



Report on the quality of official statistics, 2022

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Preface

Section 6 of the Act relating to official statistics and Statistics Norway (The Statistics Act) of 2019 states that Statistics Norway shall prepare an annual report for the Ministry of Finance on the quality of official statistics. The Ministry's letter of allocation for 2022 to Statistics Norway states as a priority that Statistics Norway shall ensure cooperation, coherence and quality in the Norwegian statistical system. This is the first report on the quality of all official Norwegian statistics.

This report is based on the information and quality assurance systems that are available at the time of reporting. In the assessments and recommendations, all production of official statistics are to the greatest extent possible viewed as a whole.

Statistics Norway, 15 June 2022

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Director General

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Summary

All producers of statistics take the goal of high quality in official statistics seriously, but there is still room for improvement. There is a need for all producers to ensure access to written documentation of guidelines, procedures, methods and quality. It is recommended that efforts are undertaken to improve the procedures for releasing preliminary figures. More producers must find good solutions for complying with the provisions on confidentiality in the Statistics Act, and they should take the initiative to engage in more regular contact with users.

The quality assurance system must be further developed and supplemented. Established methods must be reviewed, simplified and applied to all official statistics. New methods, such as measurement of quality in real time, should be developed and made available for the production of official statistics.

Information sources

This initial report is based on information from various sources.

The most important source is the quality evaluation, which is a new instrument (Chapter 3). The basis for the quality evaluation is the quality requirements in the Statistics Act and quality principles in the European Statistics Code of Practice (Eurostat 2017). All producers of official statistics, including the three statistical divisions in Statistics Norway, were included in the quality evaluation. The data were collected in the period from September 2021 to January 2022. The results from the quality evaluation will be published as an interim report in the summer of 2022 (SSB 2022, in progress).

In November 2021, a peer review was undertaken (Chapter 4), commissioned by Eurostat. It was limited to Norway's contributions to the European Statistical System. Although the peer review does not apply to all official statistics, the assessments and recommendations are of interest and included in this report.

Many producers use data from administrative information systems as a source for official statistics. Since 2012, Statistics Norway has been engaged in a standardised and formalised cooperation on quality with, inter alia, owners of administrative information systems (Chapter 5). Whether other producers of official statistics have similar arrangements with data owners is unclear. The report describes the status of Statistics Norway's cooperation with owners of administrative information systems.

Section 5 of the Statistics Act and the European Statistics Code of Practice specify relevance as a quality requirement. Statistics that fail to meet the users' needs are not relevant. User orientation is therefore crucial for ensuring the quality of statistics and has a key position in the quality assurance system. As of today, there is no systematic records on user orientation efforts by producers other than Statistics Norway. The efforts and status described in this report therefore apply primarily to Statistics Norway. The assessments and recommendations with regard to user orientation nevertheless apply to all producers.

Since 2011, Statistics Norway has conducted quality reviews as a key tool in its internal quality assurance work. A quality review investigates whether statistical output or a statistical domain comply with the quality requirements in the Statistics Act and the European Statistics Code of Practice (Chapter 7). It involves a review of a statistical production process to identify its strengths and weaknesses, and the results include a list of recommended improvements. The chapter on quality reviews is based on experience from Statistics Norway's internal quality assurance work. The assessments and recommendations apply to all official statistics.

This report is based on the information and quality assurance systems that are available at the time of reporting. In the assessments and recommendations, all production of official statistics are to the greatest extent possible viewed as a whole

Recommendations

In light of the data retrieved from the aforementioned information sources at the end of 2021, the items below are recommended for improvement.

The producers of official statistics should improve their written documentation of guidelines, procedures, methods and quality. Written documentation will help ensure that more quality principles in the Statistics Act and the European Statistics Code of Practice are complied with. Work to prepare written documentation was initiated by a number of producers during the collection of data for the quality evaluation, but some work still remains to be done in this area.

Practices vary considerably between the producers of official statistics when it comes to preliminary statistics. There are various rationales for releasing preliminary statistics, as well as varying practices and opinions regarding what constitutes preliminary statistics. Users may find this confusing, but this assumption has not been investigated in detail. It is recommended that efforts are undertaken to raise awareness about and improve the procedures for releasing preliminary figures. One question that several producers could ask themselves is whether it is necessary to release preliminary statistics.

The producers take the legal provisions on statistical confidentiality seriously, but some of them are uncertain about how the law should be interpreted and how good solutions to ensure statistical confidentiality can be found. This challenge should be given extra high priority, since shortcomings in this area could undermine public confidence in official statistics.

Statistics Norway has agreements on the supply of data and cooperation on quality in administrative information systems. It is recommended that more authorities that produce official statistics sign such agreements. This could also be a relevant internal measure in an enterprise where one department owns a data source and another department uses it to produce official statistics.

Most producers meet the quality requirement that the statistics should be relevant, but the quality evaluation indicates that there might be a need to raise awareness in this area. Producers should maintain regular contact with users.

Methods for measuring quality

This quality report is based on the quality evaluation and information on quality from previously established methods. The established methods are recognised, but are not used for all official statistics at the time of reporting. The memo 'System for quality assurance of official statistics' (SSB 2021 a) alerted Statistics Norway to the fact that there is a need for more information on various aspects of quality in all official statistics. Although the quality assurance work has progressed since 2021, more information is still needed.

There is a need to collect and map out more of the information held by producers. One of the objectives for the quality assurance work is to obtain more knowledge about the quality of official statistics by improving the knowledge base for developing the system going forward. Established methods should be refined and supplemented.

All producers of official statistics must undertake quality reviews. Self-assessments based on the quality evaluation form can be adapted to function as a self-assessment of statistical processes and output. It is recommended that a systematic procedure is established for the selection and prioritisation of statistics for quality reviews among all producers. The combination of thorough

quality reviews of selected statistics and self-assessments of the total production of statistics will provide a good basis for the annual quality report to the Ministry of Finance.

Efforts have been initiated to establish quality indicators in Statistics Norway's production process. It is recommended that a set of common indicators is devised and implemented for use by all producers.

The producers will be well served by having tools and guidelines etc. that can help them comply with the quality requirements in the Statistics Act and the European Statistics Code of Practice. Having all producers engaged in quality assurance work will be a step forward. There is a need for arenas where the producers can collaborate on specific measures and engage in closer cooperation. This can be achieved by expanding the methodology network and strengthening the quality aspect. Participation in the methodology network is currently voluntary. The need for a more binding quality cooperation between the producers should be investigated.

Better documentation of quality and increasing the visibility of the quality assurance work support the goal of transparency and verifiability and will make it easier to follow up quality enhancement measures. One recommendation from the peer review was to investigate measures to document the quality system and make it more visible.

Division of labour in the quality assurance work

This initial report on the quality of official statistics contains a number of recommendations for measures that can help enhance the quality of official statistics. The recommendations can be divided into two main groups. The first of these consists of specific recommendations, primarily from the quality evaluation, but the report also contains some specific recommendations from the other information sources. The second group consists of recommendations for developing the system for quality assurance of official statistics.

