

Guidance on Modernizing Statistical Legislation



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PREFACE

Official statistics are an indispensable element of the information system of democratic societies, serving governments, economies and the public with data that can help them understand and make decisions: about the economy, about the population, about society and the environment. An essential precondition for carrying out this task is a strong legal and institutional setting for statistical systems, so that their independence, integrity and accountability are guaranteed, and statistical quality and data security are assured.

Aligning with the United Nations Fundamental Principles of Official Statistics, this publication provides guidance for countries to develop the statistical legislation needed to support the modernization of statistical systems, and to unleash the full value of official statistics.

The publication identifies common elements of effective legal frameworks and guides countries through the process of reviewing and revising statistical legislation. The publication also discusses emerging issues with implications for statistical legislation: open data, national and international data exchange, new ways of conducting censuses, cooperation with central banks and geospatial data agencies, and government data management.

The Guidance, developed by a UNECE Task Force composed of experts from national statistical offices and international organizations, was endorsed by the Heads of statistical offices of more than 60 countries at the 2018 plenary session of the Conference of European Statisticians. It is a valuable resource for countries wishing to benchmark or update the legal framework of their national statistical system.

ACKNOWLEDGEMENTS

The Task Force on common elements of statistical legislation prepared this guidance with the following members: Nicola Shearman (co-chair, United Kingdom of Great Britain and Northern Ireland), Ieva Zaceste (co-chair, Latvia), Madars Deaks (Latvia), Maldi Dema (Albania), Emmett Geoghegan (New Zealand), Dorothea Klumpen (Germany), Marko Kristof (Croatia), Michelle Marquis (Canada), Stepan Mnatsakanyan (Armenia), Anahit Safyan (Armenia), Polona Štrekelj (Slovenia) and Carolyn Verey (Australia), as well as Gabriel Gamez (UNSD), Claudia Junker (Eurostat), Tiina Luige (UNECE), Anu Peltola (UNECE) and Malgorzata Cwiek (UNECE). Anu Peltola (UNECE) acted as the Secretary for the Task Force. In addition, Alice Kovarikova, Marina Shentsova, Assel Zhabagina and Friederike Wegmann from UNECE contributed to the work.

Nicola Shearman and Ieva Zaceste led the work of the Task Force, reviewed all outputs prepared and co-chaired the meetings. The Task Force members developed the guidance jointly in a number of videoconferences and virtual sprint sessions.

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- Carolyn Verey: chapter 3 – Review of the operational environment of statistical production
- Polona Štrekelj: chapter 4 – Common elements of statistical legislation
- Emmett Geoghegan: chapter 5 – Intended outcomes of the common elements of statistical legislation
- Marko Kristof: section 6A – Process of reviewing and revising statistical legislation
- Michelle Marquis: section 6B – Advocacy on the sound legal frameworks for official statistics
- Polona Štrekelj and Ieva Zaceste: section 6C – Relation to other legislation
- Gabriel Gamez: chapter 7 – Governance of national statistical systems and its legal aspects
- Anu Peltola: chapter 8 – Emerging issues related to statistical legislation

The Task Force members worked on the guidance jointly in various task teams and cross-checked each other's work. All chapters, therefore, represent joint considerations and views of the Task Force. The descriptions of different governance structures were provided by Stepan Mnatsakanyan and Anahit Safyan for Armenia, Dorothea Klumpen for Germany and Nicola Shearman for the United Kingdom. Case studies illustrating good practices were provided by Task Force members on Canada, Croatia, Germany, Latvia, and the United Kingdom. Additional case studies from Colombia and Poland were added after the electronic consultation. Other experts also shared good practices: Johanna Rantanen (Finland), Daiva Jurelevičienė (Lithuania) and Iurie Mocanu (Republic of Moldova).

The UNECE Task Force on exchange and sharing of economic data, led by Finland, provided significant input to the guidance related to national and international data exchange. Paolo Valente (UNECE) reviewed the section on evolving population and housing census, and Steven Vale (UNECE) provided material for the section on integrating geospatial data and statistics.

The work of the Task Force builds on the *Generic Law on Official Statistics (GLOS)*, developed by UNECE, jointly with Eurostat and the European Free Trade Association (EFTA) in 2014-2016 as part of the United Nations Development Account project for the countries of Eastern Europe, Caucasus and Central Asia. GLOS was developed by a group of experts, including Heinrich Brüngger (Switzerland), Jan Byfuglien (Norway), Vadym Pishcheiko (Ukraine) and Andrea Scheller (EFTA) as well as a number of members of this Task Force.

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EXECUTIVE SUMMARY

Official statistics provide an indispensable element in the information system of democratic societies, serving the government, the economy and the public with data about the economic, demographic, social and environmental situation. To be able to carry out this task, statistical systems need to have a strong legal and institutional setting.

This guidance identifies common elements of statistical legislation and defines their intended outcomes to inspire countries wishing to benchmark or update the legal framework of their national statistical system (NSS). Although the organization of statistical systems varies across countries, many common principles on the functioning of statistical systems apply.

Strengths, weaknesses, opportunities and threats related to statistical legal frameworks

The guidance reviews the key strengths and shortcomings of legal and institutional frameworks of official statistics in the CES countries and analyses the main challenges, expectations and limitations arising from the operational environment that may have implications on the legal and institutional frameworks of official statistics. Figure 1 presents a summary of the analysis based on various information sources, including peer reviews and Global Assessments of statistical systems.

FIGURE 1

Strengths, weaknesses, opportunities and threats related to statistical legal frameworks



Common elements of statistical legislation and their intended outcomes

The guidance identifies common elements of statistical legislation based on *Generic Law on Official Statistics (GLOS)*. The elements were reviewed and updated to allow for their wider applicability across countries and to reflect on the outcomes of the SWOT analysis. These common elements are intended as recommendations that may be helpful for a country wishing to review or revise their statistical or related legislation.

The common elements cover the objective and scope of the statistical law, the main principles and definitions of official statistics, organization of the NSS, a Statistical Advisory Council and other advisory bodies, coordination of the NSS, statistical programmes, mandate for data collection and access to data, statistical confidentiality, quality of official statistics, dissemination and communication of statistics, provision of statistical services, international cooperation, infringements and relationship to other legislation.

The main principles of official statistics (element 2.1) are in line with the Fundamental Principles of Official Statistics and the European Statistics Code of Practice but instead of listing all principles they merge and bring together key elements of the principles. It will depend on each country how the main principles are presented in the statistical law. The Fundamental Principles and the Code of Practice principles are referred to in the definition of official statistics (element 1.2). The Task Force decided to add cost-effectiveness in the main principles as part of the common elements.

In comparison to the *Generic Law on Official Statistics*, developed for Eastern Europe, Caucasus and Central Asia in 2016, this guidance provides an adjusted definition of statistical units (as part of element 2.2), and a new definition of the coordination of national statistical activities. In addition, a Coordination Committee was added as a new common element (element 3.3) consisting of representatives of all producers of official statistics in a country and operating under the chairmanship of the NSO. The Coordination Committee will support the NSO in the coordination of all activities within the NSS. While the Statistical Advisory Council representing users of official statistics is outside of the NSS, the Coordination Committee would consist of producers of official statistics, who are part of the NSS.

The tasks of the NSO (element 3.2) now include more details on the coordination of statistical activities, and a task to advise the government and the public on issues related to data collection, statistical methodology, dissemination, communication and use of statistics.

The responsibilities of the Chief Statistician (element 3.6) now include the facilitation of the correct interpretation of statistics and the entitlement to comment on the use and misuse of statistics, in line with the Fundamental Principles of Official Statistics.

The Statistical Council is now called Statistical Advisory Council (element 4.4). The Statistical Advisory Council's new tasks include promotion of transparency and accountability of the NSS, promotion of the use of official statistics in society and provision of an opinion related to the implications of the budget allocation on the implementation of statistical programmes. In addition, the texts on the contents of statistical programmes have been shortened for more flexibility in the way statistical activities are planned (element 5.6).

The mandate for data collection (element 6.1) is extended notably to entitle producers of official statistics to access and collect data from all public and private data sources free of charge, including identifiers, at the level of detail necessary for statistical purposes. The element also calls for a commitment to limit response burden and reuse data in society. This guidance does not include a common element on population and housing censuses, as the way in which censuses are carried out differs greatly across countries, and the different census approaches will require the use of different legislative tools. Chapter 8 discusses census legislation further.

As compared to GLOS, the guidance does not include detailed regulations on the confidentiality of aggregates (element 7.1), but proposes new text on the protection of confidential data (as part of element 7.3) in line with the European Statistical Law stating that the producers of official statistics shall protect confidential data in such a way that the natural or legal person cannot be identified, either directly or indirectly, when account is taken of all relevant means that might reasonably be used by a third party. In addition, the common elements now enable statistics to be disseminated even when they may make it possible to identify a natural or legal person, only if the natural or legal person has unambiguously given its consent to the disclosure of data.

The guidance enlarges the scope of data exchange within the NSS (element 7.8). While GLOS allowed the NSO to receive individual data with identifiers from other producers of official statistics, the common elements enlarge the possibilities to exchange individual data with identifiers among all producers of official statistics. However, the common elements will require having a well-defined NSS composed of producers of official statistics that are professionally independent. As before, data can be exchanged exclusively for statistical purposes only in the respective area of competence of each producer.

Researchers' access to individual data (element 7.9) is now displayed in a more detailed manner to support development of researchers' services in statistical offices.

The guidance proposes a common element on the provision of other than statistical services (element 10.2). This enables the producers of official statistics to render information technology (IT) infrastructure or other non-statistical services to other organizations.

Statistical services to customers are essential for increasing the use of statistics in society. To support this goal, the Task Force added a recommendation that the income from statistical services may be retained by a producer of official statistics (element 10.3) and shall cover the additional costs of carrying out the service activity and the needed statistical service development.

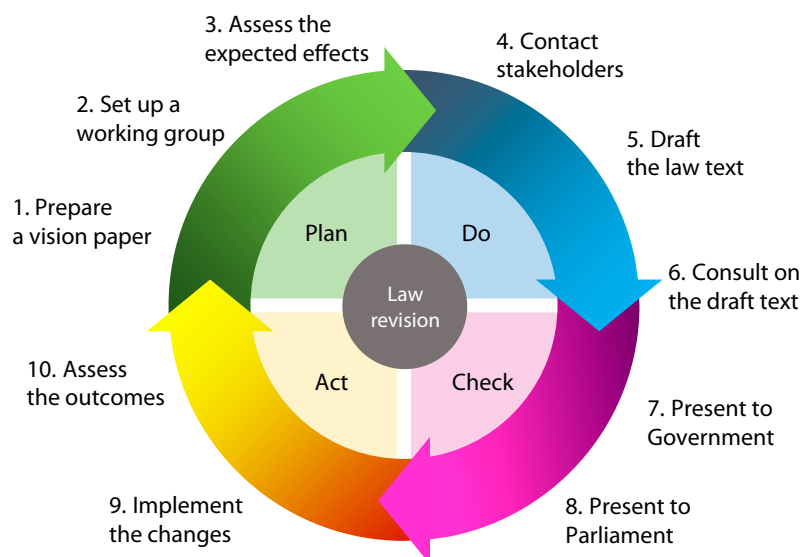
As a result of consultations with the UNECE Task Force on Exchange and Sharing of Economic Data, a common element on international transmission of individual data for statistical purposes was developed (element 11.3). According to this element, the NSO with the other producers of official statistics, as relevant, may enable the voluntary exchange of individual data exclusively for statistical purposes. The NSO shall ensure that the recipient has the legal framework for the protection of confidential data.

In addition, the guidance provides more detail than GLOS to help countries to regulate infringements, for instance related to failing to respond to statistical surveys and arbitrary conduct of respondents (elements 12.2-12.3). Further detail was also added to regulate the relation of statistical and other legislation, for instance by requiring that the NSO be consulted on the preparation of new laws or amendments influencing activities carried out under the statistical law.

The guidance supports countries wishing to review or revise their statistical legislation not only by providing a list of common elements of statistical legislation, but also by providing explanations on what are the intended outcomes of each common element. The guidance describes what the benefits of each law element are for society and why the elements would be needed in the statistical legislation. The ways of regulating statistical activities differ, therefore, the intended outcomes provide the idea of what are the goals to be achieved with the statistical law.

Developing, modernising and reinforcing legal frameworks for official statistics

Advocacy is essential for any statistical system going through a review or revision of the statistical law. The functioning of the NSS depends heavily on the statistical law. The recommendations instruct who should be consulted and how when creating new or changing the existing legal basis. Developing and maintaining a vision paper to describe the current gaps and goals of statistical legislation would be recommended. The process of creating new and revising existing statistical legislation includes ten steps (see figure 2).

FIGURE 2**Ten steps of the process of creating new and revising existing statistical legislation**

The guidance emphasizes that the governance model of the NSS influences the requirements for the statistical law. The common elements of statistical legislation are in principle applicable to all statistical systems but need to be adjusted to the national context and to the governance model. The common elements apply most directly to more centralized statistical systems. Therefore, the guidance reviews three other types of governance models and the related legal aspects. For instance, regulating the coordination of the NSS may be of particular importance to functionally or regionally decentralized statistical systems, and having a special article on a management board is particularly important for statistical systems that are autonomous from the government.

When deciding to adopt a new statistical legislation or amend the existing law, other legislation should be reviewed and taken into account accordingly. Statistical legislation could refer to other legislation that already regulates a specific aspect or it could (vice versa) have an impact on the other legislation. The guidance reviews the most important other regulations and how they relate to the statistical law, for instance legislation determining the government, the criminal code, information security, privacy, and data protection and archiving.

Emerging issues related to statistical legislation

Finally, the guidance emphasizes that the common elements provide the basis for considering changes in statistical legislation. They should not hinder further development and modernization of statistical work. The guidance highlights the need to ensure a solid, flexible and modern legislative and institutional infrastructure and, thus, address emerging issues, develop new business models, engage in partnerships and use new data sources and technologies.

Blueprint for the way forward

As suggested by the circular process of revising statistical legislation (figure 2), while statistical legislation should provide a solid and rather stable foundation for statistical work, the assessment and development of legal and institutional frameworks is a continuous process.

To facilitate taking forward this continuous action, the Task Force makes the following proposals:

- All countries are invited to make use of the *Guidance on Modernising Statistical Legislation* to review the national statistical law and other related legislation and prepare their vision for future development of the statistical law.
- The Conference of European Statisticians should host regular meetings of legal and managerial experts of statistical offices to enable the development of the legal and institutional frameworks of official statistics in an agile and forward looking way.
- An organizing committee or a steering group, composed of a few countries, could be established to organize these expert meetings, consider the need for future guidance and coordinate requests for assistance from countries developing their statistical laws.
- Additional ad hoc meetings could be held to address specific subjects related to legal considerations, such as data exchange. These meetings should include other relevant experts such as data security professionals.
- Countries should supply their own relevant material to the expert meetings to share their experience, especially in emerging issues related to the legal frameworks.
- Legal experts and managers of statistical offices are invited to consider what kind of exchange of experience should take place and what kind of supporting materials and practical guidance would need to be developed to strengthen statistical legislation and implement it effectively.
- UNECE should seek collaboration with other international organizations and donor countries to support countries with developing statistical systems in this area.
- The UNECE work should contribute to global initiatives to develop legal and institutional frameworks of official statistics beyond the CES region, such as to the renewal of the *UNSD Handbook of Statistical Organization*.
- It would be useful to review after five years whether this guidance needs updating in the light of experience gathered nationally and internationally and taking into account new changes to the statistical and legal environment.



