module, the reference period could refer to 1.1.2021 – 31.12.2023.

Reference period 'T-2, T-1 and T' (3 years; for the first reference period it is 1.1.2021 – 31.12.2023):

Module 3: international sourcing;

- Module 4: international sourcing motivation and barriers;
- Module 5: impact of recent events on economic globalisation.

International sourcing is essentially a long-term strategic decision. Therefore, gathering data on an annual basis would probably generate only a low number of responses.

Links

- Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November 2019 on European business statistics (the EBS Regulation)
- EBS manual
- Business functions classification manual
- Classification of business functions (CBF)
- ISCED

3

Use of statistical units

Introduction

There are three possible approaches to collecting 'enterprise' data in the GVC area.

- The first approach is to collect data on all or most legal units (LeUs) in an enterprise and then consolidate that data at the enterprise level.
- The second approach is to use the information from the business register (and possibly other information) to identify the head LeU in the enterprise and to collect only the data from this LeU.
- The third approach is a combination of the first two approaches. This document analyses all three approaches and makes a recommendation.

For GVC statistics, another critical requirement when using the enterprise as a statistical unit (SU) is to find the right contact person to complete the survey. The following issues may exist, depending on how the enterprise data are collected:

- A. respondents from the head LeU might not know the required information about another LeU in the enterprise;
- B. respondents from the head LeU might be legally unable to answer questions on behalf of another LeU in the same enterprise;
- C. the enterprise information might be so specific that more than one person from more than one LeU has to answer the survey question (e.g. the top management of the head LeU and the accounting office of another LeU).

Choosing the reporting legal unit

If the enterprise consists of only one LeU, then that enterprise is the LeU, and previously used or general business statistics methods apply. However, if the enterprise consists of two or more active LeUs, some methods need to be recommended to ensure that implementation is as consistent as possible across countries.

Defining the concept of a 'domestic head LeU' in an enterprise is essential ⁴. The head (or lead) LeU is simply the LeU to which the survey should be sent (i.e. the LeU, which has the structure/personnel needed to answer the survey on behalf of the enterprise (other LeUs)). In the context of this guidance, the head LeU is 'a parent legal unit which is not controlled either directly or indirectly by any other legal

⁴ More information can be found in the SE article European business statistics manual - statistical units.

unit' ⁵. However, the enterprise head LeU may be only a holding enterprise with no real decision-making powers (e.g. this can be the case with foreign affiliates). Therefore, there needs to be some flexibility when choosing the head LeU. The criteria to be used may vary according to the enterprise's structure and to regulatory and cultural factors. Some of the criteria to be considered when choosing the head LeU are:

- which LeU is not controlled directly or indirectly by another LeU;
- which LeU operates in the NACE activity of the enterprise;
- which LeU has the most employees and self-employed persons;
- which LeU has the highest turnover or value added;
- prior knowledge of the enterprise's structure (this may be the case for large and well-known enterprises).

In some cases, the 'head LeU' can be replaced with 'lead LeU', which is the LeU considered as the main LeU in an enterprise ('lead LeU' is sometimes used in the text of this manual instead of 'head LeU').

An alternative approach is to ask the LeUs to identify the decision centre (i.e. the head LeU).

It is <u>recommended</u> to consult the national experts in business registers, classification and other business statistics to help choose the head LeU because this might have already been identified in another business statistics domain.

Approach for the implementation of the statistical unit enterprise

Three possible approaches to data collection have been identified for the GVC survey.

- A. LeU level: collect data from all (or most) individual LeUs and consolidate at the enterprise level. It is not obligatory to identify the head LeU of the enterprise.
- B. Head LeU of the enterprise: collect data only from the LeU identified as the enterprise's head. If appropriate, the head LeU could be replaced with the LeU with the most employees, which would be the representative LeU.
- C. Hybrid approach: use both LeU level and head LeU approaches, depending on certain criteria.

The enterprises targeted by the GVC survey have more than 50 employees and self-employed persons ⁶, and their main activity is in NACE Sections B to N. The NACE code of the enterprise and the number of employees and self-employed persons are available in the Statistical Business Register (SBR). The SBR should contain information on all the LeUs in the country and the enterprises to which those LeUs correspond. The sample can be chosen based on the SBR image of the most recent year in the reference period.