The responsibility for implementing measures based on the recommendations in the first group lies with the individual producers. Under Section 6 of the Statistics Act, Statistics Norway has a special responsibility for the coordination of official statistics and reporting the quality of official statistics. This comes on top of the role of producer of official statistics. It is presumed that Statistics Norway carries out this coordination and reporting in collaboration with the Committee for Official Statistics. The outline of the division of labour is as follows:

Statistics Norway

- Plan, coordinate and harmonise the quality assurance work on official statistics
- Prepare an annual public report for the Ministry of Finance on the quality of official statistics
- Provide the data for the quality report
- Lead quality evaluations and quality reviews
- Develop indicators for quality in official statistics
- Chair the methodology network

All producers of official statistics

- Follow up recommendations from the quality evaluation and other quality reporting
- Perform independent cost-benefit analyses of the recommendations and establish priorities based on these assessments
- Participate in quality evaluations and quality reviews
- Participate actively in the methodology network

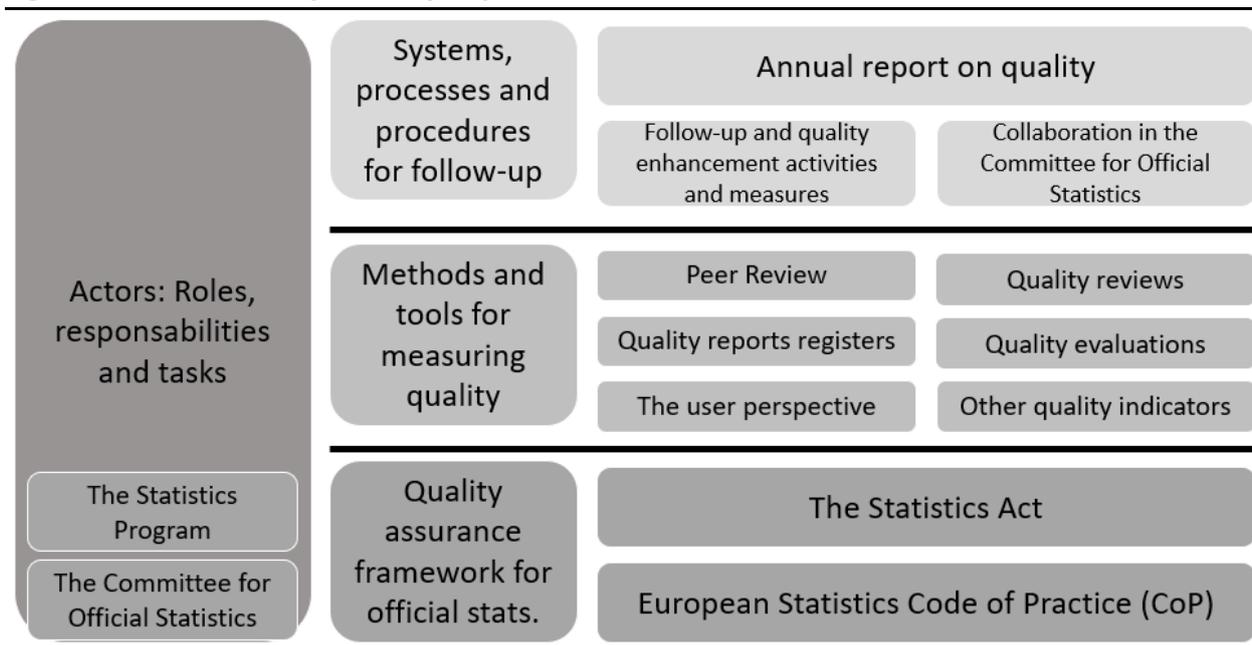
1. Introduction

Section 6 first paragraph of the Statistics Act states that Statistics Norway shall coordinate all development, production and dissemination of official statistics in Norway and prepare an annual public report for the Ministry of Finance on the quality of official statistics. This quality report is based on the memo 'System for quality assurance of official statistics' (SSB 2021a).

An outline of the quality system is shown in Figure 1 and consists of four elements:

- i) *A framework for the quality of official statistics* based on the Statistics Act and the European Statistics Code of Practice. The report refers to relevant legal provisions and the principles in the European Statistics Code of Practice.
- ii) *Methods and tools for measuring the quality* of official statistics. Chapter 3–7 gives an assessment of quality based on new and established methods and tools. Appendix 1 gives an overview of methods and tools that provide information on quality.
- iii) *Systems and processes for following up quality*. This is the annual report on quality, follow-up and quality-enhancing activities and measures and the cooperation within the Committee for Official Statistics. Chapter 3–7 also includes recommendations that will enhance the quality of official statistics.
- iv) *Actors and their roles*. The members of the Committee for Official Statistics, who are the key actors in the cooperation on quality. The actors and roles must be viewed in the context of the statistical programme and the Mandate for the Committee for Official Statistics, and are described in Chapter 2.

Figure 1. Outline of the system for quality of official statistics (SSB 2021a)



The coordination of official statistics and the statistical programme is described in Chapter 2.

In the last six months of 2021, Statistics Norway devised a questionnaire and undertook an evaluation of quality in all producers of official statistics. The quality evaluation is a new instrument that was introduced because Statistics Norway lacked information on quality in all producers of official statistics. The study is primarily a response to Section 5 of the Statistics Act, but also to most of the quality principles in the European Statistics Code of Practice. Chapter 3 in this report summarises the results, assessments and recommendations that are based on this instrument.

The peer review that Eurostat undertook in Norway in November 2021 covers all quality principles in the European Statistics Code of Practice. The peer review is therefore an important source of information, but is limited to the Norwegian contribution to the European Statistical System. In 2021, this included Statistics Norway, the Norwegian Institute of Public Health, the Norwegian Directorate of Immigration, the Norwegian Directorate of Fisheries and the Norwegian Institute of Bioeconomy Research. The conclusions and recommendations from the peer review are of interest for all official statistics and are presented in Chapter 4 and Appendix C.

Chapters 5, 6 and 7 are based on other established methods and tools for measuring quality. In this report, they are based only on information from Statistics Norway's contribution to official statistics. Information on the quality of register data in Chapter 5 has been collected through Statistics Norway's cooperation on quality with owners of administrative information systems. Furthermore, the report includes information collected from various user surveys in Statistics Norway (Chapter 6) and quality reviews performed by Statistics Norway (Chapter 7).

This report is based on all information on quality and systems used to measure quality that was available at the time of reporting. Unless otherwise specified, the recommendations apply to all official statistics. In some cases, assessments have been made and recommendations formulated even when the basis for the assessment has been drawn solely from quality assurance systems that are currently in operation at Statistics Norway.

Statistics Norway is in close contact with Statistics Denmark (DST) and Statistics Sweden (SCB). This contact has been important in the planning of quality assurance work in Norway (SSB 2021a). The contact with DST has been particularly important in the planning of the quality evaluation. Statistics Norway has also had contact with DST and SCB in connection with quality indicators.

The recommendations from this report will be followed up in subsequent annual quality reports to the Ministry of Finance. Each producer of statistics should design measures based on the recommendations in the report and perform their own cost-benefit analyses, and prioritise measures to be taken.

2. Coordination of official statistics

2.1. The Committee for Official Statistics

Statistics Norway chairs the Committee for Official Statistics, which shall help ensure coordination and an appropriate and effective national statistical system, including lending support to the work on this quality report. The committee is appointed by the Ministry of Finance, and under the provisions of the Statistics Act, its members must mainly represent public authorities responsible for official statistics. As of year-end 2021, the committee has 27 members, 11 of whom are responsible producers of official statistics. The remaining members are either owners of administrative information systems that are used for statistics, or authorities that are involved in cooperation in the area of official statistics.

In 2020, the committee worked on the proposal for the first statistical programme (see Chapter 2.2). In 2021, the committee's activities were aimed at topics associated with official statistics and coordination of the statistical system. In 2022, the committee has deliberated Statistics Norway's proposal for a quality assurance system for official statistics and reviewed the quality report. The committee has shared its experiences from the production of official statistics versus public administration statistics and discussed the rules for statistical confidentiality. Other topics discussed by the committee include user orientation and sharing of data for use in official statistics. One authority has been granted permission to access data in Statistics Norway pursuant to Section 13 of the Statistics Act. The committee has discussed the plans for further development of a common platform for official statistics on Statistics Norway's website [ssb.no](https://www.ssb.no). Development will be flexible, and the first phase, which involves testing other producers' use of Statistics Norway's StatBank and release calendar, has started.

Coordination of official statistics involves numerous topics and must be built up over time. Many of the topics are complex and will be followed up by the committee as well as through the cooperation between statistics producers. The sharing of experiences and development of competence in new data sources, solutions for production and dissemination of statistics and the use of consistent standards and harmonised methods are other topics that the committee will highlight. The sharing of knowledge and discussions at the technical and practical level take place primarily in the methodology network (see Chapter 2.3).

