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TECHNICAL MANUAL

of the

SINGLE INTEGRATED METADATA STRUCTURE (SIMS)

- Dynamic inventory and conceptual framework for all ESS quality and reference metadata concepts, with a unique definition and clear reporting guidelines -

This Manual as well as the Single Integrated Metadata Structure were established by the Task Force on Quality Reporting, a sub-group of the Working Group on Quality in Statistics on the recommendation of the High-Level Task Force Sponsorship on Quality, in close co-operation with the ESS Metadata Working Group, in 2012-2013

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TABLE OF CONTENTS

1. Introduction	3
2. Use and general characteristics of the SIMS	
2.1 Use of the structure	
2.2 Function of the 1-digit positions of the SIMS	5
3. Distinction between the short user- (U) and the detailed producer (P) oriented quality	
reports	6
3.1 User-oriented quality report or Short quality report (U)	6
3.2 Producer-oriented quality report or detailed quality report (P)	7
4. Integration of the Quality and Performance Indicators in the SIMS	
5. Implementation of the "once for all purposes" quality reporting strategy	9
Annex 1	
CREATION OF THE SINGLE INTEGRATED METADATA STRUCTURE FROM THE ESMS AND ESQRS	. 11
Annex 2	. 14
ESS GUIDELINES FOR SIMS	. 14
Annex 3	. 25
NEW ESMS GUIDELINES AS DERIVED FROM SIMS	. 25
Annex 4	. 34
NEW ESQRS GUIDELINES AS DERIVED FROM SIMS	. 34
Annex 5	. 43
HOW TO CREATE AND SUBMIT A REPORT IN NRME	. 43

1. Introduction

In order to

- streamline and harmonise metadata and quality reporting in the ESS
- decrease the reporting burden on the statistical authorities by creating the framework for <u>"once for all purposes" reporting</u>, where each concept is only reported upon once and is reusable for other reporting
- create an integrated and consistent quality and metadata reporting framework where the reports are stored in the same database
- create a flexible and up to date system where future extensions are possible by adding new concepts,

a dynamic and unique inventory of ESS quality and metadata statistical concepts has been created: the "Single Integrated Metadata Structure" (SIMS) – cf. recommendation No 6.4.2. of the Sponsorship on Quality.

In this structure, all statistical concepts of the two existing ESS report structures (ESMS and ESQRS) have been included and streamlined, by assuring that all concepts appear and are therefore reported upon only <u>once</u> (direct re-usability of existing information). It is a dynamic structure in the sense that additional statistical metadata and quality concepts can be included if necessary in the future.

The two metadata and quality reporting structures ESMS and ESQRS¹ have been integrated and harmonised on the basis of the following principles:

- All concepts in the existing metadata and quality report structures are included;
- The statistical concepts appear only once;
- The same concept names and the same quality indicators are always used in the different ESS metadata and quality report structures;
- The descriptions and the guidelines for the compilation of the concepts and sub-concepts have been reviewed and harmonised
- The concepts are consistent with the SDMX statistical standards as listed in the SDMX Content-oriented Guidelines.

This "Technical Manual of the Single Integrated Metadata Structure" gives an overview and guidance on the use of the structure, in particular in terms of deriving the appropriate ESS metadata and quality report structures from this conceptual framework.

It has to be noted that some of the statistical concepts of the SIMS structure can be filled in before the statistical production process takes place, i.e. in the planning phase of the survey. Some items related to the statistical output (like timeliness, punctuality, errors etc) cannot be fully filled in before the statistical activity is carried out. This aspect of "regular circle" has to be taken into account when compiling the yearly statistical programme and when planning a regular quality reporting exercise describing processes for all statistical activities in the ESS.

In accordance with the recommendations of the Sponsorship on Quality, it has to be underlined that data users and data producers have different needs with regard to statistical information and this has

¹ The "Euro-SDMX Metadata Structure" (ESMS) is recommended to the ESS in Commission Recommendation 2009/498 and the more specific quality report structure was prepared on the basis of the ESS Standard and Handbook for Quality Reports and is called The ESS Standard for Quality Reports Structure" (ESQRS).

to be reflected by the quality reports that are addressed to them. The distinction between the user-(U) and producer (P) -oriented quality reporting is assured through the platform of the Single Integrated Metadata Structure which – through its unique and flexible nature – enables the derivation of different subsets of information in the form of pre-defined report structures.

The short user-oriented or user quality report (U) is implemented through the improved visibility and readability of the quality related concepts that are included in ESMS (cf. chapter 3 of the Manual). The detailed producer-oriented or producer quality report (P) is implemented via the ESQRS report structure (cf. chapter 3 of the Manual). All quality related concepts and indicators of both the user and producer oriented quality reports — together with all other metadata concepts — form an integrated part of the SIMS inventory.

The SIMS inventory is attached in <u>Annex 1</u> of this Manual. In the SIMS, items stemming from the ESMS are marked in red, those coming from the ESQRS in green and if they are present in both structures, they are marked in yellow (50 concepts out of 103).

<u>Annex 2</u> includes the streamlined and harmonised ESS descriptions and guidelines for each of the concepts and sub-concepts which are part of the SIMS inventory. These descriptions and guidelines should be used by the producers of metadata.

More specific reporting guidance is included in the updated *ESS Handbook on Quality Reporting*². This Handbook gives practical examples for the production of most of the quality concepts and explains how the different types of data collection and compilation methods and processes have to be considered in the quality reports.

Definitions

The <u>Single Integrated Metadata Structure</u> is the dynamic inventory of statistical concepts used for quality and metadata reporting in the ESS.

The <u>statistical concepts</u> are units of knowledge which are created by a unique combination of characteristics. The statistical concepts (headings) used in this list are all part of the list of the standard SDMX cross-domain concepts and are therefore fully SDMX compliant. In SIMS, there are 22 statistical concepts used.

A <u>sub-concept</u> is a breakdown of a statistical concept.

A <u>quality report structure</u> or a <u>metadata report structure</u> can be derived from the Single Integrated Metadata Structure inventory. Examples for ESS report structures currently in use are the ESMS metadata report structure and the ESQRS quality report structure.

Reference metadata describes the contents and the quality of the statistical data.

The <u>National Reference Metadata Editor (NRME)</u> is part of the ESS Metadata Handler and the tool for the production, exchange and dissemination of reference and quality related metadata within the ESS. It allows for an online production and transmission as well as the re-use of the information, for having more harmonised and available metadata on quality for both the users and producers of European statistics.

2. Use and general characteristics of the SIMS

2.1 Use of the structure

The dynamic inventory of concepts, the Single Integrated Metadata Structure is implemented through specific quality and metadata related report structures. SIMS is used to define:

² The 2009 edition of the Handbook is available at http://epp.eurostat.ec.europa.eu/portal/page/portal/ver-1/quality/documents/EHQR_FINAL.pdf and the updated version will be published in 2014.

- The ESS reference metadata report structure: the Euro SDMX Metadata Structure (ESMS).
 The ESMS is then technically implemented as SDMX-compliant metadata structure definition (MSD) using digit levels 1 and 2 of the respective concepts of SIMS;
- A quality report, which contains detailed / less detailed information on quality concepts. For the user-oriented quality report the statistical concepts related to data quality are broken down into digit levels 1 and 2 whilst for the producer-oriented quality report those concepts are broken down further into details (i.e. into the digit levels 1, 2, 3 and 4 of SIMS).

In the future, the SIMS inventory (attached in Annex 1 to this document) as well as the descriptions and reporting guidelines of the different SIMS concepts (attached in Annex 2) can be updated and/or extended with additional concepts coming from additional user needs (e.g. by taking into account additional statistical concepts describing statistical processes more in detail cf. concept S.21, etc).

These requests for revising the guidelines and/or the concepts of SIMS will have to be submitted to Eurostat. They will be treated by an electronic Task Force (e-Task Force) that will be periodically set up from the members of the Working Group on Quality in Statistics. The results of the work of the e-Task Force will be approved at the subsequent meeting of the Working Group on Quality in Statistics.

The present document focuses on the quality concepts which are – with their full granularity – covered by the SIMS inventory.

The ESS quality reports can be specified according to different dimensions. A quality report can be prepared:

By scope:

- For a specific statistical process (e.g. Labour Force Survey) or homogeneous group of processes;
- For an individual statistical indicator (e.g. Employment rate).

By level:

- At national level of the ESS;
- At European (Eurostat) level.

By orientation/addressees:

- To be addressed to the users of the statistics (U);
- To be addressed to the producers of the statistics (P).

Metadata or quality reports are normally attached to a statistical process producing a homogeneous dissemination/output dataset. In cases ESS quality reports are produced for statistical indicators, many concepts in this report will refer to the underlying statistical process.

The frequency of an ESS quality report can vary in function of the needs of the subject of the quality report (infra-annual, yearly, every 2, 3... years, etc). Often an update of the quality report is required after broader changes of the data structures or of the underlying business processes.

2.2 Function of the 1-digit positions of the SIMS

The 1-digit level of the SIMS has the characteristic of headings/titles in cases where sub-concepts are present. When these headings are used in the report structures ESMS and ESQRS, no information is required to be entered in the standard ESS metadata or quality reports. However, if no sub-concepts

are used in the above mentioned two report structures, information is required at the 1 digit level and guidance is provided on what details need to be entered (cf. the guidelines attached in Annex 2).

3. Distinction between the short user- (U) and the detailed producer (P) oriented quality reports

The SIMS inventory is the conceptual basis for the extraction of short user quality reports and the detailed producer quality reports in the ESS.

Only a certain level of detail and only some of the quality concepts are of interest to the general users of European statistics³ who are mainly interested in the statistical outputs. On the other hand, all detailed quality concepts (up to the lowest level of detail) are of interest to the producers of European statistics⁴ who are also interested in the statistical production processes. Some of the concepts are of interest to both groups. Recognising that users are not a homogenous group with regard to their demands for quality reporting, the Sponsorship on Quality has recommended that producer-oriented quality reports could also be disseminated publicly subject to an agreement between Eurostat and the National Statistical Institutes in the respective ESS Working Groups.

The consistency between the user- (U) and producer (P) -oriented quality reports is assured through the platform of the Single Integrated Metadata Structure which – through its unique and flexible nature – enables the extraction of different subsets of information. These extractions are the ESMS and ESQRS report structures.

In the SIMS structure, the distinction between the two subsets of information is clearly marked with the letters "P" (producers) or "U P" (users <u>and</u> producers) beside the number and name of the concepts. For details on the typology of the concepts, please refer to Annex 1 or 2 of the Manual.

3.1 User-oriented quality report or Short quality report (U)

Until now, the reference metadata structure of ESMS has generally been considered and used as the "user-oriented" or short quality report because it contains a basic level of quality information. However, the main purpose of the ESMS is not to report on data quality but to document the production and products of European statistics for data users. Therefore, the ESMS also includes other statistical concepts that are not directly related to quality⁵.

In order to get better access to the quality concepts and some other descriptive concepts of the ESMS, the visibility and readability of the ESMS have been improved by:

- Adding a table of content at the beginning of the file
- Clearly distinguishing the quality information from the rest of the content of the ESMS file.

These enhancements are in line with the recommendations of the Sponsorship on Quality and allow the users to go directly to the quality information he/she is interested in. The developments can be illustrated with an example as shown below.

3

³ The word <u>"users" of statistics</u> normally refers to the majority of users, i.e. users with a basic/some knowledge of statistics.

⁴ The word <u>"producers" of statistics</u> refers to statistical authorities who develop, produce and disseminate European or other statistics.

⁵ Cf. also Commission recommendation of 23 June 2009 on reference metadata for the European Statistical System: Official Journal 2009/498: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:168:0050:0055:EN:PDF

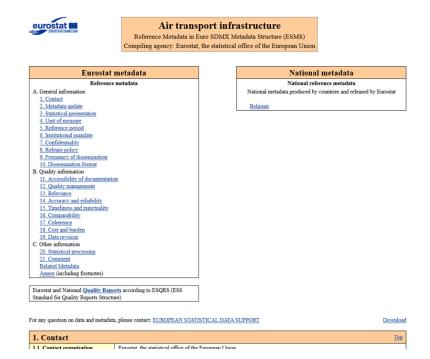


Figure 1: Illustration of the short user quality report (U)

<u>Annex 3</u> of the Manual contains the guidelines of the ESMS report structure as it stems from the integrated SIMS inventory and guidelines.

3.2 Producer-oriented quality report or detailed quality report (P)

On the side of the producers, the "ESS Standard for Quality Reports Structure (ESQRS)" is used as detailed quality reporting structure and is described in the ESS Standard and Handbook for Quality Reports. The ESQRS is focusing more on the statistical process than the output and – similarly to the ESMS – it is SDMX-compliant and technically implemented as metadata structure definition.

Considering that

- 1) there are only few statistical domains that use both the ESMS and the detailed quality reports
- 2) there are even less domains that produce both national ESMS and national detailed quality reports
- 3) quality reports have in general less frequent periodicity than ESMS files
- 4) there is an increase in the use and implementation of the ESQRS (also supported by Eurostat grants)

it is recommended that the ESQRS should be continued to be used for detailed or producer quality reporting in the ESS.

Through the set-up of the Single Integrated Metadata Structure, the concepts that are common in both ESMS and ESQRS structures are clearly marked with the yellow colour in SIMS (50 concepts out of 103: cf. Annexes 1 and 2).

In line with the rationalisation and harmonisation objectives of SIMS (direct re-usability of information), Eurostat assures that national and Eurostat metadata and quality information is

encoded <u>only once</u> for all common concepts of the 2 report structures in the case of the same attachment level to an ESS statistical process occurs.

This will be <u>assured</u> through the ESS Metadata Handler, in particular through the new release of the National Reference Metadata Editor (foreseen for the end of 2013) which will include the functionality of synchronising the information between the two report structures ESMS and ESQRS in use.

It is recommended that a simpler, more user-oriented language should be chosen for the common concepts marked in yellow in SIMS, in line with the Guidelines given in Annex 2. Additional, more producer-oriented information can be included for the purely "P" concepts of SIMS, available in the producer-oriented ESRQS structure, preferably in the form of tables or graphs, attached as supplementary pdf-files.

<u>Annex 4</u> of the Manual contains the guidelines of the ESQRS report structure as it stems from the integrated SIMS inventory and guidelines.

4. Integration of the Quality and Performance Indicators in the SIMS⁶

As a general rule, it is recommended that both, producer- and user-oriented quality reports contain as many Quality and Performance Indicators (QPIs) of the standard ESS list as possible. The list and description of the 16 standard ESS QPIs is published on the website of Eurostat⁷:

http://epp.eurostat.ec.europa.eu/portal/page/portal/quality/documents/Quality Performance Indicators FINAL v 1 1.pdf

Considering that users and producers of statistics usually have different interest and knowledge in interpreting the various indicators, quality indicators, that had previously been revised by the Expert Group on Quality Indicators, a sub-group of the Sponsorship on Quality in 2010, have also been categorised by identifying those which contain relevant information for users. Based on a recommendation of the user representatives, the European Statistical Advisory Committee (ESAC), the following 8 indicators are considered useful as user-oriented quality indicators and are therefore included in the user-oriented U-subset of SIMS⁸, i.e. in ESMS:

QPI_U:

R1: Data completeness – rate* (S.14.3)

A1: Sampling errors – indicators (S.15.2)

A4: Unit non-response – rate (S.15.3)

A5: Item non-response – rate (S.15.3)

TP2: Time lag – final results (S.16.1)

TP3: Punctuality – delivery and publication* (S.16.2)

CC2: Length of comparable time series (S.17.2)

A6: Data revision – average size (S.20.2)

st: user-specific calculation formulae, different from QPI $_{ extsf{P}}$

⁶ The Quality and Performance Indicators are marked in italic writing in the Single Integrated Metadata Structure.