1. INTRODUCTION

A. Why this guidance?

1. Official statistics provide an indispensable element in the information system of democratic societies, serving the government, the economy and the public with data about the economic, demographic, social and environmental situation. To be able to carry out this task, statistical systems need to have a strong legal and institutional setting.
2. This guidance identifies common elements of statistical legislation and defines their intended outcomes to inspire countries wishing to benchmark or update the legal framework of their national statistical system (NSS). Although the organization of statistical systems varies across countries, many common principles on the functioning of statistical systems apply. Recently, the need to further reinforce legal frameworks to guarantee the independence, integrity and accountability of statistical systems, high quality of official statistics and data security has arisen in many countries.
3. An up-to-date statistical legislation will support modernization of official statistics and remove unnecessary barriers to releasing the full value of statistics. As the landscape of information producers is rapidly changing, statistical offices need a legislative and institutional infrastructure that supports developing new business models, engaging in partnerships and using new data sources and technologies.
4. Under these conditions, the guidance on the essential features of statistical legislation will benefit countries in further strengthening their statistical systems. A modern legal framework will enable more agile strategic development of official statistics and closer alignment with the United Nations Fundamental Principles of Official Statistics.

B. Work process

5. This guidance is based on and extends the *Generic Law on Official Statistics (GLOS)* developed by UNECE in cooperation with European Free Trade Association (EFTA) and Eurostat and with the support of the United Nations Statistics Division (UNSD). GLOS was developed in 2014-2016 under the United Nations Development Account project for Eastern Europe, Caucasus and Central Asia.
6. The Bureau of the Conference of European Statisticians (CES) reviewed GLOS at its meeting in February 2016. On this occasion, the Bureau decided to establish a Task Force on common elements of statistical legislation composed of representatives of the United Kingdom and Latvia as the co-chairs, and as members Armenia, Australia, Canada, Croatia, Germany, New Zealand, Slovenia, the United States of America, Eurostat, UNSD and UNECE. By virtue of its terms of reference, the Task Force's objective was to identify common elements of national statistical legislation for use by CES countries in line with the Fundamental Principles of Official Statistics, the European Statistics Code of Practice and the Recommendation on Good Statistical Practice by the Organisation for Economic Co-operation and Development (OECD).
7. In June 2016, the CES plenary session expressed strong support and endorsed the *Generic Law on Official Statistics* and its explanatory notes as a recommendation for the countries of the sub-region in Eastern Europe, Caucasus and Central Asia. The Conference noted that while the Generic Law has been tailored for Eastern Europe, Caucasus and Central Asia, it summarizes the strategic aspects of building a strong framework for official statistics based on the Fundamental Principles of Official Statistics and is useful globally as a reference for developing statistical legislation.
8. Improving the governance and legal framework of statistical production is a priority for a large number of countries and fundamental to producing high-quality statistics. Therefore, the Conference strongly supported the initiative to extend the guidance to all CES countries, and beyond, to identify common elements of statistical legislation and develop good practice guidance to help countries benchmark their national statistical legislation.
9. In 2016, the Task Force reviewed the key factors, strengths and shortcomings of legal and institutional frameworks of official statistics in the CES countries and analysed the main challenges, expectations and limitations arising from the operational environment that may have implications on the legal and institutional frameworks of official statistics.

10. For this review, the Task Force used the recommendations of peer reviews carried out within the European Statistical System to identify common strengths and improvement needs. The Task Force also reviewed the outcomes of recent meetings relating to statistical frameworks in the Balkan countries and made use of recommendations from Global Assessments of statistical systems carried out in Eastern Europe, Caucasus and Central Asia.¹ The Task Force approached countries beyond Europe to ask for their views on the main strengths and improvement needs. The review resulted in an analysis of the strengths, weaknesses, opportunities and threats (SWOT) relating to the legal frameworks of official statistics.

11. At the same time, the Task Force reviewed the *Generic Law on Official Statistics* to assess its applicability to all CES countries and beyond. The Task Force extracted common elements from the Generic Law, and selected elements to be reused with minor changes, elements to be adjusted for wider application and elements to be added to a guidance aimed at a larger group of countries.

12. In 2017, the Task Force defined intended outcomes of the common elements of statistical legislation, drafted guidance on the process of revising statistical legislation and on the necessary advocacy, and considered the challenging and emerging areas of future legal frameworks of statistics. The Task Force also looked at country specific conditions to be taken into account and collected some good practice examples to be included in the guidance. The Task Force brought its findings for discussion to a session “Do modern statistical institutes need modern legislation?” as part of the International Statistical Institute (ISI) World Statistics Congress in July 2017 in Marrakech, Morocco.

13. The intended outcomes describe the system characteristic each common element is intended to deliver for society. The Task Force formulated the intended outcomes based on the Explanatory Notes of the *Generic Law on Official Statistics*, the Fundamental Principles of Official Statistics, the European Statistics Code of Practice, the OECD Recommendation on Good Statistical Practice and a number of other sources including national guidance documents used by statistical offices.

14. In February 2018, the CES Bureau reviewed the final guidance, which was subsequently sent for electronic consultation to all CES members and endorsed in the CES plenary session in June 2018. The guidance reflects all the feedback received in the review and consultation process.

Structure of the guidance

15. Chapter 2 gives an insight into the strengths and shortcomings of legal and institutional frameworks based on an analysis of the current legal settings of official statistics. Using a number of sources, the Task Force analysed the current frameworks of statistical production in the CES region and beyond and summarized information on strengths and shortcomings relating to legal frameworks. The chapter focuses on areas for improvement that should be considered when revising and benchmarking statistical legislation.

16. Chapter 3 portrays challenges and opportunities arising from the operational environment of statistical offices. It identifies key issues arising from the environment that need to be taken into account when amending statistical legislation. The intention of this chapter is to ensure that the guidance is forward looking and suggests common elements of statistical legislation that take into account emerging trends and allow for flexibility to adjust statistical activities to the changing environment.

17. Chapter 4 presents the common elements identified by the Task Force. It applies the structure introduced in GLOS for organizing and presenting common elements of statistical legislation. Most of the common elements are extracted from GLOS. Some are reused almost directly, and some adjusted to ensure wider applicability of the guidance. The Task Force also added some new common elements of statistical legislation that were not explicitly included in GLOS.

¹ Global Assessments are in-depth and comprehensive analyses of institutional, organizational and technical capacity of countries to produce official statistics that comply with international and European guidelines and recommendations, including the United Nations Fundamental Principles of Official Statistics and the European Statistics Code of Practice. They are conducted by UNECE in cooperation with Eurostat and EFTA in South East European and Eastern Europe, Caucasus and Central Asia countries. See: <https://www.unece.org/statcoop/ga.html>

18. Chapter 5 describes the intended outcomes of the common elements of statistical legislation identified by the Task Force. The intended outcomes aim to allow for flexibility for countries in the application of the guidance in a way that fits their national legal framework. Depending on the national legal and political context, there may be different options for achieving the same intended outcomes through legislation or other means. The intended outcomes also provide justifications for having the different elements in the legal framework and may help to advocate for the necessary changes in the statistical or other legislation. From an international statistical community perspective, the intended outcomes serve as a useful tool for reviewing statistical systems and providing capacity building.

19. Chapter 6 is devoted to the guidance on reinforcing legal and institutional frameworks of official statistics. It discusses important topics such as the process of reviewing and revising statistical legislation, the advocacy on the sound legal and institutional frameworks and the relation of statistical legislation and other legislation.

20. Chapter 7 discusses different governance structures of statistical systems and how they affect statistical legislation.

21. Chapter 8 discusses emerging issues related to statistical legislation. The chapter considers legal aspects of providing official statistics as open data and the legal aspects of exchanging data nationally and internationally for statistical production. It considers the changing nature of census taking and its implications to the statistical law and discusses possible ways to regulate population and housing census activities. The chapter discusses also the framework for good coordination and cooperation with central banks, as they have a special independent role but are often among the main producers of official statistics. The chapter also discusses collaboration with geospatial agencies to increase the integration of official statistics and geospatial data. Finally, the chapter touches upon government data management and the implications to statistical legislation.

22. Chapter 9 makes proposals for further work on statistical legislation to support modernization of legal frameworks of official statistics, and to ensure a continued exchange and development of legal and institutional frameworks of official statistics.

23. Annex I includes the terms of reference for the Task Force on common elements of statistical legislation detailing the objective and activities in order to identify common elements of statistical legislation and develop guidance to be applied widely across countries when reviewing or revising statistical legislation.

24. Annex II provides case studies illustrating good practices of countries in the effective regulation of statistical activities and implementation of such regulation. The first two case studies from Canada and the Republic of Moldova illustrate ways to effectively implement revised legislation. Case study 3 highlights the regular and extensive consultations with representatives of respondents in Finland. Case studies from 4 to 6 provide ideas for the criteria and procedures for identifying official statistics and producers of official statistics from Finland, Lithuania and the United Kingdom. Germany presents the latest revisions of their statistical law in case study 7. Croatia and Latvia share their regulation allowing access to data held by private legal persons on other respondents as case studies 8 and 9, and Slovenia presents the full mandate to access all data sources for statistical purposes as case study 10. Case study 11 illustrates the cooperation between the central bank and national statistical office in Poland. Case studies 12 and 13 present respectively the criteria for defining official statistics and the mechanism for exchange of microdata between official producers in Colombia.

25. A summary table, which brings the common elements of statistical legislation together with the intended outcomes and highlights changes made to the common elements of statistical legislation as compared to the original texts in GLOS, is available only online on a UNECE wikispace dedicated to modernising statistical legislation.²

² See: UNECE Wikispace on Modernizing Statistical Legislation at <https://statswiki.unece.org/x/TAH2DQ>



2. REVIEW OF CURRENT LEGAL AND INSTITUTIONAL FRAMEWORKS OF OFFICIAL STATISTICS

A. Introduction

26. The chapter reviews the key factors, strengths and shortcomings of legal and institutional frameworks of official statistics in countries participating in the CES work, based on existing material and analysis relating to:

- Professional independence of statistical offices
- Role and status of the Head of the national statistical office (NSO)
- The scope of national statistical systems and definitions of official statistics
- The role of the NSO in the coordination of the statistical system
- Mandate to collect data, access administrative data and use information in the NSS
- Obligations and practices with confidential data and access to microdata
- Quality management frameworks
- Systems for collaboration with data providers, including respondents or administrative data providers, users of statistics and key stakeholders including other NSOs.
- Statistical work programmes
- Statistical communication and release strategies, including researchers' access to data
- Independent regulation and assurance of the integrity of official statistics
- Other matters relevant to releasing the full value of official statistics

27. The chapter is based on an analysis of the current frameworks of statistical production and summarizes information on strengths and shortcomings relating to legal frameworks³ using a number of sources:

- Main strengths and shortcomings of national legal frameworks identified by Task Force members in their countries
- Results of peer reviews carried out in the European Statistical System covering 33 legal frameworks of statistical production
- Recommendations of Global Assessments of statistical systems carried out in the countries of Eastern Europe, Caucasus and Central Asia
- Presentations of South-East and Eastern European countries made in recent workshops on statistical legislation, for example in Ohrid, the former Yugoslav Republic of Macedonia in 2016 and in Chisinau, Republic of Moldova in 2017
- A small survey of Brazil, Chile, Colombia, Israel, Japan, Mexico, Philippines, Russian Federation, South Africa and Turkey (with a response rate of 50 per cent) to enlarge the coverage of countries

28. The analysis shows some common strengths and shortcomings in the countries, but both the strong points and the areas for improvement vary notably depending on the conditions in each country. An important strength in one country can be a shortcoming in another.

29. Furthermore, a country may have some practical strengths even if the legal framework does not provide a strong supporting factor. For instance, professional independence of the NSO is a strength in many countries, while some of its features may not be well-regulated. Some countries, for instance, miss clear regulation on the procedures for appointment and reasons for dismissal of the Chief Statistician⁴ that may have a major influence on the independence of the NSO. The professional independence of other producers of official statistics is an aspect that is not even regulated in many countries.

30. The following list of strengths and shortcomings does not reflect an order of importance. The strengths and the shortcomings simply serve as a basis for developing guidance on the essential elements of statistical

³ The legal framework can possibly comprise – depending on the specific country – the statistical law as well as other influencing factors in the jurisdiction of the country, including conventions and/or societal norms.

⁴ The term “Chief Statistician” is used throughout the document to refer to the head of the national statistical office whether or not it is their official title.

legislation. The analysis aims to ensure that the main strengths of statistical frameworks are safeguarded in this guidance and that the main shortcomings are addressed in the guidance and, thus, in future statistical laws.

31. The shaded paragraphs at the end of each section present the conclusions on how to reinforce each strength or address the shortcoming in the legal framework.

B. Strengths of legal and institutional frameworks

32. The analysis resulted in the following list of main strengths of current frameworks of statistical production:

- Strict confidentiality of individual data
- Well-defined rights and responsibilities of the producers of official statistics
- Professional independence of statistical offices
- High professional ethics relying on the Fundamental Principles of Official Statistics
- Strong user representation mechanisms
- Clear mandate for data collection
- Mandate for the NSO to coordinate the statistical system
- Statistical programme as a tool for coordination and consultation
- Strong international statistical community

33. This section focuses on those issues that were more often identified as strengths by countries than as shortcomings. Small changes in the reviewed group of countries could change the assessment. For instance, professional independence was the main strength in many reviewed countries, while at the same time it was among the weakest points in some other countries. Similarly, the mandate of the NSO to coordinate the NSS was slightly more often considered a strength than a shortcoming. Quite a number of times, the NSS is not yet well defined, while more and more countries have recently improved the coordination of work among all producers of official statistics. Therefore, the texts below consider what it means to have the strength and what it means to the functioning of the NSS not to have that.

1. Strict confidentiality of individual data

34. Confidentiality is a crucial pillar of any NSS. The objective of an article on confidentiality in a statistical legislation is to establish a trust relationship between the NSO and the citizens/respondents. It is about the legal and technical protection of individual information as well as about how the information will be used and potentially shared.

35. With regard to the legal and technical protection of the information, it is important to contextualize the fact that citizens are increasingly aware of and keen on information security and privacy. A confidentiality article in the statistical law presenting a legal requirement for the NSO has the potential to increase trust from respondents, and hence, response rates and accuracy of statistics. However, it is crucial that the guarantee of confidentiality be paramount to other state legislation that could request individual data from an NSO for other purposes (e.g. court cases, police investigation). It would be detrimental to the image and reputation of an NSO if data were provided to state bodies for other than statistical purposes. The lack of statistical confidentiality guaranteed by law would subject an NSO to political or bureaucratic pressures to release individual data and could considerably impact its reputation.

36. Similarly to privacy legislation, the principles of limited use, limited collection and retention are important facets of information management directly linked to the expectations towards confidentiality. Statistical confidentiality should be directly attributed to any data collected directly from respondents or from administrative sources throughout its lifecycle, and penalties be assigned for cases when the confidentiality guarantee is breached by a producer of official statistics, its employees, or other organizations and persons who

receive data under agreements of confidentiality. Without penalties, the guarantee of confidentiality is fettered and deemed inconsequential.

2. Well-defined rights and responsibilities of the producers of official statistics

37. A clear definition of the role and tasks of the NSO – related to the collection, use, dissemination, communication and disclosure for statistical purposes – strengthens its position in the NSS and society. It also promotes a well-functioning structural organization of NSS and relations to directing bodies with their respective competences and tasks, and processes for budgeting, resources management, etc. Well-defined tasks support the professional independence of the NSO. A clear definition of tasks is especially important in the coordination of the activities of the NSS, and in relation to data providers and stakeholders.

38. It would be important to list the key tasks of the NSO in the statistical law. Key tasks include the responsibility to enhance the quality of NSS statistics in line with statistical principles and recommendations, to examine the procedures applied in statistical production by other producers of official statistics and sometimes also to approve new statistical surveys, if appropriate in the relevant jurisdiction. The law should also define the requirements for the other producers of official statistics, but not list them by name or by exact statistical areas to allow for flexibility. All producers of official statistics should be responsible for the continuous improvement for the quality of statistics. The law should include the right of the producers of official statistics to be informed by public institutions of any new collection of administrative data or of any changes to administrative data collection and to be involved in designing these data sources. In addition, the relation to directing bodies of the NSO should be clearly regulated as appropriate in the national context.