Statistics Norway does not have the authority to impose measures to improve official statistics on other producers. The coordination of the statistical system is based on cooperation through the Committee for Official Statistics. Statistics Norway seeks to involve the other producers and members of the committee through open information and dialogue, the aim of which is to achieve a shared understanding of key issues and possible solutions. This prepares the ground for broad ownership and commitment. Some challenges may be involved in ensuring that all producers of statistics comply with the quality requirements, as pointed out in Eurostat's peer review (see Chapter 4).

2.2. The statistical programme

The quality assurance system shall safeguard the quality of official statistics, which is defined and delimited in the national programme for official statistics (SSB 2021b). Work on the first programme largely involved identifying and describing existing official statistics. In addition, the programme describes planned development activities and investigations in a number of areas. There was broad involvement from all responsible producers, the Committee for Official Statistics and other stakeholders, not least in the public consultation round. There was little time to gain experience of the programme before the process of preparing a statistical programme for 2024 started in 2021.

The Council for Statistics Norway, which assists the Director General of Statistics Norway in matters related to statistics, research and analysis¹, as well as numerous users of statistics have expressed the expectation that the next programme will be more forward-looking and development-oriented. Current work includes assessments of changing needs for statistics and potential new responsible producers. The Committee for Official Statistics participates at all stages of this process. The overview of statistics that are included in the current programme, with associated metadata, was updated in the autumn of 2021.²

The first national programme for official statistics applies to the years 2021–2023 (SSB 2021b). Statistics Norway is currently preparing a proposal for a new programme for the subsequent years. Statistics Norway has expanded the user perspective and collected input on development needs from the members of the committee as well as from other users of statistics. An overview of international obligations that will apply in the forthcoming programme period has also been drawn up. Meetings have been held with producers of official statistics and with potential new producers. A first draft of the programme proposal was deliberated by the Committee for Official Statistics in May this year, and the final proposal will be submitted to the Ministry of Finance on 1 November 2022.

The programme will take into account the changing needs of users. This means that it may need to be amended, as some elements will be given lower priority or discontinued, and new producers will be included. Some topics may be missing in the first programme. The programme is designed to follow developments in society.

2.3. The methodology network

As part of its efforts to coordinate, strengthen and quality-assure official statistics, Statistics Norway has established a methodology network for the authorities that are members of the Committee for Official Statistics. As of March 2022, a total of twelve authorities, in addition to Statistics Norway, have signalled an interest in joining. The network is intended to facilitate cooperation on statistical methods and serve as a meeting-place for professional development, discussion, information and the sharing of expertise. The authorities are free to choose the way in which and to what extent they wish to be involved. The activity may vary over time and by topic. It is important that the network is shaped and run in accordance with the members' needs. The network has been invited to Statistics Norway's internal methodology seminars, where there has been broad interest and good attendance.

In meetings and conversations with the network members, Statistics Norway has identified the institutions' needs and wishes for methodological support from the network. This overview reflects the major differences between the network members. Some of them have been responsible for numerous official statistics for an extended period of time. Others have recently been given responsibility for a limited number of statistics, while others are currently not producing any statistics. Examples of topics that were highlighted across the members include confidentiality and data protection, data sharing, dissemination and harmonisation of standards and classifications. Furthermore, the members expressed a desire to obtain more knowledge and work together on the development of quality assurance work in general.

¹ <https://www.ssb.no/en/omssb/ssbs-virksomhet/organisasjon/radet-for-statistisk-sentralbyra>

² An overview of the statistics included in the programme can be downloaded from a link on this page:

<https://www.ssb.no/en/omssb/nasjonalt-program-for-offisiell-statistikk/statistikkprogrammets-omfang-og-innhold>

2.4. The next steps

The coordination of official statistics takes place both in the cooperation in the Committee for Official Statistics and in the preparation of proposals for statistical programmes. Statistics Norway is developing its coordinator role, and numerous areas for coordination are highlighted. The other producers and members of the committee contribute to these discussions and activities. The sharing of expertise and discussions in the methodology network help facilitate coordination. Statistics Norway's responsibility for coordinating the work on official statistics also includes reporting, following up and enhancing quality, as well developing the quality assurance system.

3. Quality evaluation of official statistics

3.1. Background

The memo 'System for quality assurance of official statistics' (SSB 2021 a), which Statistics Norway submitted to the Ministry of Finance in June 2021, concluded that the knowledge base on official statistics was not extensive enough to provide a satisfactory account of quality. In the second half of 2021, Statistics Norway therefore conducted a study to evaluate the quality of official statistics. In this quality evaluation, a questionnaire-based survey was combined with interviews among all producers of official statistics.

The quality evaluation was based on the quality requirements in the Statistics Act and the quality principles in the European Statistics Code of Practice (Eurostat 2017). All quality requirements in Section 5 of the Statistics Act were included in the study, as were requirements for statistical confidentiality, duty of non-disclosure and information security (Section 7–9). Some principles for quality in the European Statistics Code of Practice were considered less relevant to the Norwegian context and were excluded (Hendriks et al. 2022). The data were collected in the period from September 2021 to January 2022.

3.2. Status

In the European Statistics Code of Practice, the principles for quality are grouped by institutional environment, statistical process and statistical output.

Institutional environment

Professional independence is mentioned in Section 5 of the Statistics Act and is the first quality principle in the European Statistics Code of Practice. Safeguards of professional independence include having a head of statistical authorities with overarching responsibility for ensuring that their statistics are being produced and disseminated in an independent manner. This was not the case in all of the authorities.

Nearly all producers engage in at least one form of collaboration with academic or international organisations, or they are involved in other collaboration projects that promote innovation. A lot of innovative work related to the production of official statistics is currently being undertaken, both nationally and internationally.

The producers have a high level of quality awareness in relation to their daily activities, but the job of identifying weaknesses in the production of statistics has not been clearly defined or made clearly visible in the production of statistics. This applies especially to institutions with few resources for the production of statistics.

The producers take the legal provisions on statistical confidentiality seriously, but many of them are unsure how the law should be interpreted, including in light of other legal frameworks that regulate their activity. Finding good solutions to ensure statistical confidentiality is considered a challenge. Some of the requirements have only been added to the Act recently. As a result, not all producers have yet been able to implement the necessary measures. Implementing good solutions for statistical confidentiality requires competence on legal matters, methodology and IT, which can be a scarce resource.

The production of official statistics appears to largely comply with the provisions on non-disclosure in the Statistics Act.

All producers take the topic of information security seriously, but many of them need improved solutions. Only one producer gave affirmative answers to all questions on information security, while explaining in the interview that they have clear principles and procedures in this regard.

Good practices include ensuring impartiality and objectivity in the production and presentation of statistics through updated written guidelines that are adhered to and publicly available. Several producers lack written guidelines, even though they have appropriate procedures. A minority of the producers have prepared written guidelines for impartiality and objectivity, and three of them have published these on their website.

Statistics can be subject to planned revision. There can be several reasons why such a planned revision is called for. These can include access to new and better data sources, or that changes have been made to classifications, methods and/or definitions. The majority of the producers have undertaken planned revisions of statistics, but some of them lacked written procedures for this purpose.

One producer informed us that the ministry responsible pressurises them into revealing official statistics before the release date. This violates Section 5 of the Statistics Act, and it also not in compliance with Principle 6, Impartiality and Objectivity, in the European Statistics Code of Practice.

Statistical processes

There is some variation in the extent to which the statistics producers have documented their production methods. Most producers have documentation reports that enable others to assess the quality of their official statistics, but some believe that there is room for improvement. There is also some room for improvement when it comes to devising written procedures for the production of statistics in practice and publication of the same on the website.

Statistics Norway has ample experience in reducing errors in data from administrative information systems (registers). This is achieved by entering into agreements for the supply of data and cooperation on quality assurance with the owners of administrative information systems (see Chapter 5).