⁷ The document also contains information on the calculation of the different indicators, if they should be calculated at national and/or European level and what should be considered in their calculation.

⁸ The indicator on Timeliness (TP2) has been added subsequently, on the recommendation of the Task Force members and the members of the Working Group on Quality in Statistics.

If applicable, the above mentioned Quality and Performance Indicators are recommended to be included in all user-oriented/short quality reports, i.e. the quality subset of ESMS. For the <u>implementation</u> of this development it is recommended that concise or basic information on these indicators should be included in the respective concept of 2-digit level of SIMS (cf. the reference in brackets after the names of the indicators above).

On the other side, the more detailed or producer-oriented quality indicators (containing e.g. the value of the indicator obtained with the standard formula and a quantitative analysis), should be included in the relative, specifically created indicator sub-concept of SIMS at 3 or 4-digit levels and, therefore, also in the ESQRS report structure. All the 16 standard quality indicators should be included in a detailed quality report:

QPI_P:

R1: Data completeness – rate* (S.14.3.1) AC1: Data tables – consultations (S.11.3.1) A1: Sampling errors – indicators (S.15.2.1) AC2: Metadata – consultations (S.11.5.1) A4: Unit non-response – rate (S.15.3.3.1) AC3: Metadata completeness—rate (S.12.1.1) A5: Item non-response – rate (S.15.3.3.2) A2: Over-coverage - rate (S.15.3.1.1) TP2: Time lag – final results (S.16.1.2) A3: Common units – proportion (S.15.3.1.2) TP3: Punctuality – delivery&publ.* (S.16.2.1) TP1: Time lag – 1st results (S.16.1.1) CC2: Length of comparable T series (S.17.2.1) CC1: Asymmetry for mirror flows (S.17.1.1) A6: Data revision – average size (S.20.2.1) A7: Imputation – rate (S.21.5.1) *: producer-specific calculation formulae, different from QPI_U

It has to be noted that for 2 of the above-mentioned user-oriented indicators the calculation formulae are not equal to those of the producer-oriented ones: they are marked with * in the list.

Depending on the results of the indicators, the information can take the form of value(s), tables or texts. For which variable and at which detail level the indicators are to be provided, should be defined at domain level.

In addition to the standard list of 16 Quality and Performance Indicators, it is recommended that the different statistical domains should use their own, domain-specific quality indicators to describe the quality concepts which are part of the SIMS inventory. They should always be included under the concept they describe, with a short explanation/interpretation if deemed necessary.

Indicators can be calculated at both national and at European (Eurostat) levels. The above description of the Quality and Performance Indicators indicates which indicators are to be calculated at which level. Even if the description specifies that an indicator is to be calculated by Eurostat, it is recommended that in their national quality reports Member States use the same or similar indicators focusing on the national context, if applicable and useful in the national context.

5. Implementation of the "once for all purposes" quality reporting strategy

The Sponsorship on Quality recommended that quality reporting should be streamlined and rationalised across the ESS, by using the existing metadata systems and by creating a "once for all purposes" reporting strategy.

The unique and clear definition of the Single Integrated Metadata Structure dynamic inventory

- The use of the ESMS and the ESQRS standards as two consistent report structures
- Their implementation in the ESS Metadata Handler, the new release of the National Reference Metadata Editor

assure that the objectives of streamlined and rationalised quality reporting and the "once for all purposes" reporting strategy are achieved.

It is recommended that all statistical processes in the ESS should at least have a basic quality report in the form of short or user quality report (ESMS).

If the specific needs and/or the context of the statistical process require to have more detailed information on the different quality aspects, then the use of the detailed or producer quality report (as ESQRS) is recommended – this should be decided by the respective ESS Working Groups.

The following criteria can be taken into account in the decision on the use of the detailed/producer quality report:

- The complexity of the statistical production process requires a more detailed analysis of the quality and justifies the description of the detailed process components included rather in the producer subset of SIMS concepts, i.e. in the ESQRS;
- The "importance" or visibility of the statistics, their use for political decisions and monitoring of political targets require detailed information on quality;
- The ESS legislation of the domain requires a detailed quality report, including the calculation of quality indicators;
- A detailed template for reporting on quality already exists which can be mapped with the ESQRS structure.

The main advantage of the SIMS is that it provides the conceptual framework and complete inventory for all quality and metadata concepts which will be stored in the same database by the use of the ESS Metadata Handler⁹ and can therefore be re-used for other metadata and quality reporting – the database is also accessible for Member States. Creation and exchange of reports will be quick and automated, based on the pre-defined report structures which are automatically retrievable from the system.

The unique and clear definition of each item of SIMS and the use of the two consistent report structures assure that the extracted ESS reports are coherent and comparable over time and across statistical domains. SIMS also assures that all ESS report structures such as the ESMS and the ESQRS used for user and producer oriented quality reports are kept consistent in terms of the statistical concepts used. SIMS could evolve over time with the new ESS metadata report structures and will be available on the Eurostat website, on the metadata and quality sections.

The implementation of SDMX and the provision of the ESS Metadata Handler as shared services containing the ESMS and ESQRS report structures enable a further rationalisation and integration of metadata and quality reports within the ESS.

Furthermore, the use of SDMX-compliant reporting structures will enhance the exchange of metadata among international organisations, i.e. already collected metadata can be retrieved from the ESS metadata system and reused which would thus reduce the reporting burden on countries. Please refer to <u>Annex 5</u> of this Manual for further details on the National Reference Metadata Editor.

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⁹ The ESS Metadata Handler is the web-application used for the production, exchange and dissemination of metadata in the ESS.

CREATION OF THE SINGLE INTEGRATED METADATA STRUCTURE FROM THE ESMS AND ESQRS

EURO-SDMX Metadata Structure (Dec 2010)

Single Integrated Metadata Structure

ESS Standard for Quality Reports Structure

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

S.1	Contact
S.1.1	Contact organisation
S.1.2	Contact organisation unit
S.1.3	Contact name
S.1.4	Contact person function
S.1.5	Contact mail address
S.1.6	Contact email address
S.1.7	Contact phone number
S.1.8	Contact fax number

_	Contact
l.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

Introduction

2	Metadata update
2.1	Metadata last certified
2.2	Metadata last posted
2.3	Metadata last undate

S.3	Metadata update
S.3.1	Metadata last certified
S.3.2	Metadata last posted
S.3.3	Metadata last update

Introduction

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

S.4	Statistical presentation
S.4.1	Data description
S.4.2	Classification system
S.4.3	Sector coverage
S.4.4	Statistical concepts and definitions
S.4.5	Statistical unit
S.4.6	Statistical population
S.4.7	Reference area
S.4.8	Time coverage
S.4.9	Base period

4 Unit of measure

S.5 Unit of measure

5 Reference period

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6	Institutional mandate
6.1	Legal acts and other agreements
6.2	Data sharing

S.7	Institutional mandate
S.7.1	Legal acts and other agreements
S.7.2	Data sharing

7	Confidentiality
7.1	Confidentiality - policy
7.2	Confidentiality - data treatment

S.8	Confidentiality
S.8.1	Confidentiality - policy
S.8.2	Confidentiality - data treatment

XI	Confidentiality
XI.1	Confidentiality – policy
XI.2	Confidentiality – data treatment

8	Release policy
8.1	Release calendar
8.2	Release calendar access
8.3	User access

S.9	Release policy
S.9.1	Release calendar
S.9.2	Release calendar access
\$.9.3	User access

9 F	requency of dissemination
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S.10 Freque	ency of dissemination
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10	Dissemination format
10.1	News release
10.2	Publications
10.3	On-line database
10.4	Naissa data assas

10.4	Micro-data access
10.5	Other

S.11	Dissemination format, Accessibility and clarity
S.11.1	News release
S.11.2	Publications
S.11.3	On-line database
S.11.3. 1	AC1. Data tables - consultations
S.11.4	Micro-data access
S.11.5	Other
S.11.5. 1	AC 2. Metadata - consultations

Accessibility of documentation

ss - rate

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VII	Accessibility and clarity
VII.1	News release
VII.2	Publication
VII.3	On-line database
VII.3. 1	Data tables - consultations
VII.4	Micro-data access
VII.5	Other
VII.5. 1	Metadata - consultations

11	Accessibility of documentation
11.1	Documentation on methodology

11.2	Quality documentation

3.12.1	Documentation on methods
S.12.1. 1	AC 3. Metadata completene
S.12.2	Quality documentation
S 12	Quality management

S.13.2 Quality assessment

VII.6	Documentation on methodology
VII.6. 1	Metadata completeness – rate
VII 7	Quality documentation

12	Quality management
12.1	Quality assurance
12.2	Quality assessment

13	Relevance
13.1	User needs
13.2	User satisfaction
13.3	Completeness

	S.14.1
	S.14.2
	S.14.3
,	<i>S.14.3.</i>

S.14	Relevance
S.14.1	User needs
S.14.2	User satisfaction
S.14.3	Completeness and R1. Data completeness - rate for U
S.14.3. 1	R1. Data completeness - rate for P

IV	Relevance
IV.1	User needs
IV.2	User satisfaction
IV.3	Completeness
IV.3. 1	Data completeness - rate

Quality assessment

14	Accuracy and reliability
14.1	Overall accuracy
14.2	Sampling error

14.3	Non-sampling error

S.15	Accuracy and reliability
S.15.1	Overall accuracy
S.15.2	Sampling error and A1. Sampling errors - indicators for U
S.15.2. 1	A1. Sampling errors - indicators for P
S.15.3	Non-sampling error and A4. Unit non- response - rate for U and A5. Item non-response - rate for U
S.15.3. 1	Coverage error
S.15.3. 1.1	A2. Over-coverage - rate
S.15.3. 1.2	A3. Common units - proportion
S.15.3. 2	Measurement error
S.15.3. 3	Non response error
S.15.3. 3.1	A4. Unit non-response - rate for P
S.15.3. 3.2	A5. Item non-response - rate for P
S.15.3. 4	Processing error

S.15.3.	Madalassumption arrar
5	Model assumption error

V	Accuracy and reliability
V.1	Overall accuracy
V.2	Sampling error
V.2.1	Sampling errors - indicators
V.3	Non-sampling error
V.3.1	Coverage error
V.3.1 .1	Over-coverage - rate

V.3.2	Measurement error
V.3.3	Non response error
V.3.3 .1	Unit non-response - rate
V.3.3 .2	Item non-response - rate
V.3.4	Processing error
V.3.4 .1	Imputation - rate
V.3.4 .2	Common units - proportion
V.3.5	Model assumption error
V.3.7	Seasonal adjustment

15	Timeliness and punctuality	S.16	Timeliness and punctuality	VI	Timeliness and punctuality
15.1	Timeliness	S.16.1	Timeliness and TP2. Time lag - final results for U	VI.1	Timeliness
		S.16.1. 1	TP1. Time lag - first results for P	VI.1.	Time lag - first results
		S.16.1. 2	TP2. Time lag - final results for P	VI.1. 2	Time lag - final results
15.2	Punctuality	S.16.2	Punctuality and TP3. Punctuality - delivery and publication for U	VI.2	Punctuality
		S.16.2. 1	TP3. Punctuality - delivery and publication for P	VI.2. 1	Punctuality - delivery and publication
16	Comparability	S.17	Comparability	VIII	Comparability
16.1	Comparability - geographical	S.17.1	Comparability - geographical	VIII.1	Comparability - geographical
		S.17.1. 1	CC1. Asymmetry for mirror flows statistics - coefficient	VIII.1 .1	Asymmetry for mirror flows statistics - coefficient
16.2	Comparability - over time	S.17.2	Comparability - over time and CC2. Length of comparable time series for U	VIII.2	Comparability - over time
		S.17.2.	CC2. Length of comparable time	VIII.2	Length of comparable time series
		5.17.3	series for P deleted	.1 VIII.3	Comparability - domain
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17	Coherence	S.18	Coherence	IX	Coherence
17.1	Coherence - cross domain	S.18.1	Coherence- cross domain	IX.1	Coherence- cross domain
		S.18.1. 1	Coherence - sub annual and annual statistics	IX.1. 1	Coherence - sub annual and annual statistics
		S.18.1. 2	Coherence- National Accounts	IX.1. 2	Coherence- National Accounts
17.2	Coherence - internal	S.18.2	Coherence - internal	IX.2	Coherence - internal
40	Control books	6.40	Control books	. v	Control Doube
18	Cost and burden	\$.19	Cost and burden	Х	Cost and Burden
19	Data revision	S.20	Data revision	V.3.6	Data revision
19.1	Data revision - policy	S.20.1	Data revision - policy	V.3.6 .1	Data revision - policy
19.2	Data revision - practice	S.20.2	Data revision - practice and A6. Data revision - average size for U	V.3.6 .2	Data revision- practice
		S.20.2. 1	A6. Data revision - average size for P	V.3.6 .3	Data revision - average size
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20 20.1	Statistical processing Source data	S.21 S.21.1	Statistical processing Source data	XII XII.1	Statistical Processing Source data
20.1	Frequency of data collection	S.21.1	Frequency of data collection	XII.2	Frequency of data collection
20.3	Data collection	5.21.3	Data collection	XII.3	Data collection
20.4	Data validation	S.21.4	Data validation	XII.4	Data validation
20.5	Data compilation	S.21.5	Data compilation	XII.5	Data compilation
		S.21.5. 1	A7. Imputation - rate		
20.6	Adjustment	S.21.6	Adjustment	XII.6	Adjustment
		S.21.6. 1	Seasonal adjustment		
24	Command	C 22	Comment	3/111	C
21	Comment	S.22	Comment	XIII	Comment

ESS GUIDELINES FOR SIMS

		Concept Code	Descriptions	ESS Guidelines
S.1	Contact	CONTACT	Individual or organisational contact points for the data or metadata, including information on how to reach the contact points.	
S.1.1	Contact organisation	CONTACT_ORGANISAT ION	The name of the organisation of the contact points for the data or metadata.	The full name of your organisation.
S.1.2	Contact organisation unit	ORGANISATION_UNIT	An addressable subdivision of an organisation.	The name of the unit or division responsible for the metadata file (it can also include a unit number).
S.1.3	Contact name	CONTACT_NAME	The name of the contact points for the data or metadata.	The name of the person responsible for the statistical domain (first name and family name), one person only.
S.1.4	Contact person function	CONTACT_FUNCT	The area of technical responsibility of the contact, such as "methodology", "database management" or "dissemination".	The title/function of the person responsible for the statistical domain: senior researcher, chief of the division, etc (this title can also contain the precise area of responsibility/competence such as methodologist or data base manager)
S.1.5	Contact mail address	CONTACT_MAIL	The postal address of the contact points for the data or metadata.	The postal address of the person responsible for the statistical domain.
S.1.6	Contact email address	CONTACT_EMAIL	E-mail address of the contact points for the data or metadata.	The email address of the person responsible for the statistical domain (this can be an individual mail address or a functional mailbox).
S.1.7	Contact phone number	CONTACT_PHONE	The telephone number of the contact points for the data or metadata.	The phone number of the person responsible for the statistical domain.
S.1.8	Contact fax number	CONTACT_FAX	Fax number of the contact points for the data or metadata.	The fax number of the person responsible for the statistical domain.
S.2	Introduction	INTRODUCTION	A general description of the statistical process and its outputs, and their evolution over time.	Describe briefly the statistical PROCESS generating the data in question, the broad statistical domain to which the outputs belong, the related statistical OUTPUTS as well as the boundary of the quality report at hand and references to related quality reports.
S.3	Metadata update	META_UPDATE	The date on which the metadata element was inserted or modified in the database.	
S.3.1	Metadata last certified	META_CERTIFIED	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.	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 has not been amended.

