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Revised International Statistical Processes Assessment Checklist

Version 2.0 August 2009

Prepared by Eurostat



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This Self Assessment Checklist is designed to facilitate the implementation of the Principles Governing International Statistical Activities related to:

- (1) High quality international statistics, accessible for all, are a fundamental element of global information systems*
- (4) Concepts, definitions, classifications, sources, methods and procedures employed in the production of international statistics are chosen to meet professional scientific standards and are made transparent for the users*
- (5) Sources and methods for data collection are appropriately chosen to ensure timeliness and other aspects of quality, to be cost-efficient and to minimise the reporting burden for data providers*
- (6) Individual data collected about natural persons and legal entities, or about small aggregates that are subject to national confidentiality rules, are to be kept strictly confidential and are to be used exclusively for statistical purposes or for purposes mandated by legislation*
- (7) Erroneous interpretation and misuse of statistics are to be immediately appropriately addressed*
- (8) Standards for national and international statistics are to be developed on the basis of sound professional criteria, while also meeting the test of practical utility and feasibility*

This checklist is under constant development. Please submit your comments on the checklist and its use to the Eurostat Unit B1 responsible for "Quality; Classifications" (contact: ESTAT-QUALITY@ec.europa.eu).

Statistical process for which the checklist is completed: ...
Person(s) responsible for filling in the Checklist: ...
Person(s) in the assessment team: ...
Date for the final approval of the Checklist: ...

International Statistical Processes Assessment Checklist

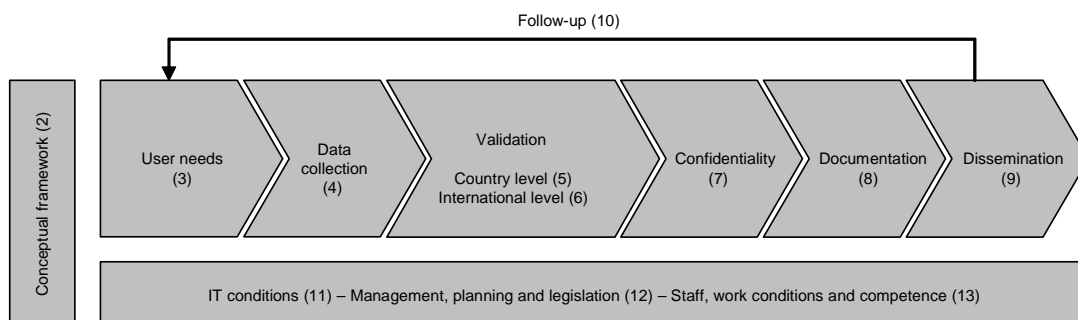
(August 2009)

What is the Assessment Checklist?

This generic checklist for the systematic quality assessment of statistics has been compiled by international and supranational organisations building on the “European Self Assessment Checklist for Survey Managers (DESAP)”¹ which has been developed for assessing the quality of data provided by national statistical systems. However, its focus is on the processes of transformation applied by the international or supranational organisations in order to meet current and future information needs.

It has been developed within the Committee for Coordination of Statistical Activities (CCSA) project on the use and convergence of international quality assurance frameworks² which was coordinated by Eurostat.

The checklist's goal is to foster improvements of the quality of the produced statistics. It promotes the implementation of the Principles Governing International Statistical Activities³ number 1, 4, 5, 6, 7 and 8. The following diagram depicts the structure of the Checklist, with chapters corresponding to the various steps in parenthesis.



The objectives of the Assessment Checklist

The checklist has been designed to meet several different functions:

¹ A Eurostat granted project in 2002 for the development of a self-assessment checklist for National Statistical Institutes in the European Union. The project was led by the Federal Statistical Office of Germany with the following project members: Statistics Austria, Statistics Finland, ISTAT Italy, Statistics Sweden and ONS UK. The checklist is available on the Eurostat quality website (<http://europa.eu.int/comm/eurostat/quality>).

² A CCSA project led by Eurostat and with the following project members: ECB, FAO, ILO, IMF, OECD and UNSD. References: "Outline of a project to promote the use and the convergence of international quality assurance frameworks", SA/2005/13 item 6, Rome 12-14 September 2005, and "Report of the task team on the use and convergence of international quality assurance frameworks", SA/2006/9 item 3, Montreal 4-5 September 2006.

³ Available at http://unstats.un.org/unsd/methods/statorg/Principles_stat_activities/principles_stat_activities.htm

- First, it is an **assessment tool**, which provides an overall picture of the quality of both the statistical output and the underlying statistical production process. It should be used to identify areas where improvement is most needed.
- Second it provides guidance in the consideration of **potential improvement measures** that could be implemented in the statistical production process.
- Third, it provides a means for **comparisons of the level of quality** over time and across similar domains. However, as results rely on opinions as much as facts, it should be kept in mind that careless comparison based on the checklist can be misleading. More reliable comparison can be achieved through comprehensive quality reports.
- It can also provide **support for resource allocation** or be helpful for the training of new staff.

The checklist should be considered as a “light” quality assessment tool complementing more comprehensive reviews or quality reports that could be undertaken less frequently.

The modular approach of the checklist makes it possible to tailor it to specific needs. Parts of the checklist may be skipped, depending on the size and needs of a specific statistical activity. This is further explained under “How to use the Assessment Checklist”.

The benefits of using the Assessment Checklist

- It can be used as a starting point for systematic quality assurance activities since it provides an encompassing framework to quality evaluation.
- It is a powerful tool to identify improvement opportunities and to continuously improve quality of processes and products.
- The assessment diagram (provided in Annex 2) is useful for summarising strengths and weaknesses of the assessed statistics. If the checklist is reviewed on a regular basis (i.e. every year) the quality level of the same set of statistics can be easily monitored.
- Identified strengths can be used for benchmarking purposes (such as setting targets or sharing of best-practices) within and between international organisations.
- Identified weaknesses can form the basis for a quality action plan that can be used for launching and monitoring of quality improvement actions.
- Broad use of the checklist accompanied by in-house training on its completion will foster quality awareness in the organisation (among methodologists, IT specialists, analysts, etc.).

How to use the Assessment Checklist

Before starting to use the Checklist, it is necessary to define the activities to which it will be applied. The Checklist is designed as an assessment tool for statistical processes. A statistical process is defined as the collection, processing, compilation and dissemination of statistics for the same area and with the same periodicity. In this document, statistical processes will also be referred to as domains.

If the Checklist is used to assess a compendium of statistics covering a number of statistical domains, it will be necessary to go through certain chapters for each of them.

Filling the assessment checklist is a 3-step process.

Step 1 – skim through the entire checklist

First, it is recommended that you skim through the entire checklist. This is useful to determine if some parts have to be skipped. In fact, the checklist is generic and modular at the same time. It is generic in the sense that it is designed to apply to all statistics gathered by international or supranational organisations, irrespective of the subject matter area and the specific methodology used for compiling the statistics.

However, since the statistical systems and functions of international organisations vary (from direct data collection at national level to compilation of statistics already compiled by other international organisations) **a modular approach has been chosen for the design of the checklist**. This makes it possible to tailor it to specific needs. For instance, if aggregated data are collected from other international organisations or if the focus of the assessment is more on the internal processes of the international organisation, chapter 5 on validation of country data can be skipped.

Step 2 – complete the relevant sections of the checklist

Once the areas that are not relevant have been identified, the checklist can be filled, in whole or in part. The first time the checklist is to be completed, and every 3-5 years, it is recommended to go through the whole checklist.

If the checklist is to be completed more frequently, e.g. to achieve comparisons of the quality level of the specific statistics over time, it might not be meaningful to go through the whole checklist every time. Rather, it is possible to concentrate on chapters containing assessment questions (the assessment questions are recognised by the darker green shadow). These assessment chapters –4, 5, 6, 8 and 9– could be filled in on an annual basis.

When completing the checklist...

- For many questions, several answers may be relevant: please feel free to tick all of them;
- If a question is not relevant for the specific statistic(s), please answer "not relevant";
- If none of the proposed answers is satisfactory, please propose a more appropriate one;
- When answering open questions, try to be as explicit as possible, since these questions seek to identify issues which might be useful for the development of improvement ideas / processes
- In case of any doubt about the meaning of a word or an expression while filling the checklist, a glossary is provided (Annex 3) explaining many of the technical terms used in the checklist.

Step 3 – present the results

Once the checklist has been filled, two different tools can be used to present the results:

- The **Summary Assessment Report** (Annex 1) should be used for identifying the principal strengths and weaknesses and their importance regarding improvement. This report can be seen as a tool for managers when following up the implementation of the recommendations;

- The assessment questions can be summarised in the **Assessment Diagram** (Annex 2) to give graphical feedback on the strengths and weaknesses.

Place for improvement ideas

This space is to help you note down any improvement ideas for your statistical production process that might occur while completing the checklist. You may want to rip the page out in order to have it next to you while completing the checklist.

Chapter 1

Background information

...

Chapter 2

Conceptual framework

...

Chapter 3

Users and customers

...

Chapter 4

Data Providers

...

Chapter 5

Validation (at country level)

...

Chapter 6

Validation (at your level)

...

Chapter 7 Statistical confidentiality

...

Chapter 8 Documentation

...

Chapter 9 Data dissemination

...

Chapter 10 Follow-up of the statistical production process

...

Chapter 11 IT conditions

...

Chapter 12 Management, Planning and Legislation

...

Chapter 13 Staff, work situation and competence

...

International Statistical Processes Assessment Checklist

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Annexes

1. Summary Assessment Report
2. Assessment Diagrams
3. Glossary

Chapter 1 Background information

This section provides brief general information on the statistics to be assessed and will help to place the answers for subsequent sections in the right context.

1.1 Statistical production process under assessment

...

For example: 1. The EU Labour Force Survey
2. Harmonised Index of Consumer Prices

1.2 Periodicity for data compilation:

- Monthly
- Quarterly.....
- Annual
- Other (please specify: ...).....

1.2.a For which of the following statistical units do you compile data:

- Enterprise Unit
- Institutional Unit
- Enterprise Group
- Kind of Activity Unit
- Legal Unit.....
- Local Unit.....
- Household.....
- Individual
- Agricultural Holding
- Other (please specify: ...).....

1.3 Type of data processed:

- Aggregated data.....
 - Micro data
 - Numerical data
 - Textual data
 - Geospatial coordinates
 - Mixed type of data.....
 - Other (please specify: ...).....
- Additional comments (if any)...