The awareness of the need for written and publicly available documentation increased in parallel with the quality evaluation, and some producers have prepared and published such information during the course of the study.

Several authorities collect data that are primarily used for administrative purposes. These data are also used in the production of official statistics. Some authorities have a clear and effective system for extracting data from administrative data for use in the statistics production. In some organisations, the lines of communication can be long between those managing the administrative information systems and those producing official statistics on the basis of data from such systems. Information on changes to data and procedures sometimes fails to reach the producer of statistics. With the exception of Statistics Norway, few producers have procedures for reporting quality issues back to register owners.

In addition to Statistics Norway, three authorities conduct surveys in connection with the production of official statistics. Testing questionnaires on respondents is good practice, but not all producers do this.

The quality evaluation does not go into sufficient detail to draw specific conclusions regarding innovation and productivity in the statistical authorities. However, a lot of attention is devoted to exploitation of new technology and new data sources among the producers of official statistics.

Statistical output

According to Section 5 of the Statistics Act, official statistics shall be relevant, accurate, timely, punctual, accessible and clear, comparable and coherent. The European Statistics Code of Practice also defines key quality requirements for statistical output. Available statistics shall respond to the users' needs. Most producers assess relevance in the statistics they produce. Not all of them have regular contact with the users.

The statistics producers cite various reasons for releasing preliminary statistics, and they apply different practices and have varying opinions on what constitutes preliminary statistics.

Some producers do not know whether their statistics are comparable with corresponding official statistics in other countries.

Approximately half of the producers have written guidelines for publishing statistics; most of them have published these guidelines on their website. The remaining producers have no written guidelines, but they do have procedures. During the interviews, one producer informed us that written guidelines had been prepared and that these had recently been published on their website.

Nearly all producers document the quality of their statistical output, but the majority state that there is some room for improvement. Documentation practices vary, and many are uncertain of what requirements apply to documentation. Many mentioned that they are considering including measures of uncertainty in their documentation.

3.3. Assessments

Written guidelines

The main impression from the quality evaluation is that the producers are working purposefully to achieve high quality in official statistics. The provisions in Chapter 2 of the Statistics Act, which apply to all producers of official statistics, are largely met. However, not all provisions are fully met. Although not all producers comply with the full range of requirements in the Act, there is an increasing awareness of quality in official statistics, and work to rectify discrepancies is underway. The quality evaluation has helped raise awareness and has thereby already produced positive effects.

Written guidelines that are being used and frequently updated are a key contribution to maintaining and improving the quality of the processes and published statistics. In addition, it is important that guidelines and documentation are publicly available, thus to permit the users of statistics to learn how the statistics have been produced and verify that the statistics comply with key quality criteria.

The quality evaluation has helped raise the awareness of the producers about the benefit of written guidelines. Consequently, many have started drawing up and publishing written procedures and guidelines.

The evaluation shows that there is room for improvement to make official statistics clearer and more easily accessible. Most producers pursue this goal, but the amount of time that can be devoted to these efforts might be a question of resources. From 1 February 2023, the public sector must comply with new requirements for universal design. This is overseen by the Authority for Universal Design of ICT.³ Most producers have some way to go in order to comply with the new requirements.

³ <https://www.uutilsynet.no>

Experience shows that producers who fail to provide customised analyses lose an opportunity to communicate with their users. Contact on customised analyses is a useful interface with the users and can provide valuable insight into the thematic area in question.

Documentation of quality and methods

Documentation and openness are key elements in building public confidence in official statistics. Nearly all producers document the quality of their statistical output, but there is room for improvement among the majority of the producers. Most of those who document their quality assess it in accordance with the principles for statistical output⁴ in the European Statistics Code of Practice, and have made the documentation available on their website.

All producers document the methods they use for the production of statistics, but the evaluation shows that there is room for improvement. Most of the producers assess quality in accordance with the principles for the production of statistics⁵ and have published the documentation on their website.

Documentation practices vary. Many are uncertain about the level of detail to be provided in the documentation. The evaluation shows that the majority are documenting their production of statistics, but fail to adhere to the principles in the European Statistics Code of Practice.

There is room for improvement when it comes to documentation of the quality of statistical output and documentation of methods. Many producers have reported that the quality evaluation has raised awareness about quality assurance work. This is a good basis for enacting measures that help raise awareness even further and enhances the expertise on methods and tools among the members of the Committee for Official Statistics.

Preliminary statistics

The quality evaluation shows that practices related to preliminary statistics vary among the producers. There are different rationales for releasing preliminary statistics, and different practices and varying opinions regarding what constitutes preliminary statistics. Releasing preliminary statistics followed by final statistics can be resource-intensive for the producers. For users of official statistics, such varying rationales and practices related to preliminary statistics can be confusing.

Statistical confidentiality

The evaluation shows that statistics producers take the legal provisions on statistical confidentiality seriously, but also that some are uncertain of how they should interpret the law and find good solutions to uphold statistical confidentiality. This challenge merits especially high priority, since shortcomings in this area could undermine public confidence in official statistics.

3.4. Recommendations

The quality evaluation is documented in an interim report (SSB 2022, in progress), which includes specific recommendations on how to improve the quality of official statistics. Producers of statistics should consider how they intend to follow up on the recommendations and initiate specific measures, and draw up a timetable for implementation. Statistics Norway will follow up the quality of official statistics using the quality assurance system and in annual reports to the Ministry of Finance.

⁴ Relevance, accuracy and reliability, timeliness and punctuality, coherence and comparability, accessibility and clarity.

⁵ Sound methodology, appropriate statistical procedures, non-excessive burden on respondents, cost-effectiveness.

All statistical authorities should have a manager who has overall responsibility for the production of statistics. This position must be established and made visible on the authority's organisational chart.

All producers of statistics take the requirement for accuracy and reliability seriously, but some need to review their statistics production and examine the situation more closely. The Generic Statistical Business Process Model (GSBPM) (UNECE 2019) can be used as a point of departure for evaluating and correcting errors, and for the continuous improvement of processes.

Most statistics producers meet the requirement for assessing relevance, but some should initiate more regular user contact.

Several statistics producers could benefit from becoming more acquainted with international frameworks for quality, for example the Quality Assurance Framework of the European Statistical System (Eurostat 2019) and the GSBPM. Statistics Norway uses the latter extensively to document processes in the statistics production. The model is well suited for describing phases and sub-processes that are necessary to produce official statistics, and provides a good structure for the documentation of production processes. The Quality Assurance Framework of the European Statistical System and the GSBPM are important tools for assessing quality in certain statistical production processes.

Awareness of and procedures for releasing preliminary figures should be improved. This applies to Statistics Norway as well as the other statistics producers.

In order to raise awareness of the quality assurance work, statistics producers are encouraged to actively participate in the methodology network under the Committee for Official Statistics. This gives them the opportunity to suggest topics, and statistics producers can learn from the quality assurance work of other producers. Carrying out quality reviews (see Chapter 7) of all producers of official statistics can also help raise awareness and enhance competence in quality assurance work. This will generate more detailed and in-depth knowledge than would be possible with a quality evaluation.

There is still a need to raise awareness, improve written documentation of guidelines and procedures among some statistics producers, and include measurements of uncertainty in the documentation. These steps will help to make official statistics clearer and improve access to them. They will also increase the understanding of uncertainty in official statistics. The principles and code of practice published on ssb.no can be used as a point of departure, and links to these can be included in published official statistics, or procedures can be set out in writing and published. This requires Statistics Norway to keep the code of practice up-to-date and accessible.

Statistics Norway's cooperation with data owners on quality in administrative data systems (Chapter 5) should be expanded and systematised to include more statistics producers than solely Statistics Norway.