3. Professional independence of statistical offices

39. Since NSOs are financed mainly by the state budget, legislation is required to protect their professional independence. Statistical legislation should endow the statistical agencies with a sufficient degree of autonomy in order to ensure the high quality of statistics and the credibility of the NSS and of the official statistics produced. The credibility builds on the trust of users in official statistics as an objective source of information that does not serve any interest. Public trust in statistics relies heavily on the strict adherence by statistical offices to scientific, confidentiality and impartiality principles and the use of internationally agreed methodologies. Statistics are a strong tool when scientific principles and recognized methodologies are followed but may be misleading when they are not followed.

40. Professional independence is a cornerstone principle meaning that producers of official statistics shall decide, independently and free from any pressures or interference from political or other external sources, based on sound statistical methodology only, on the development, production, dissemination and communication of statistics. This includes the selection of data sources, concepts, definitions, methods and classifications to be used, and the timing and content of all forms of dissemination and communication. Producers of official statistics, in their respective areas of competence, may comment publicly on statistical issues and misuse of official statistics. Any failure to uphold professional independence can compromise public trust and the ability of official statistics to provide legitimate basis to support public and private decision making.

41. Professional independence requires the following treatment in statistical legislation:

- Strong legal position of the NSO and other producers of official statistics.
- Appropriate administrative arrangements (transparent selection, appointment and dismissal procedures of the Chief Statistician that should be based on professional criteria only).
- The Chief Statistician should have the authority to take professional decisions (without any kind of interference), especially regarding the scope, content and frequency of data compiled, personnel management, management of the operations of the NSO, release of statistical information and press releases and direct communication with policy makers and authorities. The Chief Statistician should also be at the most senior official level in a country, they should be considered a peer by the Heads of other government departments and should be included in any regular meetings of such officials in order to promote and enforce decisions.
- Clear provisions in the legislation to ensure scientific standards and use of internationally agreed standards and methodologies.

4. High professional ethics relying on the Fundamental Principles of Official Statistics

42. Professional ethics are a core building block of statistical production. In external reviews, the staff of NSOs have demonstrated strong ethics that are applied rigorously in practice in the production of statistics and analyses. Many statistical offices have produced ethical guidelines for their staff. Statisticians have specific obligations towards individuals, businesses, communities, and respondents that are the subject of statistical information, and also towards users of statistics and society in general. Consideration needs to be given to different uses of statistics, questions of privacy and data protection, and the response burden caused by data collection for statistics.

43. Statistical legislation should define the key principles of official statistics based on the Fundamental Principles of Official Statistics, the European Statistics Code of Practice or national code of practice and the OECD Recommendations on Good Statistical Practice, as well as on key statistical standards agreed internationally. The countries can further elaborate these principles by developing a National Code of Good Statistical Practice among other instruments. Ethics cut across the statistical legislation, ranging from equal access to issues such as professional independence, efficient use of existing data, data protection, cost-effectiveness of statistical production, use of scientific methods, reducing burden on respondents as well as accuracy and relevance of statistics.

5. Strong user representation mechanisms

44. Most statistical offices have well established mechanisms for user representation, for instance a Statistical Advisory Council to advise the office in the programming of statistical work. In addition, other consultations may be carried out related to the planning of statistical work or to gather feedback on user satisfaction. In principle, the Statistical Advisory Council has a dual advisory role both towards the NSS and the government and other users. A strong Statistical Advisory Council ensures that the views of users are taken into account when setting priorities in the statistical programme. The supervision provided by the Statistical Advisory Council is important to reduce dependence from political bodies, e.g. the parliament or ministers to which the NSO reports.

45. Statistical legislation should require having a Statistical Advisory Council composed of users of statistics with advisory competences, as appropriate in the national jurisdiction. Such a body would act as a custodian of the principles of official statistics, ensure the relevance of official statistics and promote transparency and accountability of the NSS. The law may also recognize the possibility to set up other advisory bodies with members from within and outside of the NSS in support of strategic and methodological activities in official statistics.

46. The tasks of the Statistical Advisory Council should be roughly defined in the law, so that the members of the Statistical Advisory Council are aware of their important task to represent users of statistics broadly. For instance, the Statistical Advisory Council should provide its opinion on the programmes and their implementation that represent users' views. This opinion should be taken into account when the final decision is taken by the responsible body to approve the statistical programme.

6. Clear mandate for data collection

47. According to peer reviews, many NSOs already have a clear mandate to collect data from respondents and declare some surveys obligatory for respondents. This is an important condition for the provision of comprehensive, accurate and high-quality statistics. In addition, to function efficiently, the producers of official statistics should have the authority to access administrative data sources existing in the country, free of charge, and to exchange data and metadata within the National Statistical System for statistical purposes. This is not yet the case in all countries. Furthermore, the increasing data needs in society, not least due to the reporting on the 2030 Agenda, call for an extended mandate to collect data, including from private data holders. A strong mandate for data collection needs to be balanced with a responsibility to inform respondents, monitor response burden and take action to reduce it.

48. Inclusion of the mandate of the producers of official statistics to collect information from any organization, public or private, as far as appropriate within the policy settings of the public sector of the relevant jurisdiction, and individuals for statistical purposes would facilitate effective production of high-quality statistics in a timely manner. The law should be explicit as to the purpose of the data collection by NSS, only for statistical and research purposes. The law should assure respondents that data collected for statistical purposes are not used for any administrative purposes or any decisions regarding natural and legal persons. The access to existing data, held by public or private entities, should be enabled free of charge and on the level of detail necessary for statistical purposes and with the accompanying quality information. Croatia and Latvia have provided examples of regulation allowing access to data held by private entities on other respondents, and Slovenia on the mandate to access all data sources for statistics (see case studies 8 to 10, annex II).

7. Mandate for the national statistical offices to coordinate the statistical system

49. The coordination mandate refers to the task assigned to the NSO to coordinate the statistical activities of the NSS with the aim of meeting the relevant quality standards. The coordination mandate is a key task in support of compliance with the main principles of official statistics. Lithuania describes its procedures for the coordination of statistical activities in a case example (see case study 5, annex II). Effective coordination is key to the cost-efficient and consistent functioning of an NSS that demonstrates high professional standards. The NSO should be in charge of coordination of the activities of the producers of official statistics to ensure system-wide coherence and compliance with legislation, main principles of official statistics and other internationally agreed standards and recommendations.

50. Strong coordination mandate enables statistical authorities to:

- Plan and implement statistical activities in a participatory manner – via coherent statistical work programmes which prioritise statistical activities to generate the information required for policies, decision making and the measurement of economic, social and environment phenomena
- Promote and advise in the application of national and international statistical standards
- Develop, promote, guarantee and maintain the quality of official statistics
- Avoid duplication of work
- Minimize burden on respondents
- Ensure a maximum integration between different statistical activities and their outputs
- Improve comparability of statistics
- Promote the use of appropriate methods in the collection and production of statistics
- Identify gaps in national statistics
- Enhance trust in the statistical system
- Promote statistical development activities

51. Legislation should provide for a clear coordination mandate for the NSO, as far as appropriate within the policy settings of the public sector of the relevant jurisdiction, by defining the tasks and authority of the NSO and the Chief Statistician in the coordination of statistical activities of the NSS. This role of the NSO could be further facilitated by establishing a Coordination Committee of statistical production in the law. This committee would be composed of Heads of producers of official statistics to provide a platform for joint work.

8. Statistical programme as a tool for coordination and consultation

52. Statistical programmes are the main instruments for coordination in the NSS in most countries (see case study 5 by Lithuania, annex II). The purpose of statistical programmes is to plan activities of the NSS and efficiently coordinate work between the producers of official statistics. In some countries, the statistical programme provides the mandate for receiving the budget, carrying out statistical surveys, accessing specified data sets and compiling certain statistics. In this case, the programme legitimates data collection from respondents and formalizes administrative data provision. Statistical programmes can also be a tool for designating producers of official statistics by involving them in the preparation and listing them in the work programme. In some countries, statistical programmes do not have a legal status even though they are important planning and coordination tools. In a number of countries, the statistical programmes do not cover other statistical activities than those performed by the NSO as yet. This is a lost opportunity in terms of good coordination and effective statistical work.

53. The law could include two types of statistical programmes: a multi-year programme for strategic development and an annual programme with more specific activities for the year, depending on the national context. The Chief Statistician should have the full authority to decide on the content of the draft multi-year and annual statistical programmes and the implementation reports. This is because statistical programmes deal with many issues that have to do with the professional independence of the office and could include for instance references to selected data sources and timeframe of statistical production. However, the process should be done in consultation with other producers of official statistics, users of statistics, respondents and administrative data providers, and the law could require presenting the programmes to the Statistical Advisory Council for opinion. The approval process and authority to approve the statistical programme depends on each country. Some countries may have separate legal documents providing the legal basis of producing statistics. It would be important to note, however, that when approving statistical programmes, the authority cannot interfere with issues of professional independence.

9. Strong international statistical community

54. One of the most important strengths of the current statistical systems is the strong international collaboration and joint work in an international statistical community. This work contributes to the development of international standards, increased comparability, harmonization and quality of statistics, stronger statistical capacity and higher professional independence. Based on assessments, peer reviews, audits and recommendations from international statistical organizations, internationally agreed standards contribute to achieving a high level of professional independence and strong public confidence and help attract the technical assistance needed in a country.

55. Statistical legislation should advocate for adherence to internationally agreed statistical standards and recommendations, including active participation in international development work and in meetings on current and emerging topics in statistics. The Chief Statistician should have the right to represent the NSS internationally, as far as appropriate within the policy settings of the public sector of the relevant jurisdiction, and this right should be stated in the statistical law. The NSO could be nominated as the coordinator of international statistical activities in the country.

C. Shortcomings of legal and institutional frameworks

56. The analysis resulted in the following list of main shortcomings of current frameworks of statistical production:

- Limited right to access to administrative and private data sources for statistics
- Unclear regulation on the appointment and dismissal of top management
- Position of the NSO in the government
- Lack of decision making authority on the allocation of resources
- Official statistics not clearly defined or identifiable
- Inconsistent dissemination and communication practices across the NSS
- Services for researchers' access to microdata not well-developed
- Unclear borders of the NSS
- Need for stronger quality management throughout the NSS
- Need to invest more in information technology security, resources and skills
- Lack of consideration to statistics in other legislation

Again, some shortcomings listed above are strengths in other countries, for instance access to and use of administrative data are very well developed in the Nordic countries. Some countries have developed exemplary services to researchers, and many have very systematic quality management frameworks in place. Therefore, the following text considers how the possible shortcoming could hamper the functioning of the statistical system and how to prevent the negative consequences through an appropriate legal framework.

1. Limited right to access administrative and private data sources for statistics

57. To reduce the costs and burden on respondents, producers of official statistics should have access to data collected for other purposes, such as administrative data and data held by private data holders. The increasing demands for timely and comprehensive official statistics also increase the need to be able to use data held by private agencies.

58. As access to administrative data was mentioned in the first version of the Fundamental Principles of Official Statistics in 1991, most national statistical laws allow it. However, in many countries some data are still out of the reach of statistical producers. This is the case for tax data in a few countries. Some statistical offices have to pay for the data processing and some do not receive the data at the needed level of disaggregation, with the necessary identifiers and with the necessary metadata required for statistical production. In addition, administrative data may not be of sufficiently high quality, as the data are collected and processed for administrative rather than statistical purposes.

59. One of the key characteristics of official statistics is its clear distinction from administrative information. In order to maintain trust in official statistics and ensure that statistical information is of highest possible quality, producers of official statistics must ensure that individual data collected for statistical purposes is not used for administrative purposes, nor that it is published in a manner that allows identification of the respondent. Therefore, a clear differentiation from administrative information is necessary.

60. Having unlimited access to administrative data can also be a shortcoming, as budgetary authorities may not be willing to provide additional funds necessary to perform other data collection, particularly if such collection is to be used exclusively for statistical purposes.

61. The law on statistics should include provisions that oblige all national and local authorities and private bodies to provide data in their possession to the producers of official statistics, if needed for statistical purposes and as far as appropriate within the policy settings of the public sector of the relevant jurisdiction. Data should be provided free

of charge, at the level of detail necessary for the production of official statistics (including identifiers) and with the metadata that enable the assessment of data quality. The law on statistics should also include provisions that oblige the holders of administrative data to consult the NSO and, where appropriate, other producers of official statistics if they plan to develop a new data collection or carry out a major revision in their data collection or processing in a way that may affect data provided for official statistics. The Chief Statisticians should be encouraged to actively promote the further improvement of administrative and private data sources, for instance by using statistical classifications, particularly in data sets that can be used for statistical purposes.

2. Unclear regulation on the appointment and dismissal of top management

62. A key task of the Chief Statistician is to guarantee and promote the professional independence of the NSS. The procedures for appointment and reasons for dismissal of the top management, and the Chief Statistician in particular, have important implications on the independence of the NSO and the NSS. Currently, the procedures of appointment and dismissal of the Chief Statistician are among the most common weaknesses of existing statistical legislation in countries.

63. The strong position of the Chief Statistician will enable compilation of statistics on an impartial basis and increases trust in official statistics. The Chief Statistician's appointment should be non-political and based on professional competence only. Deciding on issues of professional independence, such as data sources and statistical methods, requires specific professional experience and knowledge. The Chief Statistician's position should be filled following a published vacancy announcement with professional requirements and an open competition among applicants. Ideally, the position of Chief Statistician would not be part of mobility schemes in the public administration. In addition, the term of office of the Chief Statistician must be respected independently of changes in the government.

64. It is crucial to ensure timely recruitment and appointment of the Chief Statistician to enable a strong and independent position of the NSO at all times, especially during critical years of planning and carrying out the population and housing census or at the time of planning legislative changes.

65. There should be transparent rules for the appointment and dismissal of the Chief Statistician in the statistical law. This should include a publicly announced vacancy and an open competition based on the relevant professional competence only. In addition, the term of office cannot be terminated before its expiry for any reasons compromising professional independence. The common elements of statistical legislation list possible reasons for terminating the term of office of the Chief Statistician which could be followed in the national statistical legislation, as appropriate.

3. Position of the national statistical office in the government

66. The position of the NSO in the administrative system is mainly ensured by the position of the Chief Statistician, in case when he/she is appointed based on professional competence. Depending on the constitutional situation of the country, one alternative for ensuring strong professional independence and high position in the government could be to have an autonomous status of the NSO with the Council of Producers as the highest decision-making body. This and some other governance models are discussed in chapter 6 and chapter 7. While having an NSO that is autonomous from the government is not possible in every country, it is crucial to consider the best possible place for the NSO that ensures its professional independence and the provision of impartial statistical information.

67. Whether or not the NSO has an autonomous standing, it would be useful to have a Coordination Committee of Producers included in the statistical law to ensure the coordination of work in the NSS. The body could prepare the annual statistical work programme, the multi-annual programme, report on the implementation of the programmes, monitor and advance statistical activities, carry out quality assurance and promote the use of common standards across the NSS, channel training and discuss development needs.

4. Lack of decision making authority on the allocation of resources

68. Statistical offices are public institutions financed by state budgets. Their limited mandate in resource management may cause delays in statistical production. In some countries, even the recruitment of staff may not be fully in the hands of the Head of the NSO. The NSO budget needs to cover the overall production of statistics and staff costs, but also the necessary funds for investing in infrastructure, new technologies and new statistical methodologies, etc.

69. Typically, financial and human resources are managed in accordance with other legislation that regulates resources for all public institutions. According to professional independence, the producers of official statistics shall decide independently and free from any pressures or interference for instance on the development, production, dissemination and communication of statistics, i.e. their products. However, this development work could in practice be limited by not providing the necessary resources for the work, for instance in a case when the development of new statistics is not supported due to political reasons. In such a case the NSO should refer to its professional independence and try to justify the need for resources. At least, the Head of the NSO should be able to decide on the priorities based on user consultations when it allocates resources internally.

70. As there is demand for tailored information services, the producers of official statistics could be granted a possibility to retain income from tailored statistical services in the statistical law, as appropriate in the national context. The funds retained for the development of statistics might also improve the quality of work environment and satisfaction of staff.