S.3.2	Metadata last posted	META_POSTED	Date of the latest dissemination of the metadata.	The date when this metadata file is disseminated will normally be inserted automatically by the reference metadata production system.
S.3.3	Metadata last update	META_LAST_UPDATE	Date of last update of the content of the metadata.	The date when this metadata file is last updated will normally also be inserted by the reference metadata production system.
S.4	Statistical presentation	STAT_PRES	Description of the disseminated data which can be displayed to users as tables, graphs or maps.	
S.4.1	Data description	DATA_DESCR	Main characteristics of the data set, referring to the data and indicators disseminated.	Describe shortly the main characteristics of the data set in an easily and quickly understandable manner, referring to the main data and indicators disseminated. More detailed descriptions on the variables are in S.4.4.
S.4.2	Classification system	CLASS_SYSTEM	Arrangement or division of objects into groups based on characteristics which the objects have in common.	List all international or standard classifications and breakdowns which are used for the data set produced (with their detailed names).
5.4.3	Sector coverage	COVERAGE_SECTOR	Main economic or other sectors covered by the statistics.	List the main economic or other sectors covered by the data set produced and the size classes/size bands used (e.g. number of employees, etc).
S.4.4	Statistical concepts and definitions	STAT_CONC_DEF	Statistical characteristics of statistical observations, variables.	Describe in short the main statistical variables provided. The definition and types of variables provided should be listed, together with any Information on discrepancies from the ESS/ international standards.
S.4.5	Statistical unit	STAT_UNIT	Entity for which information is sought and for which statistics are ultimately compiled.	List the basic units of statistical observation for which data are provided. These observation units (e.g. the enterprise, the local unit, private households,) can be different from the reporting units used in the underlying statistical surveys.
S.4.6	Statistical population	STAT_POP	The total membership or population or "universe" of a defined class of people, objects or events.	Describe the target statistical population (one or more) which the data set refers to, i.e. the population about which information is to be sought.
S.4.7	Reference area	REF_AREA	The country or geographic area to which the measured statistical phenomenon relates.	At European level: The geographical area covered by the data set disseminated (e.g. EU Members states, EU regions, USA, Japan, etc. as well as aggregates such as EU-27, EEA). At national level: the country, the regions and aggregates covered by the data set disseminated.
S.4.8	Time coverage	COVERAGE_TIME	The length of time for which data are available.	The time periods covered by the data set should be described (i.e. the length of time for which data set is disseminated, e.g. 1985-2006 or 2000 for certain annual data).
S.4.9	Base period	BASE_PER	The period of time used as the base of an index number, or to which a constant series refers.	The period of time used as a base of an index number or to which a time series refers should be described (e.g. base year 2000 for certain annual data).
S.5	Unit of measure	UNIT_MEASURE	The unit in which the data values are measured.	The units of measures used for the data set disseminated should be listed (units of measures are e.g. Euro, %, number of persons). Also the exact use of magnitude (e.g. thousand, million) should be added.

S.6	Reference period	REF_PERIOD	The period of time or point in time to which the measured observation is intended to refer.	Statistical variables refer to specific time periods, which can be a specific day or a specific period (e.g. a month, a fiscal year, a calendar year or several calendar years). When there is a mismatch between the target and the actual reference period, for instance when data are not available for the target reference period, the difference should also be highlighted.
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S.7	Institutional mandate	INST_MANDATE	Law, set of rules or other formal set of instructions assigning responsibility as well as the authority to an organisation for the collection, processing, and dissemination of statistics.	
S.7.1	Legal acts and other agreements	INST_MAN_LA_OA	Legal acts or other formal or informal agreements that assign responsibility as well as the authority to an agency for the collection, processing, and dissemination of statistics.	At European level: The legal base or other agreement creating the reporting requirement should be listed (e.g. the EU legal act, another agreement or the 5-Year-Program related to the European Statistical System). At national level: National legal acts and/or other reporting agreements should be mentioned (including EU legal acts, the implementation of EU Directives).
S.7.2	Data sharing	INST_MAN_SHAR	Arrangements or procedures for data sharing and coordination between data producing agencies.	At European level only: arrangements, procedures or agreements related to data sharing and exchange between international data producing agencies should be described (e.g. a Eurostat data collection or data production which is in common with the OECD, the UN, etc.).
S.8	Confidentiality	CONF	A property of data indicating the extent to which their unauthorised disclosure could be prejudicial or harmful to the interest of the source or other relevant parties.	
S.8.1	Confidentiality - policy	CONF_POLICY	Legislative measures or other formal procedures which prevent unauthorised disclosure of data that identify a person or economic entity either directly or indirectly.	The European and national legislations (or any other formal provision) related to statistical confidentiality applied for the data set in question should be described. It means the assurance that all necessary methods assuring confidentiality have been applied to the data.
S.8.2	Confidentiality - data treatment	CONF_DATA_TR	Rules applied for treating the microdata and macrodata (including tabular data) to ensure statistical confidentiality and prevent unauthorised disclosure.	The rules applied for treating the microdata and macrodata (including tabular data) with regard to statistical confidentiality should be described (e.g. controlled rounding, cell suppression, aggregation of disclosed information, aggregation rules on aggregated confidential data, primary confidentiality with regard to single data values, etc.).
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S.9	Release policy	REL_POLICY	Rules for disseminating statistical data to all interested parties.	
S.9.1	Release calendar	REL_CAL_POLICY	The schedule of statistical release dates.	The policy regarding the release of statistics in question should be described, in particular if it follows a preannounced schedule. It should also be mentioned if a release calendar for the data set in question exists and if this calendar is publicly accessible.
S.9.2	Release calendar access	REL_CAL_ACCESS	Access to the release calendar information.	The link or reference to the release calendar should be given.

S.9.3	User access	REL_POL_US_AC	The policy for release of the data to users, the scope of dissemination, how users are informed that the data are being released, and whether the policy determines the dissemination of statistical data to all users.	The general policy of the organisation for data release to users should be described. This includes the scope of dissemination (e.g. to the public, to selected users), how users are informed that the data is being released, and whether the release policy determines the dissemination of statistical data to all users at the same time. For Eurostat only: Reference is also made to the impartiality protocol linked to the European Statistics Code of Practice, principle 6, where the responsible for the statistical domain should state all kinds of pre-releases.
S.10	Frequency of dissemination	FREQ_DISS	The time interval at which the statistics are disseminated over a given time period.	The frequency with which the data is disseminated (e.g. monthly, quarterly, yearly) should be stated. The frequency can also be expressed by using the codes released in the harmonised code list available for the European Statistical System as long as it is easily understandable.
S.11	Dissemination format, Accessibility and clarity	DISS_FORMAT / ACCESS_CLARITY	Media, various means and formats by which statistical data and metadata are disseminated to users and their accessibility. Accessibility and clarity refer to the simplicity and ease, the conditions and modalities by which users can access, use and interpret statistics, with the appropriate supporting information and assistance.	
S.11.1	News release	NEWS_REL	Regular or ad-hoc press releases linked to the data.	Regular or ad-hoc press releases linked to the data set in question should be described.
S.11.2	Publications	PUBLICATIONS	Regular or ad-hoc publications in which the data are made available to the public.	The titles of publications using the data set in question should be listed, with publisher, year and link to on-line documents if available.
S.11.3	On-line database	ONLINE_DB	Information about on-line databases in which the disseminated data can be accessed.	The on-line database available for the data set in question should be described. This includes the domain names as released on the website and link to the on-line database.
S.11.3.	AC1. Data tables - consultations	DATATABLE_CONSULT	Number of consultations of data tables within a statistical domain for a given time period displayed in a graph.	QPI: AC1 Data tables - consultations
S.11.4	Micro-data access	MICRO_DAT_ACC	Information on whether micro-data are also disseminated.	Describe if and how the data set is accessible as micro-data (e.g. for researchers). Also the micro-data anonymisation rules should be described in short.
S.11.5	Other	DISS_OTHER	References to the most important other data dissemination done.	The most important other data dissemination means should be described (e.g. within other publications, policy papers, etc.) and an overview of the different aspects of the dissemination practice and their impact on accessibility and clarity of the data should be stated. For Member States: Pricing policies and registration for database access and their likely effect on access should be described together with the limits on access set by confidentiality provisions and any other restrictions; dissemination of data to Eurostat and other international organisations (IMF, OECD, if applicable and not described under "S.7.1 Legal acts and other agreements"), and internal dissemination of data to other statistical activities within the NSI.
S.11.5. 1	AC 2. Metadata - consultations	METADATA_CONSULT	Number of metadata consultations within a statistical domain for a given time period.	QPI: AC2 Metadata - consultations

S.12	Accessibility of documentation	ACCESS_DOC	The conditions and modalities by which users can obtain, use and interpret documentation on the data, i.e. descriptive text used to define or describe an object, design, specification, instructions or procedure.	
S.12.1	Documentation on methodology	DOC_METHOD	Descriptive text and references to methodological documents available.	Describe the availability of national reference metadata files, important methodological papers, summary documents or other important handbooks. Title, publisher, year and links to on-line documents if possible should be described.
S.12.1. 1	AC 3. Metadata completeness - rate	METADATA_COMPLET E	The ratio of the number of metadata elements provided to the total number of metadata elements applicable.	QPI: AC3 Metadata completeness - rate
S.12.2	Quality documentation	QUALITY_DOC	Documentation on procedures applied for quality management and quality assessment.	Describe the availability of all quality related documents (quality reports, studies, etc). For Eurostat: The responsible of the statistical domain should also describe the availability of national quality reports. More detailed information about quality processes should be described in S.13.1 and S.13.2.
S.13	Quality management	QUALITY_MGMNT	Systems and frameworks in place within an organisation to manage the quality of statistical products and processes.	
S.13.1	Quality assurance	QUALITY_ASSURE	All systematic activities implemented that can be demonstrated to provide confidence that the processes will fulfil the requirements for the statistical output.	Describe briefly the general quality assurance framework (or similar)/the quality management system used in the organisation (EFQM, ISO- series etc.) and how it is implemented for the domain-specific quality assurance activities (quality guidelines, training courses, benchmarking, the use of best practices, quality reviews, self-assessments, compliance monitoring etc).
S.13.2	Quality assessment	QUALITY_ASSMNT	Overall assessment of data quality, based on standard quality criteria.	A qualitative assessment of the overall quality of the statistical outputs by summarising the main strengths and possible quality deficiencies (for the standard quality criteria cf. concepts S.14 -S.18). Any trade-offs between quality aspects can be mentioned as well as planned quality improvements. Where relevant, please refer to the results of previous quality assessments.
5.14	Relevance	RELEVANCE	The degree to which statistical information meet current and potential needs of the users.	
S.14.1	User needs	USER_NEEDS	Description of users and their respective needs with respect to the statistical data.	Provide: - a classification of users with some indication of their importance; - an indication of the uses for which they want the statistical outputs; - an assessment regarding the key outputs/indicators desired by different categories of users and any shortcomings in outputs for important users; - information on unmet user needs, the reasons why certain needs cannot be fully satisfied, - any plans to satisfy needs more completely in the future; and - details of definitions which differ from requirements.
S.14.2	User satisfaction	USER_SAT	Measures to determine user satisfaction.	Describe how the views and opinions of the users are regularly collected (e.g. user satisfaction surveys, other user consultations,). In addition the main results regarding investigation of user satisfaction should be shown (in the form of a user satisfaction index if available) and the date of most recent user satisfaction survey.
S.14.3	Completeness / R1. Data completeness - rate for U	COMPLETENESS / COMPLETENESS_RATE _U	The extent to which all statistics that are needed are available.	Provide qualitative information on completeness compared with relevant regulations/ guidelines. Applicable for Eurostat : if any Member State is not transmitting all necessary data items. / QPI: R1 Data completeness - rate for U, with different CALCULATION FORMULA for U and P

S.14.3. 1	R1. Data completeness - rate for P	COMPLETENESS_RATE _P	The ratio of the number of data cells provided to the number of data cells required.	QPI: R1, Data completeness - rate for P, with different CALCULATION FORMULA for U and P
\$.15	Accuracy and reliability	ACCURACY	Accuracy: closeness of computations or estimates to the exact or true values that the statistics were intended to measure. Reliability: closeness of the initial estimated value to the subsequent estimated value.	
S.15.1	Overall accuracy	ACCURACY_OVERALL	Assessment of accuracy, linked to a certain data set or domain, which is summarising the various components.	Describe the main sources of random and systematic error in the statistical outputs and provide a summary assessment of all errors with special focus on the impact on key estimates. The bias assessment can be in quantitative or qualitative terms, or both. It should reflect the producer's best current understanding (sign and order of magnitude) including actions taken to reduce bias. Revision aspects should also be included here if considered relevant.
S.15.2	Sampling error / A1. Sampling errors - indicators for U	SAMPLING_ERR / SAMPLING_ERR_IND_ U	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.	If probability sampling is used, the range of variation, among key variables, of the A1 indicator should be reported. It should be also stated if adjustments for non-response, misclassifications and other uncertainty sources such as outlier treatment are included. The calculation of sampling error could be also affected by imputation. This should be noted unless special methods have been applied to deal with this. 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. / QPI: A1 Sampling errors - indicators for U, with different LEVEL OF DETAILS for U and P
S.15.2. 1	A1. Sampling errors - indicators for P	SAMPLING_ERR_IND_ P	Precision measures for estimating the random variation of an estimator due to sampling.	QPI: A1 Sampling errors - indicators for P, with different LEVEL OF DETAILS for U and P
S.15.3	Non-sampling error and A4. Unit non-response - rate for U and A5. Item non-response - rate for U	NONSAMPLING_ERR / UNIT_NONRESPONSE_ RATE_U / ITEM_NONRESPONSE _RATE_U	Error in survey estimates which cannot be attributed to sampling fluctuations.	U: Provide a user-oriented summary of the (preferably quantitative) assessment of the non-sampling errors, non-response rates and the bias risks which are associated with them (coverage error: over/ undercoverage and multiple listings; measurement error: survey instrument, respondent and interviewer effect where relevant; nonresponse error: level of unit (non)response including causes and measures for nonresponse, level of item nonresponse for key variables; processing error: data editing, coding and imputation error where relevant; model assumption error: specific models used in estimation) and actions undertaken to reduce the different types of errors. P: Not to be reported, information to be included in the sub-concepts S.15.3.1-S.15.3.5. / QPI: A4 Unit non-response - rate for U, with different LEVEL OF DETAILS for U and P / QPI: A5, Item non-response - rate for U, with different LEVEL OF DETAILS for U and P
S.15.3. 1	Coverage error	COVERAGE_ERR	Divergence between the frame population and the target population.	Some information on the register or other frame source should be reported upon (this assists in understanding coverage errors and their effects): reference period, frequency and timing of frame updates, updating actions, eventual discrepancies between the units reported in the frame and the target population unit, references to other documents on frame quality and effects of frame deficiencies on the outputs. Provide an assessment, whenever possible quantitative, on overcoverage and multiple listings, and on the extent of undercoverage. Report also an evaluation of the bias risks associated with the latter. Describe actions taken for reduction of undercoverage and associated bias risks.

