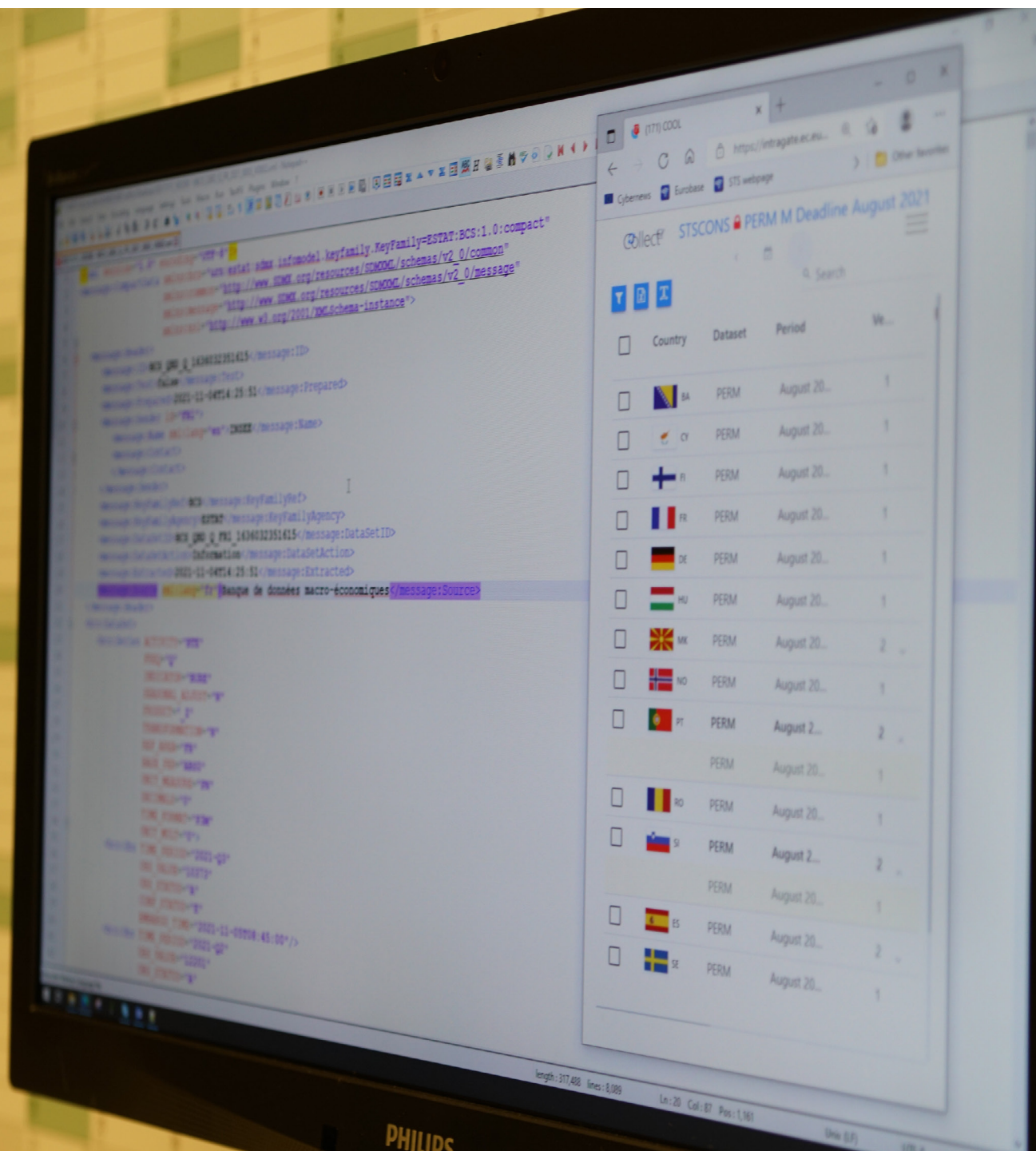


# European business statistics compilers' manual for short-term business statistics

2021 edition





**European business statistics  
compilers' manual for  
short-term business statistics** | **2021 edition**

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## Foreword

Short-term business statistics (STS) are the earliest statistics released to show emerging trends in the European economy. STS provide data for the major economic domains, industry, construction, distributive trade and services.

The major advantage of the monthly and quarterly released STS data is that they are available very shortly after the end of the reference period, providing timely information for policy makers, people and businesses.

This manual seeks to serve the statistical experts compiling STS data. The chapters provide an overview of the statistical production system at European level and also describe the related statistical processes, for example data dissemination, metadata management, compliance assessment.

This EBS compilers' manual for STS was drafted by a number of Eurostat experts in consultation with national experts. Eurostat appreciates the contributions of all participants.

### **Petra Sneijers**

Head of Unit G3, Business cycle, short-term statistics

Eurostat

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# 1

## STS under the EBS Regulation

### Introduction

After several years of intensive preparation by Eurostat and the National Statistical Authorities (NSAs) the European Business Statistics Regulation (EBS Regulation) (EU) 2019/2152 was published in the Official Journal of the European Union on 17 December 2019.

The EBS Regulation is the current legal basis of the transmission of STS data.

### The EBS Regulation

The EBS Regulation (EU) No 2019/2152 applies as of 1 January 2021. The links to the referred legal acts can be found at the end of this chapter.

As regards the STS domain, the EBS Regulation defines five topics:

- Business population (quarterly statistics on business demographic events such as registrations of businesses or bankruptcies);
- Labour inputs (quarterly or – optionally – monthly statistics on employment, hours worked and labour costs);
- Prices (monthly or quarterly import prices and producer prices);
- Outputs and performances (monthly, or exceptionally quarterly, data on production, volume of sales and net turnover);
- Real estate (quarterly or – optionally – monthly data on granted building permits).

### The EBS General Implementing Regulation

More detailed provisions for the STS data production are laid down in the Commission Implementing Regulation (EU) No 2020/1197 (EBS General Implementing Regulation). With some exceptions, the Implementing Regulation also applies as of 1 January 2021.

According to the EBS General Implementing Regulation the following **STS variables** have to be produced:

- Registrations and bankruptcies
- Number of employees and self-employed persons, hours worked by employees, wages and salaries
- Import prices (euro area and non-euro area)
- Producer prices (domestic and non-domestic, euro area and non-euro area)
- Production



- Volume of sales
- (Net) turnover (domestic and non-domestic, euro area and non-euro area)
- Building permits (number of dwellings and square metres)

**Measurement unit:** as a rule STS provides indices, exceptions are the registrations and bankruptcies as well as the building permits for which absolute values are collected.

**Adjustment:** some variables are to be provided in unadjusted form (esp. prices, registrations and bankruptcies), in general however data are to be provided in calendar adjusted and in seasonally adjusted form.

The **scope of STS** is restricted to market activities. The Implementing Regulation also prescribes which activities according to the Statistical classification of economic activities in the European Community (NACE rev. 2) are to be included in STS and in what level of detail.

**Deadlines** between the end of the reference period and the data transmission to Eurostat range from one month up to three months and fifteen days.

**Reference year and base year:** the reference year is the year for which STS indices are set to equal 100, generally the reference year is also the base year, i.e. the year from which the weights for the aggregation of indices are taken. The reference/base year is changed every five year.

**First reference period,** i.e. the first mandatory month or quarter for which time series have to be produced and transmitted. Generally the first reference period for STS series is January/first quarter 2000 for indicators that were required by the original STS Regulation.

There are however STS variables with a later starting point. The legal obligation to produce service producer prices was only introduced in 2005 with Regulation 1158/2005 and the first reference period for these prices was therefore the first quarter of 2006 (requirement in EBS Regulation from 2010).

Naturally, data requirements which were newly introduced with the EBS Regulation and the EBS General Implementing Regulation do not apply retroactively. Consequently, the first reference period for new requirements is January (or first quarter) 2021 and the first data transmission shall take place in 2024.

## Transitional arrangements

To facilitate the introduction of the new data requirements and to keep the additional cost and burden for their production as low as possible the EBS General Implementing Regulation (Annex VII) foresees transitional arrangements in case major adaptations of the national production system are necessary.

In particular, the regulation foresees that data for reference periods starting from January / first Quarter 2021 to December / fourth Quarter 2023 can be sent after the general data transmission deadlines.

The transitional arrangements end in 2024, data for the reference periods of 2021 to 2023 latest have to be sent together with the data for January / first Quarter 2024.

## Derogations

Where the new EBS requirements are not covered by the transitional arrangements and the application of the EBS Regulation and its implementing regulation necessitates major adaptations in the national statistical system of a Member State, article 24 of the EBS Regulation foresees the possibility that the Commission could grant derogations from the requirements for a maximum duration of three years.

The Commission Implementing Decision (EU) 2021/1003 of 18 June 2021 is granting derogations to

certain Member States with respect to the transmission of statistics pursuant to the EBS Regulation and its implementing regulation.

11 Member States (Belgium, Denmark, Estonia, Ireland, Spain, Italy, Cyprus, Netherlands, Austria, Portugal and Finland) were granted derogations for some of the STS data transmissions for defined periods, latest until the end of 2023.

## Links

[EBS Regulation, \(EU\) 2019/2152](#)

[EBS General Implementing Regulation, \(EU\) 2020/1197](#)

[Commission Implementing Decision on derogations \(EU\) 2021/1003](#)

# 2

## STS data requirements

### Introduction

This chapter describes the changes that occur during the transitional period, that is from January/Q1 2021 to December/Q4 2023, and after this period, namely from January/Q1 2024 onwards, comparing the new requirements for STS (under the EBS Regulation) with those for the STS Regulation ((EC) No 1165/98) and its amendments.

For the reference periods January/Q1 2021 to December/Q4 2023, EBS requirements have priority over the STS Regulation requirements (no double reporting, if both are available).