71. The statistical laws should give the NSO the authority to manage its resources, especially staff resources, structure of the organization and use of the funds accumulated from tailored services for statistical development.

5. Official statistics not clearly defined or identifiable

72. In general, official statistics are statistical outputs produced by NSOs or other designated governmental bodies. However, it is also possible that not all statistics produced by the NSO are official, for instance experimental statistics. It may be possible in some countries that certain official statistics can be produced by non-governmental organizations under specific regulations. Usually, official statistics describe the economy, demography, environment, social and cultural situations in a particular country, and are produced within the scope of the statistical programme which guides the work of the NSS. Surprisingly many countries do not have clear criteria for official statistics or a clear indication of whether the statistics published are official statistics or not.

73. In principle, the term “official statistics” bears a quality label in so far as official statistics are developed, produced and disseminated in accordance with internationally agreed statistical standards and recommendations, the Fundamental Principles of Official Statistics and the European Statistics Code of Practice.

74. It is challenging to define criteria for identifying which statistics are official statistics. As it is again country specific, in some countries there has to be a legal base, other than the statistical programme, for the production of official statistics. Instead of listing all official statistics in the law, the legal framework should rather define the criteria for identifying official statistics and for identifying producers of official statistics as well as the procedure for deciding on the status of statistics and producers.

6. Inconsistent dissemination and communication practices across the National Statistical System

75. Currently, countries typically do not have a dissemination and communication policy for the entire NSS. Having a system wide dissemination and communication policy would be an important tool for developing a more consistent and coordinated practice in releasing official statistics. A common dissemination and communication policy would enable the agreement on similar practices, including with the predetermined release schedules for official statistics. Advance release calendars are important for the prevention of any manipulation of release dates for political purposes. The dissemination and communication policy would include agreed principles and guidelines for disseminating and communicating statistics and procedures for handling errors and revisions. This could also promote the development of a common platform of official statistics that includes statistics produced

by all producers of official statistics. This could harmonize the released statistical tables, graphs and analysis, and terminology applied across statistics. All this would help to avoid confusion and misinterpretation and might facilitate the comparison of statistics across domains.

76. Considering the current shortcomings, and the important benefits of having a dissemination and communication policy, the statistical law could include a requirement to establish a coordinated dissemination and communication policy with transparent procedures to be applied across the NSS, in line with United Nations Fundamental Principles of Official Statistics, the European Statistics Code of Practice or the national code of practice and the OECD Recommendations on Good Statistical Practice. A requirement to maintain a unified statistical terminology to be applied across official statistics could be included in the statistical law as part of the dissemination and communication policy.

7. Services for researchers' access to microdata not well-developed

77. Access to microdata for researchers is important for providing opportunities to develop new insights into changes in society and to enhance the understanding of economic, social and environmental developments. Due to confidentiality, such access to microdata for research is strictly regulated. Closer cooperation with researchers may also help to identify improvement needs in statistical data and to develop new statistics and statistical services in joint projects with researchers.

78. The NSO should have the authority to permit access to microdata for researchers under certain conditions and terms. These conditions should be included in the statistical law, and comprise the following principles:

- Use limitation – research access should only be granted for statistical and research purposes, and not for any administrative, adjudicatory, or other programmatic use, as well prohibit onward-sharing of data.
- Project purpose and specification – researchers should provide detailed explanations of the purpose, goals, and methodologies for specific projects for which access is granted.
- Data minimization – the NSO must limit access to the data that is directly relevant and necessary to accomplish the purpose and goals of the specific research project.
- Confidentiality, privacy and security – the NSO has to ensure that confidential and private data are protected, and that adequate and required security safeguards are in place to minimize the risk of loss, unauthorized access, destruction, modification, or unintended or inappropriate disclosure.
- Avoidance of conflict of interest by the researcher – the NSO has to ensure that the researcher has no obligation by his/her employer to divulge anomalies identified during the research.
- Accountability – the NSO should provide mechanisms for demonstrating that appropriate consideration, approval and safeguards are in place on a project-specific basis.

79. Additional considerations may need to be addressed based on other legal requirements or policies, depending on the country.

8. Unclear borders of the National Statistical System

80. The NSS is a legal and institutional framework within which different stakeholders execute their rights and obligations. The purpose of the statistical law is to provide clear criteria as to who could belong to the NSS. Having clear borders of the NSS is a precondition for good governance of statistical production and for the functioning of the common elements of statistical legislation proposed in this guidance. Lithuania describes its procedures and criteria for the identification of other producers of official statistics in a case example (see case study 5, annex II). The NSSs are country specific and their governance differs a great deal, as discussed in chapter 7. Nevertheless, typically an NSS consists of an NSO and other institutions that produce official statistics. The different advisory, consultative or governing authorities with a particular role to facilitate statistical production are usually not part of the NSS.

81. The statistical law should include provisions on who in principle can be part of the NSS, what criteria are required for becoming a producer of official statistics and who decides on the inclusion of institutions in the NSS. Finland and the United Kingdom provided case examples of their practices with the criteria and procedures

for identifying official statistics and their producers (see case studies 4 and 5, annex II). A listing of members of the NSS should be avoided in the law, as this only increases inflexibility and the need to revise the legislation frequently. Such a list should be maintained elsewhere, for instance as part of the statistical programme. Clarity is needed to ensure that the producers of official statistics do consider themselves part of the NSS and fulfil the rights and responsibilities stipulated in the legal framework. Forming the NSS of professionally independent entities only that have the production of statistics as their main task, provides the basis for a consistent and well-functioning NSS in which the exchange of individual data among producers of official statistics could be possible.

9. Need for stronger quality management throughout the National Statistical System

82. The need to improve quality management is often mentioned in reviews of statistical systems, such as Global Assessments or the European Union (EU) peer reviews. While quality is often considered an issue not to be regulated in the statistical law beyond the quality principles, it clearly needs attention in the development of official statistics. It is very common that key elements supporting the production of high-quality statistics are regulated in the statistical law, such as the main principles of official statistics including objectivity, accuracy, reliability, timeliness, coherence, relevance and other issues directly affecting the quality of statistics. A reference to quality framework and tools could be introduced into statistical legislation to ensure a more systematic quality management.

83. Statistical legislation should include the main principles of official statistics that affect the quality of statistics. The law could also require that producers of official statistics are committed to continuous improvement of quality, in addition to adherence to the main principles of official statistics. Quality of statistics is built in each phase of statistical production process through the institutional setting of the NSS. Similarly, the statistics compilation phase is an area that is least regulated but has a crucial influence on the quality of statistics. The legal framework could mention that producers of official statistics shall be entitled to edit and validate data, combine data from different sources and use statistical estimation techniques to fill gaps.

10. Need to invest more in information technology security, resources and skills

84. In many countries, the acquisition and adoption of state-of-the-art information technology (IT) is lagging behind in the NSS due to resource constraints. Statistical production and possibilities to find efficiencies rely heavily on the IT infrastructure. Similarly, statistical offices may lack flexibility in hiring and compensating staff, which also contributes to the inability of the NSS to compete for skilled labour with the private sector or other public sector organizations. Additionally, certain government-wide IT security procedures may impose standards or practices that are inconsistent with internationally agreed statistical standards and recommendations.

85. NSOs should be granted operational flexibility in the statistical law, similar with other national agencies, to recruit staff. Moreover, to the extent possible, NSOs should be allowed to establish salaries and other compensation schemes at least at the level with other national agencies, if not the private sector, when appropriate for certain positions (e.g. Chief Information Officer). Finally, with regard to government-wide requirements, NSOs should be granted a waiver in meeting government IT requirements that are inconsistent with statistical practices or not in line with the statistical law.

11. Lack of consideration to statistics in other legislation

86. Some NSOs are having problems with access to administrative data sources, in cases where the legislation dealing with organizations that collect administrative data does not allow them to transmit these data anywhere, not even for statistical purposes. In these cases, the issue cannot be solved even through signing of memoranda of understanding because the respective laws do not allow the parties to act against the current legislation. Similar discrepancies can be found between statistical and other legislation, as discussed in chapter 6.

87. The statistical law should prevail over any other legislation in matters pertaining to statistics and access to data for statistical purposes. The NSO should be informed in advance of new initiatives to develop legal acts or make amendments, so that the discrepancies could be prevented. This approach would also enforce the role of the NSO as the coordinator of the NSS. The statistical law should require that the NSO be consulted before the endorsement of any draft legal documents that may influence statistical work.

D. Conclusions on strengths and shortcomings of legal frameworks

88. The above analysis focused on strengths and areas for improvement that should be considered when revising and benchmarking statistical legislation. Statistical legislation needs to safeguard the key strengths of current statistical systems, but also address those current shortcomings that can be dealt with by legislation.

89. Each country has different strengths and shortcomings. Therefore, the analysis does not apply to each country as such. However, the identified strengths and weaknesses can provide a useful checklist for issues to be considered when reviewing the statistical law in any countries. The chapter did not attempt to value the different strengths and shortcomings, even though some elements are more pertinent than others when renewing statistical legislation.

90. While safeguarding traditional strengths of statistical systems, legislation must also enable modernization and improvement in areas that may currently be seen as weaknesses. For instance, in countries where the statistical law focuses on the NSO, modernization of the NSS would call for the development of a more comprehensive legislation covering the role, rights and responsibilities of the entire NSS.



3. REVIEW OF THE OPERATIONAL ENVIRONMENT OF STATISTICAL PRODUCTION

A. Introduction

91. The chapter reviews the operational environment⁵ of statistical offices and describes the key challenges, expectations and limitations that could have implications on the legal and institutional frameworks of official statistics. It analyses the landscape of information producers, which has been changing rapidly during the recent years. Data are everywhere, and statistical offices are asked to contribute with their expertise to new initiatives that need to be measured. There are challenging questions to tackle in the data-driven society, for instance: Who owns data? Who has the right to access data? Can data be reused? What are the future uses of data collected today? Who will look after confidentiality?

92. The review helps to identify the essential elements of up-to-date legislation that support the modernization of official statistics to release their full value. The analysis of challenges and opportunities identifies issues arising from the environment of statistical production that need to be taken into account when amending legislation. If the statistical legislation sufficiently considers the major challenges and opportunities, it is more likely to enable effective and efficient statistical work and enable more agile development of official statistics. It needs to be emphasized that some issues raised in this chapter, such as maintaining confidentiality, integrating new data sources and national and global data sharing, are linked and should not be considered in isolation.

93. The shaded paragraphs at the end of each section present the conclusions on how to address each challenge or take into account for each opportunity in the legal framework.

B. Challenges arising from the environment

94. The list of challenges has been identified based on the Task Force members' assessment of key challenges faced by their office that could have implications on statistical legislation. These have been summarized into the below table as major trends in the changing environment of statistical offices.

- Access to data, response burden and costs of data collection
- Privacy and confidentiality concerns
- Tightening budgets
- Competition from the information industry
- Increasing needs for coordination of statistical production
- New demanding data needs, e.g. on Sustainable Development Goals
- Public trust and prevention of misuse
- Information technology resources and security
- Staff resources

1. Access to data, response burden and costs of data collection

95. Governments put increasing pressure on public organizations to reduce red tape and administrative burden, including the burden caused by data collection. Statistical offices are increasingly relying on administrative data to reduce sample sizes where possible and reduce the burden and costs of data collection. However, data gathered from external sources are controlled by other than statistical authorities, which could adversely influence the activities of the NSS. Ideally information should be collected once by government agencies and shared with the NSS at no cost once the statistical need is demonstrated. If the NSO has no control over administrative data, it is subject to the constraints of the data provider and

⁵ In this context, the term "operational environment" stands for political, social, legislative, economic, cultural and natural environmental factors that may significantly affect statistical activity.

its decisions to continue or change the data collection. The interruption of the data flow or the loss of quality, without prior notice, is an increasing risk to NSOs, whose dependence on external data sources is growing. NSOs also need to develop new methods and approaches to ensure quality of statistics when using administrative data. Decisions made when designing data collection require balancing between the costs, quality of data and burden on respondents.

96. Ideally, government policy should commit to collecting information only once from citizens, businesses and institutions and then sharing (at no cost) the information with the NSS once a statistical need is demonstrated. Depending on the legislative framework of each jurisdiction, statistical legislation should contain a strong mandate for the producers of official statistics to acquire data for statistical purposes from any source without limitation on retention and use.

97. This strong mandate to access data should be balanced by the obligation of the producers of official statistics to monitor the burden on respondents and consult with them. An example of good practice in respondent consultations is provided in annex II (see case study 3 by Finland). This could be achieved through establishing a body to represent providers of different data: administrative bodies, commercial data providers, associations of businesses and individuals. Any new data collections or access to new data sources should be discussed with their representatives to ensure the use of the least burdensome measures to acquire data. The NSO should also be obliged to review the costs of data collection for the statistical system, respondents and other data providers.

2. Privacy and confidentiality concerns

98. Increasing privacy concerns are making headlines as data are everywhere, and big data sources encompass masses of personal information. NSOs need to be able to minimize the risks of misuse, such as mishandling of personal information, invasive use of data targeting individuals, discrimination based on information, malicious use of statistics for criminal purposes and big brother type of crossing of individual liberty. The reputation of NSOs is dependent on maintaining the public trust on strict data confidentiality. NSOs are expected to offer privacy by design and avoid any risks of data misuse.

99. Maintaining full trust in confidentiality requires increasing attention from NSOs, especially when using new data sources, enhancing data integration and increasing the reuse of data within the NSS and internationally. Individuals' and businesses' willingness to provide the NSO with information, and truthful information, is greatly influenced by their trust in confidentiality. Privacy is also framed by privacy principles adopted by a country. Demands are also put in place by the privacy commissioners and privacy acts. The producers of official statistics will also need to ensure they have the public acceptance and goodwill for how data are being used, particularly with data matching, linkage and integration projects.

100. Safeguarding confidentiality of data acquired for statistical production should be strictly ensured by statistical legislation regardless of data source. It is an explicit premise, anchored in law that assures individuals that the NSS will keep their information confidential and will not disclose it for any other than agreed statistical purposes. Statistical legislation should include provisions which prohibit the NSS staff from disclosing confidential data as well as the producers of official statistics from handing over confidential data to other organizations (except to other statistical institutions for statistical purposes). Statistical legislation should also contain a penalty regime for when misuse of confidential data occurs. Statistical legislation should contain obligations for the producers of official statistics to anonymize⁶ data before any public release.

101. Special attention needs to be put on the application of data privacy acts to statistical activities and on the relation of the statistical law and other legislation related to privacy. The NSS needs to have access to all data required for statistical production without any limitation from other than statistical legislation. Data acquired for statistics are not used at the individual level but as aggregates, as part of statistical releases.

⁶ Anonymization is a set of procedures and actions that are intended to prevent both the direct and indirect identification of individual units. The term should not be confused with pseudonymization, that is, removal of direct identifiers from the dataset.

3. Tightening budgets

102. Many governments across the world are facing long-term fiscal constraint and consequently many NSOs face spending constraint or the reduction of budgets. NSOs are being forced to look at how to improve the effectiveness and efficiency of their operations to reduce costs and are turning to innovative solutions, collaboration with other public authorities and partners with the academic and private sector.

103. Statistical legislation will need to cater for efficiencies in the NSS for instance by allowing producers of official statistics to share data and to encourage the use of administrative and other data sources for statistical purposes. Depending on the legislative and policy settings of each jurisdiction, statistical legislation can also enable producers of official statistics to collaborate widely and develop partnerships both in the public and private sectors and to leverage off others' capability whether that is with producers of official statistics of foreign countries or with the public, academic or private sectors.

4. Competition from the information industry

104. The information age has increased the volume of information now available and technology has made analysis of data far easier and quicker. The net result is that official statisticians are facing increased competition from niche private sector producers of data and statistics and private sector research companies. Commercial data producers often report data analysis more quickly and gain more attention in the media. However, there is a well-known trade-off between speed and quality. In addition, objectivity of statistics cannot be guaranteed without a data producer that has a legally defined professionally independent and impartial status. Producers of official statistics adhere to the Fundamental Principles of Official Statistics, the European Statistics Code of Practice, if applicable, and other internationally agreed statistical standards and recommendations. They must provide reliable, impartial, accurate statistics along with transparent information on the methodology applied.