There are two main types of questions in the GVC survey:

1. questions that collect hard data ⁷, such as 'do you source?' and 'how many persons are employed per business function?'; and

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⁵ Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units (SU), Annex II C, explanatory note 4.

⁶ This is the same variable as the previous variable V16110 (persons employed) used in SBS and past international sourcing surveys. The only change is in the name of the variable.

⁷ Hard data are objective data that can be verified (i.e. its accuracy can be proved and/or it can be found in the enterprise's accounting records or other records).

2. questions that collect soft data ⁸, such as 'what is your motivation behind sourcing?' and 'what are the barriers that stop you from sourcing?'.

For the hard-data questions, the data can probably be collected from several people within the enterprise and collecting the data from all the LeUs makes sense.

For the soft-data questions, representing the motivation behind decision-making, collecting the data from all LeUs makes less sense because decision-making most probably resides with the enterprise's head LeU. For this reason, the sensible approach would be to pose the soft-data questions only to the head LeU in the enterprise.

Generally, it is unlikely that one ideal method can be applied to all cases and countries (e.g. countries and economies' sizes are different). Consequently, we note below the differences between the approaches, their advantages and disadvantages, and when each is likely to be appropriate. The NSAs should choose the approach that best fits their national circumstances.

A. LEU LEVEL APPROACH

This approach involves collecting data from all (or most) individual LeUs and consolidating it at the enterprise level. The questions would be posed to all or most of the LeUs in each enterprise.

- Advantages of this approach include:
 - it may not require the explanation of the SU 'enterprise' concept to each LeU;
 - it is probably easier for LeUs to answer the survey because they are only asked about their LeU (it is easier to find the right contact person per LeU;
 - there are no legal or data protection barriers because the LeUs are not asked about other LeUs in the enterprise (e.g. about their activities);
 - for some questions (e.g. 'yes/no' questions), an affirmative reply from one LeU might be enough to cover the whole enterprise (e.g. 'ls your enterprise sourcing abroad?'). Such replies can reduce the need to further validate other negative responses;
 - the identification of the head LeU is not required.
- Disadvantages of this approach include:
 - the soft data collected from LeUs other than the head LeU is probably less accurate (e.g. the motivation behind decision-making);
 - detailed rules for data consolidation are required, especially on non-additive variables;
 - the sample will probably be larger than for the head-LeU approach because more LeUs will be required to respond to the survey;
 - missing values: not all LeUs in an enterprise will respond.

B. HEAD LEU APPROACH

This approach involves collecting data directly only from the LeU identified as the enterprise's head LeU.

- + Advantages of this approach include:
 - the mutually excluded questions are collected only from the head LeU, so there would be no risk of two or more different LeUs contradicting each other;
 - the fact that only the head LeU (the decision centre) is answering the survey would mean that

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⁸ Soft data are subjective data that cannot be factually verified (e.g. motivation, intentions and opinions of respondents).

answers to the questions on the enterprise level would probably be more precise;

- the sample can be smaller because only one LeU per enterprise answers the survey;
- there is no need for data consolidation rules.
- Disadvantages of this approach include:
 - it requires the explanation of the enterprise concept to the head LeU;
 - it requires rules for prior identification of the head LeU of the enterprise;
 - if the enterprise's head LeU is not correctly identified, the survey will probably need to be sent
 a second time to another LeU within the enterprise;
 - requiring the head LeU to provide data for the entire enterprise also means requiring it to consolidate these data. This approach can be advantageous for the NSAs but runs counter to the long-term aim of reducing the burden for respondents;
 - legal or data protection factors may prevent the head LeU from providing information on the activities of other LeUs;
 - the staff of the head (lead) LeU might not have the necessary information for other relevant LeUs and might be reluctant to collect the necessary data.

C. HYBRID APPROACH

This approach involves using both the LeU-level and the head-LeU approaches and depends on each Member State's specific circumstances.

- + Advantages of this approach include:
 - it could be more precise than the first two approaches;
 - it may be simpler to apply (depending on the national statistical system and the quality of registers);
 - the same potential advantages as the first two approaches.
- Disadvantages of this approach include:
 - there could be inconsistencies between data collected using the two different approaches;
 - this hybrid approach may be more complex to implement;
 - the same potential disadvantages as the other two approaches

Recommendation

The LeU-level approach is probably more suitable for Member States with fewer LeUs. These economies have often used a census in the previous voluntary GVC or international sourcing surveys and may know their enterprise population more closely. The data collection is similar to the earlier surveys, but the data reporting will be at the enterprise level. Data consolidation rules need to be followed.

