



EUROPEAN COMMISSION
EUROSTAT

Directorate G: Business and trade statistics
Unit G-3: Business cycle; Short-term statistics

Doc. STS WG 5.1. Nov-2019

Item 5.1

METADATA AND QUALITY ASSESSMENT 2019 AND 2020+

WORKING GROUP SHORT-TERM BUSINESS STATISTICS

LUXEMBOURG, 25 & 26 NOVEMBER 2019

BECH BUILDING - ROOM AMPERE

1. INTRODUCTION

Eurostat presents in this document the outcome of the 2019 metadata update and the current availability of national reference metadata on STS indicators, as well as a proposal for the 2020 metadata update.

2. QUESTIONS TO THE STS WG MEMBERS

The members of the STS working group (STS WG) are invited:

- to take note of the results of the 2019 metadata improvement, the overall availability and the quality of the STS national reference metadata,
- to agree on the work plan related to the STS metadata in 2020,
- to provide the missing metadata files and to keep the national metadata files up-to-date and
- to take note of the reasonably low impact of the FRIBS metadata requirements and implementation for the STS metadata.

3. BACKGROUND

The publication of the national reference metadata, as part of Eurostat's STS metadata reporting, started in 2014 and has continued until 2019.

Annually, by end of April, up to 23 metadata files need to be created for the previous reference year by the STS data providers and transmitted to Eurostat for validation and dissemination. The following metadata files need to be updated annually for the STS indicators:

Annex A. Industry:

- A11 (STSIND_ESMS11) - Production in industry, 1 file per country
- A12 (STSIND_ESMS12) - Turnover in industry, 1 file per country
- A31 (STSIND_ESMS31) - Producer prices in industry, 1 file per country
- A34 (STSIND_ESMS34) - Import prices in industry, 1 file per country

Annex B. Construction:

- B11 (STSCONS_ESMS11) - Production in construction, 1 file per country
- B31/32 (STSCONS_ESMS31/32) - Construction cost (or producer prices), up to 2 files per country
- B41 (STSCONS_ESMS41) - Building permits, 1 file per country

Annex C. Retail Trade:

- C12 (STSRTD_ESMS12) - Turnover and volume of sales index, 1 file per country

Annex D. Other Services:

- D11 (STSSERV_ESMS11) - Services Production, 1 file per country (Grant agreement: 2014)
- D12 (STSSERV_ESMS12) - Turnover in services, 1 file per country
- D31 (STSSERV_ESMS31) - Service producer prices (SPPI), 1 file per country

All annexes of STS domains

- A+B+C+D_21_22_23 (STSXXXX_ESMS21/22/23) - STS Labour, up to 12 files per country

The detailed requirements have been made available in the “*Guidelines of the ESS Metadata Handler*” for each reference year, since 2014, as well as in the “*Vademecum on STS national reference metadata*” ⁽¹⁾ available on CIRCABC.

At the STS WG of 11/2016 ⁽²⁾, it was discussed and agreed to extend the quality monitoring, with the aim to monitor on an annual basis a few key STS data quality aspects complementing the existing bi-annual data compliance assessments. Four ESS Quality and Performance indicators (QPIs) were considered relevant for this additional assessment.

An overview of the required STS QPI by years is provided in the table below.

Table 1. Implementation of the STS QPIs for 2017-2021

STS QPIs (ESMS concept number)	2017	2018	2019	2020	2021
1. Revision policy in transmissions (17.1)	Yes	Yes	Yes	Yes	Yes
2. CV of retail trade sales value (13.2)		Yes	Yes	Yes	Yes
3. Mean Revision (MR), Mean Absolute Revision (MAR) (IND+CONS PEEIs) (17.2)			Yes	Yes	Yes
4. Unit non-response of first estimates (13.3)				Yes	Yes
3. Mean Absolute Revision (MAR) and Relative Mean Absolute Revision (RMAR) (RTD and SERV PEEIs) (17.2)					Yes

These quality and performance indicators will be based on harmonised definitions and standard ways of calculation, as indicated in the “*ESS Guidelines for the implementation of the ESS Quality and Performance Indicators*”. ⁽³⁾

Table 2 shows the coverage of the STS QPIs in terms of the first transmissions for the selected STS indicators.

Table 2. Coverage of the four STS QPIs with the first reporting year, by STS indicator

STS variable	1. Rev. policy (17.1)	2. CV (13.2)	3. MR, MAR (17.2)	4. Unit response rate (13.3)
IND_11	2017		2019	2020
IND_31	2017		2019	2020
IND_34	2017		2019 (if no ESS)	
CONS_11	2017		2019	2020
CONS_41	2017		2019	2020
RTD_12	2017	2018	2021	2020
SERV_12	2017		2021	2020
SERV_31	2017			

The coherence of the revision policies is applicable to all STS PEEIs. The revision indicators and data availability for the first releases are applicable to those PEEIs where high level industry

⁽¹⁾ Ref: [Vademecum on STS national reference metadata](#) (STS CIRCABC login needed)

⁽²⁾ Ref.: [Doc. STS WG 4.1 Nov-2016](#) (STS CIRCABC login needed)

⁽³⁾ Ref: [ESS Quality and Performance Indicators \(2014\)](#).

aggregates are required. This is the case for industrial production and construction production, turnover PEEIs, building permits indicators and industrial producer as well as for import prices when the European Sample Schemes are not applied.

The coefficient of variation needs to be calculated for the retail trade sales value only when probability sampling is used.

For services producer prices, high level aggregates are currently not required.