For 'Services' indicators, when the transitional arrangements set in the Annex VII (3.a) of the EBS General Implementing Regulation are applied, the requirements of the STS R - Council Regulation No 1165/98 and its amendments will continue to apply until the reference period December/Q4 2023.

For the variable 'Production in construction' indicator, the transitional arrangements set in the Annex VII (3.b) of the EBS General Implementing Regulation will apply until December/Q4 2023.

### STS data requirements

Overview of the legal requirements for which Eurostat does not foresee a transition period and which have to be provided from reference periods starting on January/Q1 2021 onwards:

- Transmitting unadjusted, calendar and seasonally adjusted indices (except for the new services indicators).
- Shortening of the deadlines (i.e. deletion of the extra 15-days for industrial production and turnover, producer prices, import prices, construction production, building permits, trade turnover indicators).
- Transmitting indices according to their periodicity (i.e. voluntary monthly indices should also be sent monthly and not each quarter three monthly indices)
- Transmitting service producer prices as B2All (for reference periods before 2021 estimated by B2B indicators) - applied to all concerned activities.
- Transmitting monthly deflated and nominal turnover for trade (G, G45, G46 and G47) with a 3-digit breakdown for medium and large countries. Also breakdown into food, non-food, G473 and trade without G473. Identification of internet trade.
- Keeping the base year 2015 for all indices until the general re-basing in 2024 to the base year 2021.

Change of weightings and base year:

- Annual update of weights (in combination with chain-linking) is recommended (but no formal requirement) for STS price and volume indicators
- The current legal requirement is otherwise that the weights are updated every five years

using as base years the years ending with a 0 or a 5; rebasing needs to take place within three years after the end of the new base year. With EBS, the first base year is 2015, the second base year is 2021 and the third base year is 2025 (base year 2020 is not required). From thereon, every five years, Member States shall rebase the indices using as base years the years ending with a 0 or a 5 and again all indices must be rebased on the new base year within three years after the end of this new base year.

- Countries implementing chain-linking for STS indicators shall follow the target methodology elaborated by the STS Task Force on chain-linking. Even when applying chain-linking with annual change of weights, the common reference year (index average = 100) shall be applied to data transmissions of indices to Eurostat.

## Detailed STS requirements

Eurostat published two files on the [detailed STS data requirements](#) on the Eurostat website.

- [STS requirements under the EBS regulation](#), with the possible transitional arrangements
- [STS requirements by country size group](#)

The links to these files are at the end of this chapter.

## Country size categories

For the STS data transmissions countries have different requirements depending on their country size. Larger countries have to report more detailed STS data to Eurostat. The country size categories refer to all EBS data requirement tables (Tables 1-9) and hence to the old domains of STS (industry, construction, trade and services).

The overall grouping of the countries is done on the basis of their share in the EU gross value added of Sections B to N (excluding Section K). Two thresholds, set at 1% and at 4% are used to distinguish between small (S), medium (M) and large (L) countries.

### SAFEGUARD CLAUSE

If a country's share in the EU value added in manufacturing (NACE Section C), construction (F), wholesale and retail trade (G) or services (H to N, excluding K) is lower than the size category resulting from the overall grouping, the level of detail for that country shall correspond to the lower size category for the section or sections.

This is applied until 2023 (as long as the base year is 2015) for the Netherlands (M for manufacturing), Czechia (S for services) and Portugal (S for construction and for services)

**Table 1: STS country size categories for the period January/Q1 2021 to December/Q4 2023**

Size category	Group members for base year 2015	Additional comments
S	BG, EE, EL, HR, CY, LV, LT, LU, HU, MT, RO, SI, SK	–
M	BE, CZ, DK, IE, AT, PL, PT, FI, SE	CZ: size category S according to safeguard clause for NACE Sections H-N PT: size category S according to safeguard clause for NACE Sections F and H-N
L	DE, ES, FR, IT, NL	NL: size category M according to safeguard clause for NACE Section C

## Links

[STS requirements under the EBS regulation file \(pdf\)](#)

[STS requirements by country size group file \(xlsx\)](#)

[Chain linking – Task Force report, Eurostat 2012](#)

# 3

## Data exchange formats

### Introduction

This chapter defines the specific use of SDMX for the transmission of STS, using both SDMX 2.0 (COMPACT SDMX) and SDMX 2.1 (STRUCTURE SPECIFIC TS DATA 2\_1) according to the requirements of the ESB Regulation. Data can also be transmitted in SDMX-CSV format, respecting these guidelines.

This chapter is an extract of the **SDMX for EBS – STS Guidelines document**, which can be found in the **CIRCABC folder ‘BCS Guidelines’**. The main elements of the document are covered by this chapter, however the annexes e.g. code lists, constraints, data file examples, further references, etc. can only be found in the original document on CIRCABC. The links of the CIRCABC folder ‘BCS Guidelines’ and to the guidelines file can be found at the end of this chapter.

### Data sets

There are several available data sets for STS reporting and these are listed in the section Data Sets, but only one **data structure definition (DSD)** is used: **ESTAT+BCS+1.0**.

Table 2 lists the available EDAMIS data sets (also called as ‘data flows’).

For testing purposes, Eurostat has created specific sets starting with ‘V’ but identical otherwise, e.g. ‘VBCS\_PVI\_M’ for industrial production. Test data sets can be used at any time for testing STS data transmissions, and it is particularly recommended to use them when starting transmitting new data sets in SDMX-ML. When transmitting test data to Eurostat, test data sets must be selected in EDAMIS graphical user interface, using ‘V’ in the beginning of the file name is not enough.

The production data sets (‘BCS...’) can be used only for SDMX-ML and SDMX-CSV files according to the Data Structure Definition ESTAT+BCS+1.0. GESMES file format has been phased out in May 2019 and from the opening of the production BCS data flows in EDAMIS in 2021, the use of GESMES file format is not possible anymore. Consequently, only SDMX-ML and SDMX-CSV formats can be used for BCS data sets.

**Table 2: The BCS datasets for the transmission of STS data**

Datasets	Tables(FREQ); Variables	Dataset description
BCS_QBD_Q	T1(Q); 110101, 110102	Short term business statistics on business population (registrations and bankruptcies)
BCS_EMP_M	T2(M); 120101	Short term business statistics on employment (number of employees and self-employed persons)
BCS_EMP_Q	T2(Q); 120101	Short term business statistics on employment (number of employees and self-employed persons)
BCS_HOU_M	T3-1(M); 120201	Short term business statistics on hours worked
BCS_HOU_Q	T3-1(Q); 120201	Short term business statistics on hours worked
BCS_EAR_M	T3-2(M); 120301	Short term business statistics on wages and salaries
BCS_EAR_Q	T3-2(Q); 120301	Short term business statistics on wages and salaries

BCS_IMP_M	T4(M); 130101, 130102, 130103	Short term business statistics on import prices (total, euro area, non-euro area)
BCS_PPI_M	T5-1(M); 130201, 130202, 130203, 130204, 130205	Short term business statistics on producer prices in industry, total, domestic market, non-domestic market, split non-domestic market euro area, non-euro area (PPI)
BCS_PPC_M	T5-2(M); 130201	Short term business statistics on producer prices in construction or construction costs
BCS_PPC_Q	T5-2(Q); 130201	Short term business statistics on producer prices in construction or construction costs
BCS_PPS_Q	T5-3(Q); 130201	Short term business statistics on producer prices in services (SPPI)
BCS_PVI_M	T6-1(M); 140101	Short term business statistics on production (volume) in industry (IPI)
BCS_PVC_M	T6-2(M); 140101	Short term business statistics on production (volume) in construction (IPC)
BCS_PVC_Q	T6-2(Q); 140101	Short term business statistics on production (volume) in construction (IPC)
BCS_PVS_M	T6-3(M); 140101	Short term business statistics on production (volume) in services production (ISP)
BCS_TOR_M	T7-1(M); 140201 T8-1(M); 140301	Short term business statistics on volume of sales in retail trade, net-turnover in retail trade
BCS_TOW_M	T7-2(M); 140201 T8-2(M); 140301	Short term business statistics on volume of sales in wholesale trade and repair of vehicles, net-turnover in wholesale trade and repair of vehicles
BCS_TOS_M	T8-3(M); 140301	Short term business statistics on net-turnover in services (value)
BCS_TOI_M	T8-4(M); 140301, 140302, 140303, 140304, 140305	Short term business statistics on net-turnover in industry (total, domestic, non-domestic, split of non-domestic for euro area, non-euro area)
BCS_BPI_M	T9-1(M); 150101, 150102	Short term business statistics on real estate (building permits, number of dwellings or square metres of useful floor area)
BCS_BPI_Q	T9-1(Q); 150101, 150102	Short term business statistics on real estate (building permits, number of dwellings or square metres of useful floor area)
BCS_CRE_Q	(T9-2(Q); 150103, 150104)	Short term business statistics on real estate (construction starts and works completions in square metres of useful floor area)
BCS_WEI_A	ALL(A)	Weight tables can be sent via EDAMIS

The same data structure definition 'ESTAT+BCS+1.0' is applicable to all data sets, but the code lists are restricted according to the specificities of the data sets.

The details of the STS weight tables 'BCS\_WEI\_A' still need to be agreed with the countries. This data set needs to be transmitted in 2024 when STS is changing the base year from 2015 to 2021. In the previous rebasing, an MS Excel workbook was used for the transmission of the weights for the new base year.

The available constraints can be downloaded from the Euro SDMX Registry (visualisation under 'Constraints'; constrained data flow specifications can be downloaded under 'Data flows'). The link of the SDMX Registry can be found at the end of this chapter.

## Statistical concepts

The following table shows the name and the description of the statistical concepts to be used for the STS transmissions.