Statistics Norway should build on the first quality evaluation and give an indication of how often and at what level this work should be carried out. This can be continued at authority/departmental level, but can also be adapted to serve as a self-assessment of statistical processes and statistics. In principle, this will mean that all statistics can be reviewed during the period covered by a statistical programme, or more frequently. The combination of thorough quality reviews for some statistics and self-assessment for the majority of the statistics will provide a good basis for the annual quality report for the Ministry of Finance.

4. Results from the European peer review 2021

4.1. Background

In the period 2021–2023, Eurostat and all members of the European Statistical System will undergo an external peer review. Norway was one of the first countries to undertake a peer review for this period. Between 22 and 26 November 2021, 26 video meetings were held with the expert team that was tasked with assessing whether Norway's contributions to the European Statistical System are in line with the European Statistics Code of Practice.

Among those who met the team to share experiences and discuss statistics were 50 employees from various parts of Statistics Norway and nine representatives from the four other Norwegian contributors to the European Statistical System that were also peer-reviewed (the Norwegian Institute of Public Health, the Norwegian Directorate of Immigration, the Norwegian Directorate of Fisheries and the Norwegian Institute of Bioeconomy Research). In addition, the team met 32 representatives of important partners and users of official statistics in other public authorities, special interest organisations, research institutes and Norwegian media.

4.2. Assessments

The expert team did not find anything that was contrary to the European Statistics Code of Practice. In general, the expert team commended the Norwegian statistics producers for their work on developing the Norwegian statistical system since the last peer review in 2014. The report particularly highlights the robust framework for official statistics that has been established in recent years, along with the new Statistics Act, the national programme for official statistics and the appointment of the Committee for Official Statistics and the Council for Statistics Norway (Eurostat, 2022).

The report also emphasises that the high level of public confidence in Statistics Norway and official statistics is very positive. This also applies to the enthusiasm and competence the expert team saw in the employees of all the statistics producers, and the open working and management culture they encountered in Norway. The expert team also cited the cooperation agreements with owners of administrative registers, the quality assurance framework for Norwegian official statistics and the efforts to introduce new data sources as examples of good and innovative initiatives that can inspire the statistical authorities in other European countries.

4.3. Recommendations

The expert team's report and recommendations are based on the discussions during the peer review meetings and the content of self-assessment forms and background documents provided by all national statistics authorities that report to Eurostat prior to the meetings.

Although the expert team did not find anything that was contrary to the European Statistics Code of Practice, it identified 15 areas with potential for improvement by the Norwegian statistics producers. Many of these recommendations relate to better planning of existing initiatives, better visibility of the work being done and closer cooperation between Norwegian statistics producers.

The recommendations include creating more detailed action plans for the implementation of initiatives in Statistics Norway, developing the national programme for official statistics and drawing up an action plan for quality improvements in the national statistical system. It was also recommended that Statistics Norway consider the possibilities for ensuring that other Norwegian statistics producers comply with the principles in the European Statistics Code of Practice. The other authorities, for their part, were advised to clarify their role as a producer of official statistics, both internally in their organisations and externally, for example on their websites.

Another recommendation was for Statistics Norway to improve the competence in methodology in the statistics divisions. This would enable them to be more self-reliant, free up resources in research and development, and mean more effective use of Statistics Norway's limited resources in methodology.

The expert team further recommended that Statistics Norway increase the visibility and documentation of the quality assurance work that is done internally, and intensify the efforts to introduce a framework for career development for its employees. In addition, Statistics Norway should consider the possibilities for publishing more detailed statistics, increasing the contact about user needs and user satisfaction, and improving microdata services in collaboration with the users.

After the report is published, Statistics Norway, the Norwegian Institute of Public Health, the Norwegian Directorate of Immigration, the Norwegian Directorate of Fisheries and the Norwegian Institute of Bioeconomy Research will design specific and time-limited improvement measures in response to the recommendations by the expert team. The action plans will be published after the summer of 2022, and the implementation of these measures will be reported to Eurostat annually in the period 2024–2027.

Statistics Norway will report on approved improvement measures relating to the peer review and the follow-up of the measures in the annual report on the quality of official statistics.

5. Quality in administrative information systems

5.1. Background

The use of data from administrative information systems as a source for official statistics is well established and widespread among many statistics producers. Since 2012, Statistics Norway has had a standardised formal cooperation with owners of administrative information systems. Whether other producers of official statistics have similar arrangements with data owners is unclear. This chapter examines the status of Statistics Norway's cooperation with data owners. Other producers can use this as a starting point in their efforts to enhance the quality of various forms of administrative information systems used in their statistical production.

The aim of the cooperation is to improve the quality of administrative information systems as a source for official statistics in an optimally effective manner. This entails enhancing the quality in the first stage of the process, prior to Statistics Norway or other users receiving the data. The result will mean increased resources and improved quality for the data owners and users, and a reduction in the overall response burden to society.

Agreements entered into between Statistics Norway and individual data owners form the basis for the cooperation. These agreements regulate the ordering of annual data deliveries, the frequency of meetings at management level and the provision of structured feedback by Statistics Norway. The feedback is included in annual reports on the quality of administrative information systems that describe the quality of the data received.

When the new Statistics Act fully entered into force on 1 January 2021, the agreements signed in the period 2012–2020 expired, and new agreements had to be entered into with the data owners. This process is still ongoing for some data owners. Agreements are also continuously being entered into with new data owners, either because new sources have been established for official statistics, or due to changes in the ownership of existing data sources.

In the winter of 2020/2021, the template for reports on quality in administrative information systems was reviewed and updated as part of a broad and inclusive process. Both the data owners and users of the data in Statistics Norway were invited to give written and oral input.

5.2. Status

At the time of writing, 20 out of a total of 30 new agreements have been signed by both parties. Under these agreements, Statistics Norway receives data from over 100 administrative data sources each year. Unique data deliveries are received at varying frequencies for each data system, ranging from daily streaming of data to file extraction once a year.

The follow-up meetings are held annually in some areas, and quarterly or more frequently in others. The level of the meetings can also vary, from senior executive to statistics manager or executive officer level.

The experiences from agency/follow-up meetings as well as the structured cooperation on quality have been positive. One consequence of the cooperation agreements has been an increased focus on quality by the data owners. Statistics Norway draws up various overviews/lists, which are sent to the individual data owners and used to enhance quality in their data systems. The ongoing contact between Statistics Norway and data owners is now also more frequent and systematic.

5.3. Assessments

In the peer review report, the cooperation agreements with owners of administrative information systems are cited as an example of good and innovative initiatives in Statistics Norway that should inspire the statistical authorities in other European countries (Eurostat, 2022).

On the whole, the quality of data from administrative information systems is considered to be very good, and also very useful because it minimises the overall response burden to society.

The data are generally transferred without any problems. There are few delays, readability is good and the data generally match the file description.

A few more discrepancies were registered in the assessment of the units in datasets, with some of the units lacking identifiers. A degree of undercoverage was also found as well as duplicates in some instances. In one area, the undercoverage – which was due to insufficient reporting from a major actor – was so extensive that official statistics had not been published since the third quarter of 2020.

A few inconsistent and suspicious values were identified, some of which were substantial. A number of inconsistencies were discovered during crosschecks between data systems.

In several areas, it was emphasised that effective and close cooperation, frequent meetings and strong lines of communication between the data owner and Statistics Norway are essential for enhancing the quality of administrative data. Non-conformity or problems in deliveries are mostly resolved in a dialogue between the data owner and Statistics Norway.

5.4. Recommendations

Despite the positive experiences and good feedback from the peer review of 2021, there is still room for improvement, including the continuation of uniform follow-up of data owners and the completion of reports on quality in administrative information systems. Improvements to the form for feedback with the inclusion of drop-down lists, development of guidelines on the completion and the implementation of workshops on quality indicators are recommendations that will foster more uniform practice when drawing up reports on quality in administrative information systems.

Other recommendations that will enhance the quality of data from administrative information systems are proposals to change the regulations for registration, proposals for mechanisms to remind reporting parties to verify or update the information, escalation of early-stage checks for duplications, proposals for control questions during registration and faster follow-up of certain issues.