S.15.3. 1.1	A2. Over-coverage - rate	OVERCOVERAGE_RAT E	The proportion of units accessible via the frame that do not belong to the target population.	QPI: A2, Overcoverage - rate
S.15.3. 1.2	A3. Common units - proportion	COMMON_UNIT_SHA RE	The proportion of units covered by both the survey and the administrative sources in relation to the total number of units in the survey.	QPI: A3, Common units - proportion
S.15.3. 2	Measurement error	MEASUREMENT_ERR	Measurement errors are errors that occur during data collection and cause recorded values of variables to be different from the true ones	Identification and general assessment of the main sources of measurement error should be reported. The efforts made in questionnaire design and testing, information on interviewer training and other work on error prevention should be described. If available, assessments based on comparisons with external data, re-interviews or experiments should be stated. Also results of indirect analysis, e.g.: based on the results on editing phase, could be reported. Describe actions taken to correct measurement errors.
S.15.3. 3	Non response error	NONRESPONSE_ERR	Non-response errors occur when the survey fails to get a response to one, or possibly all, of the questions	Provide a qualitative assessment on the level of unit non response. Highlight the presence of variables that are more subject to item non response (e.g. sensitive questions). Provide a qualitative assessment on the bias associated with nonresponse. Describe the breakdown of nonrespondents according to cause for nonresponse. Report efforts and measures, including response modelling, to reduce nonresponse in the primary data collection and follow-ups and technical treatment of nonresponse at the estimation stage.
S.15.3. 3.1	A4. Unit non-response - rate for P	UNIT_NONRESPONSE_ RATE_P	The ratio of the number of units with no information or not usable information to the total number of in-scope (eligible) units.	QPI: A4, Unit non-response - rate for P, with different LEVEL OF DETAILS for U and P
S.15.3. 3.2	A5. Item non-response - rate for P	ITEM_NONRESPONSE_ RATE_P	The ratio of the in-scope (eligible) units which have not responded to a particular item and the in-scope units that are required to respond to that particular item.	QPI: A5, Item non-response - rate for P, with different LEVEL OF DETAILS for U and P
S.15.3. 4	Processing error	PROCESSING_ERR	The error in final data collection process results arising from the faulty implementation of correctly planned implementation methods.	Identification of the main issues regarding processing errors for the statistical process and its outputs should be taken into consideration. Where relevant and available, an analysis of processing errors affecting individual observations should be presented; else a qualitative assessment should be included. The treatment of micro-data processing errors needs to be proportional to their importance. When they are significant, their extent and impact on the results should be evaluated. Describe linking and coding errors if applicable.
S.15.3. 5	Model assumption error	MODEL_ASSUMP_ERR	Error due to domain specific models needed to define the target of estimation.	Where models are applicable in relation to a specific source of error, they should be presented in the section concerned. This is recommended also in the case of a cut-off threshold and model based estimation. Domain specific models, for example, as needed to define the target of estimation itself, should be thoroughly described and their validity for the data at hand assessed.
S.16	Timeliness and punctuality	TIMELINESS_PUNCT	T: Length of time between data availability and the event or phenomenon they describe. P: Time lag between the actual delivery of the data and the target date when it should have been delivered.	

S.16.1	Timeliness and TP2. Time lag - final results for U	TIMELINESS / TIMELAG_FINAL_U	Length of time between data availability and the event or phenomenon they describe.	Provide, for annual or more frequent releases, the average production time for each release of data and the reasons for possible long production times and efforts to improve the situation described, together with the TP1 and TP2 indicators explained for users. Applicable for Eurostat : - National data deliveries: the agreed time frame for deliveries should be included as well as the achieved dates for deliveries during a past period. Describe the TP2 indicator for users. / QPI: TP2 Time lag - final results for U, with different LEVEL OF DETAILS for U and P
S.16.1. 1	TP1. Time lag - first results	TIMELAG_FIRST	The number of days (or weeks or months) from the last day of the reference period to the day of publication of first results.	QPI: TP1, Time lag - first results
S.16.1. 2	TP2. Time lag - final results for P	TIMELAG_FINAL_P	The number of days (or weeks or months) from the last day of the reference period to the day of publication of complete and final results.	QPI: TP2 Time lag - final results for P, with DIFFERENT LEVEL OF DETAILS for U and P
S.16.2	Punctuality and TP3. Punctuality - delivery and publication for U	PUNCTUALITY / PUNCTUALITY_RELEAS E_U	Time lag between the actual delivery of the data and the target date when it should have been delivered.	Provide, for annual or more frequent releases: - The percentage of releases delivered on time, based on scheduled release dates. - The reasons for non-punctual releases explained and efforts to improve the situation described and the TP3 indicator, calculated and described for users. *National data deliveries to Eurostat: The agreed time frame for deliveries should be included as well as the achieved dates for deliveries during a past period. Where there are several stages of publication (e.g., preliminary and final results) all should be included. / QPI: TP3 Punctuality - delivery and publication for U, with different CALCULATION FORMULA for U and P
S.16.2. 1	TP3. Punctuality - delivery and publication for P	PUNCTUALITY_RELEAS E_P	The number of days between the delivery/ release date of data and the target date on which they were scheduled for delivery/ release.	QPI: TP3, Punctuality - delivery and publication for P, with different CALCULATION FORMULA for U and P
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S.17	Comparability	COMPARABILITY	Measurement of the impact of differences in applied statistical concepts, measurement tools and procedures where statistics are compared between geographical areas or over time.	
5.17.1	Comparability - geographical	COMPAR_GEO	The extent to which statistics are comparable between geographical areas.	Describe any problems of comparability between countries or regions. The reasons for the problems should be described and as well an assessment (preferably quantitative) of the possible effect of each reported difference on the output values should be done. Information on discrepancies from the ESS/ international concepts and definitions should be included. Differences between the statistical process and the corresponding European regulation/standard and/or international standard (if any) should be reported. Also asymmetries for statistical mirror flows should be described. For Eurostat: • Comparability over region may be assessed in two different ways: pair-wise comparisons of the metadata across regions; and comparison of metadata for the region with a standard, in particular an ESS standard or, in its absence, an example of best practice from one of the NSIs. • A comparability matrix summarising by region the possible sources of lack of comparability relative to a specified standard should be given.
S.17.1. 1	CC1. Asymmetry for mirror flows statistics - coefficient	ASYMMETRY_COEFF	The difference or the absolute difference of inbound and outbound flows between a pair of countries divided by the average of these two values.	QPI: CC1 Asymmetry for mirror flows statistics - coefficient

S.17.2	Comparability - over time and CC2. Length of comparable time series for U	COMPAR_TIME / COMPAR_LENGTH_U	The extent to which statistics are comparable or reconcilable over time.	Provide information on possible limitations in the use of data for comparisons over time. In assessing comparability over time the first step is to determine (from the metadata) the extent of the changes in the underlying statistical process that have occurred from one period to the next. There are three broad possibilities:1. There have been no changes, in which case this should be reported 2. There have been some changes but not enough to warrant the designation of a break in series 3. There have been sufficient changes to warrant the designation of a break in series. In the second and third cases, the changes and their probable impacts should be reported. Particularly in the third case provide information on the length of comparable time series, reference periods at which series breaks occur, the reasons for the breaks and treatments of them. / QPI: CC2 Length of comparable time series for U, with different LEVEL OF DETAILS for U and P
S.17.2. 1	CC2. Length of comparable time series for P	COMPAR_LENGTH_P	The number of reference periods in time series from last break.	QPI: CC2 Length of comparable time series for P, with different LEVEL OF DETAILS for U and P
S.17.3	Comparability domain	COMPAR_DOMAIN	The extent to which statistics are comparable between statistical domains.	- Not to be reported.

S.18	Coherence	COHERENCE	Adequacy of statistics to be reliably combined in different ways and for various uses.	
S.18.1	Coherence- cross domain	COHER_X_DOM	The extent to which statistics are reconcilable with those obtained through other data sources or statistical domains.	Describe the differences of the statistical outputs in question to other related statistical outputs (incl. main differences in concepts and definitions, statistical unit or object, classification (nomenclature) used, geographical breakdown, reference period, correction methods etc). The order of magnitude of the effects of the differences should be assessed as well. For each output the report should contain an assessment of incoherence in terms of possible sources and their impacts.
S.18.1. 1	Coherence - sub annual and annual statistics	COHER_FREQSTAT	The extent to which statistics of different frequencies are reconcilable.	Coherence between subannual and annual statistical outputs is a natural expectation but the statistical processes producing them are often quite different. Compare subannual and annual estimates and, eventually, describe reasons for lack of coherence between subannual and annual statistical outputs.
S.18.1. 2	Coherence- National Accounts	COHER_NATACCOUNT S	The extent to which statistics are reconcilable with National Accounts.	Where relevant, the results of comparisons with the National Account framework and feedback from National Accounts with respect to coherence and accuracy problems should be reported and should be a trigger for further investigation.
S.18.2	Coherence - internal	COHER_INTERNAL	The extent to which statistics are consistent within a given data set.	Each set of outputs should be internally consistent: if statistical outputs within the data set in question are not consistent, any lack of coherence in the output of the statistical process itself should be stated as well as the reasons for publishing such results. For example it may occur that the process actually comprises data from different sources. In above circumstances a brief explanation should be given.

S.19	Cost and burden	COST_BURDEN	Cost associated with the collection and production of a statistical product and burden on respondents.	Provide a summary of costs for production of statistical data and of the burden on respondents. Concerning costs, where available, annual operational cost with breakdown by major cost component, should be provided as well as recent efforts made to improve efficiency. Also the extent to which ICT is effectively used in the statistical process. With regard to response burden: where available, an estimate of respondent burden (in general measured in time used) should be reported as well as recent efforts made to reduce respondent burden. Other information related to respondent burden could be reported such as: • Whether the range and detail of data collected by survey is limited to what is absolutely necessary; • Whether administrative and other survey sources are used to the fullest extent possible; • The extent to which data sought from businesses is readily available from their accounts; • Whether electronic means are used to facilitate data collection; • Whether best estimates and approximations are accepted when exact details are not readily available; • Whether reporting burden on individual respondents is limited to the extent possible by minimizing the overlap with other surveys.
S.20	Data revision	DATA_REV	Any change in a value of a statistic released to the public.	
S.20.1	Data revision - policy	REV_POLICY	Policy aimed at ensuring the transparency of disseminated data, whereby preliminary data are compiled that are later revised.	A revision should follow standard, well-established and transparent procedures that are described here or accessible via links from here. Pre-announcements are desireable. Describe the general revision policy adopted for the organisation and the data disseminated. Include planned and unplanned revisions as well as data revisions and conceptual revisions.
S.20.2	Data revision - practice / A6. Data revision - average size for U	REV_PRACTICE / DATA_REV_AVGSIZE_ U	Information on the data revision practice	Please note that from a quality point of view revisions can be regarded as a special aspect of accuracy and are also integrated in S.15.1. Report the schedule for the revisions. Describe the main reasons for revisions and their nature (new source data available, new methods, etc.,). Make a qualitative assessment on the average size of revisions and their direction based on historical data and describe the A6 indicator for users. / QPI: A6 Data revision - average size for U, with different LEVEL OF DETAILS for U and P
S.20.2. 1	A6. Data revision - average size for P	DATA_REV_AVGSIZE_ P	The average over a time period of the revisions of a key item. The "revision" is defined as the difference between a later and an earlier estimate of the key item.	QPI: A6 Data revision - average size for P, with different LEVEL OF DETAILS for U and P
S.21	Statistical processing	STAT_PROCESS	Operations performed on data to derive new information according to a given set of rules.	
S.21.1	Source data	SOURCE_TYPE	Characteristics and components of the raw statistical data used for compiling statistical aggregates.	Indicate if the data set is based on a survey, on administrative data sources, on a mix of multiple data sources or on data from other statistical activities. If sample surveys are used, some sample characteristics should also be given (e.g. population size, gross and net sample size, type of sampling design, reporting domain etc.). If administrative registers are used, the description of registers should be given (source, primary purpose, etc.).
S.21.2	Frequency of data collection	FREQ_COLL	Frequency with which the source data are collected.	Indicate the frequency of data collection (e.g. monthly, quarterly, annually, continuous). The frequency can also be expressed in using the codes released in the harmonised code list available for the European Statistical System.

S.21.3	Data collection	COLL_METHOD	Systematic process of gathering data for official statistics.	Describe the method used, in case of surveys, to gather data from respondents (e.g. sampling methods, postal survey, CAPI, on-line survey, etc.). Some additional information on questionnaire design and testing, interviewer training, methods used to monitor non-response etc. should be provided here. Questionnaires used should be annexed (if very long: via hyperlink).	
S.21.4	Data validation	DATA_VALIDATION	Process of monitoring the results of data compilation and ensuring the quality of statistical results.	Describe the procedures for checking and validating the source and output data and how the results of these validations are monitored and used. Validation activities can include: checking that the population coverage and response rates are as required; comparing the statistics with previous cycles (if applicable); confronting the statistics against other relevant data (both internal and external); investigating inconsistencies in the statistics; performing micro and macro data editing; verifying the statistics against expectations and domain intelligence, outlier detection.	
S.21.5	Data compilation	DATA_COMP	Operations performed on data to derive new information according to a given set of rules.	Describe the data compilation process (e.g. imputation, weighting, adjustment for non-response, calibration, model used etc.). For imputation: • Information on the extent to which imputation is used and the reasons for it should be noted. • A short description of the methods used and their effects on the estimates. Each step of weighting should be described separately: * calculation of design weights; * non-response adjustment: how the design weight is corrected taking into account the differences in response rates; * calibration: the level and variables used in the adjustment, method applied; * calculation of final weights.	
S.21.5. 1	A7. Imputation - rate	IMPUTATION_RATE	The ratio of the number of replaced values to the total number of values for a given variable.	QPI: A7 Imputation - rate	
S.21.6	Adjustment	ADJUSTMENT	The set of procedures employed to modify statistical data to enable it to conform to national or international standards or to address data quality differences when compiling specific data sets.	Describe the time series to be adjusted and the statistical procedures used for adjusting the series (such as seasonal adjustment methods e.g. TRAMO-SEATS, ARIMA, time series decomposition, or other similar methods). In case of adjustment, mention the type of adjustment (e.g. seasonal, calendar, trend-cycle) and if applied, the calendar used. If outlier detection and replacement was done, mention which kind of outliers (impulse, transitory changes, level shifts) were detected. Report the software and its version used for adjustment.	
S.21.6. 1	Seasonal adjustment	SEASONAL_ADJ	The statistical technique used to remove the effects of seasonal calendar influences operating on a series.	A short description of the method used, including pre-treatment (calendar effects corrected for, calendar used, type of outliers detected and corrected, model selection and revision and decomposition scheme adopted) and specification of the seasonal adjustment tool chosen (software and version); Validation: specification of the quality measures and diagnostics used to evaluate the appropriateness of the identified model and the results of the seasonal adjustment process. Revisions: approach chosen for handling revision of seasonally adjusted data in combination or not with revision of raw data (specification of the horizon of revision seasonal factors).	
S.22	Comment	COMMENT_DSET		Supplementary descriptive text which can be attached to the data or metadata.	

