



EUROPEAN
STATISTICAL
SYSTEM

PEER REVIEW REPORT

ON COMPLIANCE WITH THE EUROPEAN STATISTICS CODE OF
PRACTICE AND FURTHER IMPROVEMENT AND DEVELOPMENT OF THE
NATIONAL STATISTICAL SYSTEM

SWEDEN

Marko Krištof
Karin Blix
Daniele Lamarque
Pierre Bischoff

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1. EXECUTIVE SUMMARY

Sweden has a well-developed statistical system with a long tradition, dating back all the way to 1749. Today, the Swedish statistical system is rather decentralised, consisting of the National Statistical Institute, Statistics Sweden, and 28 other national authorities that have been given legal responsibility for producing European and/or official statistics in specific areas. There are 20 other national authorities developing, producing and disseminating official statistics that have responsibility for producing European statistics. A strong legal environment ensures the professional independence of all these statistical authorities.

The peer review team was impressed by the overall trust in the national statistical system, with a strong interest in official statistics and a high degree of professionalism at all levels. Statistics Sweden is a well-known brand name that is perceived as a trustworthy and independent institution by the general public, government authorities and researchers. The peer review team noted that there is a widespread culture of dialogue enshrined in the system. This is likely to create a positive environment and can therefore be regarded as a distinct strength of the national statistical system.

Statistics Sweden and the other national authorities developing, producing and disseminating official statistics enjoy a strong mandate to collect information for the purpose of producing official statistics. A “registers first” policy obliges government agencies to provide the data required to produce official statistics to the statistical authorities. The principle of statistical confidentiality is well understood and effectively adhered to within the Swedish statistical system. The other national authorities understand and respect Statistics Sweden’s coordinating role and the coordination by Statistics Sweden is done in a transparent and well-accepted manner.

Statistics Sweden appears to be adequately resourced and staffed. The high proportion of staff with higher education, including PhDs, is particularly noteworthy.

There is also widespread awareness among the other national authorities, and particularly those four selected for participation in the peer review, about the need to adhere to the principles of the European Statistics Code of Practice, which seems to result in a reasonable level of compliance.

Swedish statistical authorities, led by Statistics Sweden, are process oriented and have strong quality reviewing practices, based on a high-quality methodological framework. All authorities responsible for official statistics complete a self-assessment questionnaire evaluating the quality of official statistics in their respective areas. These annual self-assessment questionnaires are a particularly useful tool for promoting quality awareness and coordination within the system.

Statistics Sweden has an established strategy for methodology, which describes how the methodological organisation contributes to achieving its mission, and has recently introduced a new model for reviewing statistics and data sources with the objective of identifying and implementing innovative methods in statistical production. All statistical surveys at Statistics Sweden are tested by its Cognitive Lab, a central group of about ten experts in questionnaire design. There are many advanced metadata-driven systems at Statistics Sweden that hold information about the contents and storage of all classifications and statistical registers.

Cooperation with the scientific community is well developed. The Scientific Council provides advice on issues of relevance to Statistics Sweden, while Swedish researchers are granted access to a wide range of both register and survey data. [MONA](#) (Microdata Online Access) is an advanced platform for access to microdata for research purposes that provides researchers with remote and safe processing of microdata, resulting in the Swedish scientific community being generally satisfied with the services

provided by Statistics Sweden and Swedish scientists having a high level of trust in the Swedish statistical system.

Furthermore, Statistics Sweden uses extensively modern methods of communication, with statistics disseminated through a variety of communication channels, including social media, open data and a comprehensive website.

Overall, there is a high level of compliance with the European Statistics Code of Practice (ES CoP) throughout the Swedish statistical system. However, the peer review team identified five compliance-relevant and seventeen improvement-related recommendations grouped under five headings, listed below with their related explanations.

RECOMMENDATIONS

I. Strengthening the institutional environment

The selection of the Director-General of Statistics Sweden, as well as the heads of other government authorities (including other national authorities developing, producing and disseminating official statistics), based on professional grounds, has a long tradition and is enshrined within the Swedish governmental system. However, the latest vacancy note for the selection of the Director-General of Statistics Sweden lists statistical qualifications as an advantage and not as a prerequisite for selection. Furthermore, the emphasis on statistical qualifications could also be strengthened as a selection criterion for the statistical heads of the other national authorities developing, producing and disseminating official statistics.

To comply with the ES CoP, the peer review team recommends:

1. Swedish appointing authorities are encouraged to strengthen the emphasis on statistical qualifications in the process of selecting the head of Statistics Sweden and statistical heads of the other national authorities developing, producing and disseminating official statistics. (Compliance-relevant: ES CoP, Indicator 1.8)

The decision on statistical areas and the body responsible for the production of statistics in a statistical area is a legal decision and is therefore in the hands of the government. Bearing in mind the consensus-based decision-making process in Sweden, Statistics Sweden as the coordinator of the statistical system, should take a more active role in the process and initiate a discussion on possible changes to the process of deciding on the statistical areas. Broad user consultations should be a part of the process, as this may lead to strengthening the Swedish statistical system and enhancing the role of Statistics Sweden in the development of new statistical areas.

To improve beyond compliance with the ES CoP, the peer review team recommends:

2. Statistics Sweden is encouraged to open a discussion on possible changes related to the process in which the government decides on the statistical areas, with the goal of enhancing the role of Statistics Sweden in the development of new statistical areas and in broadening the user focus. (Improvement-related: ES CoP, Indicators 1.3 and 1.4)

Statistics Sweden has extensive experience in using administrative registers as sources for compiling official statistics. The “registers first” policy implies that when new statistical products are considered, Statistics Sweden must investigate the availability of relevant administrative registers and use them if available. However, Statistics Sweden has experienced situations in which administrative registers that

are used for producing official statistics have been altered without consulting it, and situations where Statistics Sweden's initiatives to add variables have not been successful.

To improve beyond compliance with the ES CoP, the peer review team recommends:

3. The government and holders of administrative data should keep Statistics Sweden continuously and effectively involved in the design, development and discontinuation of registers, considering in particular the key importance of register data as the primary source for producing statistics in the Swedish statistical system. (Improvement-related: ES CoP, Indicator 2.2)

The importance of preserving statistical confidentiality is well understood throughout the Swedish statistical system. Even though Statistics Sweden has an advanced Information Security System and regularly performs systematic IT security audits, its incident reporting system does not include fields for reporting possible breaches of confidentiality, and this information is not included in the regular monitoring reports. To ensure compliance with the ES CoP, technical and organisational measures should be reorganised to document possible confidentiality incidents.

To comply with the ES CoP, the peer review team recommends:

4. Statistics Sweden should ensure that possible statistical confidentiality incidents are specifically identified through regular monitoring reports. (Compliance-relevant: ES CoP, Indicator 5.5)

The Swedish statistical system uses unique, nationally standardised administrative identifiers such as Personal identification number, Organisation number and Dwelling/apartment number. Even though this approach enables a systematic use of administrative data in combination with direct data collection, it significantly increases the risk of breaches of data confidentiality.

To improve beyond compliance with the ES CoP, the peer review team recommends:

5. Statistics Sweden should devise a plan for replacing personal identifiers with statistical identifiers in the production of official statistics, as soon as the data enters the statistical production environment, to minimise possible breaches of confidentiality. (Improvement-related: ES CoP, Indicator 5.5)

The current legal framework allows the use of microdata not only for research purposes, but also for investigative activities. Even though no cases were identified in which statistical microdata was used for investigative purposes, this possibility is not compatible with the European Statistics Code of Practice.

To comply with the ES CoP, the peer review team recommends:

6. The government should abolish the current possibility of access to microdata for investigative purposes (Compliance-relevant: ES CoP, Indicator 5.1)

There is a case in which an institution that is not a producer of official statistics is granted pre-release access to a statistical release. Even though it appears that the pre-release access is limited and controlled, it is not publicised nor justified.

To comply with the ES CoP, the peer review team recommends:

7. Statistics Sweden should identify possible cases of pre-release access and make sure that these cases are limited, well justified, controlled, and publicised. (Compliance-relevant: ES CoP, Indicator 6.7)

II. Enhancing Coordination and Cooperation

Statistics Sweden's coordinating role in the official statistics system is clearly outlined in Section 2 of the Ordinance (2016:822). The other national authorities developing, producing and disseminating official statistics understand and respect Statistics Sweden's coordinating role and the coordination by Statistics Sweden is done in a transparent and well-accepted manner. The other national authorities participating in the peer review (The Swedish National Agency for Education, The Swedish National Financial Management Authority, the Swedish Migration Agency, the Swedish Public Health Agency) are dedicated to improving the production and quality of their statistics and take an active part in all coordination activities. There is however, room for improvement in some areas. The other national authorities are encouraged to step up their ongoing efforts, in particular regarding transparency to users (e.g., when errors are found in publicised material), quality requirements and reporting, the publication calendar and user consultations.

To improve beyond compliance with the ES CoP, the peer review team recommends:

8. The other national authorities reviewed are encouraged to step up ongoing efforts towards an enhanced overall adherence to the European Statistics Code of Practice, drawing support from Statistics Sweden, if necessary, particularly with regard to transparency to users, quality requirements and reporting, the publication calendar and user consultations. (Improvement-related: ES CoP, Indicators 6.3, 6.4, 6.5, 11.1, 11.2 and 15.7)

As a data-driven organisation, Statistics Sweden is an integral part of the national data ecosystem and is dependent on its further developments, particularly those related to the new data sources. Statistics Sweden is therefore encouraged to take a more active role in the monitoring of digitalisation efforts within public administration, with the goal of understanding and benefiting from the development of the national data ecosystem. The role of national data steward could also be considered, if deemed appropriate.

To improve beyond compliance with the ES CoP, the peer review team recommends:

9. Statistics Sweden and the government should better define the role of Statistics Sweden in the national data ecosystem; the role of national data steward could be considered. (Improvement-related: ES CoP, Indicator 1bis.1 and 8.7)

Bearing in mind that the Swedish statistical system is rather decentralised, the capacities of the other national authorities developing, producing and disseminating official statistics are quite different. The current division of work within the Swedish statistical system should be reviewed, particularly as there are situations in which the other national authority developing, producing and disseminating official statistics and responsible for a statistical area outsources significant parts of the process to Statistics Sweden. Furthermore, in some cases an entire institution/agency is designated as other national authority even though the statistical activities are performed only in a small unit.

To improve beyond compliance with the ES CoP, the peer review team recommends:

10. Statistics Sweden is encouraged to open a discussion within the Swedish statistical system to determine whether the current division of work is appropriate for all other national authorities, particularly for those with limited resources dedicated to statistics. The discussion should also address the mandate related to official statistics within the other national authorities and, where relevant, the clarification of responsibilities between the head of the other national authority and the actual head(s) of its statistical departments. If necessary, the results of the discussion could be presented to the government. (Improvement-related: ES CoP, Indicators 1.4 and 1bis.1)

III. Embedding quality management throughout the Swedish statistical system

Even though the Swedish statistical system has adequate human, financial and technical resources to perform all statistical activities, given that it is reliant on the scope and quality of register data, the peer review team believes that improvements could be achieved by allocating additional resources to analysing and understanding the quality of administrative data. Furthermore, enhanced focus should be put into finding arguments to persuade the holders of administrative data to extend their collection activities, particularly when those actions are efficient in maintaining a reasonable response burden.