1.4 Key statistic(s) released:

...

*For example: 1. Employment rate 15-64
2. Average number of hours usually worked per week*

1.5 Reference period for the statistics assessed in the checklist:

...

Place for additional background information:

...

Chapter 2 Conceptual framework

The use of appropriate framework, concepts and classifications is a precondition for producing statistics that are comparable across countries.

2.1 International legal basis or agreements for the production of the statistics (please provide details or insert links):

...

2.2 Internationally agreed principles and code(s) in place:

- The UN Fundamental Principles of Official Statistics
- The CCSA Principles Governing International Statistical Activities.....
- The IMF's Data Quality Assessment Framework (DQAF)
- The European Statistics Code of Practice.....
- Other (please specify: ...).....

Additional comments (if any)...

2.3 International agreed statistical concepts and definitions used in the domain:

...

2.4 International classification system(s) used for the statistical data:

...

2.5 International standard(s) in place for the exchange of statistical data:

- SDMX Technical Standards (see Annex 3).....
- Other Standard(s)
- None used.....

Additional comments (if any)...

Place for additional information on the conceptual framework:

...

Chapter 3 Users and customers

Statistics are relevant if they meet user needs. Thus, user needs have to be established at the outset. The following questions refer to the different aspects of communication with users.

3.1 Are all key (e.g. targeted/ intended) users identified?

- Yes, we have a very good idea of our key users
- Yes, the key users are partly identified
- No, our knowledge of the key users is insufficient

Specification of the applied definition of the concept key users (i.e. users considered to be the most important or who make the most use of data): ...

3.2 Who are the key users? Please rank the importance from 1- 5 (1= most important)

	1	2	3	4	5
Other units or departments in your organisation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other international organisations.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Country governments.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central Banks.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scientific institutes and universities.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trade associations.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Businesses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Citizens.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown..... <input type="checkbox"/>					

3.3 How do you ensure user consultation and user contacts, related to the statistics? Through:

- Regular/frequent meetings with users inside the statistical system/organisation.....
- Regular/frequent meetings with users outside the statistical system/organisation.....
- User surveys
- Informal contacts with relevant users.....
- Other (please specify: ...).....

3.4 Is there a process for the collection and treatment of inquiries from users/customers by your unit?

- Yes.....
- Partly
- No
- Not relevant

Additional comments (if any)...

3.5 What are the most common inquiries from users/customers to your unit?

...

3.6 How would you assess the completeness of information on key users' satisfaction?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- [0] Unknown
- Not relevant (please explain: ...)

Please state the reason for your score: ...

3.7 Please assess key users' satisfaction with the quality of the statistics produced according to the following aspects of quality (indicate under comments how the users' satisfaction was assessed):

	Very good	Good	Satisfactory	Poor	Very poor	Not assessed
Accuracy and reliability....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Timeliness.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accessibility.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clarity/interpretability.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Punctuality.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comparability over time....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comparability between countries.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internal consistency.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coherence with other sources.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completeness (variables/ breakdown etc.).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Relevance.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments (if any)...

3.8 Please assess the key users' overall satisfaction with the statistics produced (indicate below how the users' satisfaction was assessed):

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- [0] Not assessed
- Not relevant (please explain: ...)

Please state the reason for your score: ...

3.9 Do you have information about the satisfaction of other (non-key) users?

- Yes
- Partly
- No
- Not relevant

Additional comments (if any)...

3.10 What are the main problems experienced in relation to users/customers?

...

3.11 What are the known unmet key user needs in priority order?

...

3.12 What measures are undertaken in order to anticipate future users' needs?

...

3.13 What plans are in place to react to the unmet key user needs?

...

Place for additional information concerning users and customers:

...

Chapter 4 Data Providers

This section provides an overview on how work with data providers is organised and the main problems in dealing with them, in order to assess potential areas of improvement.

4.1 Who are the main data providers (please specify or give the approximate number of providers for each category)?

...

For example: 15 national statistical institutes, 3 central banks, etc

4.2 Do you measure and monitor compliance of your data providers with legislation / international agreements / gentlemen's agreement in force?

- Yes.....
- Partly
- No
- Not relevant

Additional comments (if any)...

4.3 If the answer to the above question is "Yes", how do you measure compliance?

...

4.4 How are the data obtained from the providers?

- By paper means
- By personalised e-mail
- By institutional e-mail
- By electronic data transfer format
- By download from the provider's website
- Other means (please specify: ...)

Additional comments (if any)...

4.5 If there are standards in place for the transmission of statistical data and metadata, are these standards used by ...

- all or almost all of actors
- half or more than half of actors
- less than half of actors
- none or almost none of actors?
- Not relevant

Additional comments (if any)...

4.6 What are the problems for data delivery from the providers?

	All countries	Most of the countries	Less than half of the countries	None or almost none
Timeliness of data.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Missing values.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non response.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Revisions.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transmission via inappropriate means...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transmission of data that do not correspond to the requirements.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify:)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments (if any)...

4.7 Please indicate what kind of meetings and how often you organise such meetings with your main data providers in order to discuss the problems encountered:

...

4.8 Is there any ongoing co-operation for your key statistics with other international organisations for joint data and metadata collection?

- Yes.....
- No
- Not relevant

If yes, please explain and indicate below when you last reached out to other international organisations to extend data exchange arrangements: ...

4.9 When data are provided by other international or supranational organisation(s), are the data provided in the context of a formal arrangement such as a memorandum of understanding (MOU)?

- Yes.....
Partly
No
Not relevant

Additional comments (if any)...

4.9.a Please provide a reference that gives details about the structure of the data files provided (e.g. details about the transmission format):

...

4.10 Do you have in place a formal procedure for measuring the burden on respondents stemming from statistical data collection?

- Yes.....
No
Not relevant (e.g. no burden on data providers)

Please provide further details here: ...

If the answer is "Not relevant" then please skip the next question.

4.11 What are the future plans for reducing the burden on respondents?

...

Place for additional information concerning data providers:

...

Chapter 5 Validation (at country level)

This section provides an overview of the collection, editing, non-response adjustment, estimation and revision of the data that is undertaken by the countries. It will help to assess how well the quality of the underlying data from countries is known to you. **Please note that this chapter may not be relevant for some international organisations that reuse already published statistics.** In this case, it should simply be skipped.

DATA COLLECTION (MICRO DATA AND AGGREGATED DATA)

5.1 Please indicate (by ticking the appropriate cells) the type of sources used by the countries for collecting the data

	All the countries	Most of the countries	Less than half of the countries	None or almost none
Surveys.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Administrative data.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mixed sources.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you answered "Yes" to "Mixed sources", please describe the different sources:

...

Additional comments (if any)...

5.2 How many countries updated their relevant registers or frame for surveys in the last 3 years? (E.g. business register, frame for household survey, etc.)

All the countries	<input type="checkbox"/>
Most of the countries	<input type="checkbox"/>
Less than half of the countries	<input type="checkbox"/>
None or almost none	<input type="checkbox"/>
Unknown	<input type="checkbox"/>
Not relevant	<input type="checkbox"/>

Additional comments (if any)...

5.3 How would you assess the impact of imperfections of the relevant registers or frame on the quality of the key statistics?

- Almost zero
- Low.....
- Medium
- High.....
- Very high.....
- Unknown
- Not relevant.....

Additional comments (if any)...

5.4 If your key statistics are based on administrative data, how well do the definition and concepts used for administrative purpose compare with those required for statistical purposes?

- Very well.....
- Well.....
- Satisfactorily.....
- Poorly
- Very poorly
- Not relevant.....

Additional comments (if any)...

5.5 If the data are collected by the countries by means of a questionnaire, what is the proportion of countries that tested it (or part of it) in the last 5 years?

...

5.6 Please indicate the degree of completeness of the data received from the countries:

	All the countries	Most of the countries	Less than half of the countries	None or almost none
Very high (80-100%)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High (60-79%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medium (40-59%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low (20-39%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very low (0-19%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments (if any)...

5.7 How would you assess the completeness of the data supplied by the countries compared to what is required from them?

[5] Very good	<input type="checkbox"/>
[4] Good	<input type="checkbox"/>
[3] Satisfactory	<input type="checkbox"/>
[2] Poor.....	<input type="checkbox"/>
[1] Very poor.....	<input type="checkbox"/>
Not relevant (please explain: ...).....	<input type="checkbox"/>

Please state the reason for your score: ...

5.8 Please indicate the degree of completeness of the metadata on quality received from the countries?

	All the countries	Most of the countries	Less than half of the countries	None or almost none
Very high (80-100%)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High (60-79%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medium (40-59%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low (20-39%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very low (0-19%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments (if any)...

5.9 How would you assess the completeness of the metadata on quality received from the countries?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- Not relevant (please explain: ...)

Please state the reason for your score: ...

5.10 If the data from countries are collected using a questionnaire...

Is the data collection from countries based on a harmonised questionnaire? Yes.....
 No.....
 Additional comments (if any)... Unknown.....
 Not relevant.....

Does the content of the questionnaire remain unchanged between data collections? Yes.....
 No.....
 Additional comments (if any)... Unknown.....
 Not relevant.....

Do all the data providers use the same questionnaire format? Yes.....
 No.....
 Additional comments (if any)... Unknown.....
 Not relevant.....

Is it a questionnaire for joint data collection that is also used by one or more international organisations? Yes.....
 No.....
 Unknown.....
 Not relevant.....

If you answered “Yes”, please specify the international organisations involved:
 ...

5.11 If you use a harmonized questionnaire, when was it last tested?

...

5.12 If you use a harmonized questionnaire, when was it last reviewed, revised or updated?

...

5.13 Is there a common guideline for the methodology to be used by countries for the data collection?

- Yes.....
- Partly
- No
- Unknown

If “Yes”, when was the methodology last updated? ...

5.14 How harmonised is your data collection process across different countries?

- Fully
- Mostly
- Partly
- Not harmonised
- Not relevant

If you answered “Fully”, “Mostly” or “Partly” above, please indicate which elements of your data collection process are harmonised: ...

NON RESPONSE

Non response is a form of non-observation present in most surveys and indicates a failure to obtain a measurement on one or more study variables for one or more units selected for the survey.