NEW ESMS GUIDELINES AS DERIVED FROM SIMS

EURO-SDMX Metadata Structure (release 4, December 2010)

	Concept Name	Concept Code	Descriptions	ESS Guidelines
1	Contact	CONTACT	Individual or organisational contact points for the data or metadata, including information on how to reach the contact points.	
1.1	Contact organisation	CONTACT_ORGANISATION	The name of the organisation of the contact points for the data or metadata.	The full name of your organisation.
1.2	Contact organisation unit	ORGANISATION_UNIT	An addressable subdivision of an organisation.	The name of the unit or division responsible for the metadata file (it can also include a unit number).
1.3	Contact name	CONTACT_NAME	The name of the contact points for the data or metadata.	The name of the person responsible for the statistical domain (first name and family name), one person only.
1.4	Contact person function	CONTACT_FUNCT	The area of technical responsibility of the contact, such as "methodology", "database management" or "dissemination".	The title/function of the person responsible for the statistical domain: senior researcher, chief of the division, etc (this title can also contain the precise area of responsibility/competence such as methodologist or data base manager)
1.5	Contact mail address	CONTACT_MAIL	The postal address of the contact points for the data or metadata.	The postal address of the person responsible for the statistical domain.
1.6	Contact email address	CONTACT_EMAIL	E-mail address of the contact points for the data or metadata.	The email address of the person responsible for the statistical domain (this can be an individual mail address or a functional mailbox).
1.7	Contact phone number	CONTACT_PHONE	The telephone number of the contact points for the data or metadata.	The phone number of the person responsible for the statistical domain.
1.8	Contact fax number	CONTACT_FAX	Fax number of the contact points for the data or metadata.	The fax number of the person responsible for the statistical domain.
2	Metadata update	META_UPDATE	The date on which the metadata element was inserted or modified in the database.	
2.1	Metadata last certified	META_CERTIFIED	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.	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 has not been amended.
2.2	Metadata last posted	META_POSTED	Date of the latest dissemination of the metadata.	The date when this metadata file is disseminated will normally be inserted automatically by the reference metadata production system.
2.3	Metadata last update	META_LAST_UPDATE	Date of last update of the content of the metadata.	The date when this metadata file is last updated will normally also be inserted by the reference metadata production system.
3	Statistical presentation	STAT_PRES	Description of the disseminated data which can be displayed to users as tables, graphs or maps.	
3.1	Data description	DATA_DESCR	Main characteristics of the data set, referring to the data and indicators disseminated.	Describe shortly the main characteristics of the data set in an easily and quickly understandable manner, referring to the main data and indicators disseminated. More detailed descriptions on the variables are in S.4.4.
3.2	Classification system	CLASS_SYSTEM	Arrangement or division of objects into groups based on characteristics which the objects have in common.	List all international or standard classifications and breakdowns which are used for the data set produced (with their detailed names).
3.3	Sector coverage	COVERAGE_SECTOR	Main economic or other sectors covered by the statistics.	List the main economic or other sectors covered by the data set produced and the size classes/size bands used (e.g. number of employees, etc).
3.4	Statistical concepts and definitions	STAT_CONC_DEF	Statistical characteristics of statistical observations, variables.	Describe in short the main statistical variables provided. The definition and types of variables provided should be listed, together with any

				Information on discrepancies from the ESS/ international standards.
3.5	Statistical unit	STAT_UNIT	Entity for which information is sought and for which statistics are ultimately compiled.	List the basic units of statistical observation for which data are provided. These observation units (e.g. the enterprise, the local unit, private households,) can be different from the reporting units used in the underlying statistical surveys.
3.6	Statistical population	STAT_POP	The total membership or population or "universe" of a defined class of people, objects or events.	Describe the target statistical population (one or more) which the data set refers to, i.e. the population about which information is to be sought.
3.7	Reference area	REF_AREA	The country or geographic area to which the measured statistical phenomenon relates.	At European level: The geographical area covered by the data set disseminated (e.g. EU Members states, EU regions, USA, Japan, etc. as well as aggregates such as EU-27, EEA). At national level: the country, the regions and aggregates covered by the data set disseminated.
3.8	Time coverage	COVERAGE_TIME	The length of time for which data are available.	The time periods covered by the data set should be described (i.e. the length of time for which data set is disseminated, e.g. 1985-2006 or 2000 for certain annual data).
3.9	Base period	BASE_PER	The period of time used as the base of an index number, or to which a constant series refers.	The period of time used as a base of an index number or to which a time series refers should be described (e.g. base year 2000 for certain annual data).
4	Unit of measure	UNIT_MEASURE	The unit in which the data values are measured.	The units of measures used for the data set disseminated should be listed (units of measures are e.g. Euro, %, number of persons). Also the exact use of magnitude (e.g. thousand, million) should be added.
5	Reference period	REF_PERIOD	The period of time or point in time to which the measured observation is intended to refer.	Statistical variables refer to specific time periods, which can be a specific day or a specific period (e.g. a month, a fiscal year, a calendar year or several calendar years). When there is a mismatch between the target and the actual reference period, for instance when data are not available for the target reference period, the difference should also be highlighted.
6	Institutional mandate	INST_MANDATE	Law, set of rules or other formal set of instructions assigning responsibility as well as the authority to an organisation for the collection, processing, and dissemination of statistics.	
6.1	Legal acts and other agreements	INST_MAN_LA_OA	Legal acts or other formal or informal agreements that assign responsibility as well as the authority to an agency for the collection, processing, and dissemination of statistics.	At European level: The legal base or other agreement creating the reporting requirement should be listed (e.g. the EU legal act, another agreement or the 5-Year-Program related to the European Statistical System). At national level: National legal acts and/or other reporting agreements should be mentioned (including EU legal acts, the implementation of EU Directives).
6.2	Data sharing	INST_MAN_SHAR	Arrangements or procedures for data sharing and coordination between data producing agencies.	At European level only: arrangements, procedures or agreements related to data sharing and exchange between international data producing agencies should be described (e.g. a Eurostat data collection or data production which is in common with the OECD, the UN, etc.).
7	Confidentiality	CONF	A property of data indicating the extent to which their unauthorised disclosure could be prejudicial or harmful to the interest of the source or other relevant parties.	
7.1	Confidentiality - policy	CONF_POLICY	Legislative measures or other formal procedures which prevent unauthorised disclosure of data that identify a person or economic entity either directly or indirectly.	The European and national legislations (or any other formal provision) related to statistical confidentiality applied for the data set in question should be described. It means the assurance that all necessary methods assuring confidentiality have been applied to the data.

7.2	Confidentiality - data treatment	CONF_DATA_TR	Rules applied for treating the microdata and macrodata (including tabular data) to ensure statistical confidentiality and prevent unauthorised disclosure.	The rules applied for treating the microdata and macrodata (including tabular data) with regard to statistical confidentiality should be described (e.g. controlled rounding, cell suppression, aggregation of disclosed information, aggregation rules on aggregated confidential data, primary confidentiality with regard to single data values, etc.).
8	Release policy	REL_POLICY	Rules for disseminating statistical data to all interested parties.	
8.1	Release calendar	REL_CAL_POLICY	The schedule of statistical release dates.	The policy regarding the release of statistics in question should be described, in particular if it follows a preannounced schedule. It should also be mentioned if a release calendar for the data set in question exists and if this calendar is publicly accessible.
8.2	Release calendar access	REL_CAL_ACCESS	Access to the release calendar information.	The link or reference to the release calendar should be given.
8.3	User access	REL_POL_US_AC	The policy for release of the data to users, the scope of dissemination, how users are informed that the data are being released, and whether the policy determines the dissemination of statistical data to all users.	The general policy of the organisation for data release to users should be described. This includes the scope of dissemination (e.g. to the public, to selected users), how users are informed that the data is being released, and whether the release policy determines the dissemination of statistical data to all users at the same time. For Eurostat only: Reference is also made to the impartiality protocol linked to the European Statistics Code of Practice, principle 6, where the responsible for the statistical domain should state all kinds of prereleases.
9	Frequency of dissemination	FREQ_DISS	The time interval at which the statistics are disseminated over a given time period.	The frequency with which the data is disseminated (e.g. monthly, quarterly, yearly) should be stated. The frequency can also be expressed by using the codes released in the harmonised code list available for the European Statistical System as long as it is easily understandable.
10	Dissemination format	DISS_FORMAT	Media, various means and formats by which statistical data and metadata are disseminated to users and their accessibility. Accessibility and clarity refer to the simplicity and ease, the conditions and modalities by which users can access, use and interpret statistics, with the appropriate supporting information and assistance.	
10.1	News release	NEWS_REL	Regular or ad-hoc press releases linked to the data.	Regular or ad-hoc press releases linked to the data set in question should be described.
10.2	Publications	PUBLICATIONS	Regular or ad-hoc publications in which the data are made available to the public.	The titles of publications using the data set in question should be listed, with publisher, year and link to on-line documents if available.
10.3	On-line database	ONLINE_DB	Information about on-line databases in which the disseminated data can be accessed.	The on-line database available for the data set in question should be described. This includes the domain names as released on the website and link to the on-line database.
10.4	Micro-data access	MICRO_DAT_ACC	Information on whether micro-data are also disseminated.	Describe if and how the data set is accessible as micro-data (e.g. for researchers). Also the micro-data anonymisation rules should be described in short.
10.5	Other	DISS_OTHER	References to the most important other data dissemination done.	The most important other data dissemination means should be described (e.g. within other publications, policy papers, etc.) and an overview of the different aspects of the dissemination practice and their impact on accessibility and clarity of the data should be stated. For Member States: Pricing policies and registration for database access and their likely effect on access should be described together with the limits on access set by confidentiality provisions and any other restrictions; dissemination of data to

				Eurostat and other international organisations (IMF, OECD, if applicable and not described under "S.7.1 Legal acts and other agreements"), and internal dissemination of data to other statistical activities within the NSI.
11	Accessibility of documentation	ACCESS_DOC	The conditions and modalities by which users can obtain, use and interpret documentation on the data, i.e. descriptive text used to define or describe an object, design, specification, instructions or procedure.	
11.1	Documentation on methodology	DOC_METHOD	Descriptive text and references to methodological documents available.	Describe the availability of national reference metadata files, important methodological papers, summary documents or other important handbooks. Title, publisher, year and links to online documents if possible should be described.
11.2	Quality documentation	QUALITY_DOC	Documentation on procedures applied for quality management and quality assessment.	Describe the availability of all quality related documents (quality reports, studies, etc). For Eurostat: The responsible of the statistical domain should also describe the availability of national quality reports. More detailed information about quality processes should be described in S.13.1 and S.13.2.
12	Quality management	QUALITY_MGMNT	Systems and frameworks in place within an organisation to manage the quality of statistical products and processes.	
12.1	Quality assurance	QUALITY_ASSURE	All systematic activities implemented that can be demonstrated to provide confidence that the processes will fulfil the requirements for the statistical output.	Describe briefly the general quality assurance framework (or similar)/the quality management system used in the organisation (EFQM, ISOseries etc.) and how it is implemented for the domain-specific quality assurance activities (quality guidelines, training courses, benchmarking, the use of best practices, quality reviews, self-assessments, compliance monitoring etc).
12.2	Quality assessment	QUALITY_ASSMNT	Overall assessment of data quality, based on standard quality criteria.	A qualitative assessment of the overall quality of the statistical outputs by summarising the main strengths and possible quality deficiencies (for the standard quality criteria cf. concepts S.14 -S.18). Any trade-offs between quality aspects can be mentioned as well as planned quality improvements. Where relevant, please refer to the results of previous quality assessments.
13	Relevance	RELEVANCE	The degree to which statistical information meet current and potential needs of the users.	
13.1	User needs	USER_NEEDS	Description of users and their respective needs with respect to the statistical data.	Provide: - a classification of users with some indication of their importance; - an indication of the uses for which they want the statistical outputs; - an assessment regarding the key outputs/indicators desired by different categories of users and any shortcomings in outputs for important users; - information on unmet user needs, the reasons why certain needs cannot be fully satisfied, - any plans to satisfy needs more completely in the future; and - details of definitions which differ from requirements.
13.2	User satisfaction	USER_SAT	Measures to determine user satisfaction.	Describe how the views and opinions of the users are regularly collected (e.g. user satisfaction surveys, other user consultations,). In addition the main results regarding investigation of user satisfaction should be shown (in the form of a user satisfaction index if available) and the date of most recent user satisfaction survey.