The head-LeU approach is probably more suitable for economies with more LeUs. This approach's main advantage is that only the head LeU needs to be contacted. The economies probably already have a well-experienced 'large case unit' and advanced profiling methods that will make it easier to identify the head LeU.

A combination of the two approaches could also be envisaged (the hybrid approach). For example, it would be possible to survey the head LeUs of larger enterprises and to follow the LeU-level approach for smaller enterprises (i.e. those consisting of 2-3 LeUs – there is obviously no issue if the enterprise only has one LeU).

A good practice could be to ask an enterprise at the outset to designate a relevant contact person or legal unit that could provide the answers to the survey.

TARGET POPULATION

Most enterprises generally comprise only one LeU, but the GVC survey has some specific features.

- It targets only large and medium-sized enterprises (more than 50 employees).
- The largest enterprises are likelier to have the most GVC participation and international sourcing, although this may also be true for smaller enterprises. For instance, the part of a multinational enterprise resident in a country may be relatively small but still control a sizeable multinational group (e.g. due to sourcing or acquisitions). It would then appear to have fewer employees.
- The larger the enterprise, the more likely it is to comprise more than one LeU.

Smaller LeUs may control other LeUs, and the total number of employees may be more than 50 (even if each LeU has fewer than 50 employees). Such an enterprise should be in the GVC survey population.

For an enterprise to form part of the survey population, both of the following two statements must be true:

- 1. the main activity NACE code of the enterprise must be within the range B to N, and
- 2. the total number of employees and self-employed persons in the enterprise must be more than 50.

NSAs will usually already know how to identify the main NACE activity and the size of the enterprise, including for enterprises comprising two or more LeUs (e.g. through the SBR, profiling or Large Cases Unit work). However, if this is not known, NSAs can use the approach noted in Figure 4 as an alternative approach.

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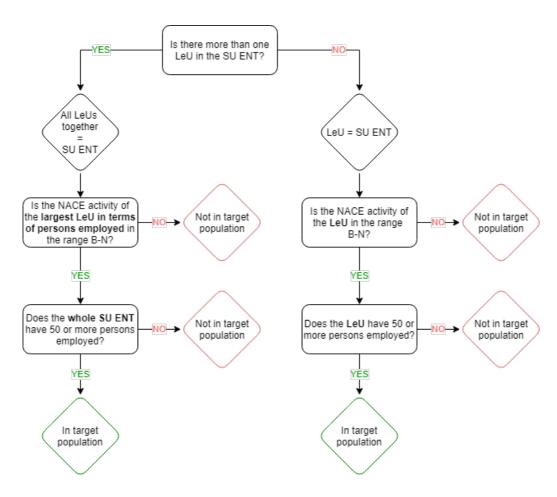


Figure 4. Target population

Figure 4 shows a simplified flowchart showing how to determine the target population. The steps involving checks of the NACE activity range and the number of employees and self-employed persons (this means the same as 'persons employed') can also be switched around so that the first step would be to check the number of employees and self-employed persons.

SAMPLING

The sample should be drawn at the level of the enterprise. The attributes of the enterprise should be used as they are recorded in the business register.

Whichever approach is chosen, it is recommended that the economy's enterprise structure should be taken into account when selecting the sample.

DATA CONSOLIDATION

Consolidation rules are needed when data are collected from more than one LeU in an enterprise. The Business Statistics Directors' Group (BSDG) initiated a written consultation procedure on SU enterprise use in Member States in Q3 2020. One of the most common comments received was that guidelines are needed on how to consolidate qualitative variables when implementing the SU enterprise from LeUs in the GVC domain (among other domains). Detailed and concrete instructions will be given on data consolidation based on four types of questions and on a question-by-question basis (Annex I).

If the head-LeU approach is used, the results should not be consolidated because the head LeU replies for the entire enterprise.

If the LeU-level approach is used, multiple surveys will have to be filled out for each enterprise, and

some data consolidation (by the statistical office) will be required.

The hybrid approach uses the recommendations for the other two approaches, depending on the specific approach used.

The main issue with data consolidation is the need for specific rules for various survey questions. These rules vary depending on the type of question.