To improve beyond compliance with the ES CoP, the peer review team recommends:

11. Statistics Sweden should equip itself with capacities to analyse and better understand the quality of administrative data. (Improvement-related: ES CoP, Indicators 3.1 and 8.1)

The Swedish statistical authorities monitor the quality of their statistical processes and products through a well-defined framework outlined in their nationally applicable handbooks. Monitoring is performed annually through self-assessment questionnaires that are completed by all the Swedish statistical authorities forming part of the Swedish statistical system. However, additional follow-up measures based on the completed self-assessments should be developed and there is significant potential to use this information and to build upon it to improve the compliance with quality requirements throughout the Swedish statistical system.

To improve beyond compliance with the ES CoP, the peer review team recommends:

12. Statistics Sweden should consider additional measures to follow up on the information included in the annual self-assessment questionnaires from Statistics Sweden and the other national authorities developing, producing and disseminating official statistics, in particular to ensure the consistent compliance with the quality requirements throughout the Swedish statistical system. (Improvement-related: ES CoP, Indicators 1bis.2 and 4.2)

Since most European statistics require some form of quality reporting - according to the European standard on quality and metadata reports and to accompany the transmission of data to Eurostat - it would be efficient and helpful if the Single Integrated Metadata Structure could become the basis for quality reporting in the Swedish statistical system. In this way, all quality reporting could be enhanced by using the Single Integrated Metadata Structure in one common metadata system, with the possibility of selecting relevant - from Single Integrated Metadata Structure - fields needed for different reporting obligations. This may lead to a reduced overall documentation burden for statistical producers and coherent reporting to both international and national users.

To improve beyond compliance with the ES CoP, the peer review team recommends

13. Statistics Sweden should implement the Single Integrated Metadata Structure as the basis for quality reporting in the whole Swedish statistical system, to promote efficient and harmonised reporting at national, European and international levels. A greater amount of quality information should be publicly available in English. (Improvement-related: ES CoP, Indicator 15.5)

IV. Modernising statistical production

Statistics Sweden is currently implementing a new concept, Statistical Production 4.0, which aims to integrate various data sources and evaluate their potential in a structured and quality assured way, by using modern data capture and processing methods. Statistics Sweden believes that the use of the new concept will lead to a reduction in the response burden through the use of smart data capture

and processing. Given the fact that a significant reduction in the response burden may be difficult to obtain without an increase in the use of new data sources, the peer review team recommends that the potential of new data sources for regular statistics production is further investigated.

To improve beyond compliance with the ES CoP, the peer review team recommends:

14. Statistics Sweden is encouraged to further investigate the potential of new data sources (i.e., ‘big data’) for the regular production of statistics, and eventually adapt the mandate for data collection if necessary. (Improvement-related: ES CoP, Indicator 2.4)

Statistics Sweden has a well-developed process management system, the Process Support System. The expansion and changes planned for the Process Support System will move the system further away from the Generic Statistical Business Process Model. In the light of expanding it to the whole Swedish statistical system, it would seem even more important to ensure alignment with the Generic Statistical Business Process Model to ensure comparability beyond the Swedish statistical system.

To improve beyond compliance with the ES CoP, the peer review team recommends:

15. Statistics Sweden should consider further aligning the Process Support System with the Generic Statistical Business Process Model to promote efficiency, standardisation and comparability beyond the Swedish statistical system. (Improvement-related: ES CoP, Indicator 7.2)

The staff of Statistics Sweden is professional and very well trained. Even though the overall training system seems to work efficiently, a balanced formal training and guidelines, combined with on-the-job training could be beneficial as it would lead to a shared culture and knowledge of statistical issues and challenges. Moreover, it appears that training and production systems rather focus on Swedish official statistics and hence there seems to be less interest in European statistics.

To improve beyond compliance with the ES CoP, the peer review team recommends:

16. Statistics Sweden should better balance formal training, guidelines and on-the-job training, including comprehensive training on the general aspects of European statistics. (Improvement-related: ES CoP, Indicator 7.6)

Statistics Sweden has been monitoring the response burden on enterprises since 2008. Even though it has a mechanism for ensuring the even spread of the response burden within statistical areas, the peer review team noted that a systematic and continuous measurement of the response burden is not performed for the whole statistical system.

To improve beyond compliance with the ES CoP, the peer review team recommends:

17. Statistics Sweden should systematically and continuously measure and monitor the response burden, and the results of the measurements should be made public. (Improvement-related: ES CoP, Indicator 9.2)

V. Ensuring greater accessibility, clarity and user orientation

The peer review team noted that the knowledge of the concept of European statistics and the European Statistics Code of Practice are not as prominent as the knowledge of national concepts within the Swedish statistical system, and therefore recommends that activities related to the promotion of European/official statistics are intensified.

To improve beyond compliance with the ES CoP, the peer review team recommends:

18. Statistics Sweden should reflect upon how to further promote European/official statistics produced by the Swedish statistical system, building in particular on the existing 'Official Statistics of Sweden' label (Improvement-related: ES CoP, Indicator 1bis.1)

Statistics Sweden's website has been redesigned in recent years and is continuously being improved. However, the usability of Statistics Sweden's website could be improved, particularly as some information on the website is difficult to retrieve and as most of the information is mainly available to Swedish-speaking users.

To improve beyond compliance with the ES CoP, the peer review team recommends:

19. Statistics Sweden should consider implementing improvements to the website related to usability. More information should be given to non-Swedish speaking users and a more diversified approach to different categories of users should be taken. (Improvement-related: ES CoP, Indicator 11.1, 15.5, 15.6 and 15.7)

Statistics Sweden has twelve user councils that meet at least twice a year to discuss the work plan, strategies, negative priorities, etc. However, the peer review team is left with the impression that the user perspective is somewhat narrow and appears largely to be driven by what is defined as official statistics by the government and less by the needs of other, non-government users.

To improve beyond compliance with the ES CoP, the peer review team recommends:

20. Statistics Sweden should review how users are consulted, widen the scope of user consultations and include discussions on priority setting and quality. (Improvement-related: ES CoP, Indicators 11.1, 11.2 and 15.7)

Statistics Sweden maintains and publishes an interactive advance release calendar for the entire Swedish statistical system on its website. The calendar is well designed and provides an easy way for users to identify forthcoming publications and access recently released data. However, in cases of divergence from the dissemination time schedule, Statistics Sweden's release calendar overwrites the previous release dates, meaning that only the new date is available to the public, without additional explanations.

To comply with the ES CoP, the peer review team recommends:

21. Statistics Sweden should produce a calendar of changes to publication dates, containing explanations for the reasons of each deviation. (Compliance-relevant: ES CoP, Indicator 13.4)

Statistics Sweden provides access to anonymised microdata for research purposes after a confidentiality assessment. There are two systems for microdata access, one of which involves extracting microdata from Statistics Sweden. In this system, Statistics Sweden delegates the responsibility for protecting the data to the institution receiving the microdata. The other system is MONA (Microdata Online Access). This is the main system and here users can process data through an online system, without the microdata leaving Statistics Sweden. This is an impressive system, and it seems to serve the researchers in an excellent manner, taking account of confidentiality and other legal requirements. The peer review team recommends that all the activities regarding microdata access are processed in the MONA system to ensure that confidentiality and other legal requirements are observed throughout the entire process.

To improve beyond compliance with the ES CoP, the peer review team recommends:

22. Statistics Sweden should review the current arrangements for access to microdata for research purposes, in order to provide the assurance that statistical confidentiality is fully ensured throughout the process, especially in cases where microdata is transferred to research organisations. (Improvement-related: ES CoP, Indicator 15.4)

In the spirit of continuous improvement integral to the European Statistical System (ESS), the NSI will interpret the recommendations formulated in this report into improvement actions for implementation within the national statistical system (NSS).

2. INTRODUCTION

It is recognised that quality is one of the comparative advantages of the European Statistical System (ESS) in a world experiencing a growing trend of instant information and new challenges driven by exceptional circumstances, or the continuous need for faster but quality-assured data. The European Statistics Code of Practice (ES CoP) is the cornerstone of the ESS common quality framework, and the ESS statistical authorities have committed themselves to adhere to it.

In this context, it is crucial for the ESS to be equipped with a review mechanism, the peer reviews, supporting with credible evidence this self-commitment to adhere to the ES CoP. The objective of this review mechanism is to enhance the integrity, professional independence and accountability of the ESS statistical authorities. The first round of peer reviews was carried out in 2006-2008, followed by a second round in 2013-2015.

In 2017, the ES CoP was reviewed and extended and now encompasses 16 principles. This revised version of the ES CoP triggered a third round of peer reviews, being carried out in the Member States of the European Union and of the European Free Trade Association and Eurostat from 2021 to mid-2023. This round of peer reviews aims to improve the quality and trust in European statistics by assessing the compliance of the ESS with the principles of the revised ES CoP. The peer reviews cover the ESS statistical authorities (Eurostat, the National Statistical Institutes (NSIs) and selected Other National Authorities (ONAs)) developing, producing and disseminating European statistics. The peer reviews will be followed by a period of annual monitoring of the implementation of the improvement actions developed by the NSIs to address the recommendations laid down in the peer review reports.

The third round of peer reviews has the following two objectives:

- To review the compliance/alignment of the ESS with the ES CoP, in order to demonstrate to the ESS and to external stakeholders that the ESS is a system based on the principles of the ES CoP;
- To help NSIs, ONAs and Eurostat in their further improvement and development by indicating future-oriented recommendations; at the same time, they should stimulate government authorities to support the implementation of these recommendations.

Each peer review is conducted by a team of four statistical experts (both from inside and outside the ESS). The peer review has four phases: completion of the Self-Assessment Questionnaires (SAQs) by a country; analysis of these SAQs by the peer review team; a country visit by the peer review team; and the preparation of the final report and ensuing recommendations by the peer review team. These recommendations are of two types:

- Compliance related (ensuring compliance/alignment with the ES CoP);
- Improvement related (less critical/technical supporting improvements).

A combination of an audit-like and a peer review approach is used when assessing the national statistical systems (NSS) in the countries to benefit from the positive aspects of both approaches. The audit-like approach requires the provision of documents as evidence, the ownership of the recommendations by the peer review expert team, and the right for the NSIs to express diverging views on the recommendations and to formulate the corresponding improvement actions. Whereas the peer review approach allows for common agreement within the ESS on the methodology, objectives, scope and implementation arrangements, the focus on improvements and a peer learning process.

Although all principles of the ES CoP will be reviewed for all countries through the SAQ, the peer review experts are free to customise the country visit to concentrate on those principles where more clarification/explanation is needed. However, certain principles such as those concerning professional independence and coordination and cooperation, as well as principles including elements of modernisation, will be assessed during the peer review visit for every member of the ESS.

In addition to the common principles to be addressed for every member of the ESS, the peer review team also placed an emphasis on principle 4 on quality commitment, principle 7 on sound methodology and principle 9 on non-excessive burden on respondents.

The peer review team analysed the answers in the Self-Assessment Questionnaire (SAQ) and the supporting documentation provided by Statistics Sweden (SCB) and selected other national authorities developing, producing and disseminating official statistics (ONAs), together with publicly available information and the report for Statistics Sweden from the second round of peer reviews. On that basis, topics in need of more information were identified in order to reach a final assessment and potential recommendations.

Due to the decentralised structure of the Swedish statistical system, the peer review team has put particular emphasis on reviewing the adherence to the ES CoP principles concerning coordination and cooperation (ES CoP, Principle 1bis). In a decentralised system such as the Swedish system, effective and efficient coordination as well as fruitful cooperation have a profound impact on all dimensions of quality, as defined by the Quality Assurance Framework of the ESS. Further focus was therefore put on Commitment to Quality (ES CoP, Principle 4) and also on indicators related to the quality of the statistical output.