13.3	Completeness / R1. Data completeness - rate for U	COMPLETENESS / COMPLETENESS_RATE_U	The extent to which all statistics that are needed are available.	Provide qualitative information on completeness compared with relevant regulations/ guidelines. Applicable for Eurostat: if any Member State is not transmitting all necessary data items. / QPI: R1 Data completeness - rate for U, with different CALCULATION FORMULA for U and P
14	Accuracy and reliability	ACCURACY	Accuracy: closeness of computations or estimates to the exact or true values that the statistics were intended to measure. Reliability: closeness of the initial estimated value to the subsequent estimated value.	
14.1	Overall accuracy	ACCURACY_OVERALL	Assessment of accuracy, linked to a certain data set or domain, which is summarising the various components.	Describe the main sources of random and systematic error in the statistical outputs and provide a summary assessment of all errors with special focus on the impact on key estimates. The bias assessment can be in quantitative or qualitative terms, or both. It should reflect the producer's best current understanding (sign and order of magnitude) including actions taken to reduce bias. Revision aspects should also be included here if considered relevant.
14.2	Sampling error / A1. Sampling errors - indicators for U	SAMPLING_ERR / SAMPLING_ERR_IND_U	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.	If probability sampling is used, the range of variation, among key variables, of the A1 indicator should be reported. It should be also stated if adjustments for non-response, misclassifications and other uncertainty sources such as outlier treatment are included. The calculation of sampling error could be also affected by imputation. This should be noted unless special methods have been applied to deal with this. 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. / QPI: A1 Sampling errors - indicators for U, with different LEVEL OF DETAILS for U and P
14.3	Non-sampling error and A4. Unit non-response - rate for U and A5. Item non-response - rate for U	NONSAMPLING_ERR / UNIT_NONRESPONSE_RATE_U / ITEM_NONRESPONSE_RATE_U	Error in survey estimates which cannot be attributed to sampling fluctuations.	U: Provide a user-oriented summary of the (preferably quantitative) assessment of the nonsampling errors, non-response rates and the bias risks which are associated with them (coverage error: over/ undercoverage and multiple listings; measurement error: survey instrument, respondent and interviewer effect where relevant; nonresponse error: level of unit (non)response including causes and measures for nonresponse, level of item nonresponse for key variables; processing error: data editing, coding and imputation error where relevant; model assumption error: specific models used in estimation) and actions undertaken to reduce the different types of errors. P: Not to be reported, information to be included in the sub-concepts S.15.3.1-S.15.3.5. / QPI: A4 Unit non-response rate for U, with different LEVEL OF DETAILS for U and P / QPI: A5, Item non-response - rate for U, with different LEVEL OF DETAILS for U and P
15	Timeliness and punctuality	TIMELINESS_PUNCT	T: Length of time between data availability and the event or phenomenon they describe. P: Time lag between the actual delivery of the data and the target date when it should have been delivered.	

15.1	Timeliness and and TP2. Time lag - final results for U	TIMELINESS / TIMELAG_FINAL_U	Length of time between data availability and the event or phenomenon they describe.	Provide, for annual or more frequent releases, the average production time for each release of data and the reasons for possible long production times and efforts to improve the situation described, together with the TP1 and TP2 indicators explained for users. Applicable for Eurostat: - National data deliveries: the agreed time frame for deliveries should be included as well as the achieved dates for deliveries during a past period. Describe the TP2 indicator for users. / QPI: TP2 Time lag - final results for U, with different LEVEL OF DETAILS for U and P
15.2	Punctuality and TP3. Punctuality - delivery and publication for U	PUNCTUALITY / PUNCTUALITY_RELEASE_U	Time lag between the actual delivery of the data and the target date when it should have been delivered.	Provide, for annual or more frequent releases: - The percentage of releases delivered on time, based on scheduled release dates. - The reasons for non-punctual releases explained and efforts to improve the situation described and the TP3 indicator, calculated and described for users. *National data deliveries to Eurostat: The agreed time frame for deliveries should be included as well as the achieved dates for deliveries during a past period. Where there are several stages of publication (e.g., preliminary and final results) all should be included. / QPI: TP3 Punctuality - delivery and publication for U, with different CALCULATION FORMULA for U and P
16	Comparability	COMPARABILITY	Measurement of the impact of differences in applied statistical concepts, measurement tools and procedures where statistics are compared between geographical areas or over time.	anticin checoninen enwented
16.1	Comparability - geographical	COMPAR_GEO	The extent to which statistics are comparable between geographical areas.	Describe any problems of comparability between countries or regions. The reasons for the problems should be described and as well an assessment (preferably quantitative) of the possible effect of each reported difference on the output values should be done. Information on discrepancies from the ESS/ international concepts and definitions should be included. Differences between the statistical process and the corresponding European regulation/standard and/or international standard (if any) should be reported. Also asymmetries for statistical mirror flows should be described. For Eurostat: • Comparability over region may be assessed in two different ways: pair-wise comparisons of the metadata across regions; and comparison of metadata for the region with a standard, in particular an ESS standard or, in its absence, an example of best practice from one of the NSIs. • A comparability matrix summarising by region the possible sources of lack of comparability relative to a specified standard should be given
16.2	Comparability - over time and CC2. Length of comparable time series for U	COMPAR_TIME / COMPAR_LENGTH_U	The extent to which statistics are comparable or reconcilable over time.	Provide information on possible limitations in the use of data for comparisons over time. In assessing comparability over time the first step is to determine (from the metadata) the extent of the changes in the underlying statistical process that have occurred from one period to the next. There are three broad possibilities:1. There have been no changes, in which case this should be reported 2. There have been some changes but not enough to warrant the designation of a break in series 3. There have been sufficient changes to warrant the designation of a break in series. In the second and third cases, the changes and their probable impacts should be reported. Particularly in the third case provide information on the length of comparable time series, reference periods at which series breaks occur, the reasons for the

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				breaks and treatments of them. / QPI: CC2 Length of comparable time series for U, with different
				LEVEL OF DETAILS for U and P
17	Coherence	COHERENCE	Adequacy of statistics to be reliably combined in different ways and for various uses.	
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19.1	Data revision - policy	REV_POLICY	Policy aimed at ensuring the transparency of disseminated data, whereby preliminary data are compiled that are later revised.	A revision should follow standard, well- established and transparent procedures that are described here or accessible via links from here. Pre-announcements are desireable. Describe the general revision policy adopted for the organisation and the data disseminated. Include planned and unplanned revisions as well as data revisions and conceptual revisions.

19.2	Data revision - practice / A6. Data revision - average size for U	REV_PRACTICE / DATA_REV_AVGSIZE_U	Information on the data revision practice	Please note that from a quality point of view revisions can be regarded as a special aspect of accuracy and are also integrated in S.15.1. Report the schedule for the revisions. Describe the main reasons for revisions and their nature (new source data available, new methods, etc.,). Make a qualitative assessment on the average size of revisions and their direction based on historical data and describe the A6 indicator for users. / QPI: A6 Data revision - average size for U, with different LEVEL OF DETAILS for U and P
20	Statistical processing	STAT_PROCESS	Operations performed on data to derive new information according to a given set of rules.	
20.1	Source data	SOURCE_TYPE	Characteristics and components of the raw statistical data used for compiling statistical aggregates.	Indicate if the data set is based on a survey, on administrative data sources, on a mix of multiple data sources or on data from other statistical activities. If sample surveys are used, some sample characteristics should also be given (e.g. population size, gross and net sample size, type of sampling design, reporting domain etc.). If administrative registers are used, the description of registers should be given (source, primary purpose, etc.).
20.2	Frequency of data collection	FREQ_COLL	Frequency with which the source data are collected.	Indicate the frequency of data collection (e.g. monthly, quarterly, annually, continuous). The frequency can also be expressed in using the codes released in the harmonised code list available for the European Statistical System.
20.3	Data collection	COLL_METHOD	Systematic process of gathering data for official statistics.	Describe the method used, in case of surveys, to gather data from respondents (e.g. sampling methods, postal survey, CAPI, on-line survey, etc.). Some additional information on questionnaire design and testing, interviewer training, methods used to monitor non-response etc. should be provided here. Questionnaires used should be annexed (if very long: via hyperlink).
20.4	Data validation	DATA_VALIDATION	Process of monitoring the results of data compilation and ensuring the quality of statistical results.	Describe the procedures for checking and validating the source and output data and how the results of these validations are monitored and used. Validation activities can include: checking that the population coverage and response rates are as required; comparing the statistics with previous cycles (if applicable); confronting the statistics against other relevant data (both internal and external); investigating inconsistencies in the statistics; performing micro and macro data editing; verifying the statistics against expectations and domain intelligence, outlier detection.
20.5	Data compilation	DATA_COMP	Operations performed on data to derive new information according to a given set of rules.	Describe the data compilation process (e.g. imputation, weighting, adjustment for non-response, calibration, model used etc.). For imputation: • Information on the extent to which imputation is used and the reasons for it should be noted. • A short description of the methods used and their effects on the estimates. Each step of weighting should be described separately: * calculation of design weights; * non-response adjustment: how the design weight is corrected taking into account the differences in response rates; * calibration: the level and variables used in the adjustment, method applied; * calculation of final weights.

20.€	Adjustment	ADJUSTMENT	The set of procedures employed to modify statistical data to enable it to conform to national or international standards or to address data quality differences when compiling specific data sets.	Describe the time series to be adjusted and the statistical procedures used for adjusting the series (such as seasonal adjustment methods e.g. TRAMO-SEATS, ARIMA, time series decomposition, or other similar methods). In case of adjustment, mention the type of adjustment (e.g. seasonal, calendar, trend-cycle) and if applied, the calendar used. If outlier detection and replacement was done, mention which kind of outliers (impulse, transitory changes, level shifts) were detected. Report the software and its version used for adjustment.
21	Comment	COMMENT_DSET		Supplementary descriptive text which can be attached to the data or metadata.

NEW ESQRS GUIDELINES AS DERIVED FROM SIMS

			Concept Code	Descriptions	ESS Guidelines
ı	Contact		CONTACT	Individual or organisational contact points for the data or metadata, including information on how to reach the contact points.	
1.1		Contact organisation	CONTACT_ORGANISATION	The name of the organisation of the contact points for the data or metadata.	The full name of your organisation.
1.2		Contact organisation unit	ORGANISATION_UNIT	An addressable subdivision of an organisation.	The name of the unit or division responsible for the metadata file (it can also include a unit number).
1.3		Contact name	CONTACT_NAME	The name of the contact points for the data or metadata.	The name of the person responsible for the statistical domain (first name and family name), one person only.
1.4		Contact person function	CONTACT_FUNCT	The area of technical responsibility of the contact, such as "methodology", "database management" or "dissemination".	The title/function of the person responsible for the statistical domain: senior researcher, chief of the division, etc (this title can also contain the precise area of responsibility/competence such as methodologist or data base manager)
1.5		Contact mail address	CONTACT_MAIL	The postal address of the contact points for the data or metadata.	The postal address of the person responsible for the statistical domain.
1.6		Contact email address	CONTACT_EMAIL	E-mail address of the contact points for the data or metadata.	The email address of the person responsible for the statistical domain (this can be an individual mail address or a functional mailbox).
1.7		Contact phone number	CONTACT_PHONE	The telephone number of the contact points for the data or metadata.	The phone number of the person responsible for the statistical domain.
1.8		Contact fax number	CONTACT_FAX	Fax number of the contact points for the data or metadata.	The fax number of the person responsible for the statistical domain.
II	Introduction		INTRODUCTION	A general description of the statistical process and its outputs, and their evolution over time.	Describe briefly the statistical PROCESS generating the data in question, the broad statistical domain to which the outputs belong, the related statistical OUTPUTS as well as the boundary of the quality report at hand and references to related quality reports.
III	Quality assessment		QUALITY_ASSMNT	Overall assessment of data quality, based on standard quality criteria.	A qualitative assessment of the overall quality of the statistical outputs by summarising the main strengths and possible quality deficiencies (for the standard quality criteria cf. concepts S.14 -S.18). Any trade-offs between quality aspects can be mentioned as well as planned quality improvements. Where relevant, please refer to the results of previous quality assessments.
IV	Relevance		RELEVANCE	The degree to which statistical information meet current and potential needs of the users.	

IV.1		User needs	USER_NEEDS	Description of users and their respective needs with respect to the statistical data.	Provide: - a classification of users with some indication of their importance; - an indication of the uses for which they want the statistical outputs; - an assessment regarding the key outputs/indicators desired by different categories of users and any shortcomings in outputs for important users; - information on unmet user needs, the reasons why certain needs cannot be fully satisfied, - any plans to satisfy needs more completely in the future; and - details of definitions which differ from requirements.
IV.2		User satisfaction	USER_SAT	Measures to determine user satisfaction.	Describe how the views and opinions of the users are regularly collected (e.g. user satisfaction surveys, other user consultations,). In addition the main results regarding investigation of user satisfaction should be shown (in the form of a user satisfaction index if available) and the date of most recent user satisfaction survey.
IV.3		Completeness / R1. Data completeness - rate for U	COMPLETENESS / COMPLETENESS_RATE_U	The extent to which all statistics that are needed are available.	Provide qualitative information on completeness compared with relevant regulations/guidelines. Applicable for Eurostat : if any Member State is not transmitting all necessary data items. / QPI: R1 Data completeness - rate for U, with different CALCULATION FORMULA for U and P
IV.3.1		R1. Data completeness - rate for P	COMPLETENESS_RATE_P	The ratio of the number of data cells provided to the number of data cells required.	QPI: R1, Data completeness - rate for P, with different CALCULATION FORMULA for U and P
v	Accuracy and reliability		ACCURACY	Accuracy: closeness of computations or estimates to the exact or true values that the statistics were intended to measure. Reliability: closeness of the initial estimated value to the subsequent estimated value.	
V.1		Overall accuracy	ACCURACY_OVERALL	Assessment of accuracy, linked to a certain data set or domain, which is summarising the various components.	Describe the main sources of random and systematic error in the statistical outputs and provide a summary assessment of all errors with special focus on the impact on key estimates. The bias assessment can be in quantitative or qualitative terms, or both. It should reflect the producer's best current understanding (sign and order of magnitude) including actions taken to reduce bias. Revision aspects should also be included here if considered relevant.
V.2		Sampling error / A1. Sampling errors - indicators for U	SAMPLING_ERR / SAMPLING_ERR_IND_U	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.	If probability sampling is used, the range of variation, among key variables, of the A1 indicator should be reported. It should be also stated if adjustments for non-response, misclassifications and other uncertainty sources such as outlier treatment are included. The calculation of sampling error could be also affected by imputation. This should be noted unless special methods have been applied to deal with this. 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. / QPI: A1 Sampling errors - indicators for U, with different LEVEL OF DETAILS for U and P
V.2.1		A1. Sampling errors - indicators for P	SAMPLING_ERR_IND_P	Precision measures for estimating the random variation of an estimator due to sampling.	QPI: A1 Sampling errors - indicators for P, with different LEVEL OF DETAILS for U and P