**Table 3: Statistical concepts to be used for the transmission of STS data (dimensions and mandatory concepts are underlined)**

Concept ID	Concept name	Description	Code list / format
<u>FREQ</u>	Frequency of observation	Time interval at which observations occur over a given time period.	SDMX+CL_FREQ+2.0
<u>REF_AREA</u>	Reference area	Country or geographic area to which the measured statistical phenomenon relates.	IMF+CL_AREA+1.11
<u>SEASONAL_ADJUST</u>	Seasonal adjustment	Statistical technique used to remove the effects of seasonal and calendar influences operating on a data series.	SDMX+CL_SEASONAL_ADJUST+1.0
<u>INDICATOR</u>	STS Statistical Indicator	Indicator, such as production, turnover, etc. is specific to EBS/STS regulation (numeric codes are used); in SDMX transmissions, abbreviations are used (e.g. PROD).	ESTAT+CL_INDICATOR_BCS+1.2
<u>ACTIVITY</u>	Economic activity	Combination of actions that result in the production, distribution and consumption of goods or services. (NACE rev 2 & special STS aggregates & special STS aggregates & MIGs).	ESTAT+CL_ACTIVITY_BCS+1.0
<u>PRODUCT</u>	Product	Results of production, CPA 2.1.	ESTAT+CL_PRODUCT_BCS+1.0
<u>BASE_PER</u>	Base period	Period of time used as the reference (and base) of an index number (e.g. 2015 when index=100); ABS0 for absolute values.	ESTAT+CL_BASE_PER+1.0
<u>TIME_PERIOD</u>	Time period	Timespan or point in time to which the observation actually refers.	Observational Time Period
<u>TRANSFORMATION</u>	Time transformation	Time-related operation performed on a time series, solely involving observations of that time series; always "N".	ESTAT+CL_TRANSFORMATION+1.3
<u>OBS_VALUE</u>	Observation value	Value of a particular variable.	Float
<u>OBS_STATUS</u>	Observation status	Information on the quality of a value or an unusual value. Missing values are not accepted.	SDMX+CL_OBS_STATUS+2.2
<u>CONF_STATUS</u>	Confidentiality status	Information about the confidentiality status of the object to which this attribute is attached	SDMX+CL_CONF_STATUS+1.2
PRE_BREAK_VALUE	Observation pre-break value	Observation, at a time series break period, that was calculated using the	Float



		old methodology.	
COMMENT_OBS	Comments to the observation value	Comments to the observation value	String
EMBARGO_TIME	Embargo time	Exact time at which the data can be made available to the public in Luxembourgish time.	Date/time stamp
COMMENT_DSET	Comments on dataset level	Comments on dataset level	String
UNIT_MULT	Unit multiplier	Exponent in base 10 used for calculating the actual value in the unit of measure.	SDMX+CL_UNIT_MULT+1.0
<b><u>UNIT_MEASURE</u></b>	Unit of measure	Unit in which the data values are expressed.	IMF+CL_UNIT+1.13
DECIMALS	Decimals	Number of digits of an observation to the right of a decimal point.	SDMX+CL_DECIMALS+1.0
TIME_FORMAT	Time format	Technical format for the representation of time.	SDMX+CL_TIME_FORMAT+1.0
COMMENT_TS	Comment for time series	Comment for time series	String

## Code lists

All code lists and constraints are presented in Appendix 1 of the [SDMX for EBS – STS Guidelines document](#) in the [CIRCABC folder 'BCS Guidelines'](#).

Acceptable codes by data set can be found in a separate Excel workbook in the same CIRCABC folder: [ESTAT+BCS+1.0\\_matrix\\_v0.1.xlsx](#).

The links to these files are at the end of this chapter.

## BCS specific guidance

### CHANGES IN THE USE OF FLAGS

There are some changes related to the use of flags in the current version of the DSD: embargo time is accompanied by a different flag ('E'). Embargo time is to be provided with CONF\_STATUS='E' and not with CONF\_STATUS='N' as before in the STS datasets.

Moreover, because of the changes in the legislation, breaks in time series are expected for the new base year 2021 and therefore the flag for indicating the break in series (OBS\_STATUS='B') is allowed.

A field for 'PRE\_BREAK\_VALUE' is present in the data structure, but this field should always be left empty.

Finally, the flag indicating statistical confidentiality ('C') shall be used only for this purpose; a separate flag for data that are not for publication ('N') for other reasons is made available. Low reliability (OBS\_STATUS='U') can be accepted as a reason for not publishing data (CONF\_STATUS='N').

For the cases where data are not for publication (CONF\_STATUS='N'), reporting countries should agree on this flagging with Eurostat. This does not concern the old existing practices which have

been agreed for the transmissions under the STS Regulation.

The treatment of flags in Eurostat will be described in detail in chapter 5 of this document.

## TIME PERIOD

Months should be coded with two digits after a hyphen ('2021-01') and quarters with one digit after hyphen and 'Q' ('2021-Q1') in the 'Time period' field.

In order to ensure that monthly data is sent with a single syntax that is accepted by all allowed SDMX formats, Eurostat only accepts 'yyyy-mm' (Gregorian year month, without 'M' after hyphen).

## EMBARGO TIME

This concept is related to an observation and it consists of three parts:

1. date (YYYY-MM-DD)
2. time (HH:MM:SS) when the embargo is lifted and
3. the time zone expressed as difference from Coordinated Universal Time (UTC) – this part is not used in STS data transmissions.

Components of the date are separated by hyphens ('-') and those of the time stamp by colons (':'). Date and time are separated by 'T'.

Similarly to the practice adopted by national accounts, the time zone <sup>(1)</sup> part should be left empty in the STS data sets. This is then interpreted as the Luxembourgish time (UTC + 1 hour in winter and UTC + 2 hours in summer) according to the location of Eurostat. The Luxembourgish time is the same time zone as that of most EU countries (except Portugal and Ireland [-1 hour] and the Baltic States, Finland, Romania, Bulgaria, Greece and Cyprus [+1 hour]). Example: 2017-01-16T11:00:00

EMBARGO\_TIME should be used only with confidentiality status 'E': CONF\_STATUS='E'.

## COMMENTS

Free text can be entered at three different levels of the STS data structure:

- COMMENT\_DSET is a message related to the transmitted file and the text is shown to the domain manager loading the data set to Eurostat's STS production database. Such comment is equivalent to EDAMIS envelope or in a separate e-mail message, and it can contain a general message on the contents of the data file.
- COMMENT\_TS relates to one time series only.
- COMMENT\_OBS is specific to one observation. For example, if the observation value appears as an outlier for an economic reason, this can be recorded as a comment on an observation.

## Data set structures

Data structure definition identifier: ESTAT+BCS+1.0

A data structure definition, also named 'Key Family', is a set of dimensions, measures and attributes that gives all information necessary to describe fully the data transmitted. The DSD used for STS purposes is described in the SDMX for EBS – STS Guidelines document.

The DSD 'ESTAT+BCS+1.0' for the STS (based on the EBS Regulation since 2021) can be downloaded from the Euro Registry in SDMX format. Link of the SDMX registry can be found at the end of this chapter. Examples of SDMX messages for the data flows can be found in Appendix 2 of

<sup>(1)</sup> In XML, to specify the time zone, a date-time is in UTC time if the time stamp is followed by 'Z' or an offset from the UTC time is indicated by adding a positive or negative time behind the time. For example, '2016-12-01T11:00:00+01:00'.

the SDMX for EBS – STS Guidelines document, including explanations on the structures.

## Notes for data sets

This section presents notes that should help the reporting countries to prepare specific data files respecting the DSD and the data flow specific constraints. This part of the document will be updated in the course of the life cycle of the guidelines.

Table 4 presents an overview of the data flows and their legal basis in the EBS General Implementing Regulation. In the regulation there are nine tables which present the requirements for STS, namely Tables 1 to 9.

**Table 4: EBS General Implementing Regulation tables and related STS BCS data sets**

EBS GIR table	BCS data transmission tables			
Table 1	'QBD', Q flow			
Table 2	'EMP', M flow		'EMP', Q flows	
Table 3	'HOU', M flow	'HOU', Q flow	'EAR', M flow	'EAR', Q flow
Table 4	'IMP', M flow			
Table 5	'PPI', M flow	'PPC', M flow	'PPC', Q flow	'PPS', Q flow
Table 6	'PVI', M flow	'PVC', M flow	'PVC', Q flow	'PVS', M flow
Table 7	'TOR', M flow	'TOW', M flow		
Table 8			'TOI', M flow	'TOS', M flow
Table 9	'BPI', M flow		'BPI', Q flow	

### BCS\_QBD\_Q – QUARTERLY BUSINESS DEMOGRAPHY

- Quarterly business demography indicators must be reported to Eurostat in absolute numbers of registrations (BURE) and declarations of bankruptcies (BUBA). Due to the national differences of the data sources, the dissemination of these indicators will only take place as indices.
- 'BASE\_PER' value 'ABS0' ends with zero '0', not with 'O'.

### BCS\_EMP\_M AND BCS\_EMP\_Q - NUMBER OF EMPLOYEES AND SELF-EMPLOYED PERSONS

- Under the EBS Regulation, all STS labour indicators (employment [EMPL], hours worked by employees [HOWK] and wages and salaries [WAGE]) shall be transmitted as indices.
- All NACE activities of each indicator are preferably transmitted in one file. In EBSR, there are no 'Annexes' as in the STSR.
- The three labour indicators are required as quarterly in EBSR, but Eurostat encourages monthly transmissions if monthly data are available.

### BCS\_HOU\_M AND BCS\_HOU\_Q - HOURS WORKED BY EMPLOYEES

- Under the EBS Regulation, all STS labour indicators (employment [EMPL], hours worked by employees [HOWK] and wages and salaries [WAGE]) shall be transmitted as indices.
- All NACE activities of each indicator are preferably transmitted in one file. In EBSR, there are no 'Annexes' as in the STSR.
- The three labour indicators are required as quarterly in EBSR, but Eurostat encourages monthly transmissions if monthly data are available.