5.15 Please indicate the level of unit non-response in the data produced by the countries.

	All the countries	Most of the countries	Less than half of the countries	None or almost none
Very low or none (0-4%)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low (5-9%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medium (10-19%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High (20-29%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very high (30% -).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not relevant.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments (if any)...

5.16 How would you assess the impact of the unit-non response on the accuracy of data produced by the countries?

- [5] Almost zero.....
- [4] Low.....
- [3] Medium.....
- [2] High.....
- [1] Very high.....
- [0] Unknown.....
- Not relevant (please explain: ...).....

Please state the reasons for your score: ...

5.17 How many countries correct for non-response?

- All the countries.....
- Most of the countries.....
- Less than half of the countries.....
- None or almost none.....
- Unknown.....
- Not relevant.....

Additional comments (if any)...

IMPUTATION

Imputation is the process used to resolve problems of missing, invalid or inconsistent responses that are identified during the data editing stage. Imputation involves changing some of the records being edited to ensure that a plausible, internally coherent record is created.

5.18 Are missing data imputed by countries?

- Yes.....
- No.....
- Unknown.....
- Not relevant.....

Additional comments (if any)...

5.19 If yes, what is the level of the overall imputation rates for the data received from countries?

% of data imputed:	All the countries	Most of the countries	Less than half of the countries	None or almost none
Very low (0-1%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low (2-5%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medium (6-20%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High (21-50%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very high (51% +)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments (if any)...

5.20 How would you assess the impact of overall imputation rates on the accuracy of data produced by the countries?

[5] Almost zero.....	<input type="checkbox"/>
[4] Low.....	<input type="checkbox"/>
[3] Medium.....	<input type="checkbox"/>
[2] High.....	<input type="checkbox"/>
[1] Very high.....	<input type="checkbox"/>
[0] Unknown.....	<input type="checkbox"/>
Not relevant (please explain: ...).....	<input type="checkbox"/>

Please state the reasons for your score: ...

SAMPLING ERROR

Sampling error describes the error of an estimate that is derived from a sample of observations instead of from the whole population.

5.21 Do you obtain information from countries on the coefficients of variation (CVs)?

Yes.....	<input type="checkbox"/>
No.....	<input type="checkbox"/>
Not relevant.....	<input type="checkbox"/>

Additional comments (if any)...

5.22 If yes, please indicate the level of coefficients of variation (CVs) for the key statistic(s).

	All the countries	Most of the countries	Less than half of the countries	None or almost none
Very low (0-5%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low (6-10%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medium (11-20%)...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High (21-50%).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very high (51% +)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments (if any)...

5.23 How would you assess the impact of sampling errors on the accuracy of data produced by the countries?

- [5] Almost zero.....
- [4] Low
- [3] Medium.....
- [2] High
- [1] Very high
- [0] Unknown
- Not relevant (please explain: ...).....

Please state the reasons for your score: ...

SEASONAL ADJUSTMENT

Seasonal adjustment is the process of estimating seasonal effects and removing them from the data.

5.24 Is seasonal adjustment made by the countries?

- Yes.....
- No
- Not relevant

Additional comments (if any)...

5.25 If yes, please indicate the type of (pre-) adjustments done by the countries:

	All the countries	Most of the countries	Less than half of the countries	None or almost none
Trading day.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trading day & specific holidays..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leap-Year.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easter.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments (if any)...

5.26 Do you have information about how outliers are treated by the countries?

- Yes, for all or almost all of the countries
- Yes, for half or more than half of the countries
- Yes, for less than half of the countries
- No, we don't have information for all or almost all of the countries
- Not relevant

Additional comments (if any)...

5.27 Please indicate the aggregation method chosen by the countries with regard to seasonal adjustment:

	All the countries	Most of the countries	Less than half of the countries	None or almost none
Direct method (first aggregation then seasonal adjustment).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indirect method (seasonal adjustment at low level and then aggregation).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not applicable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments (if any)...

5.28 How would you assess the overall process of the seasonal adjustments done by the countries?

- Very good.....
- Good.....
- Satisfactory.....
- Poor.....
- Very poor.....
- Not relevant.....

Additional comments (if any)...

ESTIMATION

Estimation refers to the rules or methods used to estimate a value in the population, based on a sample of observations.

5.29 Do you have information about the weighting schemes used by the countries?

- Yes, for all or almost all of the countries
- Yes, for half or more than half of the countries
- Yes, for less than half of the countries
- No, we don't have information for all or almost all of the countries
- Not relevant

Additional comments (if any)...

REVISIONS

Revisions are new estimates which replace values previously published.

5.30 Please indicate the extent to which countries revise their published data.

	All the countries	Most of the countries	Less than half of the countries	None or almost none
0 revision.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1 revisions.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 revisions.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3-4 revisions.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5+ revisions.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not relevant.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments (if any)...

5.31 How would you assess the impact of revisions on the key statistics produced by the countries?

[5] Almost zero.....	<input type="checkbox"/>
[4] Low.....	<input type="checkbox"/>
[3] Medium.....	<input type="checkbox"/>
[2] High.....	<input type="checkbox"/>
[1] Very high.....	<input type="checkbox"/>
[0] Unknown.....	<input type="checkbox"/>
Not relevant (please explain: ...).....	<input type="checkbox"/>

Please state the reasons for your score: ...

5.32 Do you employ an explicitly stated revision policy, agreed with the countries?

Yes.....	<input type="checkbox"/>
Planned.....	<input type="checkbox"/>
No.....	<input type="checkbox"/>
Not relevant.....	<input type="checkbox"/>

Additional comments (if any)...

5.33 Please provide the reference to the revision policy.

Place for additional information concerning data validation at the country level:

Chapter 6 Validation (at your level)

This section provides an overview on the data compilation process undertaken by you. It will help to evaluate what is done to improve the data as much as possible and to give an overall assessment of the accuracy of the statistical output.

DATA EDITING

Data editing is the application of validation checks, which identify missing, invalid or inconsistent values or which identify values that are potentially in error.

6.1 How do you rate the reliability of your data validation system?

- | | |
|------------------------------------------|--------------------------|
| [5] Very good | <input type="checkbox"/> |
| [4] Good | <input type="checkbox"/> |
| [3] Satisfactory | <input type="checkbox"/> |
| [2] Poor..... | <input type="checkbox"/> |
| [1] Very poor | <input type="checkbox"/> |
| Not relevant (please explain: ...)..... | <input type="checkbox"/> |

Please state the reasons for your score: ...

6.1.a Please provide a reference that gives details about the editing rules you apply to the data:

...

IMPUTATION

Imputation is the process used to resolve problems of missing, invalid or inconsistent responses that are identified during the data editing stage. Imputation involves changing some of the records being edited to ensure that a plausible, internally coherent record is created.

6.2 Are missing data imputed for computing the key statistics?

- Yes.....
- No.....
- Not relevant.....

Additional comments (if any)...

6.3 Is the chosen imputation method ...

- Automated?.....
- Manual?.....
- A combination of both automated and manual methods?.....
- Not relevant?.....

Additional comments (if any)...

6.4 If the answer to 6.2 is "Yes", what is your assessment of the impact of imputation on the quality of the statistics produced?

- Almost zero.....
- Low.....
- Medium.....
- High.....
- Very high.....
- Unknown.....
- Not relevant.....

Additional comments (if any)...

6.5 Do you use a ...

- Single imputation method (the missing value is replaced with one imputed value)?.....
- Multiple imputation method (several values are used)?.....
- Not relevant.....

Additional comments (if any)...

6.6 If several methods can be applied, have their results been evaluated against each other to identify the best method?

- Yes.....
- No.....
- Not relevant.....

Additional comments (if any)...

6.7 Has there been an assessment of whether the imputation process limits the bias caused by the missing data?

- Yes.....
- No.....
- Not relevant.....

Additional comments (if any)...

6.8 When do you review, revise or update the imputation process?

- After each production round.....
- Regularly but not after each production round.....
- Not regularly
- Not relevant

Additional comments (if any)...

6.8.a Please provide a reference that gives details about the imputation rules you apply to the data:

...

SAMPLING ERROR

Sampling error describes the error of an estimate that is derived from a sample of observations instead of from the whole population.

6.9 Are the levels of the coefficients of variation acceptable for the purposes of the key statistics?

- Yes.....
- Partly (please explain below)
- No
- Not relevant

Additional comments (if any)...

SEASONAL ADJUSTMENT

Seasonal adjustment is the process of estimating seasonal effects and removing them from the data.

6.10 Do you perform seasonal adjustments to any of the statistical data received from National Statistical Authorities?

- Yes.....
- No
- Not relevant

If you answered "Yes", which of the following methods do you apply?

- Direct adjustment
- Indirect adjustment
- X-11 software
- X-12-Arima software
- Tramo-Seats software.....
- Mixed
- Other

Additional comments (if any)...

6.11 Please indicate what you validate during the seasonal adjustment process?

- The outliers.....
- The type of transformation
- The regressors
- The results
- Other (please specify: ...).....
- Nothing.....
- Not relevant

Additional comments (if any)...

6.12 How would you assess the process of the seasonal adjustment?

- Very good.....
- Good
- Satisfactory
- Poor
- Very poor.....
- Not relevant

Additional comments (if any)...

ESTIMATION

Estimation refers to the rules or methods used to estimate a value in the population, based on a sample of observations.

6.13 Do you re-weight the data before computing key statistics?

- Yes.....
No.....
Not relevant.....

Additional comments (if any)...

6.14 If early estimates are released, please indicate the rules in place for deciding when the aggregate is considered to be of sufficient quality to be published:

...

6.15 Have you assessed the influence of these criteria on the quality of the estimate (e.g. bias)?

- Yes.....
No.....
Not relevant.....

Additional comments (if any)...

6.16 Was the current methodology for estimates of the key statistics evaluated during the last three years?

- Yes.....
No.....
Not relevant.....

If the answer is “Yes”, what were the results? ...

Additional comments (if any)...

6.17 Please provide the reference to the paper(s) where the methodology for computing estimates (including adjustments and weights computation) is described.

...

REVISIONS

Revisions are new estimates which replace values previously published.

6.18 Please indicate the percentage of figures revised after publication, due to country data revisions for your key statistics for a given reference period.

Percentage = ...%

Additional comments (if any)...