105. Most of all, statistical legislation should safeguard the unique value of official statistics and ensure the application of the Fundamental Principles of Official Statistics. When data are everywhere, its quality should become the decisive factor when selecting an information source. Statistical legislation provides producers of official statistics with a strong professionally independent status, which is among their best advantages in the competition from the information industry.

5. Increasing needs for coordination of statistical production

106. The coordination of the production of official statistics is essential for securing consistency, coherence and comparability of statistical deliveries within and across countries. Coordination is becoming increasingly important with the increasing data needs and new demands for statistical authorities, such as related to the monitoring of the 2030 Agenda for Sustainable Development. Where the NSO is the main producer of official statistics, it is logically also the coordinator of the NSS and, for example, of the data flows for SDGs.

107. The previous EU peer review reports often point out the need for closer collaboration within the NSS and for better coordination of statistical methods and quality assurance. Having a guaranteed brand of official statistics is increasingly important for statistics of the NSS to stand out from masses of other data available in societies.

108. Federal systems and strongly decentralized statistical systems are more challenging to coordinate if there is no main producer of official statistics or if the number of producers is high. In some countries, a specific coordination body has been set up with the task of planning, developing, coordinating, monitoring and reporting on activities and deliveries of producers of official statistics. The Head of this coordination body may be selected among the Heads of the producers of official statistics and be assigned tasks related to the overall coordination of the NSS.

109. Statistical legislation should clearly designate the coordination of the NSS to the Chief Statistician of the NSO or another statistical authority. Official statistics produced by different producers of official statistics all need to meet the same quality requirements, professional ethics and principles. The Chief Statistician should promote the use of internationally agreed statistical standards, definitions and classifications in the NSS and have the possibility to establish a national code of practice and put in place measures to support statistical authorities

in applying the Code. The Chief Statistician should also be assigned the responsibility to represent the NSS internationally and coordinate international activities within the NSS.

110. The statistical law needs to define the key coordination mechanisms and tools, such as strategic work programme and annual work programmes covering the entire NSS. For the coordination to be effective, the NSS should be well defined with obligations and rights for those statistical entities that are part of the system. A Coordination Committee consisting of all producers of official statistics could be a useful tool for coordination, although this would be dependent on the legislative framework of each jurisdiction. Regardless of quality issues being sometimes considered as something that relates to a “soft law” or guidance, it should be regulated in the statistical law.

111. The coordination of producers of official statistics in a federal state or in a decentralized statistical system may need to be regulated at constitutional level. It is important, however, to mention that some federal states do not have a typical federal statistical system such as in Switzerland, where the constitution stipulate that this is a federal (central) prerogative (Federal Constitution, art. 65).

6. New demanding data needs including Sustainable Development Goals

112. There is a growing demand for high-quality and timely data in our societies and a growing complexity of demands. Users need more tailored information that is integrated in their work and life. Rather than for statistical tables, the public is looking for answers and new insights. At the same time, national and international policy initiatives develop their own monitoring frameworks and look to statisticians for data. NSOs are expected to provide products and services that meet different users’ needs at reasonable costs, are easily available and effectively communicated. As the quantity and scope of digital information grows, NSOs must be able to adapt their processes to respond sufficiently in areas of their competence. For example, NSOs are working towards the integration of administrative, commercial and other data and towards the enhancement of the capabilities to use these data and develop appropriate methods and standards. All this must be set against the challenge of reduced budgets and an increased need for efficiencies.

113. Depending on what is appropriate for each jurisdiction, statistical legislation should be flexible enough to enable producers of official statistics to adapt their processes and not be constrained by legislation with regard to innovation on what data sources they wish to use, which partners they wish to engage with, how to make more statistics available in open formats to support reuse or how to give researchers wider access to anonymized microdata.

114. This also means that statistical deliveries should not be listed or limited in the statistical law. Statistical domains are also changing. Less than ten years ago, statisticians did not consider the measurement of sustainable development as their competence. Now, NSOs have a key coordinating role in the development of statistics for SDGs, and in the organization of the related data flows nationally, involving other producers of official statistics and a number of other players. The same is true for human capital measurement.

7. Public trust and support, prevention of misuse of data

115. Trust is increasingly in short supply in our societies, as shown by surveys on attitudes towards large businesses and governments. Distrust could threaten the capacity of official statistics to inform society. Public support for statistical programmes and trust in official statistics is critical to the good functioning of decision making. The reputation of the NSOs may be negatively influenced by instances and perceived instances of misuse of data in society, be it related to official statistics or not. Misuse may occur, for instance, when a specific law governing the use of information is violated and when statistical information or products are cited for purposes which are scientifically unsound or inconsistent with the purposes for which the information was intended. Statistical offices have the right to comment on erroneous interpretation and misuse of statistics. This right, however, is not used so often. Transparency and effective communication with stakeholders contribute to building trust and support continued participation of providers of statistical information. It may be useful to establish a Data Confidentiality Board as an internal organ of a national statistical system. Such a board could advise the Chief Statistician on the cases of data sharing for statistical purposes and researcher’s access to statistical data.

116. Users' trust is also built through ensuring the production of statistics according to strictly professional considerations, scientific methods and ethics. Sometimes distrust may be caused by political interference in statistics. Such situations can be very damaging to official statistics and difficult to recover from, therefore, it is crucial that statistical legislation protects against them.

117. Statistical legislation should provide a strong foundation that builds trust in the NSS. Professional independence should be provided and defined by the statistical law. Use of acquired data for statistical purposes (and scientific research) only is paramount to ensuring respondents' trust. The procedures on secure data handling and the time of data archiving need to be clearly regulated, although the decision on how to regulate and what to regulate would be a decision for each jurisdiction as appropriate to their legislative framework. It may be important to state in the statistical law that data of the NSS shall not be used for any investigation, surveillance, legal proceedings, administrative decision making or other similar handling concerning an individual or a business.

118. The legislation should also provide penalties in a case of privacy breach and unauthorized use, such as for personal gain, and the law should provide means by which enforcement may be secured. Ideally, statistical legislation should also incorporate prohibitions on third parties using the information obtained in a breach. Statistical legislation should permit statistical offices to develop mechanisms for "correcting the record" when statistics are interpreted in a misleading or erroneous way. It would be up to individual jurisdictions to determine how to ensure trust is built into their statistical legislation.

8. Information technology resources and security

119. IT resources are key in statistical production, where the core business is to manage information flows, processing and storage. Producers of official statistics should find ways to benefit from new technologies, for instance to enable greater use of administrative data and to increase data integration. In an effort to keep up with the pace of development of new technologies, NSOs closely collaborate internationally to share the investment costs and develop standard solutions for data integration.

120. In addition, many governments are moving towards governmental enterprise architectures and centralized IT services. Typically, NSOs and other producers of statistics have no exemptions from this type of developments, but they should carefully consider them to avoid any compromises to professional independence and data security. Chapter 8 addresses the issues related to government data management further.

121. Having data confidentiality regulation in the statistical law is not enough to ensure IT security. NSOs and other statistical organizations are often targets of cyber-attacks against their web services and hacking attacks to their databases. The public needs to be confident that the NSSs have stringent policies and vigilant staff to ensure IT security.

122. Statistical legislation should encourage the use of electronic environment and provision of digital services to make it easy for respondents to submit data electronically and for users to acquire data in useful formats. Statistical legislation should enable the creation of data processing systems that ensure the necessary integration between the data sources and within the NSS, and that enable confidentialization and standardization of information flows. Specific technologies used should not be mentioned in the law to ensure flexibility.

123. Depending on the legislative framework of each jurisdiction, statistical legislation could enable subcontracting parts of statistical production or IT support. However, producers of official statistics need to be guaranteed their professional independence when using governmental or other external resources. Statistical legislation should ensure, for instance, that any external IT services shall not influence methodological choices or issues of independence, nor the timing of statistical releases.

124. The relation of statistical legislation and related government data policies and acts needs to be assessed. Some countries have established specific policies on public sector IT and government IT infrastructure services, for example a government services' digitalization act and a national enterprise architecture framework for the government.

125. Statistical legislation, or other legislation depending on the legislative framework of jurisdictions, should ensure a strong protection of data through a secure IT environment and procedures that ensure that individual data are stored safely. Responsibility issues and consequences in IT security breaches need to be regulated more clearly.

9. Staff resources

126. The operational environments of statistical offices vary in terms of how independent they are with the selection of staff and the employee policy. Human resources are the most important asset of statistical offices and it is essential that the Chief Statistician has the independence to decide on the structure, tasks and staff of the NSO. The Chief Statistician or their delegate should be able to appoint staff members based on their professional competence, tailored to the needs of the statistical office and following a transparent procedure. However, in some countries candidates must go through an official “civil servant” competition and future statisticians are selected from a roster of candidates who passed the standard exam.

127. In addition, the Chief Statistician should be in control of the organizational structure of NSO and the deployment and redeployment of current and future staff resources. In some countries, the Chief Statistician must follow bureaucratic processes of submitting a staffing proposal to the general administration which hampers the professional independence and efficiency of statistical work.

128. Statistical legislation needs to, as far as appropriate, provide the Chief Statistician with the authority to handle all staff resource issues in full independence within the given budget for the NSO and any regional offices. The structure of the NSO and its tasks should not be regulated in detail. Some NSOs are changing their structures according to emerging needs or using a matrix organization that is not easy to regulate in a fixed way.

129. The issue of adequate resources should be mentioned in the statistical legislation, for instance, in connection to strategic planning. The multi-year statistical programme that provides a vision and priorities for the development of the NSS shall establish the required deliveries and development actions weighing them against the necessary resources. If possible, although it would be dependent on the legislative and policy settings in each jurisdiction, the law should note that the producers of official statistics should be granted adequate human, financial and technical resources necessary for the implementation of the statistical programmes. The Statistical Advisory Council can provide its opinion on the adequacy of resources to implement the statistical programmes.

130. Training of official statisticians is typically left outside of statistical legislation to be dealt by good practice guidance. However, as a key element of quality management, the statistical legislation could include provisions on the responsibility of the Chief Statistician to develop staff and implement a coordinated training programme for official statisticians.

C. Opportunities arising from the environment

131. The list of opportunities has been prepared based on Task Force members’ assessment of key opportunities that could have implications on statistical legislation. The below table summarize the major trends identified.

- Increasing demand – interest in data analytics and evidence-based policymaking
- Integrating new data sources – big data, geospatial data and commercial data
- Global and national data sharing for statistical purposes
- New technologies
- Public-private partnerships for increasing capacities
- Closer collaboration with and involvement in scientific research
- Flexibility vs. stability of legislative environment
- Ability to retain income from statistical services

1. Increasing demand – interest in data analytics and evidence-based policymaking

132. Greater use of evidence to inform policy decisions and evaluate progress has become a common trend across governments. This creates opportunities for statistical organizations to contribute more directly to policy debates with statistics and to develop new statistics to provide the detailed evidence decision makers are seeking. Statistical organizations are integrating data sources to bring together administrative, commercial, survey and census data to build richer analytical possibilities. Similarly, the demand for evidence-based programme evaluation is creating opportunities for statistical organizations to provide government agencies and programmes with statistical services tailored to their needs. The reporting on progress towards the 2030 Agenda will require a large number of indicators to be produced with many new partners. In other words, the changing demand calls for some changes also in the way we produce statistics. Statisticians are also asked to get engaged in data provision for the monitoring of policy agendas, for instance the Paris Climate Agreement, the Sendai Framework for disaster risk reduction and human rights initiatives.

133. Statistical legislation should incorporate or reference where possible an explicit relationship from the statistical organization to evidence-building and evaluation. Responding to the changing demand calls for tailored statistical services that the statistical law should enable. In addition, the law should envisage other services such as the provision of statistical and data management expertise to other organizations. As the demand is increasing, the legal framework needs to allow engaging in partnerships in statistical production, and possibly subcontracting parts of the work as long as professional independence and confidentiality of data are ensured. When more partnerships are needed, the law should foresee the role of the NSO or its Head to promote the use of statistical standards and methodologies beyond the NSS. While increasing the amount of data available from the statistical system for various users, the statistical legislation needs to ensure the strict protection of data and the use for individual data for statistical purposes only.

2. Integrating new data sources – big data, geospatial data and commercial data

134. Technology has improved the availability of a diversity of non-traditional data sources. This offers new possibilities to access richer, timelier and more relevant data to illuminate policy debates. New data sources also have the potential to reduce the need for surveys and consequently reduce both respondent burden and the costs of direct collection. This, however, requires the development of new methodologies for extracting, integrating and editing these data as the quality issues and formats differ greatly from traditional statistical data sets.

135. The possible new data sources that could be used in statistical production include transactional data such as scanner or cash register data from commercial organizations; geospatially enabled data such as survey data linked to location codes; satellite imagery to measure agricultural crop yields; and Global Positioning System (GPS) data from mobile phones to measure population movements on a dynamic basis, etc. New data sources are also being created by integrating data from multiple sources to form integrated data sets, for example combining large administrative datasets with census survey data.

136. Statistical legislation should reflect the multitude of data sources – and promote access for statistical purposes to data held by both public and private entities (for example of regulation allowing access to private data sources, see case studies 7 and 8, annex II). Statistical legislation should be flexible to support the use of new data sources and new ways of collecting information electronically. References limited to certain data sources should not be made in the statistical law to allow for flexibility. The producers of official statistics will need to have the authority to access data from government agencies for statistical purposes and perhaps also, depending on the policy settings of the relevant jurisdiction, from non-government and the private sector.

137. Gaining continuous access to external data will become increasingly important as NSOs become more reliant on other than survey data. Therefore, the law needs to cater for regular collaboration of producers of official statistics with public and private data holders, where appropriate. The law should provide a procedure for consultation with statistical authorities in case changes are planned to data used for statistical purposes.

138. In addition, safeguards will need to be put in place around the use of statistical data so that public confidence is maintained. As data sets become richer and more comprehensive, and an increasing number of aggregations are published, safeguards would need to be in place for disseminating and reporting statistics in a manner that does not jeopardise individual or corporate interests, or public confidence.

3. Global and national data sharing for statistical purposes

139. National data sharing within the NSS would help reduce response burden, costs of data collection and increase coherence of statistics. Sharing of confidential data for statistical production within the NSS is not yet that wide spread. Some governments are discussing initiatives towards wider reuse of public sector data among all government agencies. For example, Finland is in the process of establishing centralized databases on income and employment, education, health and social security, and local government finances. An initial idea about establishing a national data institute has been proposed to share public data in the government.

140. Compiling national statistics in the globalized world is becoming increasingly challenging, and there is a strong policy demand for reducing international asymmetries in statistics. These developments have forced statisticians to look for solutions for national and international exchange of data for statistical purposes. International data exchange would be essential for improving the quality of statistics and developing efficient ways to produce statistics. The international network of NSOs and other statistical offices also provides a unique possibility for data sharing. This, however, requires careful consideration of how to maintain respondents' trust, ensure confidentiality when engaging in international data exchange for statistical purposes and how to overcome the related legal constraints.

141. Data integration and reuse within the NSS and within the international statistical system needs to be allowed to enable the provision of meaningful statistics. Statistical legislation should regulate clearly the conditions of when and how NSOs and other producers of official statistics can engage in international data exchange, for statistical purposes only. Especially in case of confidential data, the party that provides data should confirm that the receiving party has a sufficient legal framework in place to ensure confidentiality of data.

142. The scope of the international statistical community has not been clearly defined, other than in the case of the European Statistical System. It remains open what kind of a legal setting might be needed to enable international sharing of confidential data for statistical purposes among national and international statistical organizations.

143. Statistical legislation should enable the reuse of data within the NSS in a secure environment provided that the NSS is clearly defined and consists of professionally independent entities, not, for instance, of entire ministries or agencies.

4. New technologies

144. New digital technologies, such as the internet of things (the embedding of sensors and connectors in products) are opening up new possibilities to harness real-time data to either augment or replace current statistics. Statistical offices are at the centre of information industry and need to adapt to a rapidly changing digital and data world.