### BCS\_EAR\_M AND BCS\_EAR\_Q - WAGES AND SALARIES

- Under the EBS Regulation, all STS labour indicators (employment [EMPL], hours worked by

employees [HOWK] and wages and salaries [WAGE]) shall be transmitted as indices.

- All NACE activities of each indicator are preferably transmitted in one file. In EBSR, there are no 'Annexes' as in the STSR.
- The three labour indicators are required as quarterly in EBSR, but Eurostat encourages monthly transmissions if monthly data are available.

### BCS\_IMP\_M - IMPORT PRICES

- Import prices are only required from the euro-area countries.
- The import prices are classified according to the product classification CPA, not the activity classification NACE. This is now also reflected in the data transmission format: all codes have the 'CPA\_' prefix.
- Activity code is always '\_Z'.
- Countries participating in the European Sampling Schemes (ESS) are only required to transmit import prices from the non-euro area (IMPX).

### BCS\_PPI\_M - PRODUCER PRICES IN INDUSTRY

- NACE Group and Class level data (3- and 4-digit) are welcome from all countries.
- The breakdown of non-domestic producer prices into euro-area and non-euro-area is only required from the euro area countries.

### BCS\_PPC\_M AND BCS\_PPC\_Q - PRODUCER PRICES IN CONSTRUCTION

- With the EBSR, the target variable is construction producer prices (CSTO) (in STS it was construction costs [CSTI, CSTM and CSTL]).
- The construction cost variables are classified according to the product classification CPA, not the activity classification NACE. This is also reflected in the data transmission format: all code have the 'CPA\_' prefix.
- Activity code is always '\_Z'.
- Only 'CPA\_F41001X410014' is required.
- Construction costs (CSTI) can be transmitted as a 'proxy' variable of the producer prices, but the breakdown in to materials costs (CSTM) and construction labour costs (CSTL) is not needed and not used by Eurostat anymore.

### BCS\_PPS\_Q - PRODUCER PRICES IN SERVICES

- For services producer prices, the coverages under the EBSR is considerably extended from the STSR. This has also an impact on the NACE codes: full Section N is required (instead of 'N\_STS'). However, 'M\_STS' still remains because the activities of head offices are not under the EBS requirements.
- Despite the partial coverage of Section M, the code 'HTNXK' should be used instead of the 'HTN\_STS' or 'H494TN812\_STS' when the NACE coverage is full.

### BCS\_PVI\_M - PRODUCTION (VOLUME) IN INDUSTRY

- NACE Group and Class level data (3- and 4-digit) are welcome from all countries.

### BCS\_PVC\_M AND BCS\_PVC\_Q - PRODUCTION (VOLUME) IN CONSTRUCTION

- In the EBSR, production in construction is broken down by NACE Division (F41, F42 and F43) at the latest from the transmission of the data for the new base year 2021 in 2023.
- During the transitional period, the old breakdown into buildings and civil engineering works

can still be used, but the buildings should be coded in this data structure as 'F4143' and civil engineering works as 'F42'. (In the old data structure, the NACE Division codes cannot be transmitted, but Eurostat converts the CC codes into the above NACE codes.)

### BCS\_PVS\_M - PRODUCTION (VOLUME) IN SERVICES

- For services production, the coverages under the ESBR is considerably extended from the STSR. This has also an impact on the NACE codes: full Section N is required (instead of 'N\_STS'). However, 'M\_STS' still remains because the activities of head offices are not under the requirements.
- Despite the partial coverage of Section M, the code 'HTNXK' should be used instead of the 'HTN\_STS' in the BCS data set.

### BCS\_TOR\_M – TURNOVER IN RETAIL TRADE

- As before, the retail trade data sets can have two time layers of data: the main aggregates of retail trade at T+1 months and the details at T+2 months can be transmitted in the same file.
- Data shall cover both net-turnover (value) and sales volume (deflated turnover).

### BCS\_TOW\_M - TURNOVER IN WHOLESALE TRADE ETC.

- In the past, wholesale trade and sales of motor vehicles was part of the 'other services' data flow. In this data structure, there is a separate data flow only for the Section G and the G45 and G46 NACE Divisions.
- Data shall cover both net-turnover (value) and sales volume (deflated turnover).

### BCS\_TOS\_M - NET TURNOVER (VALUE) IN SERVICES

- The coverage of this data flow is the net turnover (value) of sections from H to N excluding Section K (HTNXK), with partial coverage of Section M.

### BCS\_TOI\_M - NET TURNOVER (VALUE) IN INDUSTRY

- Data on industrial turnover should be provided only at 2-digit NACE level also for M and L countries.

### BCS\_BPI\_M AND BCS\_BPI\_Q – BUILDING PERMITS INDICATORS

- Building permits expressed as number of dwellings (PNUM) and useful floor area (PSQM) shall be transmitted to Eurostat as absolute values.
- The real estate variables are classified according to the product classification CPA, not the activity classification NACE. This is reflected in the data transmission format: all code have the 'CPA\_' prefix.
- Activity code is always '\_Z'.
- If the unit multiplier (UNIT\_MULT) is different from 0 (i.e. the absolute values are multiplied by 1), the UNIT\_MULT field shall be transmitted together with the data. For example, '300 000' m<sup>2</sup> can be transmitted as '300' with unit multiplier '3' (300\*10<sup>3</sup>), but the reporting countries should be consistent with their transmissions.
- Eurostat plans to disseminate the absolute values of building permits indicators on ad hoc basis, probably aggregated to annual data.
- 'BASE\_PER' value 'ABS0' ends with zero '0', not with 'O'.

## BCS\_CRE\_Q – COMMERCIAL REAL ESTATE INDICATORS

- During the first years of implementation of the EBS Regulation, there is no legal obligation to transmit construction starts (SSQM) and works completions (CSQM). However, STS grants may include contractual obligations to start the transmission of these variables.
- The real estate variables are classified according to the product classification CPA, not the activity classification NACE. This is now also reflected in the data transmission format: all code have the 'CPA\_' prefix.
- Activity code is always '\_Z'.
- 'BASE\_PER' value 'ABS0' ends with zero '0', not with 'O'.

## Links

CIRCABC folder '[EBS Short-term statistics data transmissions](#)' including subfolders '[BCS Guidelines](#)' and '[Converter files](#)'

CIRCABC folder '[BCS Guidelines](#)', including two reference documents:

- [SDMX for EBS – STS Guidelines](#)
- [ESTAT+BCS+1.0\\_matrix\\_v0.1.xlsx](#)

SDMX registry: <https://webgate.ec.europa.eu/sdmxregistry>

SDMX wiki page with further SDMX-related guidance: <http://ec.europa.eu/eurostat/web/sdmx-infospace/welcome>

# 4

## Validation rules

### Introduction

This chapter describes the roles and responsibilities of the stakeholders and then identifies the minimum requirements for data validations that should be performed by the reporting countries before sending data to Eurostat.

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

### Roles and responsibilities

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

The transmission of data from the NSAs to Eurostat implies the stability of the confidentiality status of the data in both organisations. Additionally, the transmission of information on big revisions, unexpected observations and discontinued series with the data from the NSAs to Eurostat is required for the compilation of European aggregates by Eurostat. This information may be exchanged either in SDMX-ML COMMENT\_OBS field, EDAMIS envelope or in a separate e-mail.

### Validation of data files

There are several levels of data validation applied to the STS 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 have been formalised and implemented in the Eurostat corporate validation tools, STRUVAL and CONVAL. The results of the validation are communicated to the national data correspondents via the EDAMIS feedback mechanism.

The STRUVAL validation report is very short if the file is accepted. If errors are detected, they are described at a detailed level. The CONVAL validation report is separate from the STRUVAL report and it can include for the BCS data files 'errors', or 'information items':

- **Error**

Errors listed in the error report mean that a serious data consistency issue was detected in the transmitted data file. Any error listed in the error report means that the data file sent is rejected by Eurostat. The errors must be corrected by the sender and a new version should be sent via EDAMIS.

- **Information**

Information items listed in the error report mean that some reported element is suspicious. They highlight an issue deserving further attention and for which a valid explanation might exist. Files with information are not rejected, they are accepted and processed by Eurostat,

sending of a new file is not requested, but the reporting countries should carefully look into the validation results and consider whether they think the information should result in some action.

## Further data validation in Eurostat

All BCS data sets are validated when the data are uploaded to the Eurostat STS database, called SHOPS (short-term business statistics production system) database by the Eurostat STS domain managers. Most importantly, these validation repeat some of the content validation rules and additionally **compare the new data against the data already present in the database**.

If big revisions are made to the previously transmitted data, the STS domain manager will contact the sender of the file to confirm the changes. In future, new values will also be compared against an ARIMA forecast to detect unexpected values.

## Structural validation rules

All incoming SDMX-ML and SDMX-CSV files are automatically validated against the DSD ESTAT+BCS+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 BCS data sets.

**Table 5: Structural validation rules for BCS data sets**

Number	Severity	Rule description
I	Error	All file transmitted in SDMX are validated against the corresponding data structure definition (DSD) for the respect of the 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

Automatic content validation rules are executed immediately after the structural validation. The validation rules have been agreed between Eurostat and the reporting countries in 2020. Table 6 lists the structural validation rules applied for the BCS data sets.