- 1. Qualitative yes/no questions:
 - If (and only if) one answer is affirmative ('yes'), it will be considered affirmative for the whole enterprise. (this may not always be the case, but it is the case for the yes/no questions in the 2021 GVC survey).
 - Example: if one or more of the enterprise's LeUs answer YES to the question 'Did you
 outsource any business function abroad during the reference period?', then this is true for the
 entire enterprise. However, if all LeUs answered NO to the above question, then NO is the
 whole enterprise's answer.
- 2. Qualitative questions with different answer options and multiple answers possible:
 - Affirmative answers from all LeUs are recorded equally.
 - For the question 'to which destination do you source?', the sourcing data from all LeUs is recorded equally.
 - Example: if LeU 1 answers China and India, LeU 2 answers USA and Canada and LeU 3 answers EU, then all three answers are registered for the enterprise.
- 3. There are two approaches for qualitative questions with mutually exclusive non-dichotomous answers:
 - If the head LeU has been identified, then only the head LeU's answer is taken into account.
 - Explanation: the data from only one LeU should be taken into account in order to avoid a situation where two or more LeUs provide contradictory data.
 - If the head LeU has NOT been identified, then only the answer of the largest LeU (in terms of the number of employees and self-employed persons) is taken into account.
 - Example: for the statement 'please indicate the importance of the motivational factors behind
 the decision to source in the reference period', only the answer from the largest LeU (in terms
 of the largest number of employees and self-employed persons) is taken into account because
 collecting the data from all the LeUs might lead to contradictory information.
- 4. Questions with quantitative variables:
 - Quantitative variables should be collected from all LeUs and aggregated at the enterprise level
 - Quantitative variables in the GVC survey are:
 - o the number of employees and self-employed persons (by business function);
 - $\circ\hspace{0.2cm}$ the number of jobs created in the enterprise as a result of international sourcing;
 - o the number of jobs relocated abroad as a result of international sourcing.
 - These variables measuring persons employed are simple headcounts, but they are to be
 considered additive for practical reasons (so the simple sum of the amounts for each LeU
 gives the consolidated amount for the enterprise as a whole). This must be the case for all
 enterprises, regardless of the way the LeUs are combined to form the enterprise.
 - When there is job-sharing within an enterprise (e.g. the same employee performs two or more
 jobs in different LeUs and/or two or more business functions), the individual employees should
 be considered for reporting purposes to be employed only in the LeU to which they are
 primarily assigned (if there is no clear primary assignment, the employee should be reported

for any but only one LeU and any but only one business function).

 More detailed information on additive and non-additive variables can be found in the Summary note on additive and non-additive SBS variables.

Links

- Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November 2019 on European business statistics (the EBS Regulation)
- Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units (SU) for the observation and analysis of the production system in the Community
- Statistics Explained article European business statistics manual statistical units
- Summary note on additive and non-additive SBS variables

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4

Data transmission and validation

Introduction

This chapter describes the roles and responsibilities of the stakeholders for data transmission and validation, sets out basic rules for data transmission and then identifies the minimum requirements for data validation that the reporting countries should perform before sending data to Eurostat.

Data validation rules are part of the core EBS quality framework.

Roles and responsibilities

The general principle for roles and responsibilities is that whoever (be it Eurostat or the reporting country) produces the data is also in charge of validating it. In most cases, this allocation of validation tasks is clear.

The NSAs transmit data to Eurostat on the understanding that the confidential data will not be published. In addition, information on significant revisions, unexpected observations and discontinued series should be transmitted along with the data from the NSAs to Eurostat to help Eurostat compile EU-level aggregates. This information may be transmitted in the SDMX-ML COMMENT_OBS field, the EDAMIS envelope or a separate email.

Data transmission

Both SDMX 2.0 (COMPACT SDMX) and SDMX 2.1 are used for data transmission according to the requirements of the ESB Regulation. Data can also be transmitted in SDMX-CSV format, respecting these guidelines.

The GVC Implementing Regulation requires the first data transmission to take place by 30 September 2025. Countries that can send the data before this deadline are encouraged to do so. Ediflow codes should be stated when sending the data, following the format set out in the Technical specification document.

For variable 10, which deals with topical events that are likely to be of high short-term interest for policymakers, the public and researchers, it is suggested that the NSAs should transmit the data to Eurostat earlier than the deadline for other variables, in effect by T+15. For the first reference period, this would be 31 March 2025. This data transmission deadline is voluntary.