145. The cost of collecting, disseminating and communicating information continues to decrease thanks to the digitalization. This is creating a perception that all information needs should be met without the need for surveying. Not all information can be readily gathered from online systems for the production of official statistics. Yet, new technology provides statistical offices with important opportunities to use new approaches to statistical production and to develop new products and methods. In some countries, questions are raised about how effectively NSOs are using these new possibilities to provide benefits to society.

146. Statistical legislation needs to be designed and drafted to, as far as possible, cater for changes in technology. For example, terminology which refers to methods or formats relating to the collection, storage, protection, dissemination or communication of data will quickly become outdated as methods, formats and terminology changes. A principal or outcome-based legislation may be one way to attempt to develop legislation so that it does not reflect the current mechanisms used to handle or transfer information.

147. Safeguards regarding security and confidentiality will also need to be described in a flexible manner to allow for fit for purpose risk controls to be put in place to respond to new technology. If the flexibility is not ensured, the legislation could either hinder innovation or lead to a lack of appropriate security or confidentiality. For example, if methods of confidentiality are prescribed then there may be inadequate control over confidentiality if technology adapts to work around, or see through, the protections offered by previous methods.

5. Public-private partnerships for increasing capacities

148. Private and public organizations are increasingly developing their own data capabilities which is providing producers of official statistics with opportunities to collaborate in new ways and to leverage off others to increase capacities in the NSS. Statistical offices will need to be able to work with public and private partners to maximize the benefits of statistical data to citizens, while not crowding out the private sector and at the same time ensuring their organizations remain sustainable. Partnerships may offer rich possibilities for the provision of enhanced statistical services, for instance by linking statistics and geospatial data or supplying statistical data to private service providers for their consumer products. There will also be a need to maintain trust in the statistical office and government as a whole, as traditional division of labour between the producers of official statistics, the wider public sector or by the private sector is changing.

149. Statistical legislation needs to be designed and drafted to, as far as appropriate within the policy settings of the public sector of the relevant jurisdiction, cater for the possibility that tasks and functions may be performed by a variety of organizations and may be performed collaboratively. Legislation may need to define the ability of NSOs to strike bargains that relate to data and also set out clear boundaries as to what these may involve.

150. It is necessary to consider legislative safeguards or guidance relating to emerging confidentiality risks created through these new ways of working. For instance, while non-government employees are commonly not involved in the production of official statistics, depending on the policy settings of jurisdictions, there may be scope for their involvement in other tasks such as dissemination and communication of official statistics or providing technical solutions. In such cases, different forms of regulation may be needed to motivate their appropriate behaviour.

6. Closer collaboration with and involvement in scientific research

151. The scientific research community shares many professional similarities with the statistical community such as needing a wide range of source data and following rigorous methodology. There are opportunities for the NSS to develop strategic partnerships to build capacities, particularly around statistical methodology development. Some NSOs are using a research-driven approach to develop scientifically sound methodologies and increase innovation. Closer collaboration of producers of official statistics and the academia would allow participation in scientific projects and would more easily attract researchers to be engaged in statistical activities.

152. Where possible, the statistical law should reference scientific research in the area of statistical method development as one of the activities of the producers of official statistics or as part of quality management. The producer of official statistics should have the ability to count themselves in as a scientific organization in accordance with other legislation regulating scientific activities. This might allow statistical offices to cooperate more closely with the scientific community in areas which benefit statistical production.

153. Statistical legislation should authorize the disclosure of identifiable information in limited and specific circumstances for scientific research purposes only and provided that confidential data are not presented in the results of the research, either directly or indirectly. The producer of official statistics should make an agreement with the receiving research organization and ensure that they have the capability to protect the information, ensure confidentiality and limit the use of data only to the agreed purpose.

154. Depending on the legislative framework of the relevant jurisdiction, the statistical law could enable the development of flexible services for the use of statistics for scientific research in a safe environment. Access to the data under these circumstances should be either at no cost to the researcher, or at no other than direct extraction and service development costs.

7. Flexibility vs. stability of legislative environment

155. A successful NSS should be flexible enough to respond to changing conditions and circumstances without needing to change its legislation frequently. This can only be done by having a strong set of principles that sets the foundation for the development, production, dissemination and communication of official statistics. A flexible legal environment minimizes changes to legislation and the associated risk of political interference with the legislation when it is opened for revision. The Chief Statistician, for instance, should have the discretion to prepare the statistical work programme and statistical outputs together with all producers of official statistics, after the appropriate dialogue with users and based on the needs of the country. The Heads of producers of official statistics should be able to decide about the use of budget resources in the best possible way to deliver on the statistical programmes.

156. One characteristic of a flexible legislative framework is the ability to develop and maintain definitions, methodologies and standards for official statistics without the need to amend legislation when they change. It may even be better not to list the different producers of official statistics belonging to the NSS in the statistical law, but to regulate only the procedure for their identification and criteria for their work (see case studies 4 and 5, annex II). Some countries have a large number of producers of official statistics and potential producers that could be recognized as a producer of official statistics. Instead of changing the statistical law each time, the selection of producers of official statistics could be done outside of the law, for instance as part of statistical programming.

157. A flexible legal framework does not fix statistical outputs unless absolutely necessary. This will, of course, be dependent on the legislative framework of jurisdictions. For example, in Germany the legislative framework makes the government responsible for the statistical programme while maintaining undisputed the independence of the Chief Statistician. Depending on the legislative framework of each jurisdiction, it would be at the discretion of the Chief Statistician, after the appropriate dialogue with users, to determine what outputs should be included in the draft statistical programme (not in the statistical law), and what should be the timeframe of production. The Statistical Advisory Council or another body representing users of statistics should be consulted and should make their opinion publicly available.

158. A flexible system is one that has the right balance between what is regulated in the statistical law and what is regulated in softer legislation, other instructions such as a national code of practice or decisions by the Chief Statistician.

8. Ability to retain income from statistical services

159. Most statistical offices have a mandate to provide statistical services, and some can retain income gained from providing those services. As statistical offices have limited resources, they cannot make all possible combinations of data available for all possible uses within their budget. Producers of official statistics also need to consider confidentiality constraints and ensure that the statistical unit cannot be identified, either directly or indirectly, taking account of all relevant means that might reasonably be attempted by a third party to identify a unit. Often the rich statistical databases are underused because of these reasons.

160. Ability to retain income and use it to cover the costs of service production and development could enable NSO to make fuller use of statistical data. Such activities should not be profitable, but they should not be funded from the budget either.

161. Statistical or other legislation could include provisions, as far as is appropriate within the policy settings of the public sector of the relevant jurisdiction, to allow the provision of statistical services. The customer should bear the costs of such service provision and the producer of official statistics should be allowed to retain that income. It is most likely that other government legislation will regulate the pricing of government services. The possibility to retain funds from chargeable services would have to be balanced with ensuring the widest possible free access to statistics through legislation. To treat all users of statistics equally, the same statistical service should be available to anybody for the same price.

D. Conclusions on challenges and opportunities from the environment

162. A key theme throughout this chapter has been the need for statistical offices to adapt and change as the external environment changes and correspondingly to have legislation in place that is flexible and allows for change to occur. At the same time, the legislation should still strictly safeguard the main principles of official statistics, in particular professional independence, to enable the provision of high-quality official statistics.

163. A key driver of change is technology that is providing new data sources and different methods to collect and process data. This combined with a greater interest in evidence-based policy making and a tightening fiscal environment is requiring statistical offices to be more innovative.

164. There are opportunities for far greater use of administrative data and new data sources to shed light on complex policy problems and to reduce the costs and burden caused by direct data collection. Legislation must give statistical offices the ability to overcome challenges, acquire various data for statistical purposes and allow wide collaboration with public and private partners. However, no matter how far reaching the changes are in the future, there is an ever-present need for statistical legislation to uphold strict confidentiality restrictions to ensure public support and trust in official statistics.



4. COMMON ELEMENTS OF STATISTICAL LEGISLATION

A. *Generic law of official statistics as a basis of identifying common elements*

165. This chapter builds on the *Generic Law on Official Statistics* (GLOS) developed under the United Nations Development Account (UNDA) 9th tranche project for the countries of Eastern Europe, Caucasus and Central Asia. The Task Force reviewed GLOS to identify common elements that may be useful for all CES countries, and beyond.

166. The Task Force first reviewed GLOS considering the applicability of each article of the law to the Task Force member countries. Then the main elements built into GLOS were identified, including issues such as mandate to collect data or main principles of official statistics. Based on the review of applicability, the Task Force then grouped these elements of statistical legislation into:

- **Elements that were reused almost as they are.** The analysis resulted in the following list of common elements that do not require notable revisions for wide application across countries as a basis for reviewing statistical legislation.
- **Elements that were adjusted.** Some elements derived from GLOS are adjusted to be more widely applicable across countries when reviewing statistical legislation.
- **Elements that were extended or added.** Some common elements were extended, and new elements were added to take into account current strengths and shortcomings of statistical legislation and the challenges and opportunities arising from the operational environment of statistical production. A few elements were also removed.

167. The following structure introduced in GLOS is applied for organizing and presenting the common elements of statistical legislation:

- I. Objective and scope of the law
- II. Main principles and definitions of official statistics
- III. Organization of the national statistical system
- IV. Statistical advisory council and other advisory bodies
- V. Coordination of the national statistical system and statistical programmes
- VI. Data collection
- VII. Statistical confidentiality
- VIII. Quality of official statistics
- IX. Dissemination and communication
- X. Statistical services
- XI. International cooperation
- XII. Infringements
- XIII. Relationship to other legislation

B. *List and definitions of common elements of statistical legislation*

168. The following table shows the common elements of statistical legislation, mostly derived from GLOS. The first column indicates the name of the common element, the second describes its content and the last column shows how much the element was changed from GLOS, for instance whether the element was reused almost as it is, adjusted, extended to cover more issues or added as a new element that was not included in GLOS. A summary table, which highlights changes made to the common elements of statistical legislation as compared to the original texts in GLOS, is available online on a UNECE wikispace dedicated to modernising statistical legislation.⁷

⁷ See: UNECE Wikispace on Modernizing Statistical Legislation at <https://statswiki.unece.org/x/TAH2DQ>

Common element	Description of the common element	Type of element
I. Objective and scope of the law		
1.1 Objective of the law	A statistical law establishes the legal framework for the development, production and dissemination of official statistics. (GLOS 1.1)	Reused
1.2 Definition of official statistics	Official statistics: a) Are statistics describing the economic, demographic, social and environmental phenomena [of country name]. b) Shall be developed, produced, disseminated and communicated in compliance with the United Nations Fundamental Principles of Official Statistics [and the European Statistics Code of Practice, national code of practice] as well as internationally agreed statistical standards and recommendations. c) Shall be clearly indicated as official statistics. (GLOS 1.2)	Adjusted
1.3 Scope of the law	The provisions of a statistical law apply to data collected or obtained for statistical purposes by producers of official statistics. (GLOS 1.3)	Adjusted
1.4 Definition of the NSS	The national statistical system of [country name], consisting of producers of official statistics comprises: a) The national statistical office [replace with its official name everywhere in the law], which is the leading authority of the National Statistical System. b) Other producers of official statistics, consisting of organizational entities of national authorities as identified in accordance with the statistical law and that develop, produce, disseminate and communicate official statistics in accordance with the statistical law. (GLOS 2.1)	Reused
1.5 Parties to the law	The parties to the law include: a) National statistical office [replace with its official name everywhere in the law]. b) Other producers of official statistics. [No listing here by name] c) Respondents, consisting of persons, households, private and public entities that are requested to provide information about themselves, including their activities, to producers of official statistics. d) Administrative data providers, consisting of national and local authorities and other bodies that provide producers of official statistics with data collected primarily for administrative purposes. e) Users of official statistics, including the general public, the media, researchers and students, businesses, national and local authorities, non-governmental organizations, international organizations and authorities of other countries who receive or access official statistics. f) The Statistical Advisory Council, broadly representing different user categories, as described in the statistical law. (GLOS 2.1–2.5)	Reused
II. Main principles and definitions of official statistics		
2.1 Main principles of official statistics	Producers of official statistics shall develop, produce, disseminate and communicate official statistics of [country name] according to the following main principles of official statistics and other agreed statistical principles: a) Professional independence , meaning that producers of official statistics shall decide, independently and free from any pressures or interference from political or other external sources, on the development, production, dissemination and communication of statistics, including the selection of data sources, concepts, definitions, methods and classifications to be used, and the timing and content of all forms of dissemination and communication. Producers of official statistics, in their respective areas of competence, may comment publicly on statistical issues and any misuse of official statistics; b) Impartiality and objectivity , meaning that official statistics must be developed, produced, disseminated and communicated in a neutral, reliable and unbiased manner according to professional standards and free from any political statements or considerations. All users must be given equal and simultaneous access to official statistics;	Extended

Common element	Description of the common element	Type of element
2.1 Main principles of official statistics	<ul style="list-style-type: none"> c) Accuracy and reliability, meaning that official statistics must reflect as faithfully, accurately and consistently as possible the reality and be based on scientific criteria used for the selection of sources, methods and procedures; d) Coherence and comparability, meaning that statistics are consistent internationally and comparable over time and across regions and countries; e) Clarity and transparency, meaning that official statistics must be presented in a clear and understandable way, and the methods and procedures applied must be transparently communicated to users to facilitate proper interpretation; f) Statistical confidentiality and exclusive use for statistical purposes, meaning that individual data collected or obtained by producers of official statistics that refer to natural or legal persons are to be strictly confidential used exclusively for statistical purposes and accessed solely by those authorized to do so under the law; g) Relevance, meaning the degree to which official statistics meet current and emerging user needs and honour citizens' right to public information. h) Cost-effectiveness, meaning the best possible use of all available resources for achieving the outcomes. The outcomes of statistical work should be planned making full use of technological advances and weighing the outcomes against the necessary efforts by the National Statistical System and those providing input to the statistical work. (GLOS 3.1) 	Extended
2.2 Definitions of the law	<ul style="list-style-type: none"> a) Use for statistical purposes means the exclusive use of data for the development, production, dissemination and communication of official statistics, quality improvement, statistical analyses and statistical services, including all activities regulated by the statistical law; b) Statistical survey means the primary collection of individual data from respondents of a given population carried out by a producer of official statistics exclusively for statistical purposes through the systematic use of statistical methodology; c) Administrative data means data collected by, or on behalf of, national and local authorities and bodies other than producers of official statistics, for administrative purposes in conformity with other than statistical legislation; d) Statistical unit means the basic observation unit, namely a natural person, a household, an economic operator and other undertaking, referred to by the data; e) Individual data means the most detailed level of data about statistical units; f) Identifier means a sequence of characters allowing unique identification of a statistical unit from its name, exact geographical location or identification number. An identifier may allow direct identification, meaning the identification of an individual statistical unit from one or a combination of identifiers. Identification done by any other means is referred to as indirect identification; g) Dissemination means the activity of making official statistics, statistical analyses, statistical services and metadata accessible to users; h) Release means the dissemination activity by which official statistics, including revised statistics, become publicly known for the first time; i) Production means all the activities related to the necessary collection, processing, analysis and storage of data to compile official statistics; j) Development means the activities to set up, strengthen and improve statistical methods, concepts, standards and procedures used for the production, dissemination and communication of official statistics; k) Metadata means data and other documentation that describe statistical data and statistical processes in a standardised way by providing information on data sources, methods, definitions, classifications and data quality; l) Coordination of national statistical activities means the synchronization and integration of methods, classifications, definitions and internationally agreed concepts among producers of official statistics to ensure the successful implementation of the statistical programmes. (GLOS 4.1) 	Adjusted/ extended