**Table 6: Content validation rules for BCS data sets**

Number	Severity	Rule description	Rule name
III	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 (e.g. BCS_PVC_M_AT_2021_0004_V0001.xml has to contain data on production in construction of April 2021). Hence the consignment of the data must correspond to its contents.	VRULE_MNAMENOK VRULE_QNAMENOK
IV	Error	No missing observations (gaps) are accepted in time series, sent in one file.	
V	Error	Each file must have at least one data record.	RULE_NTHING
VI	Error	Frequency must be coherent with the time format.	RULE_MONTHLY, RULE_QUARTERLY
VII	Error	Zeroes are not admitted for prices.	RULE_NOZEROES
VIII	Error	Negative values are not accepted for any series or observations, including seasonally adjusted series.	RULE_POSITIVE
IX	Error	For certain indicators, only indices are accepted (the group of these indicators will be updated according to the requirements of the EBS	RULE_INDEX4PRIVOL



		regulation).	
X	Error	For indices, a valid base period shall be given and 'ABS0' is not accepted.	RULE_INDEX
XI	Error	For absolute variables, base period shall be 'ABS0'.	RULE_ABS0
XII	Error	For the number of dwellings, only pure number (PN) is accepted as unit measure.	RULE_PNUM
XIII	Error	For usable floor area, only square meters (MQ) is accepted as unit measure.	RULE_SQM
XIV	Error	Only pure number is accepted as unit measure for quarterly business demography data.	RULE_QBD
XV	Error	Embargo time must be accompanied by 'E' as confidentiality status and 'E' shall not be transmitted without embargo time.	RULE_EMBARGO
XVI	Error	Transmission of one time series in different presentations (gross, calendar and seasonally adjusted) should be in one file.	
XVII	Info	Transmitted calendar adjusted series should be without calendar effect and seasonally adjusted series without residual seasonality.	
XVIII	Info	Annual averages of calendar and seasonally adjusted series should be within the range of +/- 3 % for complete calendar years.	VRULE_NWq_ann_AVG VRULE_NWm_ann_AVG
XIX	Info	Annual averages of unadjusted data and calendar adjusted data should be within the range of +/- 2 % for complete calendar years.	VRULE_WYq_ann_AVG VRULE_WYm_ann_AVG
XX	Info	The average index value of the base year must be 100 for the series required in the STS regulation (gross series for prices and calendar adjusted series for volume measures) and within the range of 98-102 for other presentations (gross, calendar or seasonally adjusted).	VRULE_MNBaseYear_AVG, VRULE_MWBaseYear_AVG VRULE_MYBaseYear_AVG VRULE_QNBaseYear_AVG, VRULE_QWBaseYear_AVG VRULE_QYBaseYear_AVG
XXI	Info	Check for high revisions before accepting the data into the production database	
XXII	Info	Check for unexpectedly high or low index values before accepting the data into the production database	

## Error reports

Example: successful STRUVAL report

**Validation Report**

Official Data Transmission

Data Provider: NL  
 Data Submitted On: 2021-10-18T11:36:27  
 Process Type: OFFICIAL TRANSMISSION  
 Processed On: 2021-10-18T11:36:29  
 Validated Dataset: VBCS\_QBD\_Q for 2021-0003, Version 0001  
 DSD: ESTAT\_BCS 1.0  
 Constraint: ESTAT+CR\_BCS\_QBD\_Q+1.0  
 Validation Report: 2021-10-18T11:36:29  
 Generated On: 2021-10-18T11:36:29  
 Actors: • STRUVAL v8.4.5

Validation ended with success

Error	Warning	Info
0	0	0
Please correct data	Data review required	Information available

**Validation Results**

## Example: successful CONVAL report

```

ValidationResponse:
requestIdentifier=c417d8e8b0cd406bb0d3299c5c831217211018113629529
exitCode=0
estimatedRequestRunningTime=0
outputSummary=<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<outputSummary>
  <numberOfErrorsBySeverity/>
  <numberOfItems>423</numberOfItems>
</outputSummary>

```

-----  
No validation report attached.

## Example: successful CONVAL report with information items:

**VRULE\_NWm\_ann\_AVG**

MESSAGE: Average of the monthly data in at least one year is not the same for non and calendar adjusted series. A 3% tolerance is accepted.,  
SEVERITY: Information

```

ROW_ID,,FREQ, REF_AREA, INDICATOR, ACTIVITY, BASE_PER, UNIT_MEASURE,VUOSI,
AVG_NANN_COMPUTED, AVG_WANN_COMPUTED,
ROUND(100*(AVG_NANN_COMPUTED-
AVG_WANN_COMPUTED)/MAX(AVG_NANN_COMPUTED,0.000001),2)
,,M,<MS>,PSQM,F_CC113,ABS0,MQ,"2016",31559.0,30560.0,3.17

```

**VRULE\_WYm\_ann\_AVG**

MESSAGE: Average of the monthly data in at least one year is not the same for calendar and both calendar and seasonally adjusted series. A 3% tolerance is accepted,  
SEVERITY: Information

```

ROW_ID,,FREQ, REF_AREA, INDICATOR, ACTIVITY, BASE_PER, UNIT_MEASURE,VUOSI,
AVG_WANN_COMPUTED, AVG_YANN_COMPUTED,
ROUND(100*(AVG_WANN_COMPUTED-
AVG_YANN_COMPUTED)/MAX(AVG_WANN_COMPUTED,0.000001),2)
,,M,<MS>,PSQM,F_CC113,ABS0,MQ,"2016",30560.0,28815.0,5.71
,,M,<MS>,PSQM,F_CC113,ABS0,MQ,"2017",38942.0,40547.0,-4.12
,,M,<MS>,PSQM,F_CC122,ABS0,MQ,"2017",39736.0,34538.0,13.08
,,M,<MS>,PSQM,F_CC12,ABS0,MQ,"2018",300588.0,315037.0,-4.81
,,M,<MS>,PSQM,F_CC122,ABS0,MQ,"2018",48974.0,62209.0,-27.02
,,M,<MS>,PSQM,F_CC113,ABS0,MQ,"2019",34059.0,36099.0,-5.99
,,M,<MS>,PSQM,F_CC122,ABS0,MQ,"2019",42720.0,45946.0,-7.55
,,M,<MS>,PSQM,F_CC122,ABS0,MQ,"2020",46928.0,43713.0,6.85
===== END REPORT =====

```

# 5

## Data processing in Eurostat

### Introduction

This chapter summarizes the data processing in Eurostat and the use of flags for the STS data under the EBS regulation.

### Data processing in Eurostat

The STS data files which were successfully checked regarding their structure by STRUVAL and their content by CONVAL are delivered in the Eurostat IT system into a specific STS folder.

The Eurostat STS domain managers follow the reception process during the working day, the core times are between 9:30 and 16:00.

#### CALCULATION OF DERIVED SERIES

The delivered files from the STS folder are further processed with an internal validation procedure (valid). The goal of valid procedure is to store the incoming data into the STS database and to update (recalculate) the series, which are not delivered by the countries (derived series).

The derived series are:

- formula calculated series (Example: B and C are delivered, but not B\_C)
- vertical aggregated series (subtype of formula calculated series, Example: C1041 and C1042 are delivered, but not C104)
- working day adjusted series (Example: only N gross data is delivered for C104, but not W working day adjusted)
- seasonally adjusted series (Example: only N and/or W data is delivered for C104, but not Y seasonally adjusted)
- converted from absolute numbers to indices series
- growth rates series
- quarterly and annually converted series, including growth rates.

The quarterly and annual conversion is done across all (new incoming & derived) series.

The validation procedure is automatic for STS labour indicators (EMPL, HOWK, WAGE) and construction prices indicators (CSTO or CSTI). For the rest of the STS indicators the process is manual.

In case of high revisions, the Eurostat STS domain managers double-check the figures and if needed, they contact the reporting country for clarification.

## CALCULATION OF EUROPEAN AGGREGATES

Eurostat releases the European aggregates for the EU and for the euro area once per month according to our STS release calendar. The only exception are the STS labour data where Eurostat calculates the European aggregates daily.

The aggregation is done for all activities and products for which a coverage of a minimum 60% of the weights of the aggregate is reached. In the calculations all available data are used, free, confidential and embargo data.

If the coverage is enough (above 60%), but still some country data is missing because of delays, the missing figures are forecasted and used for the aggregation but not released as country data. The forecasted values are based on historical data. The coverage is calculated based on country weights for all activity, products and indicators combinations.

## DISSEMINATION OF DATA

The dissemination of the data is performed on two levels, country and European aggregates. The dissemination includes all new (incoming country series and derived series), updated or created series.

The new country data are published in the Eurostat database on every working day at 11:00 a.m. The updated European aggregates are disseminated according to the STS release calendar once per month at 11:00 a.m. The European aggregates for STS labour data are published daily, if new country data was validated, at 11:00 a.m.

The Eurostat STS team is publishing simultaneously with the data releases four news releases per month at 11:00 a.m.

## Flags in input files

Reporting countries can mark in the data transmissions their data with the following flags in two groups, Observation status and Confidentiality status:

Observation status:

- 'A' Normal value
- 'B' Time series break
- 'E' Estimated value
- 'P' Provisional value
- 'U' Low reliability

Confidentiality status:

- 'F' Free (free for publication)
- 'N' Not for publication, restricted for internal use only  
Data with this flag will never be published, e.g. because of low reliability
- 'C' Confidential statistical information  
Flag for cases of statistical confidentiality and not for quality problems
- 'E' Not for publication, restricted for internal use only  
Equivalent to 'N' (not for publication) until the embargo time elapses  
Equivalent to 'F' (free for publication) after the embargo time elapses

## Flags in the Eurostat dissemination database

In the Eurostat dissemination database ('Eurobase'), the following flags are used:

- 'b' break in time series
- 'c' confidential
- 'e' estimated
- 'p' provisional
- 's' Eurostat estimate
- 'u' low reliability
- 'd' definition differs, see metadata (not used in STS)
- 'f' forecast (not used in STS)
- 'n' not significant (not used in STS)
- 'r' revised (not used in STS)
- 'z' not applicable (not used in STS)

The flags from STS database will be converted to an acceptable combination of Eurobase flags. In this conversion, the following rules will be used:

- The combination 'A' and 'F' appears without flag.
- In the STS production database and in Eurostat dissemination the flag 'S' (estimated by Eurostat) will be used in the cases:
  - For country data when Eurostat has carried out calendar or seasonal adjustment
  - For European aggregates, when Eurostat has estimated missing country data that is normally transmitted
- All flags indicating available data which is used for calculating European aggregates but not released to the public (Confidentiality status: 'C', 'N' and 'E') are converted to combination ':c' (':' released instead of the value).
- In the case of Confidentiality status flag 'C', 'N' or 'E' with 'Observation status flag 'U' (Low reliability), the combination ':u' is released.
- If an Observation status flag 'B', 'E', 'P' or 'U' appears alone in the STS production database with Confidentiality status 'F' (free for publication), the values released in Eurobase are with 'b', 'e', 'p' or 'u' respectively.
- If the seasonal adjustment is done by Eurostat, the flag for Eurostat's estimate 'S' overruns the one for national estimate 'E' (estimated value) and only 's' is released with the data.