V.3	Non-sampling error and A4. Unit non-response - rate for U and A5. Item non-response - rate for U	NONSAMPLING_ERR / UNIT_NONRESPONSE_RATE_ U / ITEM_NONRESPONSE_RATE_ U	Error in survey estimates which cannot be attributed to sampling fluctuations.	U: Provide a user-oriented summary of the (preferably quantitative) assessment of the non-sampling errors, non-response rates and the bias risks which are associated with them (coverage error: over/ undercoverage and multiple listings; measurement error: survey instrument, respondent and interviewer effect where relevant; nonresponse error: level of unit (non)response including causes and measures for nonresponse, level of item nonresponse for key variables; processing error: data editing, coding and imputation error where relevant; model assumption error: specific models used in estimation) and actions undertaken to reduce the different types of errors. P: Not to be reported, information to be included in the sub-concepts S.15.3.1-S.15.3.5. / QPI: A4 Unit non-response - rate for U, with different LEVEL OF DETAILS for U and P / QPI: A5, Item non-response - rate for U, with different LEVEL OF DETAILS for U and P
V.3.1	Coverage error	COVERAGE_ERR	Divergence between the frame population and the target population.	Some information on the register or other frame source should be reported upon (this assists in understanding coverage errors and their effects): reference period, frequency and timing of frame updates, updating actions, eventual discrepancies between the units reported in the frame and the target population unit, references to other documents on frame quality and effects of frame deficiencies on the outputs. Provide an assessment, whenever possible quantitative, on overcoverage and multiple listings, and on the extent of undercoverage. Report also an evaluation of the bias risks associated with the latter. Describe actions taken for reduction of undercoverage and associated bias risks.
V.3.1.1	A2. Over-coverage - rate	OVERCOVERAGE_RATE	The proportion of units accessible via the frame that do not belong to the target population.	QPI: A2, Overcoverage - rate
	A3. Common units - proportion	COMMON_UNIT_SHARE	The proportion of units covered by both the survey and the administrative sources in relation to the total number of units in the survey.	QPI: A3, Common units - proportion
V.3.2	Measurement error	MEASUREMENT_ERR	Measurement errors are errors that occur during data collection and cause recorded values of variables to be different from the true ones	Identification and general assessment of the main sources of measurement error should be reported. The efforts made in questionnaire design and testing, information on interviewer training and other work on error prevention should be described. If available, assessments based on comparisons with external data, re-interviews or experiments should be stated. Also results of indirect analysis, e.g.: based on the results on editing phase, could be reported. Describe actions taken to correct measurement errors.
V.3.3	Non response error	NONRESPONSE_ERR	Non-response errors occur when the survey fails to get a response to one, or possibly all, of the questions	Provide a qualitative assessment on the level of unit non response. Highlight the presence of variables that are more subject to item non response (e.g. sensitive questions). Provide a qualitative assessment on the bias associated with nonresponse. Describe the breakdown of nonrespondents according to cause for nonresponse. Report efforts and measures, including response modelling, to reduce nonresponse in the primary data collection and follow-ups and technical treatment of nonresponse at the estimation stage.
V.3.3.1	A4. Unit non-response - rate for P	UNIT_NONRESPONSE_RATE_ P	The ratio of the number of units with no information or not usable information to the total number of in-scope (eligible) units.	QPI: A4, Unit non-response - rate for P, with different LEVEL OF DETAILS for U and P
V.3.3.2	A5. Item non-response - rate for P	ITEM_NONRESPONSE_RATE_ P	The ratio of the in-scope (eligible) units which have not responded to a particular item and the in-scope units that are required to respond to that particular item.	QPI: A5, Item non-response - rate for P, with different LEVEL OF DETAILS for U and P

V.3.4		Processing error	PROCESSING_ERR	The error in final data collection process results arising from the faulty implementation of correctly planned implementation methods.	Identification of the main issues regarding processing errors for the statistical process and its outputs should be taken into consideration. Where relevant and available, an analysis of processing errors affecting individual observations should be presented; else a qualitative assessment should be included. The treatment of micro-data processing errors needs to be proportional to their importance. When they are significant, their extent and impact on the results should be evaluated. Describe linking and coding errors if applicable.
V.3.4.1		Imputation rate	moved to Data Compliation (XI	I.5) in Statistical Processing (XII)	
V.3.4.2		Common units			
V.J.4.2		proportion	moved to Coverage error (V.3.2	1) in Accuracy (V)	
V.3.5		Model assumption error	MODEL_ASSUMP_ERR	Error due to domain specific models needed to define the target of estimation.	Where models are applicable in relation to a specific source of error, they should be presented in the section concerned. This is recommended also in the case of a cut-off threshold and model based estimation. Domain specific models, for example, as needed to define the target of estimation itself, should be thoroughly described and their validity for the data at hand assessed.
V.3.6		Data revision	DATA_REV	Any change in a value of a statistic released to the public.	
V.3.6.1		Data revision - policy	REV_POLICY	Policy aimed at ensuring the transparency of disseminated data, whereby preliminary data are compiled that are later revised.	A revision should follow standard, well-established and transparent procedures that are described here or accessible via links from here. Pre-announcements are desireable. Describe the general revision policy adopted for the organisation and the data disseminated. Include planned and unplanned revisions as well as data revisions and conceptual revisions.
V.3.6.2		Data revision - practice / A6. Data revision - average size for U	REV_PRACTICE / DATA_REV_AVGSIZE_U	Information on the data revision practice	Please note that from a quality point of view revisions can be regarded as a special aspect of accuracy and are also integrated in S.15.1. Report the schedule for the revisions. Describe the main reasons for revisions and their nature (new source data available, new methods, etc.,). Make a qualitative assessment on the average size of revisions and their direction based on historical data and describe the A6 indicator for users. / QPI: A6 Data revision - average size for U, with different LEVEL OF DETAILS for U and P
V.3.6.3		A6. Data revision - average size for P	DATA_REV_AVGSIZE_P	The average over a time period of the revisions of a key item. The "revision" is defined as the difference between a later and an earlier estimate of the key item.	QPI: A6 Data revision - average size for P, with different LEVEL OF DETAILS for U and P
V.3.7		Seasonal adjustment	moved to Adjustment (XII.6) in	Statistical Processing (XII)	
VI	Timeliness and punctuality		TIMELINESS_PUNCT	T: Length of time between data availability and the event or phenomenon they describe. P: Time lag between the actual delivery of the data and the target date when it should have been delivered.	

VI.1		Timeliness and TP2. Time lag - final results for U	TIMELINESS / TIMELAG_FINAL_U	Length of time between data availability and the event or phenomenon they describe.	Provide, for annual or more frequent releases, the average production time for each release of data and the reasons for possible long production times and efforts to improve the situation described, together with the TP1 and TP2 indicators explained for users. Applicable for Eurostat: - National data deliveries: the agreed time frame for deliveries should be included as well as the achieved dates for deliveries during a past period. Describe the TP2 indicator for users. / QPI: TP2 Time lag - final results for U, with different LEVEL OF DETAILS for U and P
VI.1.1		TP1. Time lag - first results	TIMELAG_FIRST	The number of days (or weeks or months) from the last day of the reference period to the day of publication of first results.	QPI: TP1, Time lag - first results
VI.1.2		TP2. Time lag - final results for P	TIMELAG_FINAL_P	The number of days (or weeks or months) from the last day of the reference period to the day of publication of complete and final results.	QPI: TP2 Time lag - final results for P, with DIFFERENT LEVEL OF DETAILS for U and P
VI.2		Punctuality and TP3. Punctuality - delivery and publication for U	PUNCTUALITY / PUNCTUALITY_RELEASE_U	Time lag between the actual delivery of the data and the target date when it should have been delivered.	Provide, for annual or more frequent releases: - The percentage of releases delivered on time, based on scheduled release dates. - The reasons for non-punctual releases explained and efforts to improve the situation described and the TP3 indicator, calculated and described for users. *National data deliveries to Eurostat: The agreed time frame for deliveries should be included as well as the achieved dates for deliveries during a past period. Where there are several stages of publication (e.g., preliminary and final results) all should be included. / QPI: TP3 Punctuality - delivery and publication for U, with different CALCULATION FORMULA for U and P
VI.2.1		TP3. Punctuality - delivery and publication for P	PUNCTUALITY_RELEASE_P	The number of days between the delivery/ release date of data and the target date on which they were scheduled for delivery/ release.	QPI: TP3, Punctuality - delivery and publication for P, with different CALCULATION FORMULA for U and P
VII	Accessibility and clarity		DISS_FORMAT / ACCESS_CLARITY	Media, various means and formats by which statistical data and metadata are disseminated to users and their accessibility. Accessibility and clarity refer to the simplicity and ease, the conditions and modalities by which users can access, use and interpret statistics, with the appropriate supporting information and assistance.	
VII.1		News release	NEWS_REL	Regular or ad-hoc press releases linked to the data.	Regular or ad-hoc press releases linked to the data set in question should be described.
VII.2		Publication	PUBLICATIONS	Regular or ad-hoc publications in which the data are made available to the public.	The titles of publications using the data set in question should be listed, with publisher, year and link to on-line documents if available.
VII.3		On-line database	ONLINE_DB	Information about on-line databases in which the disseminated data can be accessed.	The on-line database available for the data set in question should be described. This includes the domain names as released on the website and link to the on-line database.
VII.3.1		AC1. Data tables - consultations	DATATABLE_CONSULT	Number of consultations of data tables within a statistical domain for a given time period displayed in a graph.	QPI: AC1 Data tables - consultations

VII.4		Micro-data access	MICRO_DAT_ACC	Information on whether micro-data are also disseminated.	Describe if and how the data set is accessible as micro-data (e.g. for researchers). Also the micro-data anonymisation rules should be described in short.
VII.5		Other	DISS_OTHER	References to the most important other data dissemination done.	The most important other data dissemination means should be described (e.g. within other publications, policy papers, etc.) and an overview of the different aspects of the dissemination practice and their impact on accessibility and clarity of the data should be stated. For Member States: Pricing policies and registration for database access and their likely effect on access should be described together with the limits on access set by confidentiality provisions and any other restrictions; dissemination of data to Eurostat and other international organisations (IMF, OECD, if applicable and not described under "S.7.1 Legal acts and other agreements"), and internal dissemination of data to other statistical activities within the NSI.
VII.5.1		AC 2. Metadata - consultations	METADATA_CONSULT	Number of metadata consultations within a statistical domain for a given time period.	QPI: AC2 Metadata - consultations
VII.6		Documentation on methodology	DOC_METHOD	Descriptive text and references to methodological documents available.	Describe the availability of national reference metadata files, important methodological papers, summary documents or other important handbooks. Title, publisher, year and links to on-line documents if possible should be described.
VII.6.1		AC 3. Metadata completeness - rate	METADATA_COMPLETE	The ratio of the number of metadata elements provided to the total number of metadata elements applicable.	QPI: AC3 Metadata completeness - rate
VII.7		Quality documentation	QUALITY_DOC	Documentation on procedures applied for quality management and quality assessment.	Describe the availability of all quality related documents (quality reports, studies, etc). For Eurostat: The responsible of the statistical domain should also describe the availability of national quality reports. More detailed information about quality processes should be described in S.13.1 and S.13.2.
VIII	Comparability		COMPARABILITY	Measurement of the impact of differences in applied statistical concepts, measurement tools and procedures where statistics are compared between geographical areas or over time.	
VIII.1		Comparability - geographical	COMPAR_GEO	The extent to which statistics are comparable between geographical areas.	Describe any problems of comparability between countries or regions. The reasons for the problems should be described and as well an assessment (preferably quantitative) of the possible effect of each reported difference on the output values should be done. Information on discrepancies from the ESS/ international concepts and definitions should be included. Differences between the statistical process and the corresponding European regulation/standard and/or international standard (if any) should be reported. Also asymmetries for statistical mirror flows should be described. For Eurostat: • Comparability over region may be assessed in two different ways: pair-wise comparisons of the metadata across regions; and comparison of metadata for the region with a standard, in particular an ESS standard or, in its absence, an example of best practice from one of the NSIs. • A comparability matrix summarising by region the possible sources of lack of comparability relative to a specified standard should be given
VIII.1.1		Asymmetry for mirror flows statistics - coefficient	ASYMMETRY_COEFF	The difference or the absolute difference of inbound and outbound flows between a pair of countries divided by the average of these two values.	QPI: CC1 Asymmetry for mirror flows statistics - coefficient

VIII.2		Comparability - over time and CC2. Length of comparable time series for U	COMPAR_TIME / COMPAR_LENGTH_U	The extent to which statistics are comparable or reconcilable over time.	Provide information on possible limitations in the use of data for comparisons over time. In assessing comparability over time the first step is to determine (from the metadata) the extent of the changes in the underlying statistical process that have occurred from one period to the next. There are three broad possibilities:1. There have been no changes, in which case this should be reported 2. There have been some changes but not enough to warrant the designation of a break in series 3. There have been sufficient changes to warrant the designation of a break in series. In the second and third cases, the changes and their probable impacts should be reported. Particularly in the third case provide information on the length of comparable time series, reference periods at which series breaks occur, the reasons for the breaks and treatments of them. / QPI: CC2 Length of comparable time series for U, with different LEVEL OF DETAILS for U and P
VIII.2.1		CC2. Length of comparable time series for P	COMPAR_LENGTH_P	The number of reference periods in time series from last break.	QPI: CC2 Length of comparable time series for P, with different LEVEL OF DETAILS for U and P
VIII.3		Comparability domain	- Not to be reported.		
IX	Coherence		COHERENCE	Adequacy of statistics to be reliably combined in different ways and for various uses.	
IX.1		Coherence- cross domain	COHER_X_DOM	The extent to which statistics are reconcilable with those obtained through other data sources or statistical domains.	Describe the differences of the statistical outputs in question to other related statistical outputs (incl. main differences in concepts and definitions, statistical unit or object, classification (nomenclature) used, geographical breakdown, reference period, correction methods etc). The order of magnitude of the effects of the differences should be assessed as well. For each output the report should contain an assessment of incoherence in terms of possible sources and their impacts.
IX.1.1		Coherence - sub annual and annual statistics	COHER_FREQSTAT	The extent to which statistics of different frequencies are reconcilable.	Coherence between subannual and annual statistical outputs is a natural expectation but the statistical processes producing them are often quite different. Compare subannual and annual estimates and, eventually, describe reasons for lack of coherence between subannual and annual statistical outputs.
IX.1.2		Coherence- National Accounts	COHER_NATACCOUNTS	The extent to which statistics are reconcilable with National Accounts.	Where relevant, the results of comparisons with the National Account framework and feedback from National Accounts with respect to coherence and accuracy problems should be reported and should be a trigger for further investigation.
IX.2		Coherence - internal	COHER_INTERNAL	The extent to which statistics are consistent within a given data set.	Each set of outputs should be internally consistent: if statistical outputs within the data set in question are not consistent, any lack of coherence in the output of the statistical process itself should be stated as well as the reasons for publishing such results. For example it may occur that the process actually comprises data from different sources. In above circumstances a brief explanation should be given.

х	Cost and Burden		COST_BURDEN	Cost associated with the collection and production of a statistical product and burden on respondents.	Provide a summary of costs for production of statistical data and of the burden on respondents. Concerning costs, where available, annual operational cost with breakdown by major cost component, should be provided as well as recent efforts made to improve efficiency. Also the extent to which ICT is effectively used in the statistical process. With regard to response burden: where available, an estimate of respondent burden (in general measured in time used) should be reported as well as recent efforts made to reduce respondent burden. Other information related to respondent burden could be reported such as: • Whether the range and detail of data collected by survey is limited to what is absolutely necessary; • Whether administrative and other survey sources are used to the fullest extent possible; • The extent to which data sought from businesses is readily available from their accounts; • Whether electronic means are used to facilitate data collection; • Whether best estimates and approximations are accepted when exact details are not readily available; • Whether reporting burden on individual respondents is limited to the extent possible by minimizing the overlap with other surveys.
ХІ	Confidentiality		CONF	A property of data indicating the extent to which their unauthorised disclosure could be prejudicial or harmful to the interest of the source or other relevant parties.	
XI.1		Confidentiality – policy	CONF_POLICY	Legislative measures or other formal procedures which prevent unauthorised disclosure of data that identify a person or economic entity either directly or indirectly.	The European and national legislations (or any other formal provision) related to statistical confidentiality applied for the data set in question should be described. It means the assurance that all necessary methods assuring confidentiality have been applied to the data.
XI.2		Confidentiality – data treatment	CONF_DATA_TR	Rules applied for treating the microdata and macrodata (including tabular data) to ensure statistical confidentiality and prevent unauthorised disclosure.	The rules applied for treating the microdata and macrodata (including tabular data) with regard to statistical confidentiality should be described (e.g. controlled rounding, cell suppression, aggregation of disclosed information, aggregation rules on aggregated confidential data, primary confidentiality with regard to single data values, etc.).
XII	Statistical Processing		STAT_PROCESS	Operations performed on data to derive new information according to a given set of rules.	
XII.1		Source data	SOURCE_TYPE	Characteristics and components of the raw statistical data used for compiling statistical aggregates.	Indicate if the data set is based on a survey, on administrative data sources, on a mix of multiple data sources or on data from other statistical activities. If sample surveys are used, some sample characteristics should also be given (e.g. population size, gross and net sample size, type of sampling design, reporting domain etc.). If administrative registers are used, the description of registers should be given (source, primary purpose, etc.).
XII.2		Frequency of data collection	FREQ_COLL	Frequency with which the source data are collected.	Indicate the frequency of data collection (e.g. monthly, quarterly, annually, continuous). The frequency can also be expressed in using the codes released in the harmonised code list available for the European Statistical System.