Common element	Description of the common element	Type of element
III. Organization of the National Statistical System		
3.1 Position of the NSO within the government	National statistical office is a professionally independent body organized under the authority of [select according to the national context, e.g. Prime Minister/President of the country]. (GLOS 5.1)	Reused
3.2 Tasks and role of the NSO	National statistical office is the main producer of official statistics in [country name] and responsible for coordinating all activities for the development, production, dissemination and communication of official statistics within the National Statistical System and in consultation with partner organizations when relevant in the view of the Chief Statistician. National statistical office shall ensure the uniform and timely production of official statistics, guide and review the application of statistical methodology and standards, carry out research and take action to continually enhance the quality of official statistics in collaboration with other producers of official statistics. National statistical office shall advise the government and the public on issues related to data collection, statistical methodology, dissemination, communication and use of statistics. National statistical office cannot be assigned responsibilities that are in contradiction with the main principles of official statistics defined in the statistical law. (GLOS 5.2)	Extended
3.3 Coordination committee for official statistics	A Coordination Committee, consisting of representatives of all producers of official statistics in the country, and operating under the Chairmanship of the national statistical office, shall coordinate all activities within the National Statistical System. The activities of the Coordination Committee include discussion, review and coordination of: <ul style="list-style-type: none"> a) Statistical work programmes; b) Common dissemination and communication policy; c) Common quality assurance framework and common quality label; d) Common confidentiality rules; e) Common statistical methodology and standards to be applied. (new) 	Added
3.4 Appointment of the Chief Statistician	National statistical office is led by the Chief Statistician [replace with the official title everywhere in the law] appointed without delay by [Prime Minister/President of the country on the proposal of the government] for a fixed term of [X] years. [Any renewal of the term shall be done exclusively on the basis of a new publicly announced vacancy and an open competition.] The procedures for the recruitment and appointment of the Head of national statistical office and, where appropriate, Heads of other producers of official statistics, are transparent and based on professional criteria only. (GLOS 6.1)	Adjusted
3.5 Termination of office of the Chief Statistician before its expiry	The term of office of the Chief Statistician cannot be terminated before its expiry for any reasons compromising statistical principles. The term of office may be terminated only for the following reasons: <ul style="list-style-type: none"> a) Own resignation of the Chief Statistician; b) Termination of citizenship; c) A court decision declaring the Chief Statistician incapable or of limited capacity to work; d) A lawful sentence of the court for intentional crime, or imprisonment according to the lawful sentence of the court; e) Death of the Chief Statistician. (GLOS 6.2) 	Reused

Common element	Description of the common element	Type of element
3.6 Responsibilities of the Chief Statistician	<p>The professional independence of officials responsible for the tasks set out in this law are ensured. The Chief Statistician shall lead the strategic development of official statistics, partnerships and stakeholder relations to enhance the value of official statistics. The Chief Statistician shall represent the National Statistical System at the national and international levels and coordinate the international collaboration of the National Statistical System.</p> <p>The Chief Statistician shall be responsible for the general management and development of the national statistical office and its staff, including its central and regional offices (if applicable), in full conformity with national legislation and professional independence. The Chief Statistician shall independently decide on the structure, use of resources, tasks and appointment of the staff.</p> <p>The Chief Statistician shall decide on the content of the draft multi-year and annual statistical programmes including the statistical outputs and the implementation reports in consultation with users of statistics and other producers of official statistics.</p> <p>The Chief Statistician may issue standards and guidelines as [insert correct legal category] to be applied across the National Statistical System for the development, production, dissemination and communication of official statistics.</p> <p>The Chief Statistician may promote the use of the standards, classifications and terminology applied in official statistics and by respondents, administrative data providers and in society.</p> <p>The Chief Statistician shall facilitate the correct interpretation of statistics and is entitled to comment on the use and misuse of statistics. (GLOS 6.3–6.7)</p>	Adjusted
3.7 Mandate of other producers of official statistics	<p>Other producers of official statistics shall be professionally independent entities with exclusive or primary activities related to the development, production, dissemination and communication of official statistics. (GLOS 7.1)</p> <p>The Heads of other producers of official statistics shall be responsible for the development, production, dissemination and communication of official statistics, as assigned in the annual statistical programme. (GLOS 7.2)</p> <p>The Heads of other producers of official statistics shall be appointed on the basis of a publicly announced vacancy and an open competition based on the relevant professional competence. (GLOS 7.3)</p>	Adjusted
IV. Statistical advisory council and other advisory bodies		
4.1 Definition of the Statistical Advisory Council	<p>The Statistical Advisory Council shall advise the government and the Chief Statistician on issues of strategic importance to official statistics of [country name]. The mandate and composition of the Statistical Advisory Council, as well as its work, shall be public. (GLOS 8.1)</p>	Reused
4.2 Composition of the Statistical Advisory Council	<p>The Statistical Advisory Council shall be composed of at least [insert number] appointed members who broadly represent different user categories. Preferably the public sector representatives shall not form the majority of the Statistical Advisory Council. The Chief Statistician shall be a member of the Statistical Advisory Council, and national statistical office shall provide the secretariat. National statistical office shall be granted adequate resources necessary for covering the costs of the functioning of the Statistical Advisory Council. (GLOS 8.2)</p>	Reused
4.3 Appointment of the members of the Statistical Advisory Council	<p>The members of the Statistical Advisory Council shall be appointed by the [government / President of the country] upon a proposal on the bodies or groups to be represented. Their period of office shall be limited to [insert number] years. The Statistical Advisory Council shall elect from its members a Chairperson. The Chief Statistician shall provide the secretariat to the Statistical Advisory Council. (GLOS 8.3)</p>	Adjusted

Common element	Description of the common element	Type of element
4.4 Tasks of the Statistical Advisory Council	<p>The Statistical Advisory Council shall carry out the following tasks:</p> <ul style="list-style-type: none"> a) Make proposals for strategic development of official statistics and ensure that the statistical programmes reflect the priority information needs of society; b) Promote transparency and accountability of the National Statistical System and evaluate the implementation of the statistical programmes and follow up on the implementation of strategic development activities; c) Act as a custodian of the principles of official statistics and assess and advice on issues of compliance with them; d) Promote the use of official statistics as an evidence base for public policies, evaluation and decision making; e) Provide its opinion on the statistical programmes and their implementation and consider the implications of the budget allocation on the implementation of the statistical programmes; f) Adopt the rules of procedure of the Statistical Advisory Council to regulate its tasks, organization, working methods and decision making. <p>The Statistical Advisory Council may carry out independent external evaluations of specific domains, activities or organizational entities within the National Statistical System. (GLOS 8.4–8.5)</p>	Adjusted
4.5 Definition of other advisory bodies	<p>The Chief Statistician may set up other advisory bodies with members from within and outside of the National Statistical System in support of strategic and methodological activities in official statistics. The mandates and composition of these bodies, as well as their work, shall be public. (GLOS 9.1)</p>	Reused
V. Coordination of the National Statistical System and statistical programmes		
5.1 Coordination of national statistical activities	<p>All producers of official statistics shall use uniform, internationally agreed concepts, definitions, classifications and methods wherever possible. (GLOS 10.1)</p>	Reused
5.2 Programming of national statistical activities	<p>Statistical programmes, including a multi-year statistical programme and an annual statistical programme, shall be established as key instruments for effective strategic and operational management and coordination of activities in the National Statistical System.</p> <p>National statistical office shall be responsible for preparing the statistical programmes, in close consultation with users of statistics, respondents and administrative data providers. Other producers of official statistics shall be involved in the process and provide the national statistical office with the necessary inputs. (GLOS 11.1–11.2)</p>	Reused
5.3 Criteria for inclusion as producers of official statistics	<p>The Chief Statistician shall decide on the inclusion of producers in the National Statistical System as producers of official statistics, the inclusion of their deliverables and related activities in the draft statistical programmes based on a transparent, documented process using the following criteria:</p> <ul style="list-style-type: none"> a) The producer demonstrates its capability and willingness to comply with the provisions of the statistical law and the principles of official statistics; b) The deliveries and activities shall not duplicate those conducted by other producers nor result in an excessive burden on respondents. (GLOS 11.3) 	Reused
5.4 Reporting on statistical programmes	<p>National statistical office, in close coordination with other producers of official statistics, shall be in charge of reporting on the implementation of the statistical programmes including, if needed, measures for improvement.</p> <p>The reports shall be submitted for opinion to the Statistical Advisory Council or to another body representing users of statistics.</p> <p>The implementation reports and the opinion of the Statistical Advisory Council shall be made public. (GLOS 11.4)</p>	Adjusted

Common element	Description of the common element	Type of element
5.5 Objective and scope of the multi-year statistical programme	<p>A multi-year statistical programme shall be established for the National Statistical System to define the strategic development of official statistics of [country name], aiming at satisfying existing and emerging user needs.</p> <p>A multi-year statistical programme shall provide a vision and priorities for the development of the National Statistical System for the next [select: five or other number] years and establish the required deliveries and development actions, weighing them against the necessary resources. (GLOS 12.1–12.2)</p>	Reused
5.6 Objective and scope of the annual statistical programme	<p>An annual statistical programme of the National Statistical System shall be established each year as an operational translation of the multi-year statistical programme to update the list of producers of official statistics including:</p> <ul style="list-style-type: none"> a) Official statistics to be released; b) Statistical surveys to be carried out by producers of official statistics and an estimate of response burden; c) Transmissions of administrative data or data from other existing sources to producers of official statistics; d) Main development activities of official statistics considered to have priority, including major training programmes, to be implemented by producers of official statistics; e) Statistical registers to be maintained and developed. (GLOS 13.1–13.6) 	Adjusted
5.7 Adoption of statistical programmes	<p>National statistical office shall submit the multi-year and the annual statistical programmes to the Statistical Advisory Council or to another body representing users of statistics for opinion and subsequently for adoption to the appropriate body no later than [2-3] months before the start of the reference period of the programme.</p> <p>The body approving the statistical programmes shall not interfere with issues covered by professional independence, or with statistical activities of autonomous national authorities. (GLOS 14.1–14.2)</p>	Adjusted
5.8 Resources for statistical production	Producers of official statistics shall be granted adequate human, financial and technical resources necessary for the implementation of the statistical programmes. (GLOS 14.3)	Reused
VI. Data collection		
6.1 Mandate for data collection	Producers of official statistics shall be entitled to access and collect data from all public and private data sources free of charge, including identifiers, at the level of detail necessary for statistical purposes. Producers of official statistics shall be committed to limiting response burden and reusing data by considering data sources that already exist. If not, data can be obtained through statistical surveys. (GLOS 15.1)	Extended
6.2 Responsible data collection	Data collection shall be designed with due consideration to quality of statistics, costs of data provision and response burden. (GLOS 15.2)	Reused
6.3 Mandate to process data in the possession of NSS	<p>Irrespective of the data collection methods and sources, data obtained by producers of official statistics for statistical purposes are in their possession and shall be processed, stored, disseminated and communicated in full compliance with the provisions of the statistical law.</p> <p>Producers of official statistics shall be entitled to edit and validate data, combine data from different sources and carry out individual data integration exclusively for statistical purposes and use statistical methodologies and techniques as appropriate. (GLOS 15.3 and 27.3)</p>	Adjusted
6.4 Exchange of data within the NSS	Producers of official statistics shall exchange data and metadata within the National Statistical System for statistical purposes to avoid any duplication of data collection and improve the quality of official statistics. (GLOS 15.4)	Adjusted

Common element	Description of the common element	Type of element
6.5 Informing respondents	Respondents shall be informed about the purpose and scope of statistical surveys and their legal basis, as well as about the uses of the data, measures to ensure confidentiality of data, and possible obligation to provide data. (GLOS 16.1)	Adjusted
6.6 Participation in statistical surveys	The participation in statistical surveys is compulsory for [private and public entities]. The participation of persons, households and all other respondents in a given statistical survey can be declared compulsory in the annual statistical programme for all or some of the respondents, and for all or some of the questions. [In exceptional cases, the producer of official statistics may decide to remunerate household respondents to a survey that imposes a significant burden.] (GLOS 16.2–16.3)	Reused
6.7 Respondents' responsibilities	Information provided in a statistical survey shall be truthful and submitted within the required time frame, in the required format and free of charge. (GLOS 16.3)	Reused
6.8 Follow up with respondents	Producers of official statistics shall be provided the necessary information and access to approach respondents. Producers of official statistics are entitled to follow up with respondents if no reply is received by the deadline, or if inconsistencies or gaps are detected. (GLOS 16.4)	Extended
6.9 Mandate to access administrative data	Administrative data providers are obliged to provide producers of official statistics, free of charge, with data in their possession, including identifiers, at the level of detail necessary for the production of official statistics and with the metadata, where possible, that enable assessing data quality. The administrative data providers shall maintain the continuity of the supply of administrative data to the extent possible. Subject to the national legal context, the legal mechanisms for legitimation, for instance the statistical programme or other means, shall be taken into account. (GLOS 17.1)	Extended
6.10 Administrative data providers' obligation to consult	If the providers of administrative data plan to develop a new data collection or carry out a major revision in their data collection or processing in a way that may significantly affect data provided for official statistics, they shall consult the national statistical office and, where appropriate, the other producers of official statistics, in advance of the decision. (GLOS 17.2)	Adjusted
6.11 Statistical registers	National statistical office may establish and maintain statistical registers, to be used exclusively for statistical purposes. Statistical registers refer to lists of statistical units and their characteristics, including identifiers that are necessary for statistical purposes. (GLOS 19.1)	Reused
VII. Statistical confidentiality		
7.1 Definition of confidential data	Data subject to confidentiality are those that allow natural or legal persons to be identified, either directly or indirectly, thereby disclosing individual information. In addition, information declared as a state secret on the basis of [name of the legal act] are subject to statistical confidentiality. (GLOS 20.1)	Adjusted
7.2 Exemptions from confidentiality	Statistics, which may make it possible to identify a natural or legal person, may be disseminated and communicated only if the person has unambiguously given its consent to the disclosure of data. Statistics referring to national or local authorities are not protected by statistical confidentiality, unless declared as state secrets. The Chief Statistician can waive the protection of statistical confidentiality for other legal persons of the public sector. The Chief Statistician may waive the protection of statistical confidentiality of data that are available to the public, in accordance with other legislation, while considering the related quality and reliability issues. (GLOS 20.2)	Extended

Common element	Description of the common element	Type of element
7.3 Exclusive use for statistical purposes	Producers of official statistics shall use individual data exclusively for statistical purposes. Individual data obtained exclusively for statistical purposes shall not be used for any investigation, surveillance, legal proceedings, administrative decision making or other similar handling of matters concerning a natural or a legal person by any authorities or international organizations. (GLOS 21.1) Each producer of official statistics shall protect confidential data in such a way that the natural or legal person cannot be identified, either directly or indirectly, when account is taken of all relevant means that might reasonably be used by a third party.	Extended
7.4 Secure data processing	Each producer of official statistics shall protect individual data, confidential aggregates and statistics prior to their release and take all necessary regulatory, administrative, technical and organizational measures to prevent access by unauthorized persons. (GLOS 22.1)	Reused
7.5 Secure data storage	Producers of official statistics may process and store individual data with identifiers for the time necessary for statistical purposes. (GLOS 22.2)	Adjusted
7.6 Access to individual data (exemptions)	Producers of official statistics shall not disclose individual data to any users, except under strict regulation in public use files and individual data for research purposes in line with the regulations of the statistical law. (GLOS 23.1)	Adjusted
7.7 Public use files	Producers of official statistics may produce and release public use files from individual data only if the data have been processed so that identifiers have been removed and natural or legal persons cannot be identified in any way, either directly or indirectly. To determine whether a natural or legal person is indirectly identifiable, account shall be taken of all relevant means that might reasonably be used including any other published information. (GLOS 23.2)	Adjusted
7.8 Access to individual data within the NSS	National statistical office and other producers of official statistics are entitled to exchange individual data, including identifiers, and other confidential data, exclusively for statistical purposes in their respective area of competence in official statistics. (GLOS 23.3) Each such transmission must be authorized by the Chief Statistician and the conditions documented in a mutually signed agreement. A list of all such transmissions shall be made publicly available on request. (GLOS 23.4)	Adjusted
7.9 Researchers' access to individual data	Producers of official statistics may, on request, grant access to their individual data for scientific research projects in line with the conditions and terms prescribed by the Chief Statistician and following these principles: a) Access shall be granted for statistical and research purposes only, and not for any administrative, adjudicatory, or other programmatic use, nor for onward-sharing of data; b) The decision to grant or not to grant access shall be based on detailed description of the purpose, goals, and methodologies; c) Access is strictly limited to the data that are directly relevant and necessary to accomplish the purpose and goals of the research project; d) Access shall be granted free of charge or at a price covering direct data extraction and service development costs only; e) The data provided for research purposes cannot include identifiers; f) The producer of official statistics shall ensure adequate and required security safeguards to minimize the risk of loss, unauthorized access, destruction, modification, or unintended or inappropriate disclosure of individual data that access for research purposes is given to; g) A list of all such permits to access data for research purposes shall be made available on request for accountability; h) Research reports and analysis based on the outcomes of having access to statistical data shall be made publicly available.	Extended