Extensive use of administrative data by the Swedish statistical authorities and their desire to minimise the response burden were identified as determining characteristics of the Swedish statistical system. Therefore, Sound Methodology (ES CoP, Principle 7) and Non-excessive Burden on Respondents (ES CoP, Principle 9) were identified as areas that need to be further discussed with SCB.

Also, although the reports should not be used to compare one country to another, much effort has been made to ensure the harmonisation of the reports and the ensuing recommendations across the countries so that all countries are treated equitably.

The peer review of Eurostat was conducted by the European Statistical Governance Advisory Board (ESGAB).

3. BRIEF DESCRIPTION OF THE NATIONAL STATISTICAL SYSTEM

Background

The system for official statistics in Sweden includes statistics (statistical products), metadata, production systems, final observations, publications, separate tables and databases. The system also includes laws, ordinances, regulations, general recommendations, guidelines, tools (that are developed for the system, such as methods, classifications, etc.), the statistical authorities, the Council for Official Statistics and Statistics Sweden (SCB) in its role as the coordinating authority.

The Swedish parliament (Riksdagen) decided that Sweden should have official statistics available for general information, investigative activities and research. The government decides on the subject areas and statistical areas for which official statistics should be available. Official statistics are divided into 23 subject areas and 115 statistical areas. A subject area contains at least one statistical area. The government also decides which authorities should be responsible for statistics. In Sweden, there are 28 authorities that the government has appointed to be responsible for official statistics in their respective areas.

The statistical authority is in turn responsible for the content and scope of the statistics within its statistical area. Some authorities are responsible for more than one area. Only the statistical authorities can be responsible for official statistics. The authority decides which variables and objects to investigate and ultimately account for. It is also the authority that decides which methods to use to produce statistics to the desired quality.

Main legislation and objectives

Official statistics are regulated by law, ordinances and instructions. The Official Statistics Act (2001:99) states that official statistics shall be available for public information, investigative activities and research. Official statistics shall be objective and be developed, produced and disseminated on the basis of uniform standards and harmonised methods according to seven specified quality criteria. When official statistics are made available, they shall be accompanied by the phrase "Official Statistics of Sweden" or a special symbol.

The Official Statistics Ordinance (2001:100) states that official statistics shall be documented, have quality declarations and be available, free of charge, to the public in electronic form over a public network. Furthermore, each of the statistical authorities is to evaluate the quality of the official statistics within their statistical area. The legislation further states that official statistics based on individuals should be disaggregated by sex unless there are specific reasons for not doing so. The Ordinance also regulates the subject areas and statistical areas included in the official statistics as well as the authorities responsible for the statistics in each statistical area.

Organisation

In the mid-1990s, a reform of the national statistical system was carried out, and responsibility for official statistics was decentralised, as responsibility for some statistical areas was transferred from Statistics Sweden to other statistical authorities. The main purpose was to give users more influence over the statistics. A 1999 government review evaluated the reform of the Swedish statistical system and noted that the transfer of the responsibility for producing certain statistics from Statistics Sweden to other authorities had largely gone smoothly, but coordination and the overall view of the Swedish statistical system needed to be strengthened. The evaluation report recommended that a Council be established for Sweden's official statistics to improve coordination and the overall view of the Swedish

statistical system. The Council for Official Statistics was thus established at Statistics Sweden in 2002. The Ordinance with directives (2016:822) clarified Statistics Sweden's coordinating role for the system of official statistics and transferred the Council's tasks to Statistics Sweden. The Council for Official Statistics is currently an advisory body, and its main task is to support Statistics Sweden in coordinating the Swedish statistical system.

In 2012, a further review of the Swedish statistical system was carried out, resulting in a number of changes, both in practice and in the underlying legislation:

- Quality criteria based on the European quality criteria were included in the Official Statistics Act;
- The obligation to report on quality was strengthened and Statistics Sweden issued further regulations to guide in this matter;
- The composition of the Council for Official Statistics was expanded, with permanent members from the largest statistical authorities.

Statistics Sweden prepares an annual report on the system of official statistics in Sweden, including a brief work programme for all official statistics authorities and a list of all statistics to be produced in the coming year. The report is endorsed by the Council for Official Statistics and presented to the public.

Appointment procedures for the head of the NSI

The fundamentals of the selection process related to the Directors General of government authorities are specified in two different laws, namely the Instrument of Government (1974:152) and the Public Employment Act (1994:260). The Instrument of Government states that all public appointments should be based solely on professional grounds, such as experience and competence. The Public Employment Act underlines the above, adding that competence shall be the primary ground for employment. Vacancy notes are publicly available, the selection procedure is transparent, and experience and competence are the primary grounds for employment. Heads of government agencies are appointed for a fixed term of six years, with an extension possible for a period of three years.

Statistical programmes

Statistics Sweden has published an operational plan for 2021-2023 and an annual work plan on its website in Swedish. The annual Directive for Statistics Sweden which is issued by the government at the beginning of each year outlines the obligation to produce a work plan. Priorities are set in the following order:

1. Regulated European statistics
2. Other directives from the government, as in the Letter of Instruction of the statistical authority
3. Official statistics for which the authority itself is chiefly responsible (an internal prioritisation is made among these statistical products, where products such as the Labour Force Survey, the household and dwelling statistics, the National Accounts and the Consumer Price Index are given the highest priority)
4. Commissioned work to other government authorities (priority is given to those areas where these authorities have received directives from the government)
5. Other statistics, including commissioned work towards other organisations.

Statistics Sweden has an overall strategic plan, agreed by the management team. Action plans are in place for each department at Statistics Sweden and are derived from the authorities' overall annual work plan with vision and strategic areas. Strategic goals and work plans are available on Statistics Sweden's website.

Statistics Sweden's senior management is responsible for the annual evaluation of the work plan to identify negative priorities as well as emerging needs.

Resources

The Swedish statistical authorities receive an annual budget allocation from the government to carry out their core tasks, including the production of European statistics. The number of staff at each statistical authority varies from over 1,000 staff at Statistics Sweden to 10-20 staff in the larger statistical authorities and one or two in the smallest authorities. Statistics Sweden has a resource allocation committee that meets regularly to take decisions on recruitments and the needs for competence between different departments. The purpose is to make sure all parts of the authority have the human resources needed and to use the human resources as efficiently as possible.

Coordination of the NSS

For the peer review, Statistics Sweden selected four out of the 20 other national authorities developing, producing and disseminating official statistics (ONAs), based on the selection criteria that were presented to the Council for Official Statistics during its meeting on 22 October 2020. It was proposed that a guiding principle should be to spread the knowledge and experience of peer reviews among the ONAs, and that the primary criterion for the selection of ONAs should be their importance for European statistics.

This procedure resulted in selecting the following ONAs:

- The Swedish National Agency for Education
- The Swedish National Financial Management Authority
- The Swedish Migration Agency
- The Swedish Public Health Agency

Swedish National Agency for Education

The Swedish National Agency for Education is the central administrative authority for the public school system, publicly organised pre-school and school-age childcare, and adult education. The agency produces 22 official statistical products. The production of statistics is made in cooperation with SCB. A yearly production agreement specifies the scope and costs. All data collection is handled by SCB. The agency produces, disseminates and communicates national statistics based on the collected data. SCB produces and reports European statistics based on the same data (education data from the UNESCO-OECD-Eurostat (UOE) joint data collection).

Swedish National Financial Management Authority

The Swedish National Financial Management Authority (ESV) develops accounting rules and issues regulations and general guidance for public sector financial management. ESV produces and analyses information concerning central government finances and publishes four budgetary forecasts each year. In European statistics, ESV is a co-producer of the government finance statistics. In the area of official statistics, ESV compiles and publishes the outcome of the central government budget both monthly and annually. The outcome is based on the central government agencies' reports in the central government information system, Hermes. ESV does not directly transmit European statistics to Eurostat but is involved in the production of government finance statistics and is an important source of information for national accounts.

Swedish Migration Agency

The Swedish Migration Agency is the authority that considers applications from people who want to take up permanent residence in Sweden, visit, seek protection from persecution or get Swedish citizenship. The agency produces European statistics on refugees and asylum seekers. The unit for statistics and analysis is responsible for ensuring that the agency's compiled statistics are analysed and made available for all parts of the authority and that quality-assured statistics are delivered both internally and externally. The Swedish Migration Agency is not part of the system of Swedish Official Statistics, as migration statistics are not defined as part of the Swedish official statistics by the government.

Swedish Public Health Agency

The Swedish Public Health Agency is an authority with responsibility for public health issues at national level. The agency develops and supports activities to promote health, prevent illness and improve preparedness for health threats. It has national responsibility for public health issues and works to ensure good public health and that the population is protected against communicable diseases and other health threats. Among other tasks, the agency collects and analyses data to monitor the health status of the population. Since August 2021, the agency has formally been part of the system for official statistics in Sweden. The agency is in charge of the European Health Interview Survey (EHIS) and of the Joint Questionnaire on non-monetary health care statistics in Sweden, and transmits the relevant data to Eurostat.

Data access

Official statistics are also subject to the provisions on secrecy contained in the Public Access to Information and Secrecy Act (2009:400). The EU General Data Protection Regulation (GDPR) applies with regard to the processing of personal data.

Data access is regulated in Section 7 of the Official Statistics Act (2001:99) and in Sections 4-6 and 7 of the Official Statistics Ordinance (2001:100). Here it states that business operators, operators in the agricultural sector, non-profit organisations and local governments are required to provide information to statistical authorities for the production of European statistics as required via an EU Regulation. The Ordinance states in more detail what kind of information it is obligatory to provide.

Relations with users/dissemination of statistical products and services

Statistics Sweden has organised contacts with users through 12 user councils which have an advisory role. During regular meetings with the councils, suggestions for improvements are discussed, for instance, regarding the content of statistics and use of new data sources. Knowledge about the scope and detail of the national statistics is also used as an input on Swedish users' needs for European statistics.

Dissemination of statistics takes place on various information technology channels, including social media, open data, and an extensive and updated website. The use of multiple communication platforms facilitates a better understanding of the statistics by different groups of users. Users can find statistics via "Finding statistics" on Statistics Sweden's website, also by subcategories, subject area, theme area or publishing form. Official statistics published by other national authorities are also available on Statistics Sweden's website. Open data from statistical databases is available for access by API under the CC0 licence.

4. PROGRESS/ADVANCEMENT IN THE LAST 5 YEARS

Sweden has a decentralised statistical system consisting of the NSI, Statistics Sweden and 28 other authorities that have been given legal responsibilities for producing official statistics in specific areas. Twenty of these other national authorities (ONAs) have responsibility for producing European statistics. Since the last peer review, the number of other national authorities has increased from 27 (Appendix to the Statistics Ordinance 2001:100) to 28, adding the Public Health Agency in 2021. The responsibility for certain monetary and financial statistics, including the Balance of Payments, is held by the Swedish Central Bank, which is not part of the Swedish statistical system.

Governance

The peer review team noted several efforts to strengthen governance and coordination, as recommended by the previous peer review. The role of the Council for Official Statistics was redefined and clarified in 2016. The intention of this reform was to clarify the coordinating role of Statistics Sweden. The reform also included changes in the mandate of the Board of the Consumer Price Index and the Board of the Construction Index, which previously had the right to “decide on matters of principle concerning the application of the basis for index calculations”. Both Boards, which include representatives of external bodies (e.g., the Swedish Central Bank and the Ministry of Finance) now have an advisory role only.