Statistics Norway's experiences from the cooperation on quality in administrative information systems are positive. The Committee for Official Statistics has been briefed on the arrangement. Although the quality evaluation does not shed much light on whether the other statistics producers cooperate on quality in administrative data systems, it is recommended that more producers of official statistics enter into agreements on the supply of data and cooperation on quality in administrative information systems. This can also be relevant internally in the organisations.

6. User orientation

Relevance is one of the quality requirements for official statistics in Section 5 of the Statistics Act, and is Principle 11 in the European Statistics Code of Practice. Statistics that do not meet the users' needs are not relevant. The user perspective is therefore important for ensuring quality in statistics and is a core element of the system for quality assurance. The quality evaluation of official statistics examined whether all statistics producers have regular contact with users. This is briefly discussed in Chapter 3.2 under statistical output. As of today, there is no systematic mapping of the work carried out by all producers of official statistics in relation to the user perspective. The work and status described in this chapter therefore primarily apply to Statistics Norway. The assessments and recommendations apply to all statistics producers.

6.1. Status

The status of user orientation in this report is based on user surveys and other user contact with Statistics Norway. This section gives an overview of the instruments and tools used in Statistics Norway and the status based on these.

User surveys

Every year, Statistics Norway conducts a user survey on ssb.no in order to map user satisfaction and obtain direct feedback from users. This is a pop-up survey and is available on ssb.no for around one month from the end of November to the end of December. In 2021, a total of 5747 responses were received, and in these, 2074 users provided feedback in the form of comments in the free text field. Nine such user surveys were conducted on ssb.no in the period 2012–2020.

User tests

To ensure that users can understand and navigate their way around the content on ssb.no, user tests are carried out to identify weaknesses in the user-friendliness of the website or a service. User tests are often done by observing test participants who are given tasks to carry out in the most important functionality, thereby uncovering problematic areas.

Feedback function

The Siteimprove tool provides the capability to receive continuous feedback from users on ssb.no. The users rate the website using a scale consisting of three different smiley faces. They can also leave a comment in the free text field.

Information service and support team

Every year, Statistics Norway's information service responds to between 8000 and 10 000 phone and email enquiries in connection with its statistics and analyses. This gives a good insight into user behaviour and user needs. The support team handles all telephone enquiries and most email enquiries concerning data capture, which also provide feedback and insight into the needs of users who respond to Statistics Norway's surveys.

Advisory committees and other user forums

User needs are identified and discussed in various user forums and platforms. Statistics Norway has advisory committees in many statistical domains, where different user groups meet to discuss the relevance of the statistics and the need for development. Statistics Norway also has user forums, such as senior executive meetings with public bodies, councils for coordination across authorities, and an ongoing dialogue with partners. The efforts in the proposed national statistical programme include user orientation, in the form of meetings in the Committee for Official Statistics, meetings with other stakeholders and public consultations.

User contact in connection with the updating of the statistical programme

Chapter 2.2 describes the efforts to update the statistical programme. Since its work on the proposal for the initial programme, Statistics Norway has expanded the user perspective and obtained input on development needs, both from committee members and other users of statistics.

6.2. Assessments

User surveys are valuable and it is important that they are continued because they provide direct feedback from the users. It is also useful to filter the responses of the different user groups, which provides even more information about the desired target groups.

The results from user surveys over the past nine years have remained stable. In 2021, 83 per cent of respondents reported that they are satisfied with *ssb.no*, 71 per cent found it easy to understand the content, and 60 per cent found it easy to navigate their way around *ssb.no*.

Statistics Norway has accumulated considerable knowledge and experience within user testing. User testing provides a good insight into the problems that users encounter on Statistics Norway's website. Statistics Norway wants to carry out even more user tests in the future, and has earmarked capacity for more systematic user testing of *ssb.no*.

In addition, the ambition going forward is to further adapt the content on *ssb.no* to the intended target groups, and Statistics Norway will continue to work on this going forward. This was also one of the reasons why the user groups in the user survey were changed, particularly in relation to being able to filter the results in the new target groups and gain even more specific insight into the desired user groups.

6.3. Recommendations

Statistics producers should have regular contact with users via, for example, user surveys, user tests, Siteimprove feedback, an information service and support team. User contact generates a lot of valuable feedback on what the users need. These can include a better search function, easier navigation, simpler language, better access to facts about municipalities, and better and more accessible definitions.

It is important to continue the efforts in universal design to ensure equal access to official statistics and in clear language so that everyone can understand official statistics. It is also important to constantly improve search engine optimisation to make it easy to find official statistics.

The quality evaluation included a question about relevance (see Chapter 3.2) that provided some information about the statistics producers' methods and procedures for surveying user satisfaction. Most producers meet the requirement for assessing relevance, but there is a need to raise awareness in this area. Producers should have regular contact with the users. This can be formal contact, for example in an advisory committee, or it can be informal, such as user satisfaction surveys linked to visits to the producer's website when searching for statistics.

This report does not include details of how other producers of official statistics measure user needs and user satisfaction or obtain input from users. In order to get a better overview of user satisfaction for all official statistics, Statistics Norway proposes a cooperation between all producers of official statistics to share information on user insight, usage figures, tools and best practice. This will improve and expand the reporting basis for this important area in the next quality report.

7. Quality reviews

In 2011, Statistics Norway established quality reviews as an important tool in its internal quality assurance work. Some quality reviews were carried out by other producers of official statistics, but this has not been the case in recent years. The current method has not been used outside Statistics Norway. This chapter describes experiences from the internal quality assurance work at Statistics Norway. The assessments and recommendations apply to all official statistics.

7.1. What is a quality review?

A quality review is a review of a statistical production process with a view to identifying strengths and weaknesses. The review is based on the quality principles in the European Statistics Code of Practice and is in line with the GSBPM (UNECE 2019). A quality review often has a positive ripple effect on related statistical processes and statistics in the same department.

In a quality review, an assessment is made of whether the statistics meet the quality requirements in the Statistics Act and the European Statistics Code of Practice. The reviews are carried out by a multidisciplinary team, which reviews the statistics together with the relevant statistics division. The process starts with the statistics division making a self-assessment of important quality aspects, and this includes a focus group with user representatives.

Following a quality review, a report is prepared, which includes a list of recommendations aimed at enhancing the quality of the statistics. The person responsible for the statistics draws up proposals for improvement measures based on the recommendations and is responsible for implementing these.

7.2. Assessments

Quality reviews are resource-intensive, and the current process has some shortcomings. In recent years, the lack of resources has meant that a limited number of quality reviews have been carried out and the need for quality reviews has not been met.

There is no systematic method for selecting statistics. Statistics should be selected from the entire range of statistics in the statistical programme. This should be based on established criteria, in which the most important statistics and/or those with the highest risk of errors and consequential errors are prioritised and reviewed with a certain regularity. Statistics that are not prioritised for quality reviews can be followed up through other measurements of quality, for example simple evaluations or indicators.

Other producers of official statistics have limited experience with quality reviews. The impression from contact with the Committee for Official Statistics is that representatives from other producers are interested in participating in a multidisciplinary team that conducts quality reviews, and that all producers are willing to be subjected to quality reviews.

7.3. Recommendations

It is recommended that Statistics Norway review the current quality review process in order to strengthen the methodology and to investigate whether it would be beneficial to create a variant that requires fewer resources, which would enable more reviews to be conducted.

It is also recommended that a systematic procedure be created for selecting and prioritising statistical processes and statistics from the entire statistical programme for quality reviews. This work must involve all members of the Committee for Official Statistics.

Representatives from all statistics producers should have the opportunity to participate in the team responsible for conducting quality reviews.