4. THE 2019 STS METADATA IMPROVEMENT

In 11/2018, the STS WG agreed to the proposed 2019 work plan for the production and dissemination of 2018 national reference metadata. **The 2018 national reference metadata files had to be updated by 30 April 2019** and, in particular, the following tasks were subject to changes:

Task	Description
Provide missing metadata files (backlog)	Finalising the missing and incomplete STS metadata files according to the 2013-2017 (reference year) guidelines – and taking into account the STS domain managers' cumulative feedback for those STS metadata files that have not yet been published.
Certify, post and update	Updated the ESMS concepts " 2.1. Metadata last certified ", " 2.2. Metadata last posted " and " 2.3. Metadata last update " in the newly created "2018" reference year metadata files, with a date in 2019.
Spontaneous update	The reporting countries had to keep up-to-date the metadata at any moment when there are significant changes of methodology, data collection, processing – or simple changes of the URLs (web addresses) of the web sites referred to in the metadata.
Update the base year/period	The concept " 3.9. Base period " had to be updated in accordance with the base period applied as soon as the national rebasing takes place.
Provide the Quality Performance Indicators	<p>"13.2 Sampling error" for STSRTD_ESMS12 (retail trade): "The Coefficient of Variation (CV) is only to be provided for the first turnover estimates when based on probability sample surveys. Only totals need to be provided and temporal breakdown as twelve monthly CV's in the reference year 2018."</p> <p>"17.1 Revisions – policy" "Is the same release policy applied to national releases and transmissions to Eurostat?" (as in 2017 ref. year), for STS PEEIs' metadata files:</p> <ul style="list-style-type: none"> • "STSIND_ESMS11" (industrial production), • "STSIND_ESMS31" (industrial producer prices), • "STSIND_ESMS34" (industrial import prices), • "STSCONS_ESMS11" (production in construction), • "STSCONS_ESMS41" (building permits indicators), • "STSRTD_ESMS12" (retail trade), • "STSSERV_ESMS12" (services turnover) and • "STSSERV_ESMS31" (service producer prices) <p>"17.2 Revisions – practice" The MAR and MR of growth rates for unadjusted and calendar adjusted data series are to be calculated for STS PEEI's of the industry and construction Annexes, except for</p>

	<p>industrial import prices of countries applying European sample schemes. In a first phase, no activity breakdown (only totals).</p> <p>In the calculation formulae, the “latest release” should refer to the last value in the reference year T (December or Q4 reference year T) for the metadata reporting in T+1.</p> <p>The reference periods set to 20 values for quarterly data and to 36 values for monthly data.</p>
Simplification/harmonisation	Possible merges of the several metadata files referring to labour variables in one-metadata files by country.
Remove HTML tables	Remove any redundant table structures (introduced in 2013 when the STS metadata were migrated from the "Sources and methods" database) from the published metadata files.

Eurostat organised a webinar on 7th of February 2019 to discuss the details of the 2019 STS metadata updates. The requirements of the 2019 STS metadata updates, as well as the minutes of the meeting were uploaded on CIRCABC on 4th of March 2019, at [Library > sts_metadata > e-meeting_190207](#).

Eurostat had to validate and disseminate the 2018 national metadata files by end August 2019.

Moreover, early September all Member states received a detailed feedback on the status of their national STS metadata files. Where necessary, the countries have been asked to complete the 2018 metadata files and to retransmit them for validation by end September 2019.

4.1 Availability and quality of STS national reference metadata

Almost all reporting countries have published all the required STS metadata files ⁽⁴⁾. Currently, only 10 metadata files are missing from the EU28 Member States.

Most of the countries also participated in the 2019 metadata improvement. By the end of October 2019, Eurostat had validated and disseminated 400 national reference metadata files (EFTA and candidate countries included) referring to 2018 year. There are 46 published national metadata files which refer still to prior 2018 reference years.

Eurostat has prepared a synopsis assessment of the 2018 metadata availability (**Annex 2**), taking into account the following aspects (**Table 3**).

Table 3. Assessment of the STS 2018 metadata transmissions covering all required STS metadata files.

Criterion	What is it?	Reference to Annex 2	Facts
Coverage ("existence")	Have the STS metadata been published?	A red cell ("N") in Annexes 2 and 3 indicate that no metadata file has been provided yet.	10 metadata files have not been provided by EU28 Member States yet.
Timeliness ("freshness")	Is the metadata up-to-date?	Published metadata files referring to 2013 can be identified by "-13" etc.	8 published metadata files still refer to 2014 or earlier, 16 to 2016 and 22 to 2017.

⁽⁴⁾ http://ec.europa.eu/eurostat/cache/metadata/en/sts_esms.htm#annex

Quality of the 2019 updates	What is the quality of the 2019 updates?	Fully compliant 2018 (ref. year) files are marked with "√", almost fully compliant files with "(√)" and partly compliant with "P".	321 validated and disseminated metadata files were very good ("√"), 74 were good "(√)" and only 5 were partially completed "P".
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For those metadata files that were sent for publication for the first time in 2018, the validation process took into account also the cumulative requirements since 2014 according to the *Vademecum (Guidelines in the ESS Metadata Handler)*.

In order to get the metadata published, Eurostat insisted on some minimum requirements. Nevertheless, all files do not yet fully comply with the requirements of 2016 (accuracy of PEEIs) and 2015 (calendar and seasonal adjustment). The 2017 requirements were rather easy to comply with, even though the ESMS (2.0) concept 15.3 on internal coherence was not always exhaustive. In 2018, the sampling error of retail trade turnover volume also caused some difficulties. The provision of the revision indicators (MAR and MR) of growth rates for unadjusted and calendar adjusted data series for STS PEEI's of the industry and construction Annexes, except for industrial import prices of countries applying European sample schemes, posed difficulties in 2019 to few countries.