In 2019, the Council for Official Statistics adopted a new vision and strategic objective for Sweden’s Official Statistics. The programme is named “We describe Sweden” and focuses on three areas on which statistical authorities can collaborate: timely and useful statistics, finding what you seek is easy, and smart and secure data capture. This can only be achieved through strengthened collaboration, so the overarching goal is focused on improved collaboration and entitled “Doing it better together”.

Modernisation

Statistics Sweden is committed to keeping its methodologies and systems updated and in line with best practices: a new data management department has been set up and many new systems, such as NR-Fiber (for the compilation of national accounts), MINK (a new metadata management system) and a geodata platform (for interactive maps) are being developed.

Quality

There has been significant advancement as regards quality management since 2015, both in the regulations and in practice. In 2017, the Official Statistics Act was amended to include specific quality criteria in line with the ES CoP (relevance, accuracy, timeliness, punctuality, accessibility and clarity, comparability and coherence). The Official Statistics Ordinance was also amended to include a requirement for the authorities responsible for official statistics to evaluate the quality of the official statistics within their area of responsibility. Statistics Sweden’s quality policy is defined and available to the public.

The implementation of this new requirement was supported by significant efforts to make quality awareness a permanent concern at each stage of the statistical process followed by Statistics Sweden and the ONAs. Several tools have been put in place for that purpose. A handbook on evaluating the quality of official statistics (*Utvärdering av den officiella statistiken – en handbok*) was issued in 2018, and a quality self-assessment is performed annually by all authorities and evaluated by Statistics Sweden. During the period 2014-2020, Statistics Sweden was certified in accordance with the ISO

20252 standard. Although this certification was discontinued in 2020 due to the changing nature of Statistics Sweden's work, the certification has led to significant improvements in the standardisation, processes and follow-up of quality management in Statistics Sweden.

A website for ONAs (SAM-Forum) provides documentation and information on a range of issues including training and webinars on official and European statistics, and notes and documents issued by the Council for Official Statistics and by working groups.

External quality reviews are regularly carried out by a panel of external experts, in a process called ASPIRE (A System for Product Improvement Review and Evaluation). ASPIRE aims to report annual quality indicators to the government. Annual reviews of important statistical products are regularly conducted and reported to the Swedish government. A new external expert team was set up in 2018.

The development of quality awareness is sought through an active HR policy, including training sessions and dedicated events. Training sessions focussing on formulating quality requirements are organised. A yearly internal award for best innovative practice or quality improvement is organised.

Attention to user needs

Statistics Sweden continues to consider users as key stakeholders. It has 12 user councils in place (three more councils have been set up since the last peer review) within the different subject areas. The members of these user councils are invited at least twice a year to submit their viewpoints on Statistics Sweden's operations on all quality aspects, including trade-offs between quality aspects. Minutes from the meetings are published on Statistics Sweden's website. An annual report covering all councils is also published on the website. A user survey for MONA was conducted in 2019.

Both the scientific community and the media are satisfied with the consultation of the website and the access to data through the MONA system.

Statistics Sweden uses its Process Support System (PSS) to design or review statistical products aimed at responding to emerging needs. The procedure to be followed prescribes balancing different criteria such as user needs, burden on respondents and coordination with other products or production costs.

Statistics Sweden pays specific attention to using alternative data, adapting to technological changes. On the basis of an analysis of user needs, a team of experts examines possible new data sources and issues related to data collection, statistical methodology and communication.

5. COMPLIANCE WITH THE CODE OF PRACTICE AND FUTURE ORIENTATION

5.1 STRENGTHS OF THE NSI AND THE PARTICIPATING ONAs IN RELATION TO THEIR COMPLIANCE WITH THE CODE OF PRACTICE

Well-established national statistical system

The Swedish statistical system is based on a comprehensive legislative environment (*inter alia* the Official Statistics Act (2001:99), the Official Statistics Ordinance (2001:100) and Ordinance (2016:822)) which is a clear strength.

This legal environment ensures the professional independence of the statistical authorities. The interviews carried out by the peer review team with Statistics Sweden and the various stakeholders offered broad confirmation that the overall trust in the Swedish statistical system is indeed high, with a strong interest in official statistics and a high degree of professionalism at all levels. More generally, 'Statistics Sweden' is a brand name that is well known and well perceived by the general public and researchers and the work carried out by Statistics Sweden is trusted by users.

The peer review team also noted that there is a widespread culture of dialogue enshrined in the system. This dialogue covers in particular the other national authorities, users and government authorities. This is likely to create a positive environment where progress is advanced through consensus and stakeholders' involvement and can therefore be regarded as a distinct strength of the Swedish statistical system.

Data access and confidentiality

Statistics Sweden and the ONAs enjoy a very strong mandate to collect information for the purpose of the production of official statistics or European statistics. In particular, *'in their production of official statistics, the statistical agencies are to use information from existing registers to the greatest extent possible'* (Section 4 of the Official Statistics Ordinance (2001:100)) with the obligation for government agencies to provide statistical authorities with the data required to produce official statistics (Section 6).

The principle of statistical confidentiality is well understood and effectively adhered to within Statistics Sweden. Statistical confidentiality is guaranteed in the Access to Information and Secrecy Act (2009:400) and the Personal Data Act (1998:204). Statistics Sweden has a confidentiality policy that is available to the public on the website. Based on the information provided for the four participating ONAs, there is also a high degree of compliance for this principle by the Swedish statistical system as a whole.

Resource situation

Statistics Sweden appears to be adequately resourced and staffed. In 2020, there were 1,185 employees at Statistics Sweden, 663 women and 521 men. Total budget was about 105 million Euro in 2020, with 56% of the income coming from government appropriations and 40% from fees and other remuneration. Statistics Sweden has a resource allocation committee, consisting of members from the managing group at Statistics Sweden. The committee meets regularly to take decisions on recruitments and the needs for competence between different departments. The purpose is to make sure all parts of the authority have the human resources needed and to use the human resources as efficiently as possible. The high proportion of staff with higher education, including PhDs, is particularly noteworthy.

Quality reviewing

All authorities responsible for official statistics are required to complete a self-assessment questionnaire evaluating the quality of the official statistics in their respective areas (Section 13a of the Official Statistics Ordinance (2001:100)). This process is facilitated by the existence of a handbook that helps them to complete the questionnaire (Handbook on Evaluating the Quality of Official Statistics). These self-assessment questionnaires are then reviewed centrally, and Statistics Sweden provides an overall analysis of these evaluations as part of the Annual Report for the Official Statistics System. These annual self-assessment questionnaires are a particularly useful tool for promoting quality awareness and coordination within the system.

Methodology and innovation

Advanced methodology is in place in Statistics Sweden and is continuously improved with the help of the scientific community. Statistics Sweden has an established strategy for methodology which describes how the methodological organisation contributes to achieving its mission, and has recently introduced a new model for reviewing statistics and data sources with the objective of identifying and implementing innovative methods in statistical production. Collaborative design teams ('ämnesdesignbord') are set up, where subject matter experts, IT experts and methodology experts reflect on new ideas and ways to improve the statistics. This approach has been followed for economic statistics, labour market statistics and household consumption.

The existence of cognitive expertise at Statistics Sweden is also part of this advanced methodology. Since the early 1990s, Statistics Sweden has developed a well-established expertise in the cognitive aspects of survey methodology. For all statistical surveys, standards are defined, and a strategy is established to decide the relevant level of activity with regard to testing prior to data collection, which is also specified in the Process Support System (PSS). All statistical surveys at Statistics Sweden are therefore the object of technical testing for measurement by the Statistics Sweden's Cognitive Lab, a central group of about ten experts in questionnaire design providing the necessary support. Eventually, the objective is to facilitate response to survey questionnaires and hence the quality of responses as well as to contribute to reducing burden upon respondents.

Statistics Sweden is process oriented and has advanced metadata-driven systems that perform many important functions. The MetaPlus system is an internal metadata system with information about content and storage of all final observations. A new system on content metadata (MINK) is planned to replace the current MetaPlus system.

Services for different user groups

Cooperation with the scientific community is well developed. The Scientific Council, consisting of professors in relevant disciplines, provides advice on issues of relevance to Statistics Sweden, while Swedish scientists are granted access to both register and survey data. [MONA](#) (Microdata Online Access) is Statistics Sweden's platform for access to microdata for research purposes. Access to microdata from Statistics Sweden is indeed primarily handled within MONA. It is an advanced and well-developed system that provides remote and safe delivery of microdata to researchers. It allows them to process the data online without the microdata leaving Statistics Sweden and provides the possibility to transfer their own data to their dedicated storage area on Statistics Sweden servers. The peer review team was left with the impression that the Swedish scientific community is generally satisfied with the services provided by Statistics Sweden and that Swedish scientists have a high level of trust in the Swedish statistical system.

Statistics Sweden uses extensively modern methods of communication with statistics disseminated through a variety of communication channels, including social media, open data and a comprehensive website, and with the use of multiple communication platforms aiming at facilitating a better understanding of the statistics by different groups of users. Statistics Sweden also has an active

presence on several social media platforms (Facebook, Instagram, LinkedIn, Twitter and YouTube) and deploys targeted efforts (e.g., statistical literacy and gamification) to popularise statistics and reach out to new audiences.

Finally, Statistics Sweden's ambition is to develop its "statistical leadership" role and it continuously strives to improve analysis, increase dialogue with users and actively take part in societal debate. A good example is the setting up of an analysis team with experts from different domains, with a view to responding to new demands and producing new and relevant outputs to meet emerging needs during the Covid-19 pandemic.

Innovative practices

Statistics Sweden has taken initiatives for collecting and processing alternative data sources such as privately held data. Since 2019, Statistics Sweden has undertaken an innovation project (based on the ESSnet Big Data) with the aim of scoping and mapping new data sources. Statistics Sweden is currently implementing a new concept, Statistical Production 4.0, which aims to consolidate and build upon processes and skills in relation to new and innovative data capture and use. The new Data Management Department is expected to play a key role in identifying, evaluating and ensuring that quality is maintained when producing statistics from a variety of data sources. The Swedish statistical system is adaptive to new challenges such as data science and machine learning skills or Covid-19.

5.2 ISSUES AND RECOMMENDATIONS

5.2.1 Strengthening the institutional environment

Professional independence is embedded across the Swedish statistical system and no concerns were raised with the peer review team with respect to the implementation of the principle. Government agencies in Sweden are generally highly independent as a result of the reform of government institutions since 1974 (Proclamation (1974:152) on a new form of government, Chapter 12, Articles 2 and 3). The government has no authority to intervene in an agency's decision in specific matters relating to the application of the law or the due exercise of its authority.

The selection of the Director-General of Statistics Sweden, as well as the heads of other government authorities (including ONAs), based on professional grounds, has a long tradition and is enshrined within the Swedish governmental system. Vacancy notes are publicly available, the selection procedure is transparent, and experience and competence are the primary grounds for employment. Heads of government authorities have sufficiently high hierarchical standing to ensure senior level access to policy authorities and administrative public bodies and are appointed for a fixed term of six years, with a possible extension for a period of three years.

However, the latest vacancy note listed statistical qualifications (such as qualified work with the production, use and processing of statistical material), as an advantage and not as a prerequisite for the selection of the Director-General of Statistics Sweden. Furthermore, it seems that emphasis on statistical qualifications could also be strengthened as a selection criterion for the statistical heads of the other national authorities developing, producing and disseminating official statistics. Even though the peer review team understands that statistical qualifications are not essential for leading an ONA, there may be cases where they could be considered as advantageous for candidate selection.