6.19 How would you assess the impact of the revisions on the aggregates produced by you?

- [5] Almost zero.....
- [4] Low.....
- [3] Medium.....
- [2] High.....
- [1] Very high.....
- [0] Unknown.....
- Not relevant (please explain: ...).....

Please state the reasons for your score: ...

6.20 What kind of final quality checks do you apply before releasing key statistics?

...

6.21 Do you provide specific information to the external users about major revisions concerning key statistics?

- Always.....
- Sometimes.....
- Never.....
- Not relevant.....

Additional comments (if any)...

6.22 Do you regularly undertake analyses of the revisions and use the results to improve statistical processes?

- Yes.....
- Partly.....
- No.....
- Not relevant.....

Please explain further: ...

OVERALL ACCURACY

This section aims to give a qualitative assessment of the accuracy of the published statistics, based on the following ratings:

Very good: Data are collected from reliable sources and based on a common methodology meeting high standards for your organisation's purposes. All aspects of the quality of the data is documented and assessed. The potential bias in estimates is assessed as nil or negligible.

Good: Data are collected from reliable sources and based on a common methodology meeting high standards for your organisation's purposes. All aspects of the quality of the data are documented and assessed. There are some minor shortcomings with regard to data availability and/or potential risk for minor bias in some estimates.

Satisfactory: Data are collected from reliable sources. The main aspects of the quality of the data are documented. There are some shortcomings with regard to data quality or data availability.

Poor: There are some serious shortcomings with regard to data availability and/ or the methodology applied.

6.23 How would you assess the overall accuracy of the published statistics?

[5] Very good	<input type="checkbox"/>
[4] Good	<input type="checkbox"/>
[3] Satisfactory	<input type="checkbox"/>
[2] Poor.....	<input type="checkbox"/>
[1] Very poor	<input type="checkbox"/>
[0] Unknown	<input type="checkbox"/>
Not relevant (please explain: ...).....	<input type="checkbox"/>

Please state the reasons for your score: ...

6.24 What kind of collaboration do you have with the scientific community to improve the quality and effectiveness of the methods implemented?

Participation in conferences	<input type="checkbox"/>
Joint research projects	<input type="checkbox"/>
Regular meetings.....	<input type="checkbox"/>
Other (please specify:....).....	<input type="checkbox"/>
Not relevant	<input type="checkbox"/>

Additional comments (if any)...

6.24.a Structure of the data files stored at organisations

This chapter has focused on the data processing which you carry out in order to produce the final data files. If you have any documentation that gives details of the structure of the final data files stored at International organisation, please list the reference sources below:

Place for additional information concerning data validation at your level:

Chapter 7 Statistical confidentiality

Data used by the national statistical authorities and international organisations are considered confidential when they allow statistical units to be identified, either directly or indirectly, thereby disclosing individual information.

7.1 Do you process statistical data that could be confidential?

- Yes.....
- No.....
- Not relevant.....

If the answer is "No" please go to Chapter 8

Additional comments (if any)...

7.2 Which types of data do you have for publication or (semi-) public access?

- Frequency tables.....
- Tables of magnitude.....
- Micro data – Scientific Use File.....
- Micro data – Public Use File.....
- Not relevant.....

Additional comments (if any)...

7.3 Which disclosure control methods are applied to the released tabular data?

- Cell suppression.....
- Changing the classification.....
- Rounding.....
- Random perturbation.....
- Adding noise.....
- Other (please specify: ...).....
- None.....
- Not relevant.....

If no disclosure control methods applied, please explain why: ...

7.4 Is the tabular protection method ...

- Manual?
- Automated?
- A combination of both?
- Not relevant?
- Additional comments (if any)...

7.5 Please indicate the percentage of sensitive (suppressed) cells in the released tables of the statistics.

- 0%.....
- 1-2%
- 3-5%
- 6-10%
- 11-25%
- 26-50%
- 51+%
- Additional comments (if any)...

7.6 If micro data are accessible to researchers, please explain the methods applied to protect the micro data before releasing them.

...

7.7 If micro data are available for researchers, how often is the access to micro data requested?

- Daily
- Weekly
- Monthly
- Yearly
- Less frequently than yearly
- Not relevant
- Additional comments (if any)...

7.8 If micro data are available for researchers, are they consulted in the process of setting the anonymisation criteria?

- Yes.....
- No
- Not relevant

Please explain the consultation procedure: ...

7.9 If micro-data are available for researchers, do you have any information about their satisfaction with the data provided?

- Yes.....
- No.....
- Not relevant.....

Please provide details of the source of this information: ...

7.10 Please name the software used for carrying out disclosure control.

- CIF software.....
- ARGUS software.....
- Other commercial available software.....
- Tailor-made software.....
- No special software is used.....
- Not relevant.....

Additional comments (if any)...

7.11 Please provide a reference that gives details about the rules applied to the confidential data:

...

Place for comments concerning the statistical confidentiality:

...

Chapter 8 Documentation

This section provides an overview of the documentation available on the production process, the product itself (to be understood as the key statistics) and the quality of the data. It will help to assess the amount and content of documentation available.

8.1 Are all the steps of the data production process adequately documented, e.g. to allow new personnel to become quickly acquainted with the process?

- Yes.....
- Partly
- No

Additional comments (if any)...

8.2 For which of the following aspects of the production process do you need to have a better documentation?

- Data collection.....
- Data validation
- Data dissemination
- Methodology
- Quality control.....
- Software used
- Other (please specify: ...).....
- None

Additional comments (if any)...

8.3 Do you have documentation about the methodology of the statistical production process available to the public?

- Yes.....
- No

Additional comments (if any)...

8.4 How often do you review/update the documentation on the production process?

- Regularly after each production round.....
- Regularly but not after each production round.....
- Not regularly

Additional comments (if any)...

8.5 When was the documentation on the production process last updated?

...

8.6 Does your organisation have a formal process management methodology to document the production process?

- Yes.....
- Partly
- No
- Unknown
- Not relevant

Additional comments (if any)...

8.7 Format(s) in place for releasing information on the data disseminated:

- SDDS files.....
- Euro-SDMX Metadata Structure (ESMS).....
- Footnotes/flags
- Other format(s) (please specify: ...).....
- No information provided
- Not relevant

Additional comments (if any)...

8.8 How often do you review/update the information on the data disseminated?

- Regularly after each production round.....
- Regularly but not after each production round.....
- Not regularly
- Not relevant

Additional comments (if any)...

8.9 If standard format files are in use, when were they last reviewed/updated?

...

8.10 In how many languages are the files on the data disseminated available?

...

8.11 What is the degree of completeness of the files for the released statistics?

76-100%	<input type="checkbox"/>
51-75%	<input type="checkbox"/>
26-50%	<input type="checkbox"/>
1-25%	<input type="checkbox"/>
Not relevant	<input type="checkbox"/>

8.11.a Which of the following Quality Indicators are provided for this process?

More detailed descriptions of these indicators are given in the glossary under "Quality Indicators"

Quality Indicator code and description		Yes	Not relevant
AC1	Number of subscriptions/purchases of each of the key paper reports.....	<input type="checkbox"/>	<input type="checkbox"/>
AC2	Number of accesses to databases (online).....	<input type="checkbox"/>	<input type="checkbox"/>
AC3	The rate of completeness of metadata.....	<input type="checkbox"/>	<input type="checkbox"/>
US1	User satisfaction index.....	<input type="checkbox"/>	<input type="checkbox"/>
US2	Length of time since the most recent user satisfaction survey.....	<input type="checkbox"/>	<input type="checkbox"/>
R1	The rate of available statistics.....	<input type="checkbox"/>	<input type="checkbox"/>
A1	The coefficient of variation or relative standard error.....	<input type="checkbox"/>	<input type="checkbox"/>
A2	Rate of overcoverage.....	<input type="checkbox"/>	<input type="checkbox"/>
A3	Edit failure rate.....	<input type="checkbox"/>	<input type="checkbox"/>
A4	Unit response rate.....	<input type="checkbox"/>	<input type="checkbox"/>
A5	Item response rate.....	<input type="checkbox"/>	<input type="checkbox"/>
A6	Imputation rate.....	<input type="checkbox"/>	<input type="checkbox"/>
A7	Number and type of serious mistakes in the calculation or presentation of aggregates that are not found until after publication.....	<input type="checkbox"/>	<input type="checkbox"/>
T1	Time lag between end of reference period and date of <i>first</i> publication.....	<input type="checkbox"/>	<input type="checkbox"/>
T2	Time lag between end of reference period and date of <i>final</i> publication.....	<input type="checkbox"/>	<input type="checkbox"/>
T3	Punctuality of publication.....	<input type="checkbox"/>	<input type="checkbox"/>
CC2	Mirror statistics e.g. for data flows between pairs of countries.....	<input type="checkbox"/>	<input type="checkbox"/>
CC1	Length of comparable time series.....	<input type="checkbox"/>	<input type="checkbox"/>
PCR1	Annual operational cost, with breakdown by major cost components.....	<input type="checkbox"/>	<input type="checkbox"/>
PCR2	Annual respondent burden in hours and/or financial terms.....	<input type="checkbox"/>	<input type="checkbox"/>
A8	Average size of revisions - Mean Average Revisions (MAR) and Relative Mean Average Revisions (RMAR).....	<input type="checkbox"/>	<input type="checkbox"/>

8.11.b For relevant Quality Indicators that are not currently provided, please describe here any plans for providing these in the future:

...

8.12 What is your assessment of the overall quality of metadata provided to users (in terms of completeness, clarity, availability, etc)?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- [0] No metadata provided to users
- Not relevant (please explain: ...)

Please state the reasons for your score: ...

8.13 In addition to any Quality Indicators provided for this process (identified in Question 8.11.a above), is any other information documented on the quality of the key statistics?

- Yes
- Partly
- No
- Not relevant

Additional comments (if any)...

If you answered "No" or "Not relevant" above, please go now to Question 8.15.

8.13.a Is this other information on the quality of the key statistics available to users?

- Yes
- Partly
- No
- Not relevant

Additional comments (if any)...

8.14 If applicable, is the information reported according to a standardised structure?

- Yes.....
- Partly
- No
- Not relevant

Additional comments (if any)...

8.15 What aspects of quality are covered by the published documentation?

- Comparability over time.....
- Comparability between countries.....
- Coherence with other sources
- Consistency (internal)
- Timeliness
- Punctuality.....
- Accuracy and reliability
- Relevance
- Accessibility
- Clarity/ interpretability
- Completeness (variables/ breakdown).....
- Other (please specify: ...).....