In conclusion, Eurostat considers that:

- ✓ The quality of the metadata files updated in 2019 (reference year 2018) was very good "√" or good "(√)".
- ✓ With the provision and dissemination of the third required QPIs in 2019 (MR and MAR), for all STS industry and construction PEEIs, Eurostat and the Member States are answering to the long standing users' needs for a meaningful information on the quality and stability of the data produced and disseminated.

Eurostat is referring to some of the results in the **Doc. STS WG 3.2 Nov-2019. Production in construction and building permits.**

- ✓ Nineteen countries scored 10 points (rounded) on average: BG, CZ, DE, EE, HR, IT, CY, LV, LT, HU, MT, NL, AT, PL, RO, SI, SK, FI, and SE. This required that all - or almost all - metadata files had been updated in 2019 (for the 2018 reference year). For the currently published and non-updated metadata files in 2019, a published metadata file referring to the 2017 ref. year received 4/10 points, to the 2016 ref. year received 3/10 points, to the 2015 ref. year received 2/10 points and to the 2014 or older ref. year received 1/10 point.
- ✓ Two countries scored less than 5 points.
- ✓ Missing metadata files represent less than 5 % of all files that are required (EU28) in 2019. One EU28 country still lacks to provide 7 metadata files and one metadata file is missing from 3 other EU28 Member States.

5. STS METADATA WORK PROGRAMME 2020

For the 2020 metadata work programme, **up to 23-metadata file referring to 2019 year are expected to be created by the STS data providers and transmitted to Eurostat for validation and dissemination by 30 April 2020.**

The context sensitive *Guidelines in the ESS Metadata Handler* will be updated to reflect the STS metadata requirements in 2020.

Table 1. STS 2020 metadata work programme (see Annex 3 for details).

The following items will need to be updated during the 2020 STS metadata work program:

Task	Description
Provide missing metadata files (backlog)	Finalising the missing and incomplete STS metadata files according to the 2013-2018 (reference year) guidelines – and taking into account the STS domain managers' cumulative feedback for those STS metadata files that have not yet been published. All missing STS metadata files should become available as 2019 (reference year) files.
Certify, post and update	A new "2019" (reference year) copy of the file (with change of the reference year in the file name) and the ESMS concepts " 2.1. Metadata last certified ", " 2.2. Metadata last posted " and " 2.3. Metadata last update " shall be updated with a date in 2020.
Spontaneous update	Additionally, the reporting countries should keep their metadata up-to-date at any moment when there are significant changes of methodology, data collection, processing – or simple changes of the URLs (web addresses) of the web sites referred to in the metadata.
Update the base year/period	The concept " 3.9. Base period " shall be updated (e.g. to correctly reflect the rebasing from 2010 to 2015) in accordance with the base period applied as soon as the national rebasing takes place.
Provide the Quality Performance Indicators	<p>"13.2 Sampling error" for STSRTD_ESMS12 (retail trade): "The Coefficient of Variation (CV) is only to be provided for the first turnover estimates when based on probability sample surveys. Only totals to be provided and temporal breakdown as twelve monthly CV's in the reference year 2019."</p> <p>"13.3 Non sampling error; unit non-response rate of first estimates" for all STS PEEI's except for SPPIs and for industrial import prices of countries applying European sample schemes. Since the agreed time table for the implementation of the STS Quality Performance Indicators foresees the calculation of the unit non-response rate at the time of the first data releases for the STS PEEIs in 2020, it was proposed to collect this QPI in the 2020 metadata update.</p> <p>"17.1 Revisions – policy": "Is the same release policy applied to national releases and transmissions to Eurostat?" (as in 2018) for STS PEEIs' metadata files:</p> <ul style="list-style-type: none"> • "STSIND_ESMS11" (industrial production), • "STSIND_ESMS31" (industrial producer prices), • "STSIND_ESMS34" (industrial import prices), • "STSCONS_ESMS11" (production in construction), • "STSCONS_ESMS41" (building permits indicators), • "STSRTD_ESMS12" (retail trade), • "STSSERV_ESMS12" (services turnover) and • "STSSERV_ESMS31" (service producer prices) <p>"17.2 Revisions – practice" The MAR and MR of growth rates for unadjusted and calendar adjusted data series are to be calculated for STS PEEI's of the industry and construction Annexes, except for industrial import prices of countries applying European sample schemes.</p>

	<p>In a first phase, no activity breakdown (only totals).</p> <p>In the calculation formulae, the “latest release” should refer to the last value in the reference year T (December or Q4 reference year T) for the metadata reporting in T+1.</p> <p>The reference periods set to 20 values for quarterly data and to 36 values for monthly data.</p>
Simplification/harmonisation	Possible merge of the several metadata files referring to labour variables in one-metadata files by country.
Remove HTML tables	Remove any redundant table structures (introduced in 2013 when the STS metadata were migrated from the "Sources and methods" database) from the published metadata files.

In 2020, the additional implementation of the fourth required STS QPI (i.e. Unit non-response of first estimates) and the completion of the back-log remain the main priority. After the introduction of these QPIs, their reporting remains an annual task.