Code lists

All code lists, file structure and required datasets will be presented in CIRCABC⁹ in the GVC survey folder called 'Methodological documents'.

The following training materials contain further information on how to deliver data via EDAMIS:

- general information on the tool: https://ec.europa.eu/eurostat/cros/content/edamis_en
- training videos on basic functionalities: https://ec.europa.eu/eurostat/cros/content/edamis-0_en
- FAQs: https://ec.europa.eu/eurostat/cros/content/faq-1_en

Validation of data files

Several levels of data validation are applied to the GVC files. SDMX formats allow Eurostat to carry out automatic **structural validation** (STRUVAL) and **content validation** (CONVAL) checks using Eurostat's corporate validation infrastructure and tools. In order to benefit from this facility, common validation rules will be formalised and implemented in the Eurostat corporate validation tools, STRUVAL and CONVAL. The validation results are communicated to the national data correspondents via the EDAMIS feedback mechanism.

Additional STRUVAL, CONVAL and consistency rules will be presented in the CIRCABC folder on the GVC survey.

STRUCTURAL VALIDATION RULES (STRUVAL)

The STRUVAL validation report is very short if the file is accepted. If errors are detected, they are described in detail. The CONVAL validation report is separate from the STRUVAL report and can, for the GVC data files, include 'errors' or 'information items'.

- <u>Errors</u>: the inclusion of an error in the error report means that a serious data consistency issue has been detected in the transmitted data file and that Eurostat has rejected the data file. The sender must correct the errors and send a new version via EDAMIS.
- <u>Information</u> (warnings): the inclusion of information items in the error report means that a reported element is suspicious and merits further attention but that there may be a valid explanation. Files with information are not rejected but are accepted and processed by Eurostat. Sending a new file is not requested, but the reporting countries should carefully look into the validation results and consider whether further action is required.

All GVC data sets are validated when the data are uploaded into the Eurostat GVC database by the Eurostat GVC domain managers. Most importantly, these validations repeat some of the CONVAL rules and compare the new data with the data already in the database.

If major revisions are made to previously transmitted data, the GVC domain manager will contact the file's sender to confirm the changes.

All incoming SDMX-ML and SDMX-CSV files are automatically validated against the DSD ESTAT+GVC+1.0 and the data flow-specific constraints in structural validation after transmission from EDAMIS. Table 5 presents the structural validation rules applied for the GVC data sets.

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⁹ The abbreviation stands for 'Communication and Information Resource Centre for Administrations, Businesses and Citizens'.

Table 5. Basic structural validation rules for GVC data sets

Number	Severity	Rule description
I	Error	All files transmitted in SDMX are validated against the corresponding data structure definition (DSD) with respect to the use of concepts, code lists and constraints of specific data flows.
II	Error	Different values for the same observation (double values) are not accepted in one file.

CONTENT VALIDATION RULES (CONVAL)

Automatic CONVAL rules are executed immediately after structural validation. Table 6 lists some CONVAL rules applied to the GVC data sets.

Table 6. Basic CONVAL rules for GVC data sets

Number	Severity	Rule description
I	Info	The indicators, the periodicity and the last observation period of at least one time series must be the same as in the identification in the EDAMIS flow.
II	Error	No missing observations (gaps) are accepted in the time series sent in one file.
III	Error	Each file must have at least one data record.
IV	Error	Negative values are not accepted for any series or observations.
V	Info	Check for unexpectedly high or low values before accepting the data into the production database.

CONSISTENCY RULES

Generally, the total number of enterprises should be equal across tables in which no double-counting can occur and that concern a fixed population (e.g. all enterprises or all enterprises that source internationally).

The sum of 'employment' / 'jobs relocated abroad' / 'jobs created' for the core business function (code CORE_F) and the aggregate 'support business function' (code SUP_F) should add up to the total (CO_SUP_F). If necessary, figures should be imputed.

The general consistency of the data over the series is required. This general consistency should be assured, provided the working file used for data computation has been correctly treated for total and item non-response.

5

Dissemination

Introduction

This chapter covers the dissemination of GVC data under the EBS Regulation and takes stock of the latest developments.

Eurostat applies a purely online publication strategy for GVC data. Statistics Explained (SE) is the main dissemination channel for the general public.