To comply with the ES CoP, the peer review team recommends:

R1. Swedish appointing authorities are encouraged to strengthen the emphasis on statistical qualifications in the process of selecting the head of Statistics Sweden and the statistical heads of

the other national authorities developing, producing and disseminating official statistics. (Compliance-relevant: ES CoP, Indicator 1.8)

Even though the independence of the Swedish statistical system was not perceived as a problem by the peer review team, the decision on statistical areas and on the authority responsible for the production of statistics in a particular statistical area is a legal decision in Sweden and is therefore in the hands of the government. This fact has previously influenced the structure of the Swedish statistical system and, in the mid-1990s, led to the decentralisation of a previously centralised statistical system. The decentralisation was a deliberate policy decision by the government to place large areas of statistical production closer to key users so that they could have a greater impact on what is being produced. Even though the reform could be described as a success and has not prevented a fully functioning statistical system, the peer review team noted that the decision on the change of authority for a statistical area could theoretically be made without Statistics Sweden's approval. Bearing in mind the consensus-based decision-making process in Sweden, the peer review team recommends that Statistics Sweden takes a more active role in the process and initiates discussion on possible changes to the process of deciding on the statistical areas. The initiative to change the statistical areas should be brought forward by Statistics Sweden, as the coordinator of the Swedish statistical system, and should include broad consultations with all categories of users to reflect their current and upcoming needs. The peer review team believes that this process may strengthen the Swedish statistical system and enhance the role of Statistics Sweden in the development of new statistical areas. Furthermore, the peer review team believes that a broader user focus should be included in the process, particularly as the scope of users of official statistics has expanded and governmental bodies are no longer the only important users of official statistics.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R2. Statistics Sweden is encouraged to open a discussion on possible changes related to the process in which the government decides on the statistical areas, with the goal of enhancing the role of Statistics Sweden in the development of new statistical areas and in broadening the user focus. (Improvement-related: ES CoP, Indicators 1.3 and 1.4)

Statistics Sweden has extensive experience in using administrative registers as sources for compiling statistics. The "registers first" policy implies that when new statistical products are considered, Statistics Sweden has to first investigate whether relevant administrative sources are available and whether they are appropriate to be used. Together with Statistics Sweden's modernisation process, this approach is seen as a way to utilise the resources in the most effective way possible. In general, there is good cooperation with the holders of administrative registers.

However, Statistics Sweden has experienced situations in which administrative registers that are used for producing official statistics have been altered without consulting Statistics Sweden, and situations where initiatives to add variables have not been successful.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R3. The government and other administrative data holders should keep Statistics Sweden continuously and effectively involved in the design, development and discontinuation of registers, considering in particular the key importance of register data as the primary source for producing statistics in the Swedish statistical system. (Improvement-related: ES CoP, Indicator 2.2)

The importance of preserving statistical confidentiality is well understood throughout the Swedish statistical system, and no concerns were raised in respect of the implementation of the principle. The provisions on statistical confidentiality can be found in Chapter 24, Article 8, of the Public Access to

Information and Secrecy Act (2009:400). The provisions refer specifically to secrecy for the protection of natural and legal persons.

Statistics Sweden has an advanced Information Security System and regularly performs systematic IT security audits based on the standards SS-EN ISO / IEC 27001:2017 Information technology management systems and SS-EN ISO / IEC 27002:2017 Information security management.

However, the fact that the incident reporting system does not regularly collect information on possible incidents related to statistical confidentiality is considered a concern by the peer review team. Upon the detailed review of the reporting system, it was identified that it does not include fields for reporting possible breaches of confidentiality (unintentional or not), and that this information is not included in the regular monitoring reports. The peer review team believes that the current practice is not in line with ES CoP indicator 5.5, as technical and organisational measures should be reorganised to ensure compliance.

To comply with the ES CoP, the peer review team recommends:

R4. Statistics Sweden should ensure that possible statistical confidentiality incidents are specifically identified through regular monitoring reports. (Compliance-relevant: ES CoP, Indicator 5.5)

In the Swedish statistical system, unique administrative identifiers are used for the identification of statistical objects, most notably, identifiers that are standardised nationally such as Personal identification number, Organisation number and Dwelling/apartment number. Even though this enables a systematic use of administrative data in combination with direct data collection, it significantly increases the risk of breaches of data confidentiality.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R5. Statistics Sweden should devise a plan for replacing personal identifiers with statistical identifiers in the production of statistics, as soon as the data enters the statistical production environment, to minimise possible breaches of confidentiality. (Improvement-related: ES CoP, Indicator 5.5)

The Official Statistics Act (2001:99) allows the use of microdata not only for research purposes, but also for investigative activities. Even though no cases were identified in which statistical microdata was used for investigative purposes, this possibility is not compatible with the ES CoP and access to statistical microdata should be allowed for statistical and research purposes only, as stipulated in Article 20 of the Regulation (EC) No 223/2009 on European statistics.

To comply with the ES CoP, the peer review team recommends:

R6. The government should abolish the current possibility of access to microdata for investigative purposes (Compliance-relevant: ES CoP, Indicator 5.1)

Statistics Sweden is perceived as a highly objective and impartial institution by its users and no concerns with respect to the implementation of the principle were raised. An evidence-based decision-making culture is highly developed in Swedish society and Statistics Sweden is perceived as an independent institution producing high-quality statistics.

The Swedish statistical authorities independently decide on the content of statistical releases, while all statistics are released at the same, pre-determined time. Even though all users have equal access to statistical releases at the same time, there is a case in which an institution that is not a producer of that particular statistics is granted privileged pre-release access to a statistical release. Even though it

appears that the pre-release access is limited and controlled, the fact is not publicised and no justification is available.

To comply with the ES CoP, the peer review team recommends:

R7. Statistics Sweden should identify possible cases of pre-release access and make sure that these cases are limited, well-justified, controlled, and publicised. (Compliance-relevant: ES CoP, Indicator 6.7)

5.2.2 Enhancing coordination and cooperation

In a highly decentralised statistical system, such as the Swedish system, efficient coordination is extremely important. Coordination and cooperation, as well as mechanisms for their implementation were therefore one of the main focuses of this peer review. According to the Ordinance on Official Statistics (2016:822), Statistics Sweden is responsible for developing, producing and disseminating official statistics and other government statistics and for coordinating the system of official statistics.

Coordination is facilitated through the Council for Official Statistics, which is legally required to assist Statistics Sweden in ensuring coordination of the statistical authorities and was designed as a forum through which Statistics Sweden can support statistical authorities on matters of principle concerning the quality of official statistics and on reporting (Section 8 of Ordinance 2016:822).

The Council is chaired by the Director-General of Statistics Sweden. It meets twice a year and is composed of six permanent members (Agencies and/or Authorities in charge of Social Insurance, Forests, Health and Welfare, Energy, Agriculture and Education). Other agencies participate on a rotation basis. The Council has five working groups specialised in different topics: methodology and quality; usability and availability; data collection; lawyers and data protection officers; archivists. Coordination is also facilitated by the appointment of a statistical contact person at every ONA to whom information or invitations from Statistics Sweden are sent. Contact persons regularly meet as they are members of the management committee, a subcommittee of the Statistical Council. All statistical authorities have access to an information platform via Statistics Sweden's website, SAM-Forum.

External cooperation is achieved through several meetings, forums and informal relations, mainly with other Nordic countries. An annual Statistics Forum is organised.

The authorities are independent in determining the scope and content of the statistics that they consider necessary for their activities. They decide on the statistical methods, standards and procedures and on the content and timing of statistical releases. This organisation was deemed more appropriate to bring statistics collection closer to users. It may however be hampered by the availability of human and financial resources, which depend on the respective size and statistical capacity of the authorities and by the government's response to their needs.

Due to the fragmentation of statistical responsibilities, some issues or policies, in areas relevant for statistical purposes, are dealt with by different authorities. It follows that some discrepancies or gaps may occur. The Migration Agency is in charge of refugees and asylum seekers, but not of other migrants covered by statistics on population, notwithstanding the increasing interconnections between those different categories. Similarly, the National Agency for Education works together with two other governmental agencies responsible for statistics. This organisation does not seem optimal as the Education Agency depends on the data collected by the Swedish Board of Student Finance.

Statistics Sweden has developed tools to improve coordination: the SAQ (Self-Assessment Questionnaire on Quality) supported by guidelines helps authorities to conduct their own quality assessments. The results of the quality assessments are analysed by Statistics Sweden and discussed in the Council.

The peer review team takes note of an important effort to achieve quality and efficiency through procedures based on empowerment and accountability, which however does not exempt the ONAs from their obligation to fully comply with the ES CoP.

The ONAs understand and respect Statistics Sweden's coordinating role and have explicitly expressed that the coordination by Statistics Sweden is done in a transparent and well-accepted manner. ONAs are invited to take part in workshops, seminars and training activities within the Swedish statistical system. ONAs are dedicated to improving the production and quality of their statistics and take an active part in all coordination activities. There is, however, room for improvement in some areas. ONAs are encouraged to step up their ongoing efforts, in particular regarding transparency to users (e.g., when errors are found in publicised material), quality requirements and reporting, the publication calendar and user consultations. The peer review team believes that Statistics Sweden should continue to provide support to the ONAs in their efforts to improve their statistical products and procedures.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R8. The other national authorities reviewed are encouraged to step up ongoing efforts towards an enhanced overall adherence to the ES CoP, drawing support from Statistics Sweden, if necessary, particularly with regard to transparency to users, quality requirements and reporting, the publication calendar and user consultations. (Improvement-related: ES CoP, Indicators 6.3, 6.4, 6.5, 11.1, 11.2 and 15.7)

The Swedish Agency for Digital Government (DIGG) coordinates and supports digitalisation within the public administration. It is responsible for digital policy development and the common digital infrastructure within the public administration. One of the Agency's tasks is to encourage open and data-driven innovation, the re-use of open data, and user-driven development of digital information and services within public administration. The peer review team believes that Statistics Sweden could benefit from enhanced cooperation between the two institutions. As data-driven organisations, Swedish statistical authorities are an integral part of the national data ecosystem and are dependent on its further developments, particularly those related to emerging new data sources. The peer review team therefore suggests that Statistics Sweden takes a more active role in the monitoring of digitalisation efforts within the public administration, with the goal of understanding and benefiting from the development of the national data ecosystem. The peer review team believes that significant benefits to official statistics could be achieved by utilising the data stewardship approach, and that Statistics Sweden could consider taking on the role of a national data steward institution, if deemed appropriate, as it has the needed capacities and knowledge. The peer review team believes that a better-defined role of Statistics Sweden could also help ONAs in optimising their data collection and could help with the introduction of the "once-only principle" for data collection.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R9. Statistics Sweden and the government should better define the role of Statistics Sweden in the national data ecosystem; the role of national data steward could be considered. (Improvement-related: ES CoP, Indicator 1bis.1 and 8.7)

Bearing in mind that the Swedish statistical system is decentralised, the peer review team noted that the capacities of the ONAs are quite different, ranging from ONAs with highly professional statistical departments to ONAs with a single qualified statistician. The peer review team believes that the

current division of work within the Swedish statistical system should be reviewed, particularly as it is not uncommon that an ONA responsible for a statistical area outsources significant parts of the process to Statistics Sweden. Furthermore, there are situations in which an entire institution is designated as an ONA, even though the statistical activities are performed only in a small, dedicated unit (i.e., the Swedish Police Authority is considered an ONA). Given the consensus-based decision-making process in Sweden, the peer review team recommends that these issues are discussed within the Swedish statistical system and that the results of the discussion, if necessary, are presented to the government.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R10. Statistics Sweden is encouraged to open a discussion within the Swedish statistical system to determine whether the current division of work is appropriate for all other national authorities, particularly for those with limited resources dedicated to statistics. The discussion should also address the mandate related to official statistics within the other national authorities and, where relevant, the clarification of responsibilities between the head of the other national authority and the actual head(s) of its statistical departments. If necessary, the results of the discussion could be presented to the government. (Improvement-related: ES CoP, Indicators 1.4 and 1bis.1)