## Conversion of input files flags to dissemination flags

Table 7 presents the conversion between the flags of the STS input files and the Eurostat database dissemination flags.

**Table 7: Conversion of STS input files flags to Eurostat database dissemination flags**

Observation status	Confidentiality status		
	'F' free for publication	'N' not for publication	'C' confidential
A' Normal value	value	: (c)	: (c)
'B' Time series break	value <sup>(b)</sup>	: (b)	: (c)
'E' Estimated value	value <sup>(e)</sup>	: (c)	: (c)
'P' Provisional value	value <sup>(p)</sup>	: (c)	: (c)
'U' Low reliability	value <sup>(u)</sup>	: (u)	: (c)

## Links

[Eurostat website - STS publications](#) (with link to the STS release calendar)

# 6

## STS dissemination

### Introduction

This chapter reports on the dissemination of STS data under the EBS regulation and takes stock of the latest developments.

Eurostat applies a pure online publication strategy also for the STS data. In the dissemination, the use of Statistics Explained is the main distribution channel for the general public.

### STS dissemination channels

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

#### EUROSTAT DATABASE

In the Eurostat database all STS data are displayed in multi-dimensional data tables.

In the data tree the STS data are under 'Industry, trade and services' / 'Short-term business statistics (STS)'. The Eurostat database data tree is currently under review.

Eurostat releases the STS data in the database:

- Data are updated every day, two times per day.
- National data are validated and loaded to the database within 24 hours.
- The EU aggregates of the variables with news releases and data releases are displayed according to the STS release calendar.
- For the STS variables without news releases and data releases (e.g. labour data) the EU aggregates are displayed as soon as the 60% threshold of the total weights is reached.

Under the EBS regulation the STS data will be transmitted by the reporting countries in EDAMIS under the new BCS data flows. This coding does not have any impact on the output in Eurostat database, the output tables will keep their current names, starting with 'sts\_'.

#### MAIN STS TABLES

Some key data tables (e.g. pre-selection of MIGs for industry, food, non-food for retail trade) are displayed in this section of the Eurostat website.

#### EUROSTAT WEBSITE – STS DEDICATED SECTION

This page is the main entry point to all STS data, metadata, methodology and publications. This part of the Eurostat website is available in English, German and French.

The subpage on the STS publications is the portal of news releases, news items, Statistics explained articles, etc.

## STS NEWS RELEASES

Every month Eurostat publishes four news releases with monthly data on industrial production, industrial producer prices, production in construction, and retail trade.

The news releases are published according to a fixed release calendar. The STS release calendar file is available on the Eurostat website.

## STS NEWS ITEMS

About three to six times per year Eurostat publishes news items with STS data. These news items promote new dissemination products, data releases, new or updated Statistics Explained articles.

## STS SECTION ON STATISTICS EXPLAINED

Statistics Explained was set up in September 2009; it has become Eurostat's central publication hub with currently about 800 articles on all statistical domains.

Statistics Explained contains more than 20 articles on all STS indicators as well as more than 10 methodological background articles written in an accessible manner and a glossary of STS terms.

Each STS Statistics Explained article is updated at least once per year. Four articles on the effects of the COVID-19 crisis on STS were updated every month until 2021.

## STS data in other Eurostat products

STS data are also distributed via other channels and publications. The most notable are listed here below.

### PRINCIPAL EUROPEAN ECONOMIC INDICATORS / EURO INDICATORS

The PEEIs are the primary source of information for the analysis and monitoring of short-term, cyclical developments of the economy within the European Union (EU), the euro area (EA), and the Member States. They contain numerous STS indicators such as industrial production, production in construction, industrial producer prices, retail trade volume and others.

### EUROPEAN STATISTICAL RECOVERY DASHBOARD

The dashboard is regularly published since December 2020 to track the economic recovery from the COVID-19 pandemic. It collects key data on the European economies, e.g. GDP, inflation, etc.

The dashboard currently includes seven STS indicators such as industrial production, production in construction, retail trade, accommodation and food services turnover (monthly), services turnover, business registrations and bankruptcy declarations (quarterly).

### BUSINESS SECTOR PROFILE

The BSP is an economic dashboard where users can select data of their business sector of interest. The interactive visualisation tool highlights the recent and long-term developments of businesses & markets. Among other business relevant indicators the tool includes STS data on turnover, production, prices and employment.

### KEY FIGURES ON EUROPEAN BUSINESS

This 2021 statistics illustrated publication uses numerous data visualisations to present key business statistics indicators for the EU, the Member States and the EFTA countries. It contains numerous data from STS and also a review of COVID-19 impacts for different parts of the business economy.



## New developments

Eurostat plans further improvements and changes related to the dissemination of STS data from 2022.

### DATA IN ABSOLUTE VALUES ON BUILDING PERMITS

Eurostat will update the related Statistics Explained article on Building permits with building permits data in absolute values (square meters).

Absolute values will be added also to the related annual Eurostat database table: Building permits – annual data (sts\_cobp\_a). This will be the first Eurostat dissemination of such data in absolute values.

### MONTHLY SERVICES DATA

With the EBS Regulation the scope of STS indicators has been widened and now includes a monthly service turnover and service production indicator (ISP). Eurostat would like to publish the European aggregates of the ISP as soon as a sufficient coverage is reached.

In the Recovery dashboard the goal is to replace the quarterly services turnover by monthly data and later on to replace them by services production data as soon as it can be done.

### INDEX OF TOTAL MARKET PRODUCTION

In the future a combination of all STS production indicators (industry, construction, services, and deflated trade turnover) in an index of total market production (TMPI) could be envisaged. Eurostat has already done some methodological work on the latter index but found that so far the ISP is still a limiting factor.

Eurostat would like to promote in the future the new index of total market production by an article in Statistics Explained provided enough data on the index of services production and on monthly trade are transmitted.

## Links

[Eurostat database](#)

[Main STS tables](#)

[Eurostat website - STS dedicated section](#)

[Eurostat website - STS publications](#) (with link to the STS release calendar)

[STS News releases](#)

[STS News Items](#)

[STS section on Statistics Explained](#)

[Principal European Economic Indicators/Euro indicators](#)

[European Statistical Recovery Dashboard](#)

[Business Sector Profile](#)

[Key figures on European business publication](#)

# 7

# STS metadata reporting

## Introduction

The EBS General Implementing Regulation states that Member States should provide annual quality and metadata reports for business statistics. The annual reporting also refers to STS. This chapter presents the annual STS national metadata reporting under the EBS Regulation.

## National metadata for STS

The collection of the STS metadata reports is done through the ESS Metadata Handler tool since 2012. Under the STS Regulation, there were 23 STS metadata flows. Since 2013, the STS metadata have been updated yearly according to a rolling plan, aiming at an update of the most important ESMS fields every three years.

In 2016, it was decided to include the selected STS quality performance indicators (QPI) into the STS national reference metadata. There was a 4-year program to add the QPIs into the STS metadata files. This program was finished in 2021, with the update of the national metadata files to reference period 2020. This was the last reporting under the STS Regulation. Compared to the last STS Regulation reporting, the contents of the metadata files will not change.

## METADATA FLOWS

The metadata reporting under the EBS regulation will follow the structure of the data transmissions in the BCS datasets of EDAMIS, as defined in Table 2, in chapter 3.

The number of STS metadata flows will be up to 16 under the EBS Regulation. The three labour metadata reports also can be transmitted in one metadata flow reducing the number of metadata files to 14. It is also possible to transmit multiple metadata files for the STS labour data, easing the transition between the two regulations.

Table 8 presents the EBS metadata flows for STS with their new names (starting with BCS\_) and also the matching former STS metadata flows.

**Table 8: Metadata flows for STS under the EBS Regulation**

EBS metadata flow	Former STS metadata flow	Label in ESS-MH
BCS_QBDES_A	(new flow)	Short-term business statistics on business population
BCS_PVIES_A	STSIND_ESMS11_A	Short-term business statistics on production (volume) in industry
BCS_TOIES_A	STSIND_ESMS12_A	Short-term business statistics on net-turnover (value) in industry
BCS_PPIES_A	STSIND_ESMS31_A	Short-term business statistics on producer prices in industry

BCS_IMPES_A	STSIND_ESMS34_A	Short-term business statistics on import prices in industry
BCS_PVGES_A	STSCONS_ESMS11_A	Short-term business statistics on production (volume) in construction
BCS_PPCES_A	STSCONS_ESMS31_A STSCONS_ESMS32_A	Short-term business statistics on producer prices in construction or construction costs
BCS_BPIES_A	STSCONS_ESMS41_A	Short-term business statistics on building permits
BCS_TOTES_A	STSRTD_ESMS12_A	Short-term business statistics on net-turnover (value) and sales volume in trade (for BCS_TOR_M and BCS_TOW_M)
BCS_PVSES_A	STSSERV_ESMS11_A	Short-term business statistics on production (volume) in services
BCS_TOSES_A	STSSERV_ESMS12_A	Short-term business statistics on net-turnover (value) in services
BCS_PPSES_A	STSSERV_ESMS31_A	Short-term business statistics on producer prices in services
BCS_EMPES_A	STSIND/CONS/RTD/ SERV_ESMS21/22/23_A	Short-term business statistics on employment
BCS_HOUES_A		Short-term business statistics on hours worked
BCS_EARES_A		Short-term business statistics on wages and salaries
Or reporting in one flow: BCS_LABELS_A		Short-term business statistics on labour indicators
BCS_CREES_A	(new flow, voluntary collection)	Short-term business statistics on commercial real estate indicators

The 'BCS\_QBDES\_A' and 'BCS\_CREES\_A' are new metadata flows, these flows did not exist under the STS Regulation.