Additional comments (if any)...

8.16 Please provide references to documents on the quality of the statistics released

...

8.17 When was the above documents last updated?

...

8.18 What is your assessment of the completeness and clarity of the information provided to users about quality?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor.....
- [1] Very poor
- [0] No information on quality provided to users
- Not relevant (please explain: ...).....

Please state the reasons for your score: ...

8.19 How would you assess your ability to provide assistance to users in the interpretation and use of the data produced?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor.....
- [1] Very poor
- Not relevant (please explain: ...).....

Please state the reasons for your score: ...

Place for comments concerning the documentation:

...

Chapter 9 Data dissemination

This section provides an overview on various aspects of data dissemination such as data errors, timeliness, coherence and comparability. It will help in assessing where and possibly how data dissemination can be improved in general and in specific cases.

The publication of data should always be understood as their appearance in a publicly accessible environment, e.g. data held electronically in reference databases.

9.1 Please indicate the media formats used for data dissemination:

- On-line databases
- Electronic press releases/newsletters.....
- Paper publications (please specify: ...)
- CD-ROM/DVD
- Other (please specify: ...).....
- Not relevant
- Additional comments (if any)...

9.2 Do you follow the figures on the number of web hits, download rates, publications sold of the data disseminated?

- Yes, regularly
- Yes but not regularly
- No
- Not relevant
- Additional comments (if any)...

9.3 In which of the following dimensions do you disseminate your data?

- Country
- Regions
- Type of activity
- Economic size class
- Other (please specify: ...)
- Not relevant
- Additional comments (if any)...

9.3.a If you have any documentation that gives details of the structure of the disseminated data (e.g. how the data are organised, the dimensions and variables used, etc.) please list the reference sources below:

...

9.3.b Are the key statistical aggregates publicly available free of charge?

- Yes, all the key aggregates
- Yes, some of the key aggregates
- No

If “No” please explain: ...

9.4 Please indicate how often (on average) non-planned extractions of a subset/full set of the statistics are made from the statistics specific database in order to meet specific users' needs?

- Daily
- Weekly
- Monthly
- Yearly
- Never
- Not relevant

Additional comments (if any)...

9.5 How would you assess your ability to react quickly and flexibly to specific user demands for tailor-made data extractions?

- Very good
- Good
- Satisfactory
- Poor
- Very poor
- Not relevant

Additional comments (if any)...

9.6 Are the results of tailor-made analysis made available to all users free of charge?

- Always
- Sometimes
- Never
- Not relevant

Additional comments (if any)...

9.7 Please list the cases in which you grant pre-release access to your statistics.

...

9.8 Do you regularly review the final data in publications before releasing them?

- Yes.....
- No.....
- Not relevant.....

Additional comments (if any)...

9.9 Do you have a rule to cancel the dissemination of statistics due to accuracy considerations (e.g. very low data quality)?

- Yes.....
- No.....
- Not relevant.....

Please provide further explanation: ...

9.10 What kind of checks do you undertake to assess the overall consistency of the published data?

...

9.11 Have users/customers reported any errors in the published/ disseminated statistics during the last year?

- Yes.....
- Not to our knowledge.....
- Not relevant.....

Additional comments (if any)...

9.12 If "Yes", what kind of follow-up of these errors was done?

- Information about the error was provided to the users.....
- Re-dissemination of the data.....
- Changes in the production and verification procedures were made.....
- Other (please specify: ...).....
- Not relevant.....

Additional comments (if any)...

9.13 For which of the following aspects do you flag the data?

- Preliminary results.....
- Breaks.....
- Limited reliability.....
- Missing values.....
- Revised values.....
- International organisation estimates.....
- Confidentiality.....
- Other (please specify: ...).....
- No flag used.....
- Not relevant.....

Additional comments (if any)...

TIMELINESS AND PUNCTUALITY

Timeliness refers to the period between the availability of the information and the event or phenomenon it describes. Punctuality refers to the delay between the date of the release of the data and the target date (the date by which the data should have been delivered).

9.14 Please specify the time lag between the reference period and the agreed data delivery deadline for the countries to send the statistical data (in days or months).

Time lag in days/months: ...

Not relevant
Not known

Additional comments (if any)...

9.15 Please indicate the delay of countries' statistical data compared with the legal or agreed timetable (in days).

Average delay of days: ...

Maximum delay of days: ...

Minimum delay of days: ...

Not relevant
No known

Additional comments (if any)...

9.16 Please indicate the time period between the reference period and the first publication of the key statistics by your unit.

Time period in days/months: ...

Not relevant

Additional comments (if any)...

9.17 Please indicate the time period between the reference period and the final publication of the key statistics by your unit.

Time period in days/months: ...

Not relevant

Additional comments (if any)...

9.18 Please indicate the average time lag between the planned publication date and the actual publication date by your unit.

Time lag in days: ...

Not relevant

Additional comments (if any)...

9.19 How would you assess the timeliness of preliminary publication of key statistics?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- Not relevant

Please state the reasons for your score: ...

9.20 How would you assess the timeliness of publication of the complete set of final results?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- Not relevant

Please state the reasons for your score: ...

9.21 Do you have a release calendar publicly available (e.g. the dissemination time schedule is publicised in advance)?

- Yes
- No
- Not relevant

Additional comments (if any)...

9.22 Do you release the results at the standard daily time?

- Yes
- No
- Not relevant

Additional comments (if any)...

9.23 If there is a release calendar, do you publish in advance divergences from the calendar?

- Yes
- No
- There has been no such divergence

Additional comments (if any)...

9.24 If yes, do you include an explanation?

- Always.....
- Sometimes
- Never

Additional comments (if any)...

9.25 Do you publicly announce a new release time?

- Yes.....
- No
- Not relevant

Additional comments (if any)...

9.26 Are the planned publication dates for the main publications (e.g. comprehensive tables with results including web publications) usually kept?

- [5] They are (nearly) always kept.....
- [4] They are usually kept (>80% of the publications).....
- [3] They are mostly kept (>50% of the publications).....
- [2] They are seldom kept (<50% of the publications).....
- [1] They are almost never kept.....
- Not relevant

Please state the reasons for your score: ...

9.27 If there are delays in the publication of the key statistics, what are the main reasons for the delays?

- Late sending of data from the providers.....
- Lack of staff to treat the data.....
- Too many revisions of data sets
- Problems in the publication process.....
- Problems with IT
- Other (please specify: ...).....
- Not relevant

Additional comments (if any)...

9.28 What kind of changes would be necessary in general to substantially improve timeliness for both production and publication of the key statistics?

- Minor internal.....
- Major internal changes inside the domain.....
- Major internal changes inside your organisation.....
- Changes involving external partners
- Assistance to countries to produce and submit data in a timely fashion.....
- Other (please specify: ...).....
- Not relevant

Additional comments (if any)...

COHERENCE

Coherence refers to the adequacy of the data to be reliably combined in different ways and for various uses.

9.29 How would you assess the coherence of the key statistics produced with statistics having a different periodicity (e.g. annual versus quarterly data)?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- Not relevant

Please state the reason for your score and give the main reasons for the differences between annual and short-term statistics: ...

9.30 How would you assess the coherence of the key statistics produced with National Accounts statistics?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- Not relevant

Please state the reason for your score and give the main reasons for any differences between your key statistics and national account statistics: ...

9.30.a Please list any other statistical information that could be used to assess the coherence of your key statistics with other statistics:

...

9.31 In general, how would you assess the coherence of the key statistics produced with other statistics and information on the same subject?

- [5] Very high
- [4] High
- [3] Satisfactory
- [2] Low
- [1] Very low
- Not relevant

Please state the reasons for your score:

...

COMPARABILITY OVER TIME

Comparability over time refers to the extent to which results from the same statistical process, but at different reference periods, can be compared.

9.32 Are there any breaks in time series for the statistical data?

- Yes
- No
- Not relevant

If “Yes”, do users receive information so they can interpret the breaks in time series?

- Yes
- No

Additional comments (if any)...

9.33 How would you assess the comparability over time (relating to preceding reference periods)?

- [5] Very good
- [4] Good
- [3] Satisfactory
- [2] Poor
- [1] Very poor
- Not relevant

Please state the reasons for your score: ...

COMPARABILITY ACROSS COUNTRIES

Comparability across countries refers to the extent to which results from different countries can be compared, taking into account differences in the statistical concepts and methodologies applied at a national level.

9.34 For how many countries are the concepts and methodologies comparable with standard concepts?

- [5] All countries
- [4] Most of the countries (>80%)
- [3] Some countries (>=50%)
- [2] A few countries (<50%)
- [1] None or almost none
- [0] Unknown
- Not relevant (e.g. no country data released)

Please state the reasons for your score: ...

9.35 Please give an assessment of the asymmetries for statistical mirror flows (i.e. discrepancies between the statistics related to inbound and outbound flows for pairs of countries).

- [5] Very small/negligible
- [4] Small
- [3] Medium
- [2] High
- [1] Very high
- [0] Unknown
- Not relevant (e.g. no statistics mirror flows released)

Please state the reasons for your score: ...

9.36 What is your overall assessment of comparability of the key statistics across countries?

- [5] Very good
- [4] Good
- [3] Sufficient
- [2] Poor
- [1] Very poor
- [0] Unknown
- Not relevant

Please state the reasons for your score: ...

9.37 Please provide references of studies of comparability:

...

Place for comments concerning the data dissemination:

...

Chapter 10 Follow-up of the statistical production process

This section provides an overview of different types of follow-up actions and potential areas for improvement. It is essential to get a clear view on improvement actions for the key statistics concerned.

10.1 Do you discuss the lessons learnt after each production round with staff working within the domain?

- Yes, after each production round
- Yes, but not after each production round
- No

Additional comments (if any)...

10.2 Have the work practices/processes (all or parts of) been compared with other similar practices/processes or benchmarks during the last year?

- Yes
- No
- Not relevant

If "Yes", please comment on how this was done and on the results: ...

Additional comments (if any)...

10.2.a Is there another international organisation process which is similar to your process?

- Yes
- No
- Don't know.
- Not relevant

If you answered "Yes" above, please describe the main similarities here: ...

10.2.b Would you like to benchmark your process with another similar process?