6. STS METADATA IN FRIBS

Discussions about the STS national metadata transmission to Eurostat when the FRIBS will enter into force have already started two years ago, at the STS Task Force in 6/2017 and in the STS WG in 11/2017⁵. At the STS WG in 11/2017, Eurostat presented a proposal for the organisation of the STS metadata transmissions under FRIBS.

In the latest revised version of FRIBS GIA, the Article 10. Quality and metadata reports states that:

*“1. Member States shall provide annual quality and metadata reports for statistical business registers to the Commission (Eurostat), using the ESS standards for metadata and quality reporting. 2. **Member States shall provide metadata reports for business statistics transmitted with the periodicity as specified in Article 17(4) of the European Parliament and Council Regulation XX on European business statistics, repealing 10 legal acts in the field of business statistics to the Commission (Eurostat) at the latest two months after the last data transmission deadline of the statistics covered by the report.***

3. Member States shall provide, in duly justified cases, additional quality reports containing more detailed quality information necessary to evaluate the quality of the business statistics transmitted in application of Regulation XX [FRIBS Regulation] to the Commission (Eurostat) within a time limit agreed between the Member States and the Commission (Eurostat).

4. For the topic "ICT usage and e-commerce", the deadlines for the quality and metadata reporting are specified in the implementing act that is also specifying the data requirements.

*5. **For the structure and contents of the quality and metadata reports, the relevant ESS standards should be used.***

6. In addition to the standard quality and metadata reporting, in duly justified cases Member States shall provide to the Commission (Eurostat) complementary metadata and quality information necessary for the evaluation of the quality of the business statistics at its request, including revisions of previously provided information where relevant.”

According to Eurostat, the impact of FRIBS on the STS metadata process is as follows:

⁵ [Doc. STS WG 5.2 Nov-2017. STS data and metadata flows in FRIBS](#)

- The periodicity of the STS metadata will remain annual under FRIBS, even if the data are transmitted monthly or quarterly (Article 17(4) of the FRIBS Basic Act).
- The standard used for the STS metadata will remain ESMS (point **5** above), including the current extended quality and performance indicators (point **3** above) – it is not planned to use the more detailed ESQRS.
- Almost the same coverage (in terms of STS indicators) of metadata files will be used under FRIBS as what is currently used under the STS Regulation (suggested in the **2017 STS WG document**).
- With FRIBS, the deadlines for the STS indicators will change slightly (see **Annex 4**; two months after the transmission deadline of the last dataset of the previous year i.e. the reference year).
- The existing metadata files can be used from the beginning of FRIBS (March 2022), possibly in newly named metadata flows.

In conclusion, the cost and burden of the STS metadata process is not supposed to increase considerably. Of course, the new indicators (quarterly business demography, index of services production) also need their metadata files.

ANNEXES

ANNEX 1: CHANGES OF ESMS AFTER EVOLUTION TO VERSION 2.0

The EURO-SDMX Metadata Structure (ESMS) 2.0

	Concept Name
1	Contact
1,1	Contact organisation
1,2	Contact organisation unit
1,3	Contact name
1,4	Contact person function
1,5	Contact mail address
1,6	Contact email address
1,7	Contact phone number
1,8	Contact fax number
2	Metadata update
2,1	Metadata last certified
2,2	Metadata last posted
2,3	Metadata last update
3	Statistical presentation
3,1	Data description
3,2	Classification system
3,3	Sector coverage
3,4	Statistical concepts and definitions
3,5	Statistical unit
3,6	Statistical population
3,7	Reference area
3,8	Time coverage
3,9	Base period
4	Unit of measure
5	Reference period
6	Institutional mandate
6,1	Legal acts and other agreements
6,2	Data sharing

	Concept Name
7	Confidentiality
7,1	Confidentiality - policy
7,2	Confidentiality - data treatment
8	Release policy
8,1	Release calendar
8,2	Release calendar access
8,3	User access
9	Frequency of dissemination
10	Accessibility and clarity
10,1	News release
10,2	Publications
10,3	On-line database
10,4	Micro-data access
10,5	Other
10,6	Documentation on methodology
10,7	Quality documentation
11	Quality management
11,1	Quality assurance
11,2	Quality assessment
12	Relevance
12,1	User needs
12,2	User satisfaction
12,3	Completeness
13	Accuracy and reliability
13,1	Overall accuracy
13,2	Sampling error
13,3	Non-sampling error

	Concept Name
14	Timeliness and punctuality
14,1	Timeliness
14,2	Punctuality
15	Coherence and comparability
15,1	Comparability - geographical
15,2	Comparability - over time
15,3	Coherence - cross domain
15,4	Coherence - internal
16	Cost and burden
17	Data revision
17,1	Data revision - policy
17,2	Data revision - practice
18	Statistical processing
18,1	Source data
18,2	Frequency of data collection
18,3	Data collection
18,4	Data validation
18,5	Data compilation
18,6	Adjustment
19	Comment

ANNEX 2: A FIRST ASSESSMENT OF THE REPORTING COUNTRIES' PUBLISHED OR VALIDATED METADATA IN 2019

TABLE 1. ASSESSMENT OF THE REPORTING COUNTRIES' PUBLISHED OR VALIDATED METADATA IN 2019 (AS OF 25.10.2019)