5.2.3 Embedding quality management throughout the national statistical system

The Swedish statistical system has adequate human, financial and technical resources to perform all statistical activities. Statistics Sweden, which provides quality support for all ONAs, has a total of 1,185 employees, 72% of which have higher education, including PhDs. Given that the Swedish statistical system is reliant on the scope and quality of register data, improvements could be achieved by allocating additional resources to analysing and understanding the quality of administrative data. In addition to analysing and understanding the quality, the peer review team recommends that enhanced focus is put into finding arguments that can be used to persuade the holders of administrative data to extend their collection activities, particularly when those actions are most efficient to maintain a reasonable response burden.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R11. Statistics Sweden should equip itself with capacities to analyse and better understand the quality of administrative data. (Improvement-related: ES CoP, Indicators 3.1 and 8.1)

The Swedish statistical system is very well established with a clear mandate for producing official statistics. This is established in a comprehensive legislative environment (*inter alia* the Official Statistics Act (2001:99), the Official Statistics Ordinance (2001:100) and Ordinance on Official Statistics (2016:822)). To support and promote a uniform application of the regulations, high quality handbooks are available – one on Quality in Official Statistics (Kvalitet för den officiella statistiken - en handbook) and one on Evaluating the quality of Sweden's official statistics (Utvärdering av den officiella statistikens kvalitet – en handbook). These handbooks give a description of the concept of quality in Swedish official statistics and provide a framework for the quality assurance system and for quality monitoring and reporting. The monitoring takes place annually by the completion of a self-assessment questionnaire. Both Statistics Sweden and all ONAs that are part of the Swedish system for official statistics complete the self-assessment. The questionnaire comprises questions on improvements since the last self-assessment, shortcomings in statistics, quality of statistics and routines to assure quality. Some (currently two of the 20) ONAs are not part of the Swedish system for official statistics and will, hence, not complete the self-assessment and not take part in other activities related to the concept of Swedish official statistics. This is the case for e.g., the Swedish Migration Agency, as

migration is not defined as an area for which official statistics is required. The Swedish Migration Agency is, however, a producer of European statistics.

The peer review team recommends the extension of the activities related to Swedish official statistics to the entire Swedish statistical system by including all ONAs responsible for European statistics, even those that are not part of the Swedish system for official statistics. The peer review team also recommends extending the use of the results from the self-assessments by following up where there might be issues of non-compliance or issues needing improvement. Setting up a system of national peer reviews in the Swedish statistical system could also be considered as a follow-up to the completed self-assessments to be able to consider compliance in more detail, to give concrete recommendations for improvement or to offer mentoring, etc.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R12. Statistics Sweden should consider additional measures to follow up on the information included in the annual self-assessment questionnaires from Statistics Sweden and the other national authorities developing, producing and disseminating official statistics, in particular to ensure the consistent compliance with the quality requirements throughout the Swedish statistical system. (Improvement-related: ES CoP, Indicators 1bis.2 and 4.2)

The Swedish system for official statistics has a common standard for quality reporting. The handbook for quality in official statistics gives a clear description of the concept. This handbook also contains guidelines and templates for quality reports. The system is to a large degree compatible with SIMS (Single Integrated Metadata Structure), but not completely. This system for quality reporting seems to be fully implemented in Statistics Sweden.

However, the peer review team got the impression that this is not the case for the ONAs. The Swedish quality reports are also only completed in Swedish. Since most European statistics require some form of English quality reporting - both according to the ESS Handbook on quality and metadata reports and to accompany data transmission to Eurostat - in the form of ESMS or ESQRS reports, it would be efficient and helpful if SIMS was the basis for quality reporting in the Swedish statistical system. In this way, all quality reporting could be enhanced by using SIMS in one common metadata system with the possibility of selecting relevant SIMS fields needed for the different reporting obligations. If the system supported both an English and Swedish version of SIMS, this could lead to an overall reduced documentation burden for statistical producers and coherent reporting to both international and national users.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R13. Statistics Sweden should implement the Single Integrated Metadata Structure as the basis for the quality reporting system in the whole Swedish statistical system, to promote efficient and harmonised reporting at national, European and international levels. A greater amount of quality information should be publicly available in English. (Improvement-related: ES CoP, Indicator 15.5)

5.2.4 Modernising statistical production

The Swedish statistical authorities have a relatively strong legal mandate for data collection as, according to Section 7 of the Official Statistics Act (2001:99) and Sections 4-6 and 7 of the Official Statistics Ordinance (2001:100), business operators, operators in the agricultural sector, non-profit organisations and local governments are required to provide information to statistical authorities. Access to administrative data is well regulated, as public agencies are required to provide data for the production of official statistics. The scope of available administrative data is extensive. On the other hand, individuals and households are not legally required to respond to statistical surveys.

The Swedish statistical authorities strictly follow the “registers first” policy when considering data collection, including mandatory checking of existing administrative sources before any new data collection. To facilitate this approach, Statistics Sweden is currently implementing a new concept, Statistical Production 4.0, which aims to integrate various data sources and evaluate their potential in a structured and quality assured way, by using modern data capture and processing methods. Statistics Sweden believes that the use of the new concept will lead to a reduction in the response burden through the use of smart data capture and processing. Given the fact that a significant reduction in the response burden may be difficult to obtain without an increase in the use of new data sources, the peer review team recommends that their potential is further investigated. While there are some examples of collaboration with private sector and public agencies on the use of new data sources, their application in the regular production of statistics remains relatively limited. The issue of access to new data sources was discussed with the Statistics Sweden management, which considers that a European-wide solution enabling access to privately held data for statistical purposes would be ideal, as all the NSIs in the ESS would have the same legal framework for data access.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R14. Statistics Sweden is encouraged to further investigate the potential of new data sources (i.e., ‘big data’) for the regular production of statistics and eventually adapt the mandate for data collection if necessary. (Improvement-related: ES CoP, Indicator 2.4)

Statistics Sweden has a well-developed process management system, the Process Support System (PSS). Its objective is to consistently ensure the application of common methods, tools and approaches. This is the backbone of statistical production in Statistics Sweden. The system is very closely linked to the Generic Statistical Business Process Model (GSBPM), which was developed in a cooperation between UNECE, OECD and Eurostat. The PSS is available through Statistics Sweden’s intranet, where each sub-process has its own sub-page. There is a system for verifying the description of the sub-processes. Statistics Sweden is planning to share the PSS with the whole Swedish statistical system. The plan is also to expand the system itself. Statistics Sweden deploys continuous efforts and investments in developing best practice methodologies and quality assurance procedures. The plan to share the PSS with the other actors in the Swedish statistical system, will certainly be helpful for the other producers of official statistics for setting up efficient systems for their production of statistics.

However, the peer review team got the impression that the expansion and changes planned for the PSS will move the system further away from the GSBPM. In the light of expanding the PSS to the whole Swedish statistical system, it would seem even more important to ensure alignment with the GSBPM to ensure comparability beyond the Swedish statistical system.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R15. Statistics Sweden should consider further aligning the Process Support System with the *Generic Statistical Business Process Model* to promote efficiency, standardisation and comparability beyond the Swedish statistical system. (Improvement-related: ES CoP, Indicator 7.2)

The staff of Statistics Sweden is professional and very well trained. Statistics Sweden applies a competence-based recruitment process based on the needed competence profiles, including job descriptions, possible developments, required education, work experience, skills, etc. New staff undertake a 2-day introduction course covering all topics such as the organisational structure, confidentiality rules, administrative rules and IT procedures. In addition to this, a position-specific introduction including on-the-job training is carried out. Annual performance appraisals between employees and managers are used to ensure that training on an individual basis is planned and evaluated. Even though the overall training system seems to work efficiently, a balance between formal training and guidelines combined with on-the-job training could be beneficial as it would lead

to the development of a shared culture and knowledge of statistical issues and challenges. It is also the peer review team's impression that the focus of training and also of the production systems is on Swedish official statistics and that there seems to be less interest in the general aspects of European statistics.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R16. Statistics Sweden should better balance formal training, guidelines and on-the-job training, including comprehensive training on the general aspects of European statistics. (Improvement-related: ES CoP, Indicator 7.6)

Statistics Sweden has been monitoring the response burden on enterprises since 2008, and the reduction of the response burden is one of the government's priorities and a regular part of the annual instructions. Even though Statistics Sweden has a mechanism for ensuring the even spread of the response burden within statistical areas, a systematic and continuous measurement of the response burden is not performed for the whole Swedish statistical system. These measurements could be used as a tool for the prioritisation of modernisation activities and as arguments in negotiations with administrative data providers.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R17. Statistics Sweden should systematically and continuously measure and monitor the response burden, and the results of the measurements should be made public. (Improvement-related: ES CoP, Indicator 9.2)

5.2.5 Ensuring greater accessibility, clarity and user orientation

Swedish official statistics are regulated by the Official Statistics Act (2001:99) and the Official Statistics Ordinance (2001:100). High-quality guidelines and handbooks guide the producers of official statistics on what is required to produce official statistics. The Official Statistics Act (2001:99) also defines that official statistics are labelled as "Official Statistics of Sweden", but there is no process in place to control the quality of the production process nor to verify whether the guidelines and handbooks are followed. As mentioned, annual self-assessments are in place, but the results of the assessments are not used to verify compliance. The peer review team has noted a solid engagement in the Swedish official statistics by Statistics Sweden's employees, ONAs and users as well as by government. The impression is that the knowledge of the concept of European statistics and the ES CoP is not prominent and therefore the peer review team recommends that Statistics Sweden works on promoting these concepts.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R18. Statistics Sweden should reflect upon how to further promote European/official statistics produced by the Swedish statistical system, building in particular on the existing 'Official Statistics of Sweden' label. (Improvement-related: ES CoP, Indicator 1bis.1)

Statistics Sweden's website has been redesigned in recent years and is continuously being improved. Innovation is pursued to continuously improve statistical output and to improve access and the use of official statistics. The website contains a lot of useful information on official statistics produced both by Statistics Sweden and ONAs.

However, the usability of the website could be improved, particularly as some of the information on the website is difficult to retrieve and as most of the information is mainly available to Swedish-speaking users.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R19. Statistics Sweden should consider implementing improvements to the website related to usability. More information should be given to non-Swedish speaking users and a more diversified approach to different categories of users should be taken. (Improvement-related: ES CoP, Indicators 11.1, 15.5, 15.6 and 15.7)

Statistics Sweden uses several methods to examine user satisfaction and user needs. User satisfaction is measured through a survey of the general public and through a survey of customers of statistical products. As a result of these surveys, improvement actions are defined, followed up and reported upon. The Director-General of Statistics Sweden regularly visits other government agencies to discuss their needs. Customer complaints are registered and followed up on. Statistics Sweden has formed a collaborative design team; it holds internal innovation seminars to help implement and collect ideas for new and revised statistical outputs. The annual letter of instructions from the government obliges Statistics Sweden to consult with important users before significant changes are made to the content or scope of statistics. Statistics Sweden has twelve user councils that meet at least twice a year to discuss the work plan, strategies, negative priorities, etc. Statistics Sweden is responsible for the documentation of the user council meetings. However, the user perspective might be somewhat narrow, which to a large extent appears to be driven by what is defined as official statistics by the government and less by the needs of other users. This could be alleviated by more actively engaging other users in discussions on what statistical products to develop.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R20. Statistics Sweden should review how users are consulted, widen the scope of user consultations and include discussions on priority setting and quality. (Improvement-related: ES CoP, Indicators 11.1, 11.2 and 15.7)

Statistics Sweden maintains and publishes an interactive advance release calendar for the entire Swedish statistical system on its website. The calendar is well designed and provides an easy way for users to view forthcoming publications and to access recently released data.