## TRANSMISSION DEADLINE

The EBS General Implementing Regulation states in Article 11(2) that 'Member States shall provide metadata reports for business statistics transmitted with the periodicity specified in Article 17(4) of Regulation (EU) 2019/2152 to the Commission (Eurostat) two months after the last data transmission deadline of the statistics covered by the report at the latest.

The different transmission deadlines of the STS data would result different deadlines for the STS metadata files, which would be due between 10 April and 15 June.

Instead of multiple dates, the 2021 STS Working Group agreed that there will be one **single deadline for all STS metadata files: 15 June**, defined by the latest STS data transmission deadline, 15 April plus two months. Metadata files can also be sent earlier.

## Eurostat metadata

Eurostat publishes one single metadata file for the whole STS 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.

## STS national metadata guidance

Every year in February, Eurostat organises a videoconference meeting for the reporting countries to present the tasks of the annual metadata update exercise. The presentations and supporting files are available in the [CIRCABC folder 'STS Metadata'](#).

The [Vademecum on STS National Reference Metadata](#) document is also available on CIRCABC, this guidelines document provides the national metadata editors with detailed guidelines to create and maintain the national STS metadata files.

## Links

[ESS Metadata Handler](#)

[CIRCABC folder 'STS Metadata'](#) with annual presentations on the national metadata update

Guidelines for editors: [Vademecum on STS National Reference Metadata](#)

[Eurostat metadata file for STS](#)

# 8

## STS compliance assessment

### Introduction

The EBS Regulation provides a common legal framework with regard to data requirements, quality, as well as data and metadata transmission.

Eurostat implements a harmonised compliance measurement for all statistics due under the regulation, in particular with regard to the quality dimensions 'Punctuality', 'Completeness', 'Accuracy and reliability' and 'Coherence and comparability'.

Compliance assessment is harmonised among the business statistics domains, in particular with regard to the criteria to identify non-compliance and the practice of compliance monitoring, as well as the format, scope, geographical coverage and frequency of the compliance reporting for European business statistics.

The EBS compliance assessment is applied for STS since October 2021. From 2022 onwards the harmonised monitoring and reporting process will be integrated into other EBS statistical areas.

### Compliance monitoring and reporting

In the EBS harmonised compliance monitoring and reporting process:

"Compliance monitoring or compliance assessment" means:

- Continuous background work to collect, assess and condense the information for the reporting at dataset and broad area levels.
- Supervision of the data transmission process and feedback to the data providers.
- Measurement issues (definitions; criteria and rules to make the categorisation of non-compliance, etc.).

"Compliance reporting" means:

- Periodic official reporting to the domain working group, to BSDG and to Eurostat's hierarchy.
- Standard overview templates are used for the reporting referring to the most important quality dimensions.

### Geographical scope and frequency

The EBS regulation has 'EEA relevance'. Consequently the EBS compliance assessment will be applied to the data transmissions from EU Member States, as well as the EFTA countries, Iceland, Liechtenstein, Norway, and Switzerland.

Moreover, the candidate countries, Albania, Republic of North Macedonia, Montenegro, Serbia, Turkey and the potential candidate countries, Bosnia and Herzegovina and Kosovo will also be covered by the compliance monitoring to the maximum possible extent.

In principle, EBS compliance assessment will have an annual frequency for the business statistical domains and will cover a full year; however, the EBS domains can differ from this frequency according to their needs.

Initially the **frequency of the STS compliance assessment** will be unchanged compared to the practice under the STS regulation, having two compliance assessments per year, one in April and one in October. The April assessment will cover the transmissions between 2 October and 1 April; the October assessment will cover the reporting period between 2 April and 1 October. The two assessments will more or less cover the reporting obligations for one reference year.

Based on the two assessments one single annual compliance reporting could be done to the BSDG before the summer break (preliminary results) and to the STS Working Group in autumn (final results). The length of the observation period is not yet final; it can change in the future to twelve months, depending on the EBS compliance framework, to be in line with the reporting of other domains in business and trade statistics.

Eurostat STS Team will do ad-hoc reporting whenever non-compliance issues risk to become serious or persistent, or risk to affect the quality of European short-term business statistics.

## Compliance categories

The EBS compliance assessment will apply four categories for different levels of compliance and non-compliance:

- **Compliance** (=full compliance and negligible non-compliance): The Member State has met all legal requirements and has ensured an overall satisfactory quality of data.
- **Minor non-compliance**: The Member State has failed to meet some legal requirements and/or has delivered with some deficiencies in data quality. The non-compliance is characterised as temporary and non-systematic. It has no, or very limited, impact on the overall intended dissemination of the statistics concerned or on their quality. It does not affect other domains.
- **Serious non-compliance**: The Member State has failed to meet significant legal requirements and/or has delivered with significant deficiencies in data quality. The non-compliance is characterised as lasting and repeated. It has a substantial impact on the overall intended dissemination of the statistics concerned or on their quality. It affects other domains.
- **Serious and persistent non-compliance**: The Member State has failed entirely to meet requirements laid down in a legal act or has repeatedly delivered with serious deficiencies in data quality. The non-compliance is characterised as permanent and repetitive. It has a critical impact on the overall intended dissemination of the statistics concerned or on their quality. It affects other domains severely.

## Compliance assessment categories

The EBS compliance assessment will be done for the following criteria:

- Punctuality (transmission deadlines)
- Completeness
- Data quality: Accuracy and reliability
- Data quality: Coherence and comparability

For each of the above criteria, the level of compliance will be defined according to the four EBS compliance assessment categories:

- Compliance (C)

- Minor non-compliance (M)
- Serious non-compliance (S)
- Serious and persistent non-compliance (N)

## Compliance monitoring: measurement

Compliance is monitored for detailed data sets and then aggregated into broader areas.

The **STS detailed data sets** will be the 16 BCS data sets in EDAMIS (the new BCS data transmission formats), e.g. BCS\_QBD\_Q for the business registration and bankruptcy indices. The list of the detailed data sets for the STS compliance assessment can be found in Table 9. The detailed data sets are those elements, for which compliance is actually measured.

For STS there will be only one **broad area**, the full STS domain will be defined as one broad area.

**Table 9: BCS detailed data sets and their weights for broad area STS**

EDAMIS data flow	Detailed dataset (for monitoring)	EBS table	Short description	Period	Weight
BCS_QBD	BCS_QBD_Q	T1	Quarterly business demography (registrations and bankruptcies)	Q	1 (=4.17%)
BCS_EMP	BCS_EMP_M / BCS_EMP_Q	T2	Number of persons employed, Number of employees (all STS)	M or Q	1
BCS_HOU	BCS_HOU_M / BCS_HOU_Q	T3-1	Hours worked (all STS)	M or Q	1
BCS_EAR	BCS_EAR_M / BCS_EAR_Q	T3-2	Gross wages and salaries (all STS)	M or Q	1
BCS_IMP	BCS_IMP_M	T4	Import prices in industry (total, Euro-zone, non-Euro-zone)	M	2 (PEEI) (=8.33%)
BCS_PPI	BCS_PPI_M	T5-1	Producer prices in industry, total, domestic market, non-domestic market, split non-domestic market Euro area, non Euro area	M	2 (PEEI)
BCS_PPC	BCS_PPC_M / BCS_PPC_Q	T5-2	Producer prices in construction, construction costs, material costs, labour costs	M or Q	1
BCS_PPS	BCS_PPS_Q	T5-3	Services producer prices	Q	2 (PEEI)
BCS_PVI	BCS_PVI_M	T6-1	Production (volume) in industry	M	2 (PEEI)
BCS_PVC	BCS_PVC_M / BCS_PVC_Q	T6-2	Production (volume) in construction, total, building construction, civil engineering	M or Q	2 (PEEI)
BCS_PVS	BCS_PVS_M	T6-3	Index of services production (ISP)	M	1
BCS_TOR	BCS_TOR_M	T7-1 T8-1	Turnover in retail trade, Volume of sales in retail trade	M	2 (PEEI)
BCS_TOW	BCS_TOW_M	T7-2 T8-2	Turnover in wholesale trade and repair of vehicles, Volume of sales in wholesale trade and repair of vehicles	M	1
BCS_TOS	BCS_TOS_M	T7-3 T8-3	Turnover in services (value)	M	2 (PEEI)

BCS_TOI	BCS_TOI_M	T8-4	Turnover in industry, total, domestic, non-domestic, split of non-domestic for Euro area, non-Euro area	M	1
BCS_BPI	BCS_BPI_M / BCS_BPI_Q	T9-1	Building permits, number of dwellings or square metres of useful floor area	M or Q	2 (PEEI)

## PUNCTUALITY

Compliance with regard to 'punctuality' will be measured based on the difference between the legal transmission deadline and the date when the data have actually been transmitted.

Only those transmissions are taken into account which successfully passed the corporate validation in Eurostat, both the structural validation and the content validation.