- Yes
- No
- Not relevant

Additional comments (if any)...

10.2.c Do you use the results of other international organisations statistical processes as input to your statistical process?

- Yes.....
- No.....
- Not relevant.....

If you answered "Yes" above, please give the names of the other statistical processes here: ...

Additional comments (if any)...

10.2.d Is the output of your statistical process used as an input to other international organisations statistical processes?

- Yes.....
- No.....
- Don't know.....
- Not relevant.....

If you answered "Yes" above, please give the names of the other statistical processes here: ...

Additional comments (if any)...

10.3 Is there any indicator, which is produced on a regular basis, for monitoring the efficiency of your statistical production process (e.g. how much time is needed for editing the data, the volume of data compared to the number of staff etc.)?

- Yes.....
- No.....
- Not relevant.....

If "Yes", please name: ...

Additional comments (if any)...

10.4 Is there any ongoing co-operation with other international organisations for joint data and metadata dissemination concerning your key statistics?

- Yes.....
- No.....
- Not relevant.....

Additional comments (if any)...

10.5 Are you aware of any best practices in place in other organisations that could be applied for your unit?

- Yes.....
- No.....

Additional comments (if any)...

10.6 Please choose three areas where you see the most urgent need for improvements:

- Relevance
- Dialog with the users
- Accuracy
- Timeliness
- Accessibility
- Availability of metadata
- Availability of data at the country level
- Completeness
- Comparability
- Methodology
- Confidentiality
- Dissemination practices
- Documentation
- Other (please specify: ...)

Additional comments (if any)...

Place for comments concerning the follow-up of the statistical production process:

...

Chapter 11 IT conditions

This section provides a brief overview of the IT applications used for the production of statistics and protection of data in your organisation.

11.1 What IT applications are used for the production of the key statistics?

...

11.2 Do you use IT applications specifically developed according to the needs of your key statistics?

- Yes.....
Partly
No
Not relevant

If you answered "Partly" or "No", are there areas where IT applications could be further tailored to you needs? ...

Additional comments (if any)...

11.3 Is there room for further automation of routine clerical operations (e.g. data coding, validation)?

- No, most operations are automated
Yes.....
Not relevant

If you answered "Yes", please give more details here: ...

Additional comments (if any)...

11.4 In your view, what are the obstacles that hinder greater use of technology to improve the statistical processing of your key statistics?

...

11.5 Are the IT applications sufficiently reliable for the needs of the key statistics?

- Yes.....
- Partly
- No
- Not relevant

If you answered “Partly” or “No”, what are the main difficulties with the reliability of the IT applications? ...

Additional comments (if any)...

11.5.a If relevant, please describe how well the different IT tools you use communicate with each other:

...

11.5.b Sharing software with data providers

- | | Yes | No | Not relevant |
|-------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|
| Do you need to share any specialised software with data providers?..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Do you already share any specialised software with data providers?..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Do you plan to share any specialised software with data providers?..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

If you answered "Yes" to any of the three questions above, please provide details about the type of software to be shared and in which part of the statistical process it is to be used: ...

Additional comments (if any)...

11.6 Do you apply a standard procedure for giving access to the data to staff involved in the production process?

- Yes.....
- No
- Not relevant

Additional comments (if any)...

11.7 Do you follow the standard procedures provided by the IT department to back-up the data?

- Yes.....
- No
- Not relevant

Additional comments (if any)...

11.8 Is there a contingency plan in case the IT applications do not work?

- Yes.....
- Partly
- No
- Not relevant

Additional comments (if any)...

11.9 Are the running and further development of the IT applications dependent on external contractors/ external services?

- Completely dependent on external contractors
- Partly dependent on external contractors
- Partly dependent on external services
- Dependent on IT staff in the domain
- Other (please specify: ...).....
- Not relevant

Additional comments (if any)...

11.10 What are the main problems (if any) for the key statistics in terms of the IT applications?

...

Place for comments concerning the IT conditions:

...

Chapter 12 Management, Planning and Legislation

This team/section includes management-related issues to assess how the work is organised, both internally in the unit and in relation to other team/units in your organisation.

12.1 Is there backup staff for all important stages of statistical production process?

- Yes, for all important stages.....
- Yes, for certain important stages.....
- No.....

Additional comments (if any)...

12.2 Is there a clear time schedule for the most important stages in the production process?

- Yes.....
- Partly.....
- No.....

If you answered "Yes", has this schedule been implemented on time during the last year? ...

Additional comments (if any)...

12.3 What are the resources used for the statistics and its related output (key statistics) in terms of human and financial resources for the current year?

...

12.4 What tasks are usually outsourced to contracts (not related to a specific budget year)?

- Production of publications.....
- Production of data.....
- Methodology work.....
- Evaluations/assessments of legislation.....
- Assistance to your own work.....
- None.....
- Other (please specify: ...).....
- Not relevant.....

Additional comments (if any)...

12.5 Are the key statistics (data) covered by legislation of some kind?

- Yes.....
- No.....
- Not relevant.....

Additional comments (if any)...

12.6 What are the main problems of non-compliance by the Member States with the legislation in force?

- Timeliness.....
- Coverage of data.....
- Accuracy of data.....
- Too many revisions of data.....
- Incomplete data sets.....
- Other (please specify: ...).....
- Not relevant.....

Additional comments (if any)...

Place for comments concerning management, planning and legislation:

...

Chapter 13 Staff, work situation and competence

This section includes issues related to the available knowledge and competence of staff as well as on the working conditions for the unit.

13.1 Is the need for competency in the key statistics analysed at least once a year?

Yes.....
No.....

If you answered "Yes", are the results used as a basis for planning professional development?

Yes.....
No.....

Additional comments (if any)...

13.2 How would you assess the relevance of the qualifications of your staff (e.g. academic degrees) to the requirements for this statistical process?

Very high.....
High.....
Sufficient.....
Poor.....
Very poor.....

Additional comments (if any)...

13.3 Do you enhance the professional level of staff by encouraging them to...

Attend training courses?.....
Do analytical work?.....
Publish scientific papers?.....
Participate in seminars and conferences?.....
Other? (please specify: ...).....

Additional comments (if any)...

13.4 Are the training needs for the key statistics sufficiently covered in general?

Yes.....
Partly.....
No.....

Additional comments (if any)...

13.5 Are the training needs of newcomers to the key statistics sufficiently covered?

- Yes, both as far as the content and timing are concerned.....
Yes, but only as far as content is concerned.....
No

Additional comments (if any)...

13.6 Are the available human and financial resources sufficient to carry out the work?

- Yes.....
Partly
No

Additional comments (if any)...

13.7 Are you satisfied with the working conditions such as office space, office location, available equipment, etc.?

- Yes.....
Partly
No

Additional comments (if any)...

13.8 What are the most difficult problems, in relation to the working conditions and the staff, concerning the production of the key statistics?

...

Place for comments concerning staff, work situation and competence:
...

Chapter 14 Comments on the checklist

14.1 How long did you take to fill in this checklist?

- <4 hours.....
- 4 hours-1day.....
- 1-2 days.....
- 2-4 days.....
- >4 days (please specify the number of days: ...).....

Additional comments (if any)...

14.2 Please give your suggestions below on how this checklist could be improved.

...

ANNEX 1

Summary Assessment Report

Organization: ...

Reporting Unit: ...

Statistical process assessed: ...

Chapter	Principal strengths	Principal weaknesses	Recommendations regarding improvement				
			Action	Ownership	Timeline ⁴	Status ⁵	Priority (High, Medium, Low)

⁴ Timeline for implementation: **short-term (ST)** – within 6 months
medium-term (MT) – within over 6 months and 2 years
long-term (LT) – within over 2 years

⁵ Status of improvement actions: **already implemented (AI)**
planned for implementation (P)
not planned for implementation (NP)

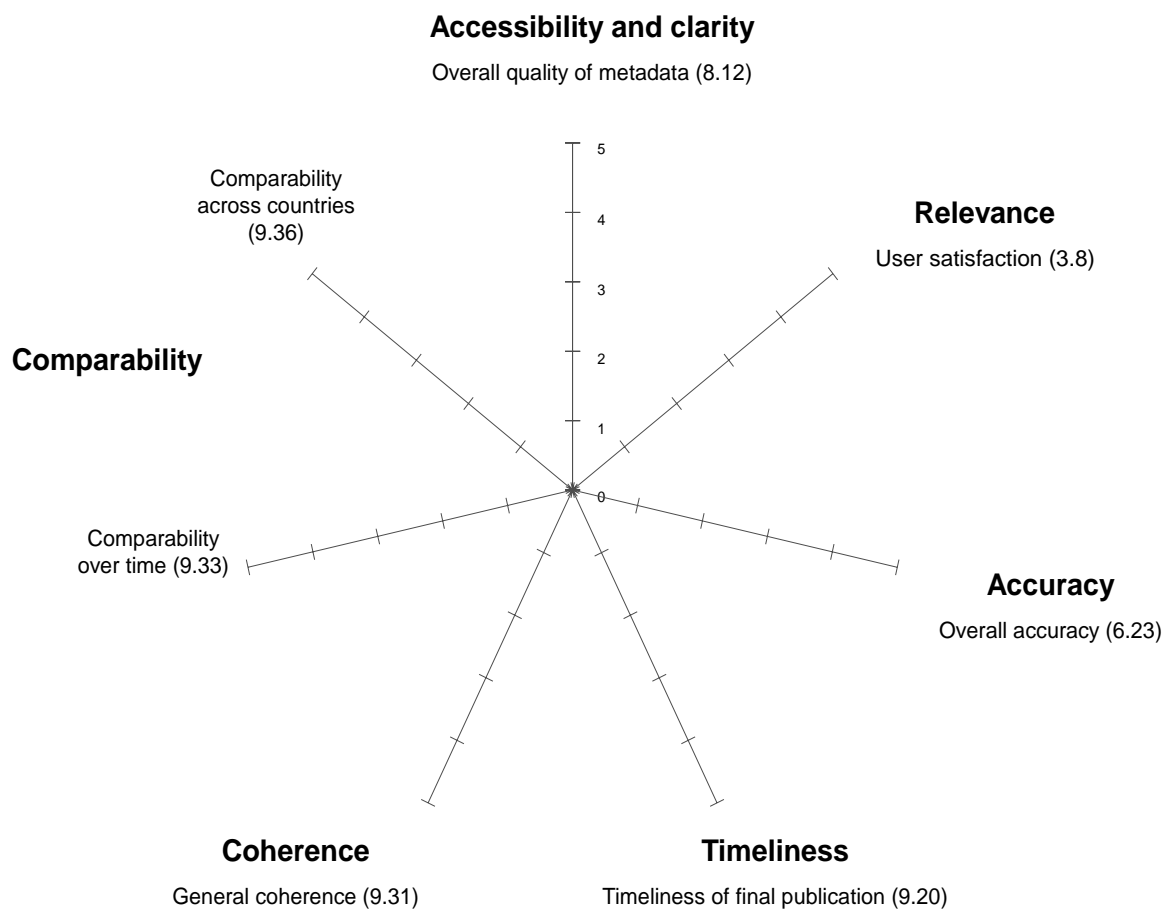
ANNEX 2

Assessment Diagrams

The questions in the checklist are numbered and the assessment diagrams are obtained by marking a cross in the diagram at the number according to the score (1-5) for the respective question. When the questions are completed the crosses can be connected by a line and the area formed then provides a graphic representation of the quality profile of the statistics.