XII.3		Data collection	COLL_METHOD	Systematic process of gathering data for official statistics.	Describe the method used, in case of surveys, to gather data from respondents (e.g. sampling methods, postal survey, CAPI, on-line survey, etc.). Some additional information on questionnaire design and testing, interviewer training, methods used to monitor non-response etc. should be provided here. Questionnaires used should be annexed (if very long: via hyperlink).
XII.4		Data validation	DATA_VALIDATION	Process of monitoring the results of data compilation and ensuring the quality of statistical results.	Describe the procedures for checking and validating the source and output data and how the results of these validations are monitored and used. Validation activities can include: checking that the population coverage and response rates are as required; comparing the statistics with previous cycles (if applicable); confronting the statistics against other relevant data (both internal and external); investigating inconsistencies in the statistics; performing micro and macro data editing; verifying the statistics against expectations and domain intelligence, outlier detection.
XII.5		Data compilation	DATA_COMP	Operations performed on data to derive new information according to a given set of rules.	Describe the data compilation process (e.g. imputation, weighting, adjustment for non-response, calibration, model used etc.). For imputation: • Information on the extent to which imputation is used and the reasons for it should be noted. • A short description of the methods used and their effects on the estimates. Each step of weighting should be described separately: * calculation of design weights; * non-response adjustment: how the design weight is corrected taking into account the differences in response rates; * calibration: the level and variables used in the adjustment, method applied; * calculation of final weights.
		A7. Imputation - rate	IMPUTATION_RATE	The ratio of the number of replaced values to the total number of values for a given variable.	QPI: A7 Imputation - rate
XII.6		Adjustment	ADJUSTMENT	The set of procedures employed to modify statistical data to enable it to conform to national or international standards or to address data quality differences when compiling specific data sets.	Describe the time series to be adjusted and the statistical procedures used for adjusting the series (such as seasonal adjustment methods e.g. TRAMO-SEATS, ARIMA, time series decomposition, or other similar methods). In case of adjustment, mention the type of adjustment (e.g. seasonal, calendar, trend-cycle) and if applied, the calendar used. If outlier detection and replacement was done, mention which kind of outliers (impulse, transitory changes, level shifts) were detected. Report the software and its version used for adjustment.
		Seasonal adjustment	SEASONAL_ADJ	The statistical technique used to remove the effects of seasonal calendar influences operating on a series.	A short description of the method used, including pre-treatment (calendar effects corrected for, calendar used, type of outliers detected and corrected, model selection and revision and decomposition scheme adopted) and specification of the seasonal adjustment tool chosen (software and version); Validation: specification of the quality measures and diagnostics used to evaluate the appropriateness of the identified model and the results of the seasonal adjustment process. Revisions: approach chosen for handling revision of seasonally adjusted data in combination or not with revision of raw data (specification of the horizon of revision seasonal factors).
XIII	Comment		COMMENT_DSET		Supplementary descriptive text which can be attached to the data or metadata.

Annex 5

HOW TO CREATE AND SUBMIT A REPORT IN NRME

The structures of ESMS and ESQRS are stored in the SDMX Registry in the form of MSDs (Metadata Structure Definition). The National Reference Metadata Editor (NRME) retrieves the structures from the SDMX Registry and displays them in a hierarchical tree form. To every concept (or sub concept) an editable box is attached, in which the relevant information can be filled in and stored. A step by step visual guide explains below how exactly the NRME works, as of today.

Create a Reference Metadata File

By selecting 'Create a File' from the left pane (1), the 1stpage of the wizard is displayed, as in Figure 1.

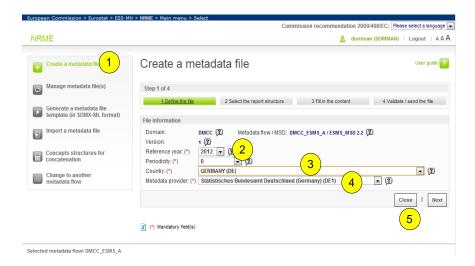


Figure 1: Create Reference Metadata File

The user can now go through the steps to create a Reference Metadata file.

Step 1 — Select Year and Periodicity

The screen displays the Domain, Metadata flow/MSD and Version information (see Figure 1).

The following fields are mandatory:

- 2. Year and Periodicity
- 3. Country (only active for SUPADM and DOMMAN). If the user has a NATADM or NATUSER profile, this field will be filled in automatically. Users with a SUPADM or DOMMAN role will be able to select a country from a drop-down list.
- 4. Metadata provider (only active for SUPADM and DOMMAN). If the user has a NATUSER or NATADM profile, this field will be filled in automatically. Users with a SUPADM or DOMMAN role will be able to select a data provider from a drop-down list.

When all the mandatory information has been provided, the user should press the Next button (5) and continue to the next step of the wizard.

Step 2 — Select Report Structure

In Step 2 of the wizard, the user must select the report structure of the new reference metadata file.

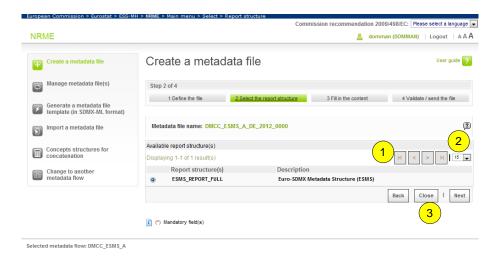
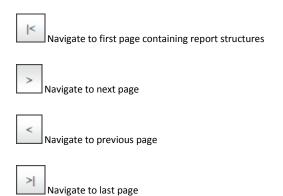


Figure 2: Select report structure

If only one report structure is available for the selected domain, this report will be already selected.

Where there is more than one report structure available, the user can navigate through the list by using following buttons (Figure 2 - (1)):





Select the number of report structures (Figure 2 – (2)) displayed on one page

The reference metadata filename is displayed above these buttons. For example, see in Figure 22:

- ${\tt DMCC_A_AL_2000_0000:}\ Metadata\ Workflow\ selected\ after\ login,\ where:$
 - o AL: Country code of the selected organisation
 - $\circ\hspace{0.1cm}$ 2000: Year for the reported data
 - o 0000: Periodicity for the reported data 10.

After having selected a report structure, the user can continue to Step 3 of the wizard by pressing the Next button (see Figure 2 - (3)). The user can return to Step 1 of the wizard by pressing the Back button ¹¹ (see Figure 2 - (3)). If the user returns to the previous step and changes the organisation and reference period, the name of the reference metadata file will be updated accordingly.

Pressing the Close button (see Figure 2 - (3)) will cancel any changes made and quit the wizard. The user will be redirected to the SDMX Reference Metadata Editor Main Menu page.

¹⁰ List of periodicity codes: 0000 for annual; 0001 to 0012 for Monthly, 0001 to 0004 for Quarterly; 0001 and 0002 for Semester.

¹¹ At the moment it is very important that the users only use the back button of the application, and not the one of the browser (in the top menu. If they use the browser BACK button, they will get the message that the Webpage has expired. This can be remedied by pressing the F5 button. A message will appear with a Retry button and a cancel button. Pressing the Retry button should show the page. Same principle for the browser "FORWARD" button

In Step 3 of the wizard, the user must fill in all the mandatory fields needed to complete the Reference Metadata File. The mandatory fields are marked by an asterisk in the tree structure (*) (see Figure 3).

The display type for sub-concepts is defined by the data type taken from the SDMX registry for a particular sub-concept.

The data type taken from the SDMX registry can be:

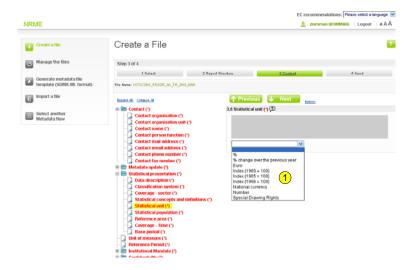
- String Text Area is displayed on right pane.
- Code list Drop-down is displayed with options to be selected.
- Date Date picker is displayed on right pane and can be edited in text area.



Figure 3: Metadata Message

Once a concept is selected by the user from the Tree structure, (s)he has two ways to enter data in the right-hand pane (see Figure 3 - (1)):

- Enter data directly in this field, but it should be typed in directly (not copied from another application). The text can be then formatted.
- Paste text and tables from Word, inserting tables etc., by clicking on the icon



 $Figure\ 4:\ Metadata\ Message-Frequency\ of\ Dissemination$

If the concept is a code list data type, e.g. 'Statistical unit', when it is selected by the user from the Tree structure, the values can be set using the drop-down box displayed in the right-hand pane (Figure 4 - (1)).



Figure 5: Metadata Message — Metadata Update

The concepts of type "DATE" can be filled in by using the date picker control, displayed in the right-hand pane (Figure 5 – (1)).

The user can also enter the date manually. The format of the date should be DD/MM/YYYY. The '/' symbol is not required when entering the date, as the date-masking facility takes care of it. Moreover, the 'day', 'month' and 'year' cursor po: will be moved automatically. The 'Tab' key can also be used for this.

If the user does not fill in all the mandatory fields and wants to go to the next step, an error message is displayed indicating the mandatory field(s) that still need to be completed (see Figure 6).

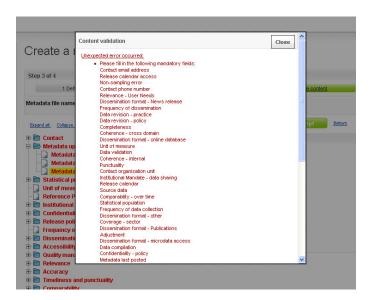


Figure 6: Error message: not all Mandatory fields are filled in

The user should close the window in the error pop-up window and fill in the missing mandatory fields.

Using buttons at the bottom of the screen (Figure 3 – (2)), the user can then choose one of the following actions.

- Continue to the next step of the wizard by pressing the Next button⁴.
- Return to the previous step of the wizard by pressing the Back button⁴.

- Save the newly created reference metadata file by pressing the Save button. If all mandatory fields have been filled out, the file
 will be saved with "Draft" status. If some fields are still missing, the file will be saved with 'Incomplete' status. Saving is not
 mandatory at this point.
- Attach files as annexes to the reference metadata file by pressing the Attachments button. This will open a new window in which the user can select a file and upload it in the NRME (Figure 7).



Figure 7: Attach a file to the reference metadata file

Reuse the content of concepts from other reference metadata files in the current dataflow by pressing the Reuse button. This
action will open a new window in which the user selects first the year and the periodicity of the other reference metadata file
she/he wants to reuse the content (Figure8). Note that only validated metadata files are listed. When the source files are
selected, the user clicks on Next.

Reuse other metadata file(s)



Figure 8: Selection of other reference metadata files to be reused

In a second step the user selects the concepts from each file to be reused in the current reference metadata file and clicks on Reuse. At any moment, the content of any concepts of the target metadata file can be cleared by pressing the Clear. Clicking on

the symbol displays a preview of the concept content.

Reuse other metadata file(s)



Figure 9: Selection of concept to be reused in a reference metadata files

Pressing button Save will display a successful message (Figure 10), close the window and go back to the Step 3 of the creation of the ESMS file.



Figure 10: Successful message after saving reused concepts.

• Quit the wizard by pressing the Close button. If the data on the page are not saved, the user will be prompted with a pop-up message, as in Figure 11.



Figure 11: Confirmation window

By selecting Yes, the user will be redirected to the Main menu page (see Figure 4), without saving any changes. By selecting No, the user will remain in Step 4 of the wizard, so (s)he can continue working and/or save any changes.

Clicking in the text field displays a text editor allowing the user to format the text entered (see Figure 12).

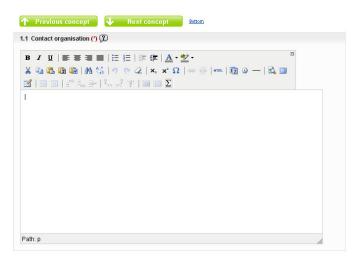


Figure 12: Text editor pop-up

Clicking on the $\underline{\text{Next}}$ or $\underline{\text{Previous}}$ Button leads the user to the next or previous concept.

Step 4 — Preview and Send

In Step 4 of the wizard, the user can preview the reference metadata file in HTML format and send it to eDAMIS (see Figure 13).

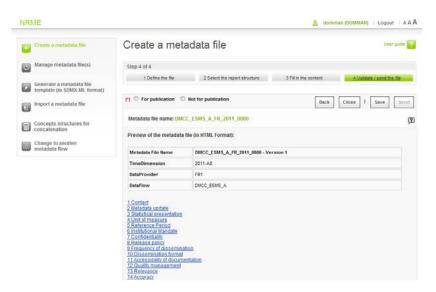




Figure 13: Preview and Send

The user can perform the following actions in this screen.

- Preview the file in SDMX_ML format by pressing the View SDMX_ML button at the bottom of the page. The system opens a pop-up window in which the SDMX_ML format of the reference metadata file is displayed (see Figure 15).
- Save the newly created reference metadata file by pressing the Save button at the bottom of the page. The file is saved with 'Draft' status.

The user must select either 'For publication' or 'Not for publication' before sending data. The Send button will only be activated after a publication status has been selected. When the user presses the Send button, the reference metadata file will be sent to the eDAMIS application, and the file will have the status 'Ready for validation'.

If the user sends a reference metadata file for validation the following confirmation screen will be displayed:



Figure 14: Send information screen

This confirmation screen can be closed by clicking the Close button in the top right corner.

- Return to Step 3 of the wizard by pressing the Back button.
- Quit the wizard by pressing the Close button. If the data on the page has not been saved, the user will be prompted with the error message in Figure 11.

The ESTAT administrator (either SUPERADM or DOMMAN) can 'validate' a file or 'revert' a file back to draft status and can also send it for 'translation' by clicking on the relevant buttons. A user who has created a file can recall a sent file so it is set back to DRAFT status.



Figure 15: SDMX_ML format of the file