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	NO	CH	ME	MK	RS	TR	AL	BA	TOT		
IND_11	-17	√-	√-	-17	√-	√-	√-	-16	√-	√-	√-	√-	√-	√-	√-	P	√-	√-	√-	√-	√-	√-	√-	√-	√-	√-	√-	√-		√-	(√)		√-	(√)	√-		√-	34		
IND_12	-17	√-	√-	-17	√-	√-	-10	-16	√-	√-	√-	-17	√-	√-	√-	√-	√-	√-	√-	√-	√-	(√)	√-	√-	√-	√-	√-	√-		√-	√-		√-	√-	√-		√-	34		
IND_21	√-	√-	√-	√-	√-	√-	√-	N	√-	√-	√-	√-	√-	√-	√-	√-	√-	(√)	√-	√-	√-	(√)	√-	√-	√-	√-	√-	√-	-14	√-	(√)	√-	√-	√-	-14				34	
IND_22					√-				-17	√-	√-	√-			√-								√-		√-		√-	-13		√-				√-	-14				13	
IND_23									-17	√-	√-	√-			√-								√-		√-	√-			N		√-		√-	√-	√-	-14			13	
IND_31	(√)	√-	√-	(√)	√-	(√)	(√)	-16	√-	(√)	(√)	(√)	√-	(√)	(√)	(√)	√-	√-	(√)	√-	√-	√-	√-	√-	√-	√-	√-	N		(√)	(√)		P	-14	√-	-17			33	
IND_34	(√)			(√)	√-	(√)	(√)	-16	√-	(√)		√-	(√)	(√)	(√)	(√)	√-	√-	(√)	(√)	√-	(√)	√-	√-	√-	√-	√-	N		P					(√)	(√)		22		
CONS_11	-17	√-	√-	√-	√-	√-	√-	-16	√-	-17	√-	√-	√-	√-	√-	(√)	√-	√-	√-	√-	√-	√-	√-	√-	√-	√-	√-	√-	N		√-	(√)	(√)	√-	(√)	-16		√-	34	
CONS_21		√-	√-		√-				√-			√-			√-											√-							√-						8	
CONS_22					(√)							√-			√-																	√-							5	
CONS_23									√-			√-			√-																								5	
CONS_31	-16		√-		-16		N	-16		-17	√-	√-	√-			(√)			(√)		√-				√-		√-		√-		√-	√-	√-			√-			16	
CONS_32		(√)	√-	-14	√-	√-		-16	√-	-17		√-	√-	√-	√-		√-	√-	√-	-17		√-	√-	√-		√-	(√)	N		√-			√-	√-		√-	(√)			25
CONS_41	(√)	√-	√-	-17	√-	√-	√-	-17	-17	√-	(√)	√-	√-	√-	√-	(√)	√-	√-	(√)	√-	√-	(√)	√-	√-	√-	√-	√-	√-	N		(√)		(√)	(√)	(√)	-17	(√)	(√)		35
RTD_12	N	√-	√-	(√)	√-	√-	(√)	-16	√-	√-	√-	√-	√-	√-	√-	(√)	√-	(√)	√-	√-	(√)	(√)	√-	√-	√-	√-	√-	√-	P		√-	√-	√-	√-	√-	√-	√-		34	
RTD_21		√-	√-		√-			-16	√-			√-			√-											√-										-16				10
RTD_22					√-			-17				√-			√-																		√-							6
RTD_23					√-			-17				√-			√-																	√-								6
SERV_12	P	√-	√-	(√)	√-	√-	√-	-16	√-	√-	√-	√-	√-	√-	√-	√-	√-	√-	(√)	√-	√-	(√)	√-	√-	√-	√-	√-	√-			√-	(√)		√-	√-				32	
SERV_21		√-	√-		√-				√-			√-			√-					√-					√-											-16				9
SERV_22					√-			-17				√-			√-																									5
SERV_23					√-			-17				√-			√-																									6
SERV_31	(√)	√-	(√)	(√)	√-	(√)	(√)	-16	√-	(√)	√-	(√)	√-	√-	(√)	√-	√-	√-	√-	√-	√-	√-	√-	(√)	√-	(√)	(√)	(√)	N		(√)									28
"N"	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0									10
-10-14	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	3	0	0	0	8
-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
-16	1	0	0	0	1	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	16	
-17	3	0	0	3	0	0	0	1	7	3	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	22	
Old files	4	0	0	4	1	0	1	12	7	3	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	1	7	1	0	46		
"√"	1	12	13	2	-	8	5	0	15	8	10	-	11	10	19	4	10	9	7	15	9	5	12	10	16	11	9	5	0	11	4	6	8	6	6	2	3	321		
"(√)"	4	1	1	5	1	3	4	0	0	3	2	2	1	1	3	6	0	2	5	1	1	6	0	1	0	1	2	0	0	3	4	3	1	3	0	3	1	74		
"P"	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	5			
-18	6	13	14	7	21	11	9	0	15	11	12	22	12	11	22	11	10	11	12	16	10	11	12	11	16	12	11	6	0	14	9	9	10	9	6	5	4	400		
Total	11	13	14	11	22	11	11	13	22	14	12	23	12	11	22	11	10	11	12	17	10	11	12	11	16	12	11	14	1	14	9	9	10	10	13	6	4	456		
Score	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK												
	6	10	10	7	10	10	8	3	8	9	10	10	10	10	10	9	10	10	10	10	10	9	10	10	10	10	10	4												

Note: In the calculation of the Score, a published metadata of the reference year -14 or older yields 1 point, -15 metadata file 2 points, -16 file 3 points and -17 file 4 points; the validated -18 metadata files get 10 points for "√" - complete metadata), 9 points for "(√)" - almost complete metadata " and 8 points for "(P)" partial complete metadata.