8. Developing the system for quality assurance in official statistics

The collection and analysis of the factual basis for this report and the cooperation in the Committee for Official Statistics have generated important insight into how the quality assurance system should be improved. Some recommendations apply to established methods and tools (Table 1 in Appendix 1), but there is also a need for new methods and tools that will be useful in connection with future measurements, follow-up and reporting of quality (Table 2 in Appendix 1). The tables also show the need for development among all statistics producers.

8.1. Measuring quality

More information is needed on quality in all official statistics. A good starting point would be identifying the current situation among statistics producers and collecting more information from them. This will generate knowledge on the quality standard and the methods and tools used by producers to measure and follow up quality in their organisation. This information can then be used to improve the quality assurance system.

The first quality evaluation should in turn be evaluated in order to improve future quality evaluations. The evaluation should examine, among other things, what topics quality evaluations should cover, as well as frequency.

The national programme for official statistics will be updated for the next programme period. This may see the inclusion of new statistics producers in the Committee for Official Statistics. These producers need to familiarise themselves with and endeavour to comply with the quality principles and indicators from the European Statistics Code of Practice and the Norwegian quality assurance system. The quality of statistical production among new producers should be identified so that they can be included in the source data in the quality report for 2024, the year when the next programme enters into force.

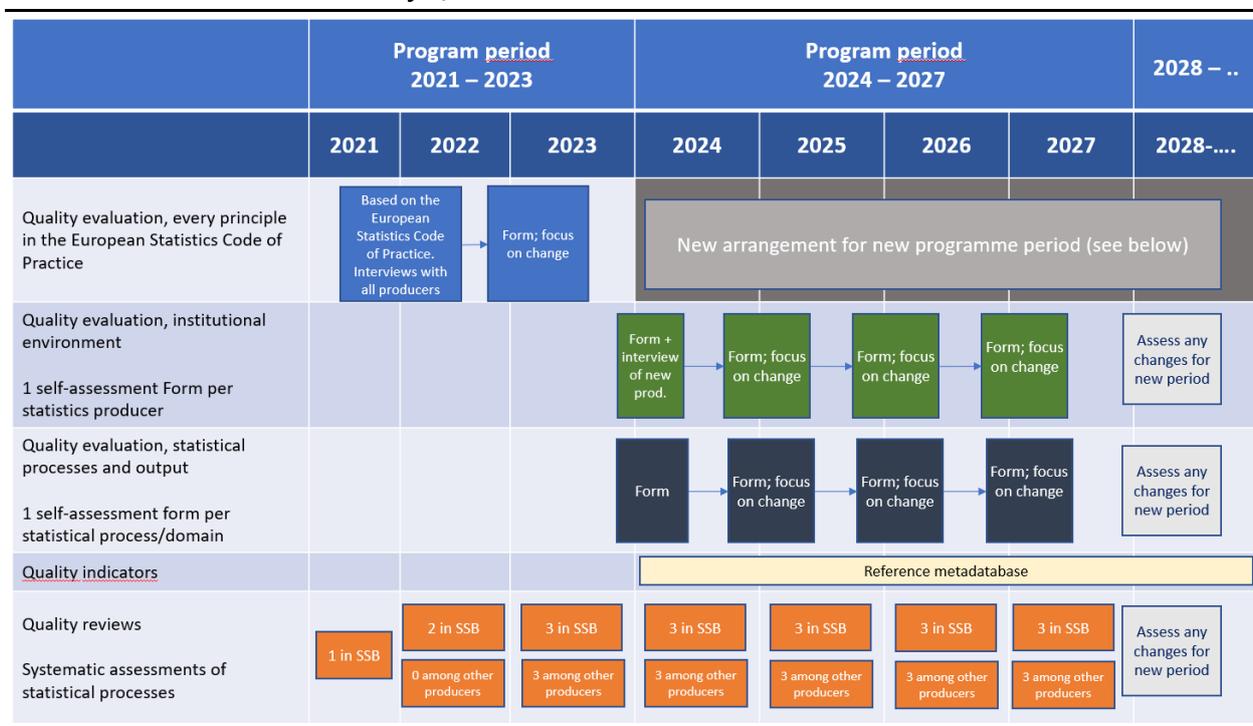
The first quality evaluation was primarily aimed at the institutional environment. Statistics Norway should devise an instrument for evaluating the quality of statistical processes and output in close collaboration with the Committee for Official Statistics. It must be possible to use this as a stand-alone tool, and in the first phase of a quality review. This entails the person responsible for the statistics undertaking a self-assessment of the statistics under review, based on the quality principles and indicators from the European Statistics Code of Practice.

In recent years, the number of quality reviews carried out in Statistics Norway has been low, and no external quality reviews have been carried out of individual statistics. There is a need to improve and systematise the selection of statistics and ensure that reviews are also carried out among other statistics producers. Over time, all producers should participate in the quality team responsible for conducting quality reviews.

Figure 2 is an outline of the interplay between the different methods and tools for measuring quality in the current period of the national statistical programme (2021–2023) and the next period (2024, tentatively to 2027). The outline shows quality evaluations undertaken in 2022 and 2023. In the next programme period, it is proposed that a distinction be made between annual quality evaluations of the institutional environment and statistical processes and output. The outline also shows quality evaluations that are systematic assessments of statistical processes in Statistics Norway and other producers of official statistics.

Figure 2 shows the dates and scope of the various activities.⁶ This diagram illustrates the actual work carried out. Together with the Committee for Official Statistics, Statistics Norway will determine the final plans for the forthcoming period of the statistical programme.

Figure 2. Outline of the different methods and tools for measuring quality in the current and forthcoming period of the national statistical programme (the programme period for the next statistical programme has not been determined as yet)



An assessment is needed of whether user orientation is sufficient or whether efforts in this area need to be strengthened. The quality evaluation shows that several of the other statistics producers take the user perspective into account, and some carry out user surveys, but no specific status or results have been ascertained from these. This should be done in the next annual report on the quality of official statistics.

Statistics Norway has initiated work on quality indicators. These indicators should make it possible to measure the quality of statistical processes in real time and to follow developments over time. An overview of available quality indicators should be obtained from all producers of official statistics and other countries. This could form the starting point for a discussion on uniform quality indicators for all official statistics.

8.2. Cooperation on quality

There is a need to engage all producers in the quality assurance work and facilitate cooperation between statistics producers on specific measures. Statistics producers are encouraged to establish a closer cooperation on quality assurance work. The methodology network, which was established in 2021, is an arena for cooperation, but participation is voluntary. Today, the network consists of

⁶ The length of the next programme period has not been determined yet. This is an illustration of the system, it is not an indication of the length of the forthcoming period.

producers and non-producers of official statistics, but not all participate. A more binding commitment and cooperation is needed between all producers.

The Statistics Act is relatively new, as are the Committee for Official Statistics, the statistical programme and the annual quality report for the Ministry of Finance. There appears to be a willingness to cooperate on quality within this framework, but some areas need to be improved.

Roles and responsibilities in relation to quality evaluations at the institutional level need to be clarified. The first quality evaluation was conducted by a quality team at Statistics Norway. Information should be obtained on how the quality assurance work for each statistics producer is organised and what resources are used for this work.

By the same token, there is also a need to clarify roles and responsibilities in connection with conducting quality reviews. It would be useful to include representatives of the other statistics producers in the review team. Participation could be on a rotation basis. This would give more people the opportunity to familiarise themselves with the methodology and the workload would be more evenly distributed.

8.3. Follow-up of quality

Methods and tools are needed that can help statistics producers to meet the quality requirements in the Statistics Act and the European Statistics Code of Practice. Written codes of practice that are used and updated regularly are crucial to maintaining and enhancing quality in statistical processes and statistics. It is also important that codes of practice and documentation are made public, so that users of the statistics can learn about how the statistics are produced and check whether the statistics meet key quality criteria.

The interim report from the first quality evaluation (SSB 2022, in progress) includes a number of recommendations, and these need to be followed up with action plans and reporting. This also applies to the recommendations from the peer review. Statistics producers must perform an independent cost-benefit analysis of the recommendations and prioritise the work based on the result.