Statistics Sweden's record on punctuality is very good, as 98% of monthly, 100% of quarterly and 96% of yearly statistics were published in 2020 on the dates that were indicated in the release calendar. When deviations occur, users are informed, and the new release date is set in the release calendar. Unfortunately, previous release dates are overwritten, and only the new date is available to the public. To ensure compliance with the ES CoP, divergence from the dissemination time schedule should be publicised in advance, explained and a new release date set. Users should also be able to track divergences according to statistical area and responsible producer. The peer review team therefore recommends that Statistics Sweden produces a calendar of changes in publication dates, containing explanations of the reasons for each deviation.

To comply with the ES CoP, the peer review team recommends:

R21. Statistics Sweden should produce a calendar of changes to publication dates, containing explanations for the reasons of each deviation. (Compliance-relevant: ES CoP, Indicator 13.4)

Statistics Sweden provides access to anonymised microdata for research after completion of the confidentiality assessment process. There are two modes for microdata access – in the first one, Statistics Sweden transfers the microdata to the research institution and delegates the responsibility for protecting the data to the receiving institution. The other system is MONA (Microdata Online Access), where users can process data through an online system, without the microdata leaving Statistics Sweden. This is an impressive system, and it seems to serve the researchers in an excellent

manner, taking account of confidentiality and other legal requirements. The peer review team recommends that all the activities regarding microdata access are processed in the MONA system to ensure that confidentiality and other legal requirements are observed throughout the entire process.

To improve beyond compliance with the ES CoP, the peer review team recommends:

R22. Statistics Sweden should review the current arrangements for access to microdata for research purposes, in order to provide the assurance that the statistical confidentiality is fully ensured throughout the process, especially in cases where microdata is transferred to research organisations. (Improvement-related: ES CoP, Indicator 15.4)

5.3 VIEWS OF THE NSI, AS THE NATIONAL COORDINATOR OF THE NSS AND THE PEER REVIEW, ON THOSE RECOMMENDATIONS WHERE THEY DIVERGE FROM PEER REVIEW EXPERTS' ASSESSMENT

Statistics Sweden appreciates the thorough work done by the experts in the peer review team. Most of the recommendations are in areas that are important to improve the system of national statistics in Sweden. Also, for several of the recommendations the work has already started. However, there are some recommendations where Sweden has a diverging view. They will be listed in the order of numbering in the report.

R1. Swedish appointing authorities are encouraged to strengthen the emphasis on statistical qualifications in the process of selecting the head of Statistics Sweden and the statistical heads of the other national authorities developing, producing and disseminating official statistics. (Compliance-relevant: ES CoP, Indicator 1.8)

Sweden has a diverging view. The ES CoP Indicator 1.8 does not explicitly require the heads of statistical agencies to have statistical qualifications but that the process is transparent and according to professional criteria. In our view, experience of managing large organisations, change management and ensuring relevant competence in the organisation (including statistics competence) are the primary professional criteria to be considered.

R2. Statistics Sweden is encouraged to open a discussion on possible changes related to the process in which the government decides on the statistical areas, with the goal of enhancing the role of Statistics Sweden in the development of new statistical areas and in broadening the user focus. (Improvement-related: ES CoP, Indicators 1.3 and 1.4)

Sweden has a diverging view. Indicators 1.3 and 1.4 of the ES CoP outline that the heads of statistical authorities should have the responsibility for ensuring that statistics are developed, produced and disseminated independently, and that they have the sole responsibility for deciding on statistical methods, standards, procedures and dissemination of statistics. According to the process in Sweden, the government only decides the subject areas and statistical areas, and the responsible statistical agency for each statistical area. The responsible statistical agency then has sole responsibility for deciding on the content of the statistics based on user needs. This process guarantees professional independence and user focus, and we have no indication that it lacks independence. Statistics Sweden has a designated responsibility to coordinate the system of official statistics. Within this responsibility Statistics Sweden, together with the Council for Official Statistics, have suggested changing the existing structure of the subject and statistical areas to be more consistent and to avoid overlapping.

R9. Statistics Sweden and the government should better define the role of Statistics Sweden in the national data ecosystem; the role of national data steward could be considered. (Improvement-related: ES CoP, Indicator 1bis.1 and 8.7)

Sweden has a diverging view. Indicator 1bis.1 of the ES CoP refers to the coordination role of the National Statistical Office in relation to statistical activities for European statistics. The coordination role of Statistics Sweden in relation to European statistics is clearly defined in Swedish law. The current data landscape in Sweden is under development and the government has recently appointed Statistics Sweden to participate as a key stakeholder in the Swedish digital infrastructure, giving the possibility to affect and influence the digital arena in Sweden. Given the national context, it is not suitable for Statistics Sweden to work in a data steward role.

R10. Statistics Sweden is encouraged to open a discussion within the Swedish statistical system to determine whether the current division of work is appropriate for all other national authorities, particularly for those with limited resources dedicated to statistics. The discussion should also address the mandate related to official statistics within the other national authorities and, where relevant, the clarification of responsibilities between the head of the other national authority and the actual head(s) of its statistical departments. If necessary, the results of the discussion could be presented to the government. (Improvement-related: ES CoP, Indicators 1.4 and 1bis.1)

Sweden has a diverging view. The government decides on the tasks and responsibilities of government agencies. According to Swedish law, the Director-General of the relevant agency is responsible for the tasks of that agency to be managed effectively and according to the regulations and the goals for the agency; this includes their responsibility for statistics, including compliance with ES CoP. The Director-General is responsible for all tasks at the agency, and the division of responsibility within the agency. All government agencies are subject to effectiveness audits both from internal auditors, and from the National Audit Office.

R13. Statistics Sweden should implement the Single Integrated Metadata Structure as the basis for the quality reporting system for the whole Swedish statistical system, to promote efficient and harmonised reporting at national, European and international levels. A greater amount of quality information should be publicly available in English. (Improvement-related: ES CoP, Indicator 15.5)

Sweden has a diverging view. For all European statistics, the standard of the Single Integrated Metadata Structure is complied with, and quality information is provided in English. For Sweden's official statistics, a standardised quality system is in place, which has been formed to suit the needs of Swedish users and for those producers who do not produce European statistics. This quality information has a greater focus on use and fitness-for-purpose than the Single Integrated Metadata Structure and is fundamental to the Swedish system of official statistics. It is not considered to be resource effective or according to the needs of users for all producers to comply with the standard of the Single Integrated Metadata Structure for quality reporting.

R20. Statistics Sweden should review how users are consulted, widen the scope of user consultations and include discussions on priority setting and quality. (Improvement-related: ES CoP, Indicators 11.1, 11.2 and 15.7)

Sweden has a diverging view. Statistics Sweden has an advisory board, appointed by the government. The board has priorities and quality issues on the agenda and advises Statistics Sweden also on priorities with user focus. There are also user boards for all statistical areas regarding content, quality, and priorities.

R22. Statistics Sweden should review the current arrangements for access to microdata for research purposes, in order to provide the assurance that statistical confidentiality is fully ensured throughout the process, especially in cases where microdata is transferred to research organisations. (Improvement-related: ES CoP, Indicator 15.4)

Sweden has a diverging view. This recommendation would require a change of the Swedish constitution and, with the situation at hand, we do not see the need for this recommendation. The current system for access to microdata, MONA, is a platform for accessing microdata and the purpose of MONA is to offer a secure solution in which the recipient can process the data released for research or statistical purposes, following a confidentiality assessment pursuant to the Public Access to Information and Secrecy Act. But when Statistics Sweden has released the microdata, **the recipient will then be responsible for the data**, in the same way as if the data was released outside the MONA system.

Under the General Data Protection Regulation (GDPR), the recipient is the personal data controller for the personal data that they process, while Statistics Sweden is a personal data processor through its provision of storage areas in MONA. Statistics Sweden is only the personal data controller for the personal data processed as part of the technical aspect of providing the storage area, for example information about users. A personal data processing agreement (DPA agreement) regarding the personal data in MONA must be signed between Statistics Sweden and the recipient.

Since the recipient is responsible for the data, Statistics Sweden, cannot ensure statistical confidentiality throughout the process.

ANNEX A – AGENDA OF THE VISIT

Timing	Topic	Participants
Day 1		
08:30-09:00	PR team discussion to finalise the preparation of the visit	
09:00 -09:30	Preparatory meeting with the national coordination desk	<p><u>The peer review team:</u> All</p> <p><u>Statistics Sweden:</u> Advisor, Executive Office, National coordinator Project manager / advisor, international cooperation office, Previous national coordinator</p>
09:30-09:45	Welcome and introduction of the programme, adopting the agenda and organisational matters	<p><u>The peer review team:</u> All</p> <p><u>Statistics Sweden:</u> Advisor, Executive Office, National coordinator</p>
09:45-11.00	Presentation of the National Statistical System	<p><u>The peer review team:</u> All</p> <p><u>Statistics Sweden:</u> Director-General Head of Executive Office Responsible for coordination of official statistics, Executive Office Quality coordinator, Executive Office National coordinator</p>
11.00-11.15	Coffee break	
11.15-13.00	Coordination and cooperation (ES CoP principle 1bis) incl. Quality guidelines (1a.2)	<p><u>The peer review team:</u> All</p> <p><u>Statistics Sweden:</u> Director-General Head of Executive Office Coordination of official statistics, Executive Office Quality coordinator, Executive Office National coordinator</p>

13.00-14.00	Lunch	
14.00-14.30	Council of official statistics	<p><u>The peer review team:</u> All</p> <p><u>Statistics Sweden:</u> Director-General Coordination of official statistics, Executive Office National coordinator</p>
14.30-15.30	Progress and plans for the future	<p><u>The peer review team:</u> All</p> <p><u>Statistics Sweden:</u> Head of Executive Office Head of Methodology and Architecture, Executive Office National coordinator</p>
14.30-15.45	Coffee break	
15.45-17.15	Programming, planning and resources (ES CoP principles 1, 3, 9 and 10)	<p><u>The peer review team:</u> All</p> <p><u>Statistics Sweden:</u> Head of Human resources, Executive Office Planning manager, Business Management unit National coordinator</p>
17.15-18.15	Peer review expert team discussion.	
Timing	Topic	Participants
Day 2		
09:00 -10:30	Professional independence and the Law on Official Statistics and related legislation (ES CoP principles 1, 2, 5 and 6)	<p><u>The peer review team:</u> All</p> <p><u>Statistics Sweden:</u> Chief legal advisor, Executive Office Head of Executive Office Coordination of official statistics, Executive Office Head of IT security, Executive Office IT security advisor, Executive Office National coordinator</p>