TABLE 2. THE REFERENCE YEAR OF THE VALIDATED AND/OR PUBLISHED METADATA FILES, BY COUNTRY AND STS INDICATOR (AS OF 25.10.2019)

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	NO	CH	ME	MK	RS	TR	AL	BA	
IND_11	-17	-18	-18	-17	-18	-18	-18	-16	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18		-18	-18		-18	-18	-18	-18	-18	-18
IND_12	-17	-18	-18	-17		-18	-10	-16	-18	-18	-18	-17	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18
IND_21	-17	-18	-18	-18	-18	-18	-18	ND	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-14	-18	-18	-18	-18	-18	-14		
IND_22					-18				-17	-18	-18	-18			-18									-18		-18		-18	-13		-18			-18	-14			
IND_23					-18				-17	-18	-18	-18			-18									-18		-18	-18		ND		-18		-18	-18	-18	-14		
IND_31	-18	-18	-18	-18	-18	-18	-18	-16	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	ND		-18	-18		-18	-14	-18	-17	
IND_34	-18				-18	-18	-18	-16	-18	-18			-18	-18	-18	-18		-18	-18	-18	-18	-18		-18	-18	-18	-18	ND			-18						-18	
CONS_11	-17	-18	-18	-18	-18	-18	-18	-16	-18	-17	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	ND		-18	-18	-18	-18	-18	-18	-16		-18
CONS_21		-18	-18		-18				-18			-18			-18										-18								-18					
CONS_22					-18				-18			-18			-18																		-18					
CONS_23					-18				-18			-18			-18																-18							
CONS_31	-16		-18		-16		ND	-16		-17	-18	-18	-18			-18			-18		-18				-18			-18				-18	-18				-18	
CONS_32		-18	-18	-14	-18	-18		-16	-18	-17		-18	-18	-18	-18		-18	-18	-18	-17		-18	-18	-18	-18		-18	-18	ND		-18		-18	-18	-18	-18	-18	-18
CONS_41	-18	-18	-18	-17	-18	-18	-18	-17	-17	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	ND		-18		-18	-18	-18	-17	-18	-18
RTD_12	ND	-18	-18	-18	-18	-18	-18	-16	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18		-18	-18	-18	-18	-18	-18	-18	-18	-18
RTD_21		-18	-18		-18			-16	-18			-18			-18					-18					-18											-16		
RTD_22					-18				-17			-18			-18					-18													-18					
RTD_23					-18				-17			-18			-18					-18											-18							
SERV_12	-18	-18	-18	-18	-18	-18	-18	-16	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18			-18	-18		-18	-18		
SERV_21		-18	-18		-18				-18			-18			-18					-18					-18											-16		
SERV_22					-18				-17			-18			-18					-18																		
SERV_23					-18				-17			-18			-18					-18											-18							
SERV_31	-18	-18	-18	-18	-18	-18	-18	-16	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	ND		-18								

Blue cells: A 2018 reference year metadata file is available.

Green cells: One metadata file is linked with one or more indicators.

Red cells: The metadata file is missing.

Yellow cells: One metadata file by domain or country for labour variables.

ANNEX 3: STS METADATA IMPROVEMENT IN 2020

ESMS (2.0) fields:	2.1. Metadata last certified
STS indicators:	All STS metadata files
Definition:	Date of the latest certification provided by the domain manager to confirm that the metadata posted are still up-to-date, even if the content has not been amended.
Guidelines:	The date of the latest certification of this metadata file in order to confirm that the metadata file produced is still up-to-date. Such a certification can also be done if the contents of the metadata file have not been amended.
Deadline:	30 April --

ESMS (2.0) fields:	2.2. Metadata last posted
STS indicators:	All STS metadata files
Definition:	Date of the latest dissemination of the metadata.
Guidelines:	The date when this metadata file is provided by the country
Deadline:	30 April --

ESMS (2.0) fields:	2.3. Metadata last update
STS indicators:	All STS metadata files
Definition:	Date of last update of the content of the metadata.
Guidelines:	The date when this metadata file is last updated by the country
Deadline:	30 April --

ANNEX 3: STS METADATA IMPROVEMENT IN 2020

ESMS (2.0) fields:	3.9 Base period
STS indicators:	All STS metadata files
Definition:	The period of time used as the base of an index number, or to which a constant series refers.
Guidelines:	<p>Please indicate the base and reference year used. The base year in STS means the year of the weighting reference period; the reference year is the year to which the index value 100 is assigned. In chain-linking, the reference period (the period to which the index values are compared) can be shorter than one year (e.g. last month or quarter of the previous year).</p> <p>This is not relevant for data provided in absolute figures.</p> <p>Please specify:</p> <ul style="list-style-type: none"> ✓ the base year (the year on which the weights are based), ✓ the reference period (if chain-linking is based on a period shorter than a year) and ✓ the reference year (the year when the index equals 100; it may be the same as the base year) <p>applied to the data transmitted to Eurostat.</p> <p>Are different base and reference periods released nationally?</p> <p>The possible chain-linking and the annual price or volume update of weights should be reported under the field "18.5 Data compilation".</p>
Deadline:	30 April --