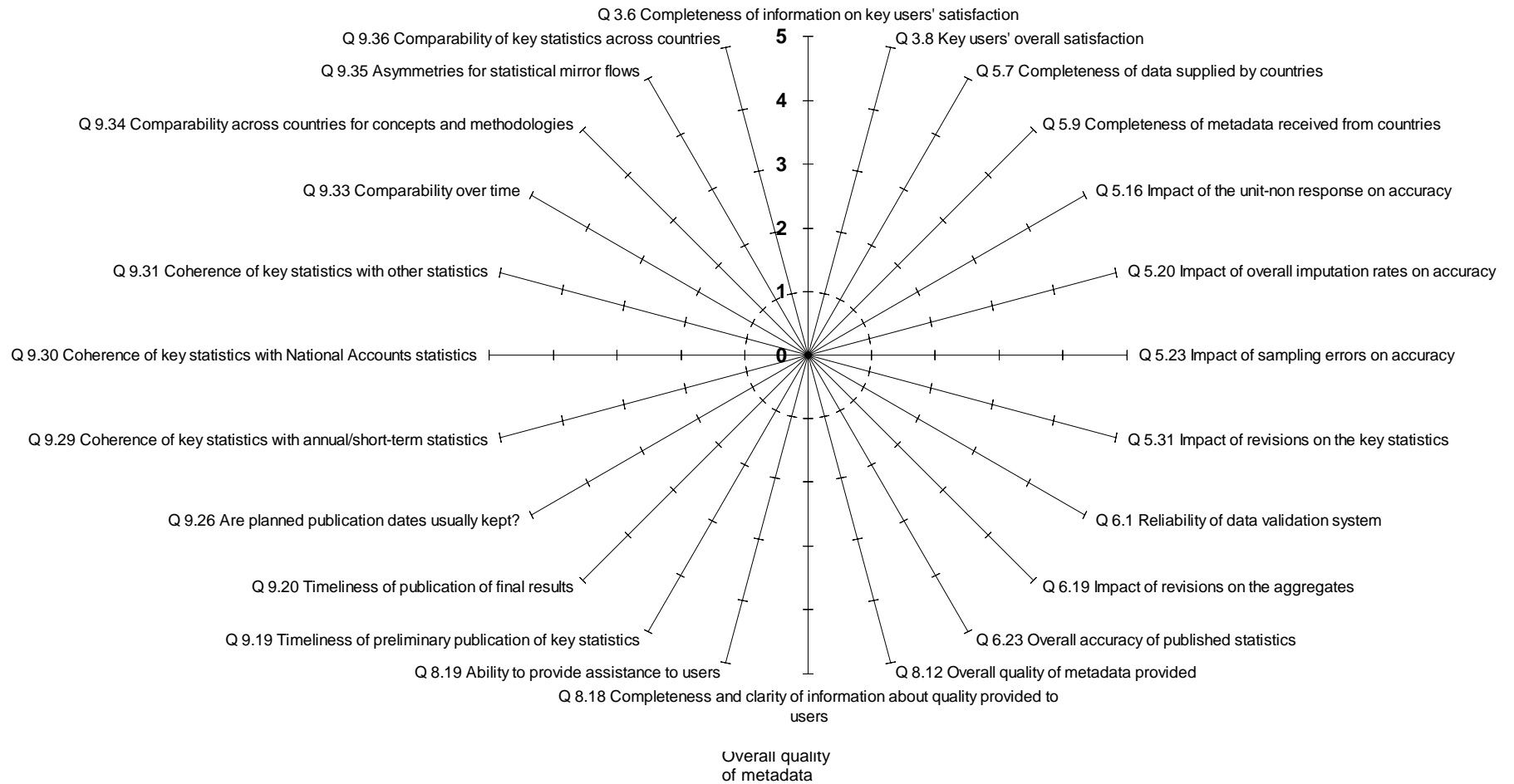
There are two different diagrams: a simple diagram and a more complete one.

Simple assessment diagram:



Complete Assessment diagram

(not designed for comparisons between domains)



ANNEX 3

Glossary

Accessibility	Accessibility refers to the physical conditions in which users can obtain data: where to go, how to order, delivery time, clear pricing policy, convenient marketing conditions (copyright, etc.), availability of micro or macro data, various formats (paper, files, CD-ROM, Internet...), etc.
Accuracy	Accuracy in the general statistical sense denotes the closeness of computations or estimates to the exact or true values.
Argus	Two software packages for Statistical Disclosure Control are called Argus. μ -Argus is a specialized software tool for the protection of micro data. τ -Argus is a specialized software tool for the protection of tabular data. τ -Argus is intended for producing safe tables.
CIF software	Software developed for Eurostat for Disclosure Control of Tabular Data. This tool is based on the engines GHQUAR and GHMITER developed by the Landesamt für Datenverarbeitung und Statistik Nordrhein-Westfalen.
Clarity	Clarity refers to the data's information environment - whether data are accompanied with appropriate metadata, illustrations such as graphs and maps, whether information on their quality is also available (including limitation in use...) and the extent to which additional assistance is provided by the National Statistical Authority.
Coherence	Coherence of statistics is their adequacy to be reliably combined in different ways and for various uses. It is, however, generally easier to show cases of incoherence than to prove coherence. When originating from a single source, statistics are normally coherent in the sense that elementary results derived from the concerned survey can be reliably combined in numerous ways to produce more complex results. When originating from different sources, and in particular from statistical surveys of different nature and/or frequencies, statistics may not be completely coherent in the sense that they may be based on different approaches, classifications and methodological standards. Users should be clearly informed of the possible effects of any lack of coherence.
Coefficient of variation	A measure of spread for a set of data, defined as the ratio of the standard error of the mean to the mean.
Comparability	Comparability is the extent to which differences between statistics from different geographical areas, non-geographical domains, or over time, can be attributed to differences between the true values of the statistics.
Completeness	Completeness is the extent to which all statistics that are needed are available. It is usually described as a measure of the amount of available data from a statistical system compared to the amount that was expected to be obtained.

Data Quality Assessment Framework (DQAF)	<p>The International Monetary Fund's Data Quality Assessment Framework (DQAF). The DQAF provides a structure for assessing data quality by comparing country statistical practices with best practices, including internationally accepted methodologies. It focuses on the quality-related features of governance of statistical systems, core statistical processes, and statistical products. The DQAF has a cascading structure, moving from the dimensions common to all datasets, to the more detailed aspects appropriate to individual datasets in the dataset-specific DQAF's.</p> <p>Ref.: http://www.imf.org/external/np/sta/dsbb/2003/eng/dqaf.htm#II</p>
Editing	<p>The application of checks that identify missing, invalid or inconsistent entries or that point to data records that are potentially in error.</p>
Efficiency	<p>A measure of the output achieved for a given level of input. Typical inputs are the time required to complete a task; the number of staff required and the overall cost. For example, the efficiency of a helpdesk service could be measured by calculating the proportion of enquiries answered within a specific time.</p>
Error	<p>In general, a mistake or error in the colloquial sense. There may, for example, be a gross error or avoidable mistake; an error of reference, when data concerning one phenomenon are attributed to another; copying errors; an error of interpretation. In a more limited sense the word error is used in statistics to denote the difference between the value of an observation and its true or expected value.</p>
ESMS	<p>The Euro-SDMX Metadata structure, being introduced across Eurostat and based on the SDMX metadata standard (see also SDMX). The ESMS contains the description and representation of statistical metadata concepts to be used for documenting statistical data and for providing summary information useful for assessing data quality and the production process in general. The broad concepts used are compatible with the SDMX cross-domain concepts and with the common terminology as published within the SDMX "Metadata Common Vocabulary" in January 2009.</p> <p>The ESMS allows the creation of different output files comprising information related to all the concepts listed or a subset of those concepts. These output files can be used for different purposes (data dissemination, quality reporting, etc.).</p>
Estimate	<p>In the strict sense an estimate is the particular value yielded by an estimator in a given set of circumstances.</p>
Estimator	<p>An estimator is a rule or method of estimating a constant of a population. It is usually expressed as a function of sample values and hence is a variable whose distribution is of great importance in assessing the reliability of the estimate to which it leads.</p>
European Statistical System	<p>The European Statistical System (ESS) is the partnership between Eurostat, National Statistical Institutes and other national authorities responsible in each Member State for the development, production and dissemination of European statistics.</p>
European Statistics Code of Practice	<p>The European Statistics Code of Practice sets out 15 key principles for the production and dissemination of European official statistics and the institutional environment under which national and Community statistical authorities operate. A set of indicators of good practice for each of the 15 principles provides a reference for reviewing the implementation of the Code: http://europa.eu.int/comm/eurostat/quality</p>