10.30-10.45	Coffee break	
10.45-12.00	Quality (organisational structure, tools, monitoring) (ES CoP principles 4 and 11 to 15) Presentation process support system	<u>The peer review team:</u> All <u>Statistics Sweden:</u> Head of Executive Office Head of Methodology, Data Management Department (former Quality Manager) Statistician, Methodology and Architecture National coordinator
12.00-13.00	Lunch	
13.00-14.45	Methodology, data collection, data processing and administrative data (ES CoP principles 2, 7 and 8)	<u>The peer review team:</u> All <u>Statistics Sweden:</u> Head of Methodology, Data Management Department (former Quality Manager) Statistician, Registers section, Data Management Department Statistician, Methodology and Architecture National coordinator
14.45-15.00	Coffee break	
15.00-17.30	Dissemination and confidentiality (ES CoP principles 5, 6 and 15)	<u>The peer review team:</u> All <u>Statistics Sweden:</u> Head of section, Editorial content and media Head of section, digital development and visualisation Head of section, micro data services Head of section, Agriculture and Energy Statistician, Registers unit, Data management department, Responsible for MONA system National coordinator
17.30-18.30	Peer review expert team discussion	

Timing	Topic	Participants
Day 3		
09:00 -10:45	Meeting with Swedish National Agency for Education	<p><u>The peer review team:</u> Marko Krištof Daniele Lamarque</p> <p><u>Swedish National Agency for Education:</u> Head of Director-General's office Head of statistics unit Statistician, Project manager for peer review National coordinator</p>
09:00-10:34	Meeting with Public Health Agency of Sweden	<p><u>The peer review team:</u> Karin Blix Pierre Bischoff</p> <p><u>Public Health Agency of Sweden:</u> Head of Unit for Data and Registers Deputy Head of Unit for Public Health Reporting, Project manager for European Health Interview Survey (EHIS) Public Health Planning Officer, Project manager for Peer review National coordinator</p>
10.45-11.00	Coffee break	
11.00-12.45	Meeting with Swedish Migration Agency	<p><u>The peer review team:</u> Karin Blix Daniele Lamarque</p> <p><u>Swedish Migration Agency:</u> Head of unit for statistics, Department of planning Statistician, Unit for statistics Statistician, Unit for statistics National coordinator</p>
11.00-12.45	Meeting with Financial Management Authority	<p><u>The peer review team:</u> Marko Krištof Pierre Bischoff</p> <p><u>Financial Management Authority:</u> Head of central government accounting unit Senior Advisor, Project manager for peer review</p>

		Senior Advisor National coordinator
12.45-13.45	Lunch	
13:45-14:00	Presentation of Metaplus system	<u>The peer review team:</u> All <u>Statistics Sweden:</u> Statistician, Registers unit, Data management dep National coordinator
14:00-14:15	Presentation of NR-Fiber system	<u>The peer review team:</u> All <u>Statistics Sweden:</u> Statistician, National accounts Statistician, National accounts National coordinator
14.15-14:30	Presentation of Cognitive Lab	<u>The peer review team:</u> All <u>Statistics Sweden:</u> Head of Methodology, Social statistics department National coordinator
14:30-14:50	Presentation of ASPIRE	<u>The peer review team:</u> All <u>Statistics Sweden:</u> Quality Advisor, Executive Office National coordinator
14.50-15.15	Coffee break	
15.15-17.30	Meeting with main users – Scientific community	<u>The peer review team:</u> All <u>Scientific Community:</u> Stockholm School of Economics University of Stockholm Karolinska institutet Örebro University Uppsala University Institute for Evaluation of Labour Market and Education Policy National coordinator

17.30-18.30	Peer review expert team discussion	
Timing	Topic	Participants
Day 4		
09:30 -11.00	Meeting with main data providers	<p><u>The peer review team:</u> All</p> <p><u>Statistics Sweden:</u> Head of unit, Business Development, Data Management Department Head of unit, Analysis Department</p> <p><u>Data providers:</u> Swedish Public Employment Service Swedish Tax Agency, Head of analysis section Swedish Social Insurance Agency National coordinator</p>
11.00-11.15	Coffee break	
11.15-12.00	Meeting with providers of new data sources	<p><u>The peer review team:</u> All</p> <p><u>Statistics Sweden:</u> Head of unit, Business Development, Data Management Department</p> <p><u>Providers of new data sources:</u> Telia (telecoms company) Swedish Public Employment Service Swedish Public Employment Service Specialist Data engineering E.ON (energy company) National coordinator</p>
12.00-13.00	Meeting with main users – Media	<p><u>The peer review team:</u> All</p> <p><u>Media:</u> Press officer, Communication unit Swedish Radio Data journalist, University of Gothenburg National coordinator</p>
13:00-14:00	Lunch	

14:00-15:00	Meeting with main users – Ministries and other public/private institutions	<p><u>The peer review team:</u> All</p> <p><u>Users from public/private institutions:</u> Riksbanken (Central Bank) Head of Analysis, National Institute of Economic Research Nordea Handelsbanken Senior adviser, Ministry of Finance National coordinator</p>
15:00-16:00	Meeting with main users – business associations and federations and trade unions, as well as representatives of a committee of users	<p><u>The peer review team:</u> All</p> <p><u>Users from business and other associations:</u> Business Sweden Association of Swedish Engineering Industries Swedish Association of Local Authorities and Regions National coordinator</p>
16:00-16:15	Coffee break	
16:15-17:30	Meeting with junior staff	Mr Jannis Kalpouzos Ms Gerli Barzens Ms Ellen Holmlund Mr Mikael Nordin
17.30-18.30	Peer review expert team discussion	

Timing	Topic	Participants from Sweden
Day 5		
8.30-10.30	Clarifications, remaining or additional issues and focus areas	<u>The peer review team:</u> All <u>Statistics Sweden:</u> Head of Executive Office Advisor, Executive Office Project manager, International Cooperation Office National coordinator
10.30-11.45	Coffee break, including group photo	
11:45-13:00	Meeting with the senior management of NSI and ONAs: conclusions and recommendations	<u>The peer review team:</u> All <u>Statistics Sweden:</u> Director-General, Statistics Sweden Head of Executive Office, Statistics Sweden Advisor, Executive Office, Statistics Sweden Head of Director-General's office, National Agency for Education Head of Department, National Agency for Education Head of statistics unit, National Agency for Education Head of statistics unit, National Agency for Education Statistician, National Agency for Education Head of unit for statistics, Swedish Migration Agency Head of Planning Department, Swedish Migration Agency Head of Department, Public Health Agency of Sweden Head of unit, Data and Registers Central Government Accounting, Head of Dept, Deputy Director-General, Financial Management Authority Head of central government accounting unit, Financial management Authority National coordinator
13:00-14:00	Lunch	

ANNEX B – LIST OF PARTICIPANTS

Ms Cecilia Westström	Advisor, Executive Office, National coordinator
Ms Cathy Krüger	Project manager / advisor, International cooperation office, Previous national coordinator
Mr Mikael Schöllin	Head of Corporate Management,
Mr Joakim Stymne	Director-General
Ms Bodil Mortensson	Responsible for coordination of official statistics, Corporate Management,
Ms Heather Bergdahl	Quality coordinator, Corporate Management
Ms Marie Haldorson	Head of Methodology and Architecture,
Ms Maria Svedberg	Head of Human Resources,
Mr Henrik Engström	Senior advisor
Mr Fredrik Rahm	Planning manager, Business Management unit
Mr Joachim Angermund	Chief legal advisor, Corporate Management
Mr Markku Ruonakangas	Head of IT security, Corporate Management
Mr Conrad Granath	IT security advisor, Corporate Management
Mr Joakim Malmdin	Head of Methodology, Data Management Department (former Quality Manager)
Mr Johan Erikson	Statistician, Methodology and Architecture
Ms Cecilia Wass	Head of unit, Registers unit, Data Management Department
Mr Martin Axelson	Statistician, Methodology and Architecture
Ms Emma Luukka	Head of section, Editorial content and media
Ms Elma Jakupovic	Head of section, Digital development and visualisation
Ms Freja Werke	Head of section, micro data services
Mr Jörgen Brewitz	Head of section, Agriculture and Energy
Ms Susanne Dahllöf	Statistician, Registers unit, Data management department, Responsible for MONA system
Ms Katarina Tiväng	Head of Director-General's office
Ms Cajsa Anufrijeff Röhr	Head of statistics unit
Ms Christina Sandström	Head of statistics unit
Ms Katja Hatschek	Statistician, Project manager for peer review
Mr Nasser Nuru Mahmud	Head of Unit for Data and Registers
Ms Malin Kark	Deputy Head of Unit for Public Health Reporting, Project manager for European Health Interview Survey (EHIS)
Ms Jenny Börlin	Public Health Planning Officer, Project manager for Peer review
Mr Magnus Frid	Head of unit for statistics, Department of planning
Mr Johan Ståhl	Statistician, Unit for statistics
Ms Rita Ylikielä	Statistician, Unit for statistics
Ms Lena Malmqvist	Head of central government accounting unit
Mr Mikael Marelius	Senior Advisor, Project manager for peer review
Mr Hans Åhlander	Senior Advisor
Ms Amanda Werngren	Statistician, Registers unit, Data management dept.
Mr Mattias Björling	Head of unit, National accounts
Mr Andreas Lennmalm	Statistician, National accounts
Mr Mats Bergdahl-Kercoff	Head of Methodology, Social statistics department
Mr Karl Wennberg	Stockholm School of Economics
Mr Martin Hällsten	University of Stockholm

Ms Maria Feychting	Karolinska institutet
Ms Henrik Larsson	Örebro University
Mr Oscar Erixson	Uppsala University
Mr Erik Mellander	Institute for Evaluation of Labour Market and Education Policy
Mr Ulf Durnell	Head of unit, Business Development, Data Management Department
Mr Anders Ljungberg	Head of Unit, Analysis Department, Swedish Public Employment Service
Ms Maria Billstam	Swedish Tax Agency, Head of section analysis
Ms Vedrana Milosevic	Swedish Social Insurance Agency
Mr Marcus Velin	Telia (telecoms company)
Ms Maria Dahlhage	Swedish Public Employment Service
Mr Johan Södergren	Swedish Public Employment Service
Mr Torbjörn Stenström	Specialist Data engineering E.ON (energy company)
Ms Anna Blomén	Press officer, Communication unit
Ms Clara Guibourg	Swedish Radio
Ms Helena Löfving	Data journalist, University of Gothenburg
Mr Mattias Erlandsson	Riksbanken (Central Bank)
Ms Ylva Heden Westerdahl,	Head of Analysis, National Institute of Economic Research
Mr Torbjörn Isaksson	Nordea
Mr Johan Löf	Handelsbanken
Mr Jonas Norlin (Skype)	Senior adviser, Ministry of Finance
Mr Magnus Runnbeck	Business Sweden
Mr Mats Kinnwall	Association of Swedish Engineering Industries
Ms Eva Marie Rigné	Swedish Association of Local Authorities and Regions
Mr Jannis Kalpouzou	Junior staff
Ms Gerli Baldzens	Junior staff
Ms Ellen Holmlund	Junior staff
Mr Mikael Nordin	Junior staff
Ms Eva Durhan	Head of Department, National Agency for Education
Mr Magnus Frid	Head of unit for statistics, Swedish Migration Agency
Mr Henrik Holmer	Head of Planning Department, Swedish Migration Agency
Mr Anders Tegnell	Head of Department, Public Health Agency of Sweden
Mr Nasser Nuru Mahmud	Head of Unit, Data and Registers, Public Health Agency of Sweden
Mr Peter Kvist	Central Government Accounting, Head of Dept, Deputy Director-General, Financial Management Authority