ANNEX 3: STS METADATA IMPROVEMENT IN 2020

ESMS (2.0) fields:	13.2 Sampling error
STS indicators:	Retail trade turnover (STSRTD_ESMS12_A)
Definition:	That part of the difference between a population value and an estimate thereof, derived from a random sample, which is due to the fact that only a subset of the population is enumerated.
Guidelines:	<p>If probability sampling is used, compilers should provide estimates of the accuracy, normally in the form of CV's, standard errors or confidence intervals. They should state if adjustments for non-response, misclassifications and other uncertainty sources such as outlier treatment are included.</p> <p>If non-probability sampling is used, the responsible for the statistical domain should provide estimates of the accuracy, a motivation for the invoked model for this estimation, and brief discussion of sampling bias.</p> <p>Brief information on whether the sampling error is applicable or not applicable.</p> <p>✓ The role of sampling should be made clear in this field. If sampling error is not relevant (as in the case of censuses), then this should be shortly explained.</p> <p>✓ If the sampling error (the coefficients of variation (CVs), standard errors or the confidence intervals) cannot be calculated for indices and growth rates, they should be provided for the main components (turnover and deflators: PPIs, SPPIs etc.). When several sample surveys are used for compiling the STS indicators (e.g. turnover and deflators), the role of the sampling errors in the source surveys should be described.</p> <p>✓ If not available for the full reference year and up to the latest deliveries, the sampling error of September (monthly data) or the 3rd quarter (quarterly data) should be reported as an example for the national total and the main aggregates (according to indicator: MIGs, types of construction and specific retail trade aggregates). It should include:</p> <ul style="list-style-type: none"> ▪ Number of respondents (all indicators). ▪ Which part of the population (enterprises) is subject to data collection. ▪ Number of observations (e.g. prices; more than one observation per respondent?). <p>✓ For non-probability sampling or cut-off sampling, description of the sampling bias should be filled in in this field.</p> <p>✓ It should be clear to the reader to which aggregates the presented error measures refer to.</p> <p>STS QPI: The Coefficient of Variation (CV) is to be provided as an annual STS Quality Performance Indicator for the first turnover estimates when the indicator is based on probability sample surveys. Only totals to be provided and temporal breakdown as twelve monthly CV's in the reference year. To be calculated (if relevant) for the retail trade.</p> <p>Main sources for the fields 13.1-13.3: Variance estimation, Eurostat, -02 and Handbook on quality reports, Eurostat, -14.</p>
Deadline:	30 April --

ANNEX 3: STS METADATA IMPROVEMENT IN 2020

ESMS (2.0) fields:	13.3 Non sampling error; unit non-response rate of first estimates
STS indicators:	All STS PEEI's except for SPPIs and for industrial import prices of countries applying European sample schemes
Definition:	Error in survey estimates which cannot be attributed to sampling fluctuations.
Guidelines:	<p>Provide an assessment, preferable quantitative, on the following non-sampling errors and the bias risks associated with them:</p> <ul style="list-style-type: none"> a) Coverage errors: Over-coverage, under-coverage and multiple listings. b) Data collection and access errors: Impact of survey instrument, respondent and interviewer where relevant; errors related to accessing the administrative data. c) Unit non-response, including causes for non-response and measures to reduce it. Please indicate the response rates. This should be at the time when the survey is closed for a reference period - September for the monthly data and 3rd quarter of the reference year for the quarterly, if available. Please indicate intermediate response rates, e.g. first indicator compiled 2 months after the end of the reference period with a response rate of 65%; the final indicator is calculated when the response rate reaches 100% which is normally 3.5 - 4 months later. Please indicate what actions are taken to increase the response rate, such as postal reminders, telephone contacts and field visits. d) Item non-response for the key variables. Present item non-response rate for the key variables. e) Editing, coding and imputation errors: Data editing, coding and imputation errors where relevant. f) Modelling errors: Specific models used in estimation. <p>STS QPI: The weighted unit non-response rate for first releases is to be calculated for all STS PEEI's (except for SPPIs and for industrial import prices of countries applying European sample schemes) and should be calculated as STS Quality Performance Indicator. No activity breakdown. Turnover is recommended as the weighting variable but other variables known for the whole population are possible. The reference periods: Q3 for quarterly data and September for monthly data in the reference year.</p> <p>Please also include the response rates if possible: 1. at the time data are provided to Eurostat; 2. at the time data are first published nationally; 3. development during one data collection exercise; 4. over the course of a year.</p> <p>Main sources for the fields 13.1-13.3: Variance estimation, Eurostat, -02 and Handbook on quality reports, Eurostat, -14.</p>
Deadline:	30 April --

ANNEX 3: STS METADATA IMPROVEMENT IN 2020

ESMS (2.0) fields:	17.1 Data revision - policy
STS indicators:	All STS PEEIs
Definition:	Policy aimed at ensuring the transparency of disseminated data, whereby preliminary data are compiled that are later revised.
Guidelines:	<p>Describe the general revision policy adopted for the organisation and the data disseminated.</p> <p>STS QPI: Please indicate if the same revision policy is applied to STS data released nationally and transmitted to Eurostat.</p> <ul style="list-style-type: none"> ✓ If there is no revision policy in place it should be explicitly stated. ✓ Include brief information how the different types of revisions (routine, major revisions, non-scheduled, and information on tracking vintages and revision analyses) are dealt with in the revision policy. ✓ Also indicate if regular revision analyses carried out for the national STS data sent to Eurostat. ✓ Does a revision calendar exist? If so, give a link or refer to the field 8.1 where a link to release and revision calendar is given. ✓ If there is no revision calendar, it should be explicitly stated. <p>Format: Description of the general revision policy, indicating for each type of revision (routine, major revisions and non-scheduled revisions) whether the same policy is applied also for transmissions to Eurostat.</p>
Deadline:	30 April --