GVC dissemination channels

GVC data and methodological information are published by Eurostat online via the following sites and channels:

MAIN GVC TABLES

All GVC data are displayed in multi-dimensional data tables in the Eurostat database.

In the data tree, the GVC data are under 'industry, trade and services' / 'globalisation in business statistics' / 'global value chains and international sourcing statistics'. The Eurostat database data tree is currently under review.

EUROSTAT WEBSITE – GVC DEDICATED SECTION

The GVC section of globalisation of businesses is the main entry point for all GVC data, metadata, methodology and publications. This part of the Eurostat website is available in English, German and French. The subpage on publications links to GVC news releases, news items and SE articles.

GVC NEWS ITEMS AND RELEASES

After each survey, Eurostat publishes news releases with the GVC data. There might be more than one news release related to GVC data release, each focusing on different GVC data sets. GVC news items promote new dissemination products, data releases and new or updated SE articles.

STATISTICS EXPLAINED ARTICLES

A SE article accompanies every GVC data release. The SE article describes and, in some cases, explains the collected data with advanced visualisations and indicators. There might be more than one SE article related to a specific GVC data release.

GVC DATA IN OTHER EUROSTAT PRODUCTS

Some older GVC data are planned to be published in 2023 as part of a globalisation dashboard. The data displayed in the globalisation dashboard relate to different aspects of globalisation, such as GVCs, foreign affiliates and foreign-controlled enterprises, FDI, and international trade in goods and services.

Links

- Globalisation in business statistics dedicated section
- Global value chains section
- Eurostat database 'Industry, trade and services' → 'globalisation in business statistics' → 'global value chains and international sourcing statistics'
- Statistics Explained articles:
 - o International sourcing, business functions and global value chains
 - Linking statistics on international sourcing with other business statistics (the results of a microdata linking project)
- Experimental statistics on International sourcing (this relates to the four voluntary GVC and international sourcing surveys prior to 2021)

6

Metadata and quality reporting

Introduction

The EBS General Implementing Regulation and the GVC Implementing Regulation state that Member States should provide triennial quality and metadata reports for GVC statistics. This chapter presents the triennial GVC national metadata reporting under the EBS Regulation.

The most recent European Statistical System (ESS) standards should be used for the structure and contents of the quality and metadata reports.

National metadata for GVC statistics

GVC metadata report collection is carried out via the ESS Metadata Handler.

METADATA FLOWS

The metadata reporting under the EBS Regulation will follow the structure of the data transmissions in the GVC datasets of EDAMIS, with the names as defined in the Technical specification document.

TRANSMISSION DEADLINE

Article 11(2) of the EBS General Implementing Regulation states that Member States shall provide metadata reports for business statistics transmitted with the periodicity specified in Article 17(4) of the EBS Regulation to the Commission (Eurostat) by 2 months after the last data transmission deadline of the statistics covered by the report at the latest (T+21).

The metadata should be sent to Eurostat with the periodicity of T+23. For the first reference period (2021-2023), this means that the metadata must be sent to Eurostat by **30 November 2025**.

Metadata files can also be sent earlier.

Eurostat metadata file

Eurostat publishes one single metadata file for the whole GVC domain. Similarly to the national metadata files, this file is also in the ESS Metadata Handler tool.

The national metadata files are attached to the Eurostat file via annexes.

Quality reporting

Based on the GVC Implementing Regulation, Member States are required to transmit the triennial quality report on the GVC topic within 24 months after the end of the last year of the reference period (T+24). For the first reference period (2021-2023), this effectively means that quality reports must be transmitted to Eurostat by **31 December 2025** at the latest.

Quality reports must be drawn following the latest ESS Standards for Quality Reports.

Links

- ESS Metadata Handler
- **ESS Standards for Quality Reports**
- Eurostat's GVC metadata file (this currently refers to the voluntary GVC surveys)

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EU publications

You can download or order free and priced EU publications at: https://op.europa.eu/en/publications. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: http://eur-lex.europa.eu

Open data from the EU

The EU Open Data Portal (http://data.europa.eu/euodp/en) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

European business statistics compilers' manual for global value chains

The purpose of this publication is to provide the compilers of European statistics on global value chains (GVC) with clarifications on how to apply the EU legal provisions. With the help of concrete examples, clear text and definitions, the Manual is meant to serve as a practical reference document for National Statistical Authorities involved in the compilation of European GVC statistics.

For more information https://ec.europa.eu/eurostat/