Depending on the eventual delays of the data transmissions, for each of the 16 STS data sets the 'punctuality' will be measured over the whole observation period of six months. The four EBS compliance categories, compliance, minor-non compliance, serious non-compliance, serious and persistent non-compliance will be assigned for each of the 16 data sets.

## COMPLETENESS

Compliance with regard to 'completeness' can be measured based on the difference between the number of legally required 'data points' and the data points for which data have actually been transmitted.

For each of the 16 STS data sets the 'completeness' will be measured over the whole observation period of six months. The criteria will be defined based on the missing data points, missing aggregates or NACE levels, missing adjustments, starting dates of the series, frequency of the data transmissions.

Also for 'completeness' the four EBS compliance categories will be assigned for each of the 16 data sets.

## Criteria applied for the assessment and results

The criteria applied for the assessment of 'punctuality' and 'completeness' of STS data transmissions can be found in the [CIRCABC folder 'STS Compliance'](#).

This CIRCABC folder will also include the results of the periodic STS compliance assessments under the EBS Regulation. The link to the folder is at the end of this chapter.

## AGGREGATION FROM DETAILED DATA SETS TO BROAD AREA

For the dimensions 'punctuality' and 'completeness', the results of the aggregation of percentages will directly be used in the compliance reporting. The aggregation will be done based on the weights of each detailed data set within the broad area, adding up to 100% for the broad area.

For STS the detailed data sets which are not PEEIs will have a single weight, the PEEI data sets will have double weight.

An example of compliance reporting for a broad area (e.g. STS) is provided in Table 10.

**Table 10: Compliance reporting on 'punctuality' and 'completeness' for a broad area**

Criterion	Compliance category		Country A
Punctuality	Compliance		92%
	Minor non-compliance		4%
	Serious non-compliance	not yet persistent	4%
		persistent	0%



Completeness	Compliance		80%
	Minor non-compliance		20%
	Serious non-compliance	not yet persistent	0%
		persistent	0%

The compliance reporting in the Figure above has to be read for Country A as follows:

- With respect to 'punctuality', Country A is compliant for detailed data sets representing 92% of the broad area, minor non-compliant for 4% and serious non-compliant, but not yet persistent for 4%. For none of the detailed data sets of the broad area persistent serious non-compliance is signalled.
- With respect to 'completeness', Country A is compliant for detailed data sets representing 80% of the broad area and minor non-compliant for 20%. For none of the detailed data sets of the broad area serious non-compliance is signalled.

## 'Accuracy and reliability', 'coherence and comparability'

The measurement of the quality criteria 'accuracy and reliability' and 'coherence and comparability' is more complex than for the criteria 'punctuality' and 'completeness'. Moreover, it is less tightly linked to each single data transmission, but instead often points to more structural and enduring problems.

In the ESS, the regular quality reporting, based on the ESS Standard for Quality Reports (ESQR) or Single Integrated Metadata Structure (SIMS) contains relevant information. It is mostly done in fixed intervals. The EBS Regulation requires that Member States shall transmit quality and metadata reports annually.

For the STS, a lighter standard Euro-SDMX Metadata Structure (ESMS) is applied. Some fields of the ESMS have been enriched, with the approval of the STS Working Group to collect more detailed metadata on fields that are critical to STS (e.g. on accuracy, coherence, revisions, and adjustment).

In order to keep the reporting burden at reasonable level and ensure consistent reporting, Eurostat units will use the information obtained with the regular quality reporting for the assessment of the compliance with regard to the criteria 'accuracy and reliability' and 'coherence and comparability'

The compliance assessment only will contain a tick for all broad areas/countries where there are no or only minor compliance issues with regard to the dimensions 'accuracy and reliability' and 'coherence and comparability'. An example of compliance reporting on quality criteria 'accuracy and reliability' and 'coherence and comparability' for a broad area (e.g. STS) is provided in Table 11.

**Table 11: Compliance reporting on 'accuracy and reliability' and 'coherence and comparability' for a broad area**

Criterion	Compliance category		Country A
Accuracy and reliability	Compliance		X
	Minor non-compliance		
	Serious non-compliance	not yet persistent	
		persistent	
Coherence and comparability	Compliance		X
	Minor non-compliance		
	Serious non-compliance	not yet persistent	
		persistent	

In the case of serious non-compliance, Eurostat will prepare a detailed report, Table 12 shows an example for this. The report will identify the elements causing the serious non-compliance, it will cover e.g. the legal requirements, the impact, the time dimension and the proposed actions

**Table 12: Impact of significant errors for a broad area**

Criterion	Serious non-compliance	
	not yet persistent	persistent
S.13.3 Coverage error		X
S.13.3 Non response error	X	
S.15.2 Comparability - over time	X	

The annual metadata reports might not yet be available for the year of compliance monitoring at the time when this reporting has to be done. This means that the assessment might have to lean on the quality reports from the previous year. This can be acceptable as quality problems for these dimensions mostly are structural, and the progress of overcoming problems reporting in the annual quality reporting might have to be sustained over several years.

In practice, the compliance monitoring for a given year might focus on an investigation of known quality issues (e.g. reported for the previous year) have had a significant negative impact on the transmitted data, and if yes: if this impact has decreased or increased, and if it was addressed by the Member States.

Moreover, Eurostat will check if transmitted data reveals yet unknown quality issues. This can be done through consistency checks and/or inquiries with the national data

Compliance issues regarding 'accuracy and reliability' and 'coherence and comparability' will be signalled by Eurostat to the reporting country as soon as they are noticed based either on ESMS/ESQRS or from other quality checks.

## Compliance actions

In case non-compliance issues are observed in the course of the **compliance monitoring**, the domain managers will contact the reporting NSA for correction. For STS this preferably would mean correction before the next reporting period.

This procedure aims at communicating non-compliance situations to the reporting NSA as early as possible. This would potentially lead to avoiding or decreasing the severity of non-compliance situations.

In case a serious non-compliance situation communicated to the reporting NSA is not remedied, further action will be undertaken by Eurostat through the **compliance reporting** to Working Group and BSDG and could ultimately lead to infringement procedures.

## Links

[CIRCABC folder 'STS Compliance'](#) with the criteria applied for the compliance assessment and with the results

# 9

## Seasonal adjustment guidelines

### Introduction

This chapter provides the readers with reference to methodological guidance related to seasonal adjustment.

### STS seasonal adjustment under the EBS Regulation

The EBS Regulation explicitly defines for the STS time series the presentation of the data, the required adjustments:

- non-adjusted series
- calendar adjusted series
- calendar and seasonally adjusted series.

Indeed, reporting countries are in the best position to handle calendar (working-day) effects, which are particularly strong in some sectors and also vary considerably by country.

The EBS Regulation also requires countries to report seasonally adjusted data to Eurostat. As for working-day adjustments, reporting countries are in a better position than Eurostat to carry out seasonal adjustments, where the treatment of outliers requires local knowledge

Currently, Eurostat's STS indicators for the EU and euro area are aggregated from the reporting countries' calendar and seasonally adjusted data (indirect seasonal adjustment). The results of Eurostat's indirect seasonal adjustment of the EU and EA aggregates coincide with the weighted averages of the nationally reported values.

The EU and EA aggregates are published together with the data for the reporting countries. If reporting countries do not provide Eurostat with seasonally adjusted figures, Eurostat will also seasonally adjust and publish their time series, if this is technically possible.

Eurostat currently adjusts national data for seasonality with the TRAMO-SEATS method using the JDemetra+ package for automatic processing via web service.

### Methodological guidance related to seasonal adjustment

Eurostat issued the second version of the ESS Guidelines on Seasonal Adjustment in 2015 to harmonise seasonal adjustment practices in the reporting countries.

Eurostat also published a more detailed methodological document, the Handbook on Seasonal Adjustment in 2018. The links of the two guideline documents can be found at the end of this chapter.

## Links

[ESS Guidelines on Seasonal Adjustment](#), Eurostat 2015

[Handbook on Seasonal Adjustment](#), Eurostat 2018

# 10

## Guidelines in the context of the COVID-19 crisis

### Introduction

The COVID-19 outbreak impacted the ability of statistical authorities to collect and process data in the traditional manner. Interviews were replaced with telephone and web-based surveys. The price observations became harder to collect and, for many goods and services, even missing. The response rates of statistical surveys became lower for several domains. Staff numbers were reduced, while the teleworking placed demands on technical infrastructure.

In the face of this situation, Eurostat and NSAs in the European Statistical System have been working together to elaborate guidelines and notes on how to address the methodological issues triggered by these changes in statistical production.

This chapter brings together the guidelines related to STS data. Eurostat published these two guidelines in March and April 2020. The guidelines also can be used as reference in eventual future crisis situations.

### Guidance on time series treatment

This document provides the readers with guidelines related to the time series treatment in the context of the economic crisis.

The guidelines describe the possible treatment of outliers at the end of the series and at the beginning of a major economic change and suggests solutions for the seasonal adjustment of the data points in the crisis period.

### Guidance on estimation and imputation of missing data for STS

This document provides the readers with guidelines for the treatment of missing data for short-term business statistics. The impact of the COVID-19 crisis on the business population, the impact on surveys and administrative data are presented.

The guidelines describe possible methods for estimating and imputing missing data and gives recommendations related to the dissemination of statistics using estimation and imputation of missing data

### Links

[Guidance on time series treatment in the context of the COVID-19 crisis](#)

[Guidance on estimation and imputation of missing data for STS in the context of the COVID-19 crisis](#)

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# European business statistics compilers' manual for short-term business statistics

Short-term business statistics (STS) are the earliest statistics released to show emerging trends in the European economy. STS provide data for the major economic domains, industry, construction, distributive trade and services.

This manual seeks to serve the statistical experts compiling STS data. The chapters provide an overview of the statistical production system at European level and also describe the related statistical processes, for example data dissemination, metadata management, compliance assessment.

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**For more information**

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