ANNEX 3: STS METADATA IMPROVEMENT IN 2020

ESMS (2.0) fields:	17.2 Data revision - Practice
STS indicators:	All STS industry and construction PEEIs where industry totals are transmitted
Definition:	Information on the data revision practice
Guidelines:	<p>STS QPI: The Mean Absolute Revision (MAR) and Mean Revision (MR) of year-on-year growth rates for unadjusted and calendar adjusted data and period-on-period for seasonally adjusted series are to be calculated for totals of all STS PEEI's (except for SPPIs and for industrial import prices of countries applying European sample schemes) as STS Quality Performance Indicators.</p> <p>In a first phase, no activity breakdown (only totals). In the calculation formulae, the "latest release" should refer to the last value in the reference year (December or Q4 of the reference year) for the metadata reporting in T+1. The reference periods set to 20 values for quarterly data and to 36 values for monthly data. When building up the indicators, shorter time coverage is accepted.</p> <p>As to the impact of the base year change, the 2018 STS TF was in favour of using the first and latest 2015- 2017 data in base year 2010 and the first and latest 2018 data in the base year 2015 according to INE's (ES) presentation for the calculation of MR and MAR when rebasing.</p> <p>Generally, this field should inform the users on:</p> <ul style="list-style-type: none"> - How are the different types of revisions (see STS Guidelines for the field 17.1) dealt with in the revision policy? - Does a revision calendar exist? If so, give a link or refer to the field 8.1 where a link to release (and revision) calendar is given. - Is the same revision policy applied to data released nationally and transmitted to Eurostat (this should be the case to assure coherence)? <p>This field should let the users know how much the initially released values normally change in the coming months (if they do).</p> <ul style="list-style-type: none"> - Is information available to the users after the event (major revisions or errors)? - Is benchmarking (also called data confrontation/conciliation) with other statistics carried out? - What regular processes introduce revisions and when: e.g. the quarterly or annual completion of business accounts, the compilation of structural business statistics and national accounts? <p>Tools are available at OECD's web site.</p>
Deadline:	30 April --

ANNEX 4. TRANSMISSION DEADLINES FOR THE STS METADATA UNDER FRIBS.

Based on the current information, the transmission deadline for the STS metadata files in FRIBS is at the latest two months after the last data transmission deadline (an example by metadata file is provided in the table below). Concerning the structure and contents of the quality and metadata reports, the existent ESMS files will continue to be used.

Metadata files	Last data transmission deadline	Metadata transmission deadline
STSIND_ESMS11 - Production (volume) in industry	December 2021 data transmission deadline = T+1 month+10 days (10th February 2022)	10th April 2022 for all countries
STSIND_ESMS12 - Net turnover in industry	December 2021 data transmission deadline = T+2 months (end February 2022)	end April 2022 for all countries
STSIND_ESMS31 - Producer prices in industry	December 2021 data transmission deadline = T+1 month (end January 2022)	end March 2022 for all countries
STSIND_ESMS34 - Import prices in industry	December 2021 data transmission deadline = T+1 month+15 days (15th February 2022)	15th April 2022 for all countries
STSCONS_ESMS11 - Production (volume) in construction	December 2021 data transmission deadline = T+1 month +15 days (15th February 2022)	15th April 2022 for medium and large countries
	Q4/2021 data transmission deadline = T+2 months (end February 2022) or	end April 2022 for small countries
	December 2021 data transmission deadline = T+2 months (end February 2022)	end April 2022 for small countries
STSCONS_ESMS31/32 - Producer prices in construction	Q4 / 2021 data transmission deadline = T+3 months (end March 2022) or	end May 2022 for all countries
	December 2021 data transmission deadline = T+3 months (end March 2022)	end May 2022 for all countries
STSCONS_ESMS41 - Building permits	Q4/2021 data transmission deadline = T+3 months (end March 2022) or	end May 2022 for all countries
	December 2021 data transmission deadline = T+3 months (end March 2022)	end May 2022 for all countries
STSRD_ESMS12 - Net turnover and volume of sales	December 2021 data transmission deadline = T+1 months (end January 2022)	end March 2022 for all countries
STSSERV_ESMS11- Production (volume) in services	December 2021 data transmission deadline = T+2 months (end February 2022)	end April 2022 for all countries
STSSERV_ESMS12 - Net turnover in service	December 2021 data transmission deadline = T+2 months (end February 2022)	end April 2022 for all countries
STSSERV_ESMS31 - Producer prices in service	Q4/2021 data transmission deadline = T+3 months (end March 2022)	end May 2022 for all countries
	December 2021 data transmission deadline = T+3 months (end March 2022)	end May 2022 for all countries
STSXXXX_ESMS21- Number of employees and self-employed persons	Q4/2021 data transmission deadline = T+2 months (end February 2022)	end April 2022 for large countries
	Q4/ 2021 data transmission deadline = T+2 months+15 days (15th March 2022) or	15th May 2022 for small and medium countries
	December 2021 data transmission deadline = T+2 months (end February 2022)	end April 2022 for large countries
	December 2021 data transmission deadline = T+2 months+15 days (15th March 2022)	15th May 2022 for small and medium countries
STSXXXX_ESMS22/23 – Hours worked by employees and Wages and salaries	Q4/2021 data transmission deadline = T+3 months (end March 2022)	end May 2022 for large countries
	Q4/ 2021 data transmission deadline = T+3 months + 15 days (15th April 2022) or	15th June 2022 for small and medium countries
	December 2021 data transmission deadline = T+3 months (end March 2022)	end May 2022 for large countries
	December 2021 data transmission deadline = T+3 months+15 days (15th April 2022)	15th June 2022 for small and medium countries