The quality indicators, which are currently being developed, will form a robust basis for monitoring the development of quality over time and for following up certain aspects of quality in the production of statistics. Consideration should be given to establishing uniform quality indicators for all producers of official statistics.

8.4. Documentation and visibility of quality

There is a need to improve the documentation and visibility of quality and the quality assurance work. This will not only help to meet important quality requirements, but it will make it easier to follow up the quality assurance work. The peer review recommended increasing the visibility of the quality assurance work and official statistics. Statistics Norway is leading these efforts and has a special responsibility under the Statistics Act to report on quality in official statistics.

The Committee for Official Statistics should explore what steps can be taken to make the quality assurance system more visible, including a system for labelling or profiling official statistics. This will make it clear which statistics are official statistics, helping users to identify them and distinguish them from other statistics. Documentation and the status of quality in official statistics should also be made public and communicated more clearly.

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Appendix A: Overview of methods and tools that generate information on quality in statistics

Table A1. Established methods and tools that generate information on quality in statistics. Status and need for development

Methods and tools	Statistics Norway		Other statistics producers	
	Status	Need	Status	Need
Quality evaluations (institutional level)	New instrument introduced	Assess needs and propose a system for future quality evaluations at institutional level Systematic follow-up of quality evaluations carried out	As for Statistics Norway	As for Statistics Norway Clarify role and participation in implementation
Peer review	Completed	Follow up recommendations and devise and implement measures	As for Statistics Norway, but only producers who contribute to the European Statistical System	As for Statistics Norway
Reports on quality in administrative information systems	System established	Recently revised, no need for change at the moment	Scope of collection of administrative data is not currently known to Statistics Norway Scoping relevant	Consider entering into agreements with data owners on the supply of data and cooperation on quality
Quality reviews	Established as a tool in Statistics Norway	Improve and systematise the selection process Improve methodology	None carried out in recent years	Establish a system for selection, participation and implementation Clarify roles/responsibilities in implementation
User orientation	Statistics Norway conducts regular surveys, has contact forums etc.	Must consider whether the current arrangement is sufficient and if there is a need for improvement/change	The quality evaluation shows that many have this Statistics Norway has not obtained specific results/findings/status from others	Unclear, needs to be examined

Table A2. New methods and tools that generate information on quality in statistics. Status and need for development

Methods and tools	Statistics Norway		Other statistics producers	
	Status	Need	Status	Need
Self-assessment of the principles and indicators in the European Statistics Code of Practice (statistical or statistical domain level)	Instrument is found and used in quality reviews	Revise the instrument so that it is better adapted to statistics (instead of the institutional level) Establish a system for use as a stand-alone tool and at the start of a quality review	Not previously carried out by Statistics Norway	Assess the need for a system (or the same system for Statistics Norway and others)
Quality indicators	Work started to establish recommended indicators	Continue the work aimed at an agreed recommendation on indicators that are to be implemented Implementation in Statistics Norway	Statistics Norway does not have an overview of what is available to the other statistics producers	Obtain an overview of available indicators Discussions on the possibility of establishing uniform indicators

Appendix B: Overview of the producers of official statistics

Number of statistics in the National programme for official statistics 2021-2023 by domain and producer

Thematic area	Responsible authority, according to the National programme for official statistics 2021-2023											Total	
	Norwegian Institute of public health	Norwegian Directorate of Fisheries	Research Council of Norway (Statistics Norway 2022)	Norwegian Agency for Culture	Norwegian Agency for Environment and Planning	NAV, Norwegian Labour and Welfare Administration	Norwegian Institute of Bioeconomy Research	Norwegian Communications Authority	Norwegian Water Resources and Energy Directorate	Norwegian Petroleum Directorate	Norwegian Directorate of Immigration		Statistics Norway
Labour market and earning						5						16	21
Banking and financial markets												11	11
Population												9	20
Construction, housing and property												11	11
Energy and manufacturing									4	1		14	19
R&D, technology and innovation			1						1			7	9
Health and social care	6											11	17
Income and consumption												4	4
Culture and recreation												10	10
Agriculture, fisheries and aquaculture		6		5				2				29	42
National accounts												9	9
Nature, climate and environment					2							25	27
Public finance												11	11
Prices and price indices												14	14
Social conditions and crime						12						15	27
Transport and tourism												19	19
Education			1									21	22
International economic relationships												12	12
Elections												12	12
Wholesale and retail trade and service activities												9	9
Establishments, enterprises and accounts												13	13
The total number of statistics	6	6	2	5	2	17	2	1	4	1	9	293	348

Appendix C: Recommendations from the Peer Review, as of 30 May 2022

R1. Statistics Norway should identify concrete actions related to the implementation of its work programmes, in particular for development activities, based on explicit roadmaps for the activities covered by the programmes. (Improvement related: ES CoP, Indicator 1.5)

R2. For future work programmes, Statistics Norway should strive towards a transparent and forward-looking priority setting of all official statistics, including potential new domains, and clear budget commitments covering development as well as modernisation activities. (Improvement related: ES CoP, Indicators 3.3, 3.4, 11.1 and 11.2)

R3. Statistics Norway should improve transparency about the budget structure. (Improvement related: ES CoP, Indicator 3.1)

R4. Statistics Norway should further deepen and broaden methodological skills among statistical staff, thus allowing the Division for Methods to free capacity for present and future methodological development and research projects. (Improvement related: ES CoP, Indicators 7.6 and 3.1)

R5. Statistics Norway should proactively communicate the framework for competence management and career paths and intensify its implementation by taking actions that prioritise staff motivation, satisfaction and engagement. (Improvement related: ES CoP, Indicators 3.1 and 7.6)

R6. After finishing the quality evaluation report of the national statistical system, Statistics Norway should draw up a roadmap and an action plan for the whole national statistical system, in consultation with the Committee for Official Statistics. (Improvement related: ES CoP, Indicator 1bis.2)

R7. Statistics Norway should consider ways of ensuring compliance with the ES CoP by all other national authorities. (Improvement related: ES CoP, Indicator 1bis.2)

R8. The four ONAs reviewed (Norwegian Institute of Public Health (NIPH), Directorate of Fisheries (DoF), Directorate of Immigration (UDI) and Norwegian Institute of Bioeconomy Research (NIBIO)) should be proactive in their relations with both national and international peers with a view to sharing information about best practices and new developments. (Improvement related: ES CoP, Indicator 1bis.3)

R9. The four ONAs reviewed should improve the transparency and visibility of the role of official statistics and statistical activities in their organisations and on their websites. (Improvement related: ES CoP, Indicator 1.6)

R10. The Directorate of Immigration (UDI) should clarify internally and externally the delineation between its role as an authority providing services to the public and its role as a statistical authority. (Improvement related: ES CoP, Indicators 1.3, 1.4 and 6.7)

R11. The Norwegian Institute of Public Health (NIPH) should formalise the professional independence of the statistics, e.g. by including professional independence as well as the ES CoP in the job description or working arrangements of one of the department heads and giving them the formal responsibility for official statistics within the NIPH. (Improvement related: ES CoP, Indicators 1.1, 1.3 and 1.4)

R12. Statistics Norway should increase the visibility, transparency and documentation of its quality assurance of statistics and consider ways to certify its quality framework. (Improvement related: ES CoP, Indicators 4.1 and 15.7)

R13. Statistics Norway should explore the potential of disseminating more and more detailed statistics to better serve its users, including further increasing its access to statistical data from other producers. (Improvement related: ES CoP, Indicators 2.4, and 11.1)

R14. Statistics Norway should deepen and widen the current relationships with users by strengthening relations with Stortinget (Parliament) and by expanding the scope of user satisfaction surveys. (Improvement related: ES CoP, Indicators 11.1 and 11.3)

R15. Statistics Norway should improve the microdata services, in consultation with users, and establish an explicit roadmap for improvement actions. (Improvement related: ES CoP, Indicators 15.4 and 15.6)