Imputation	Imputation is the process used to resolve problems of missing, invalid or inconsistent responses identified during editing. This is done by changing some of the responses or missing values on the record being edited to ensure that a plausible, internally coherent record is created.
Item non-response	Item non-response occurs when a respondent provides some, but not all, of the requested information, or if the reported information is not usable.
Item response rate	The item response rate is the ratio of the number of eligible units responding to an item to the total number of responding units eligible to have responded to the item.
Metadata	Information that defines and describes other data.
Micro aggregation	Records are grouped together, based on a proximity measure of all variables of interest, and the same small groups of records are used in calculating aggregates for those variables.
Non response	Non response is a form of non observation present in most surveys. Non response means failure to obtain a measurement for one or more study variables for one or more elements selected for the survey. The term encompasses a wide variety of reasons for non observation: “impossible to contact”, “not at home”, “unable to answer”, “incapacity”, “hard core refusal”, “inaccessible”, “unreturned questionnaire”, and others. In the first two cases contact with the selected element is never established.
Non response error	Non response errors, which occur when the survey fails to get a response to one, or possibly all, of the questions. Non response causes both an increase in variance, due to the decrease in the effective sample size and/or due to the use of imputation, and may cause a bias if the non-respondents and respondents differ with respect to the characteristic of interest.
Non sampling error	An error in sample estimates which cannot be attributed to sampling fluctuations. Such errors may arise from many different sources such as defects in the frame, faulty demarcation of sample units, defects in the selection of sample units, mistakes in the collection of data due to personal variations or misunderstandings or bias or negligence or dishonesty on the part of the investigator or of the interviewee, mistakes at the stage of the processing of the data, etc.
Out of scope units	Units that should not be included in the sampling frame because they do not belong to the target population in the reference period. If enumerated, they cause over-coverage.
Over-coverage	Over-coverage arises from the presence of units in the frame not belonging to the target population or appearing in the frame more than once.
Population	Population or “universe” is the total count of a defined class of people, objects or events. There are two types of population, viz., target population and survey population. A target population is the population outlined in the survey objects about which information is to be sought and a survey population is the population from which information can be obtained in the survey. The target population is also known as the scope of the survey and the survey population is also known as the coverage of the survey. For administrative records the corresponding populations are: the “target” population as defined by the relevant legislation and regulations, and the actual “client population”.

Processing error	Once data have been collected, they pass through a range of processes before the final estimates are produced: coding, keying, editing, weighting, tabulating, etc. Errors introduced at these stages are called processing errors.
Punctuality	Punctuality refers to the time lag existing between the actual delivery date of data and the target date when it should have been delivered, for instance, with reference to dates announced in some official release calendar, laid down by regulations or previously agreed among partners.
Quality control survey	A replicated survey carried out on a small scale by very experienced staff in order to obtain some “zero-default” results with which the actual results of the survey can be compared.
Quality index	A one-dimensional measure of quality, possibly calculated as a weighted mean of all available quality indicators.
Quality indicators	<p>The following quality indicators have been defined for use within the Euro-SDMS Metadata structure:</p> <p>AC1: Number of subscriptions/purchases of each of the key paper reports.</p> <p>AC2: Number of accesses to databases (online).</p> <p>AC3: "The rate of completeness of metadata" is the ratio of the number of metadata elements provided to the total number of metadata elements applicable.</p> <p>US1: User satisfaction index.</p> <p>US2: Length of time since most recent user satisfaction survey.</p> <p>R1: “The rate of available statistics” is the ratio of the number output data elements provided in accordance to a relevant regulation to those required by the regulation.</p> <p>A1: The coefficient of variation (or relative standard error) of an estimator of a parameter is the ratio of the standard error of the estimator to its expected value.</p> <p>A2: Rate of overcoverage is the proportion of units accessible via the frame that do not belong to the target population.</p> <p>A3: Edit failure rate is the proportion of responding units for which an error signal is triggered by a specified checking algorithm.</p> <p>A4: Unit response rate is the rate of responding units to the eligible units.</p> <p>A5: Item response rate is the ratio of the number of units which have provided data for a given variable to the total number of designated units.</p> <p>A6: Imputation rate is the number of imputed records for a given variable in relation to the total number of records.</p> <p>A7: Number of mistakes made, by type is the number of serious mistakes in calculation or presentation of aggregates that are not found until after publication.</p> <p>A8: Average size of revisions where “revision” is defined as the difference between the latest estimate and the preliminary one. Both MAR (Mean Average Revisions) and RMAR (Relative Mean Average Revisions) are to be calculated.</p> <p>T1: Time lag between end of reference period and date of first publication is the number of days from the last day of the reference period to the day of first publication.</p> <p>T2: Time lag between end of reference period and date of final publication is the number of days from the last day of the reference period to the day of final publication.</p>

T3: Punctuality of publication is the number of days separating a previously announced date of publication and the actual date.
 CC1: Length of comparable time series is the number of reference periods in time series from last break.
 CC2: Asymmetries for statistics mirror flows can be seen as discrepancies between the data related to flows, e.g. for pairs of countries.
 PCR1: Annual operational cost, with breakdown by major cost components.
 PCR2: Annual respondent burden in hours and/or financial terms.

Reference period / time	The period of time for which data are collected.
Refusal rate	In the sampling of human populations, the proportion of individuals who, though successfully contacted, refuse to give the information sought. The proportion is usually and preferably calculated by dividing the number of refusals by the total number of the original sample.
Register	(Administrative) Registers are a sub-group of administrative records. If an administrative record consists of unit-level data, it can be called a register. Administrative registers come from administrative sources and become statistical registers after passing through statistical processing in order to make them fit for statistical purposes.
Relative standard error (RSE)	The relative standard error is a measure of an estimate's reliability. The RSE of an estimate is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percentage. When the estimate concerns the data mean, the RSE is equivalent to the coefficient of variation.
Relevance	Relevance is the degree to which statistics meet current and potential users' needs. It refers to whether all statistics that are needed are produced and the extent to which the concepts used (definitions, classifications etc.) actually reflect user needs.
Revision	A revision represents a change from an initial estimated value to a subsequent estimated value.
Re-weighting	Re-weighting consists of recalculating the original weights for the respondent values when estimates are computed. Re-weighting concerns mainly unit non-response. It may also be used to increase precision through the use of auxiliary information. Standard methods include post-stratification, calibration and response propensity modelling.
Sampling error	The difference between a population value and an estimate of it derived from a sample of observations. If the sample is randomly selected, the size of the sampling error can be estimated using statistical theory. Non-sampling errors may also be present, due to imperfect selection procedures, bias in response or estimation, errors of observation and recording, etc.
SDDS (Special Data Dissemination Standard)	"Special Data Dissemination Standard". The SDDS was established by the International Monetary Fund (IMF) to guide members that have, or that might seek, access to international capital markets in the provision of their economic and financial data to the public.
SDMX (Statistical Data and Metadata Exchange)	SDMX is an initiative sponsored by BIS, ECB, Eurostat, IMF, OECD, UN and the World Bank to foster standards for the exchange of statistical information. Ref.: http://www.sdmx.org
SDMX Technical Standards	SDMX Technical Standards Version 2.0 provides the technical specifications for the exchange of data and metadata based on a common information model. Ref.: http://www.sdmx.org

Standard error	The statistical measure of the error associated with an estimated value from a sample of observations. It is the positive square root of the variance of the sampling distribution of a statistic.
Statistic	A numerical value (e.g. total turnover, average income) that is used to summarise the values for a specific quantitative variable (e.g. turnover, disposable income) for all statistical units.
Statistical process	The processes used by national and international statistical authorities to organise, collect, process and disseminate official statistics.
Statistical unit	The statistical unit used as the basis for responding to a statistical survey and has specific characteristics which can be recorded as either quantitative variables (e.g. turnover in €) or classification variables (e.g. "Yes/"No").
Study domains	Statistics can be presented for different sub-groups of the population, so called study domains. These study domains are usually defined according to some classification (e.g. territorial units, economic activity etc.)
Survey design (Sample design)	Survey (or sample) design refers to the methodology used to implement the sample survey. It covers the specification of the target population, the source used to select the sample, the method of stratification and selection of the sample and the data collection process.
Tabular protection	The protection of information relating to individual statistical units when data are displayed in a table.
Target population	The target population is the population of interest. If statistics are not available for the target population, they can be estimated using a sample survey which is representative of the target population in terms of certain specific characteristics.
Timeliness	The timeliness of information reflects the length of time between its availability and the event or phenomenon it describes.
True value	The actual population value that would be obtained with perfect measuring instruments and without committing any error of any type, both in collecting the primary data and in carrying out mathematical operations.
UN Fundamental Principles of Official Statistics	The UN Fundamental Principles of Official Statistics - a set of principles for statistical agencies stating that official statistics should be produced according to strictly professional considerations, including scientific principles and professional ethics. The principles also state that statistical information should be presented according to scientific standards, individual data must be strictly confidential and laws under which statistical systems operate are to be made public. In addition, they state that coordination between statistical agencies within countries is essential, the use of international concepts promotes consistency and efficiency of statistical systems at all official levels, and bilateral and multilateral cooperation contributes to the improvement of systems of official statistics in all countries. Ref.: http://unstats.un.org/unsd/default.htm
Under-coverage	Under-coverage is the omission of units belonging to the target population from the sampling frame.
Unit non response	Unit non response is a failure to obtain any data from a sample unit.

Unit response rate	The proportion of statistical units which responded to a survey, expressed as a percentage of the number of units selected in the sample. The weighted response rate calculates the ratio using the inverse probability of inclusion in the sample as a weight for each unit. In some situations a value that reflects the importance of the unit is also used as a weighting factor (e.g. the size of the workforce for establishments).
User Satisfaction survey	A survey designed to assess the satisfaction of users concerning the products (e.g. data tables, statistical publications) and services (e.g. special data analyses, statistical advice) they receive.
Validation	The method of detecting and correcting errors after the data have been collected.
Variance	The variance is a statistical measure of the degree to which the different sample values vary from the average and is used as a measure of the accuracy of the data. The variance is used to calculate the standard error and confidence interval associated with a sample estimate.

¹ A Eurostat granted project in 2002 for the development of a self-assessment checklist for National Statistical Institutes in the European Union. The project was led by the Federal Statistical Office of Germany with the following project members: Statistics Austria, Statistics Finland, ISTAT Italy, Statistics Sweden and ONS UK. The checklist is available on the Eurostat quality website (<http://europa.eu.int/comm/eurostat/quality>).

¹ A CCSA project led by Eurostat and with the following project members: ECB, FAO, ILO, IMF, OECD and UNSD. References: "Outline of a project to promote the use and the convergence of international quality assurance frameworks", SA/2005/13 item 6, Rome 12-14 September 2005, and "Report of the task team on the use and convergence of international quality assurance frameworks", SA/2006/9 item 3, Montreal 4-5 September 2006.