Common element	Description of the common element	Type of element
7.9 Researchers' access to individual data	<p>Before the producer of official statistics authorizes access to individual data subject to statistical confidentiality for scientific research in their area of responsibility, the recipients' technical infrastructure and framework for the full protection of confidential data shall be ensured in compliance with the statistical law.</p> <p>Producers of official statistics may set a price as a compensation for the additional costs incurred by preparing the data, as regulated in [name of the legal act]. (GLOS 24.1–24.6)</p>	Extended
7.10 Confidentiality commitment	<p>A confidentiality commitment shall apply upon taking up functions in official statistics to:</p> <ul style="list-style-type: none"> a) All regular and temporary staff of the national statistical office and other producers of official statistics; b) Any other persons who are authorized to access data subject to statistical confidentiality. <p>The commitment remains binding even after the cessation of the person's functions listed in points (a) and (b) above. (GLOS 25.1–25.2)</p>	Reused
7.11 Subcontracting	<p>Producers of official statistics may subcontract parts of tasks related to statistical production or support activities to a third party only when the full protection of statistical confidentiality and professional independence can be ensured. Third parties shall use and maintain the data exclusively for the operations and only for the duration defined in the subcontract. (GLOS 26.1)</p>	Adjusted
VIII. Quality of official statistics		
8.1 Quality commitment	<p>Producers of official statistics shall be committed to continually assessing and improving the quality of official statistics in terms of relevance, accuracy, reliability, timeliness, punctuality, transparency, clarity, coherence and comparability.</p> <p>To guarantee quality, official statistics shall be developed, produced, disseminated and communicated on the basis of common standards and harmonized methods on the scope, concepts, definitions, units and classifications of official statistics. This shall be done in compliance with the principles of official statistics as defined in the statistical law and internationally agreed statistical standards and recommendations.</p> <p>To improve the quality of official statistics, producers of official statistics shall be entitled to edit and validate data, combine data from different sources, carry out record linking and matching of individual data exclusively for statistical purposes and use statistical estimation techniques to fill gaps.</p> <p>Producers of official statistics shall document sources and methods used in the production process, as well as the resulting data sets, in a standardised way. Users shall be kept informed about the sources and methods of statistical production and quality of statistical outputs through metadata. (GLOS 27.1–27.4)</p>	Reused
8.2 Quality assessment	<p>Users shall be regularly consulted regarding the quality of official statistics.</p> <p>Producers of official statistics shall seek feedback from respondents to improve the quality of data collection and respondent services.</p> <p>Producers of official statistics may collaborate with the scientific community to assess and improve statistical methodology and encourage analytical work using official statistics.</p> <p>Assessments of the institutional environment, processes and outputs of the National Statistical System may be carried out by internal and external experts. (GLOS 28.1–28.4)</p>	Adjusted

Common element	Description of the common element	Type of element
IX. Dissemination and communication of statistical outputs		
9.1 Dissemination and communication of statistics	Official statistics shall be disseminated and communicated in a timely, punctual and effective manner in full compliance with the statistical law, particularly in respect of protecting statistical confidentiality and ensuring equal and simultaneous access as required under the principle of impartiality. (GLOS 29.1)	Adjusted
9.2 Advance release calendars	Each producer of official statistics shall establish and make public an advance release calendar at least [2-3] months in advance indicating the planned dates and times for the releases of official statistics. Any expected divergence from the advance release calendar shall be communicated to the public before the planned release date. A new date for the release shall be set within reasonable time and made public. (GLOS 29.2)	Adjusted
9.3 Release of official statistics	Releases of official statistics shall be accompanied by metadata and explanatory comments, and access shall be granted to all users free of charge. Producers of official statistics may set the price of printed publications and other material, as regulated in [name of the legal act]. Official statistics shall be clearly distinguished from any other statistics when released. Errors discovered in released official statistics shall be corrected, and the corrections shall be released and communicated to users at the earliest possible time. Users are entitled to use official statistics and the related metadata in their own products with indication of the data source. (GLOS 29.3–29.6)	Reused
9.4 Dissemination and communication policy	National statistical office shall establish: a) A coordinated dissemination and communication policy with transparent procedures to be applied across the National Statistical System; b) A unified terminology for dissemination and communication of all official statistics. (GLOS 30.1)	Reused
9.5 Major revisions	Major revisions due to changes in methods shall be notified publicly in advance. (GLOS 30.3)	Reused
X. Statistical services		
10.1 Statistical services	On customers' request, producers of official statistics may provide statistical services using data collected or obtained for statistical purposes or provided by the customer. Statistical services shall not jeopardize the production and quality of official statistics or the credibility of the National Statistical System. The confidentiality provisions and the quality provisions of the statistical law shall fully apply to the provision of statistical services. (GLOS 31.1 and 31.4–31.5)	Adjusted
10.2 Provision of other services	Producers of official statistics may render IT infrastructure or other non-statistical services provided that statistical confidentiality and the physical and logical protection of data collected or obtained for statistical purposes is ensured. While respecting the national constitutional environment strict segregation of the data in terms of organization, personnel and space could be necessary. (new)	Added
10.3 Funding the production of statistical services	Customers shall bear the additional costs of statistical services in compliance with the price set by the producer of official statistics, as regulated in [name of the legal act]. The income shall be retained by the producer of official statistics and shall only cover the additional costs of carrying out the service activity and the needed statistical service development. (GLOS 31.2)	Extended
10.4 Transparency in the production of statistical services	The public shall be informed of statistical services that are carried out regularly. Results of any statistical services that are provided without compensation, including their metadata, shall be made publicly available. (GLOS 31.3)	Reused

Common element	Description of the common element	Type of element
10.5 Provision of statistical services involving data collection	Producers of official statistics may agree to collect specific data on the request of an international, national or local authority. (GLOS 32.1) Responding to surveys carried out for the purpose to provide statistical services involving data collection (at the request of another authority) cannot be declared compulsory for respondents. The provisions concerning statistical surveys, confidentiality provisions and the quality provisions of the statistical law shall fully apply to the provision of statistical services involving data collection. (GLOS 32.5)	Extended
XI. International cooperation		
11.1 Engagement in international cooperation	National statistical office, and other producers of official statistics in their respective areas of competence, may actively participate in international work to develop and implement statistical standards and recommendations. (GLOS 33.1–33.2)	Adjusted
11.2 International transmission of statistics	National statistical office shall coordinate the transmission of official statistics to international organizations and authorities of foreign countries observing legislative requirements. (GLOS 34.1)	Reused
11.3 International transmission of individual data for statistical purposes	National statistical office with other producers of official statistics, as relevant, may enable the voluntary exchange of individual data and other confidential data exclusively for statistical purposes in the area of competence of a producer of official statistics of a foreign country. National statistical office shall ensure that the recipient has the necessary legal framework in place for the full protection of confidential data. Each such transmission must be authorized by the Chief Statisticians of the involved national statistical systems and the conditions be documented in a mutually signed agreement. Such agreements do not diminish the responsibility of the producer of official statistics to ensure the confidentiality of the data they exchange. A list of all such transmissions shall be made publicly available on request. (new)	Added
XII. Infringements		
12.1 Violation of confidentiality	Violations of the confidentiality provisions of the statistical law shall be prosecuted as regulated in [name of the legal act, such as the criminal code]. The penalties provided for shall be effective, proportionate and dissuasive. Any person or organization with access to data before its release, or to data subject to statistical confidentiality, using this information for purposes other than those authorized by the statistical law or violating confidentiality of these data, shall be prosecuted as regulated in [name of the legal act for example for transactions at financial markets for abuse of insider information]. (GLOS 35.1–35.2)	Adjusted
12.2 Failure to fulfil the obligation to provide data	In the case of failure to submit individual data, in the case of wilful provision of false data or in the case of failure to comply with the provisions of data submission [as in article] respondents or private entities providing data on statistical units other than themselves may be fined as regulated in [name of legal act]. (GLOS 36.1)	Adjusted
12.3 Arbitrary conduct of respondents	In the case of arbitrary conduct of the respondent, which has been manifested as abuse or intimidation of data collectors, or interference with the collection process, or impersonation of statistical officials, or encouraging others to not comply, respondent may be fined as regulated in [name of legal act]. (new)	Added

Common element	Description of the common element	Type of element
XIII. Relationship to other legislation		
13.1 Relationship to other legislation	Any other legal act making reference to official statistics shall be adapted to comply with the statistical law. In case of conflicting legislation, the provisions of the statistical law or another act based on or mentioned in the statistical law shall apply. Statistics produced by authorities according to their own regulatory frameworks that do not comply with the provisions of the statistical law are not considered official statistics. The development, production, dissemination and communication of data shall respect the provisions of [names of the legal act, such as act on the openness of government activities, archives act, etc.] only if these are not in conflict with the statistical law. (GLOS 37.1–37.2)	Reused
13.2 Derogations from the personal data protection act	The relationship between the statistical law and the personal data act is as follows [...].Where personal data are processed for purposes of official statistics, statistical law may provide for derogations from the rights referred to in the personal data protection act [can refer to specific articles of the personal data protection act or any other legal act], in so far as such rights are likely to render impossible or seriously impair the production of official statistics, and as such derogations are necessary for the fulfilment of statistical programmes. (GLOS 37.3)	Extended / added
13.3 Derogations from legislation on access to individual data	The relationship between the statistical law and other laws which set out provisions for access to individual data is as follows: where data are processed for purposes of official statistics, statistical law [the name of other law] may provide for derogations from the obligations [prohibitions] referred to in those legal acts which set out provisions for access to individual data in so far as such obligations [prohibitions] are likely to render impossible or seriously impair production of official statistics, and such derogations are necessary for the fulfilment of purposes of the official statistics. (new)	Extended / added
13.4 Obligation to consult statistical authorities regarding legislation	Any public institution or legal person shall consult the national statistical office on preparations of new laws or amendments to the current laws and other relevant activities considering and directly influencing activities carried out under the statistical law. (new)	Extended / added

169. Each country has a different legal setting and specific strengths and shortcomings of the statistical systems as well as different circumstances nationally in terms of demands for statistics and should read the common elements of statistical legislation accordingly. However, the common elements of statistical legislation also provide a possibility for countries to be able to review the current solutions adopted in their statistical legislation and ask if new issues presented in the common elements would be useful in the national context. Finally, it will be up to countries to apply or to not apply these common elements and select those elements that are essential for the national context.

170. The common elements and their descriptions reflect practices that are in line with the Fundamental Principles of Official Statistics, the European Statistics Code of Practice and the OECD Recommendations on Good Statistical Practice. Therefore, these elements provide an authoritative benchmark for developing national statistical legislation. One should also bear in mind that not everything described in the Fundamental Principles can be regulated by the means of legislation, and also relies heavily on the good statistical practice.

171. The common elements of statistical legislation and the way in which they are formulated should not restrict modernizing statistical legislation further and should be seen as a minimum level that should help to remove legislative barriers to releasing the full value of statistics.

172. The next chapter, chapter 5, presents intended outcomes of the common elements of statistical legislation to explain why each element is needed and what its benefits for society are. These intended outcomes may be helpful in advocating for changes in statistical legislation.



5. INTENDED OUTCOMES OF THE COMMON ELEMENTS OF STATISTICAL LEGISLATION

A. Why define intended outcomes?

173. Each legal jurisdiction must take into account a number of system settings when considering new statistical legislation. These may include the jurisdictions' current allocation of roles, legal system, history, customs, societal needs, government policy and constitutional settings or norms. It is acknowledged that implementing the common elements as they are drafted may be difficult and/or inappropriate in some contexts. The intended outcomes of statistical legislation may be achieved with different ways of regulating statistical activities.

174. This commentary is not intended as a complete exploration of policy options or outcomes (it does not, for example, explore alternative policy options to achieve similar outcomes). Rather it is intended to inform further policy analysis in a local environment. A summary table, which brings the common elements of statistical legislation together with the intended outcomes and highlights changes made to the common elements of statistical legislation as compared to the original texts in GLOS, is available online on a UNECE wikispace dedicated to modernising statistical legislation.⁸

B. What are the benefits of the common elements?

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
I. Objective and scope of the law	
1.1 Objective of the law	<p>Why needed? To define the objective of the statistical law, and possible limitations in applying it. To note that this law applies to all development, production, dissemination and communication of official statistics, including census operations that produce official statistics.</p> <p>What benefits to society? To increase clarity of the purpose and application of the law and to avoid misunderstandings.</p>
1.2 Definition of official statistics	<p>Why needed? To distinguish official statistics from any other statistics produced by various institutions (e.g. public administration, private companies). Official statistics have to meet certain principles, such as the United Nations Fundamental Principles of Official Statistics and the European Statistics Code of Practice (as applicable), and a possible national code of practice. Statistics produced by government bodies as part of their administrative activities, for instance, are not considered official statistics unless they meet the criteria of official statistics and are clearly indicated as such. The same goes for statistics compiled by private entities, including private research institutes, which are not considered official statistics, if not otherwise indicated. These non-official statistics are not regulated by this law.</p> <p>What benefits to society? The term “official statistics” provides users with information on the status and quality of the statistics provided to them and guarantees reliability of statistical information.</p>
1.3 Scope of the law	<p>Why needed? To ensure that all data, regardless of source and type, are treated according to the same principles when they are collected or obtained for statistical purposes by producers of official statistics.</p> <p>What benefits to society? When data are collected or obtained for statistical purposes, producers of official statistics shall have full independence in the development, production, dissemination and communication of statistics using the data. This will ensure that the user will get the best quality information.</p>

⁸ See: UNECE Wikispace on Modernizing Statistical Legislation at <https://statswiki.unece.org/x/TAH2DQ>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
1.4 Definition of the NSS	<p>Why needed? To define the National Statistical System and the national statistical office as the leading producer. To ensure that the National Statistical System is comprised of professionally independent entities, although they might be a part of institutions, which primarily have different administrative responsibilities.</p> <p>What benefits to society? A national statistical system comprised of professionally independent entities will be able to develop, produce, disseminate and communicate statistics impartially without interference and ensure confidentiality. Having a well-defined national statistical system will enable data exchange among producers, but not with any other authorities. This will help to reduce costs and burden on respondents. Producers of official statistics are not listed one by one in the statistical law itself to ensure flexibility and reduce the need to revise the statistical legislation frequently.</p>
1.5 Parties to the law	<p>Why needed? To regulate who gets responsibilities and rights from the statistical law, including producers, respondents, administrative data providers, statistical advisory bodies and users. The regulations on responsibilities and rights aim to ensure a well-functioning collaboration between parties of the law to implement statistical legislation.</p> <p>What benefits to society? Being a party of the law provides responsibilities to producers of official statistics and rights in carrying out their responsibilities. It provides users with rights, such as equal and simultaneous access to official statistics and access to information on methods applied. Users have the right to interact with producers of official statistics and express their opinions and needs. This is ensured through the Statistical Advisory Council.</p> <p>Responsibilities and rights of respondents and administrative data providers enable the production of high-quality statistics based on existing data sources and data collection.</p>
II. Main principles and definitions of official statistics	
2.1 Main principles of official statistics	<p>Why needed? To define the main principles that official statistics have to apply. These principles are used for assessing which statistics can be identified as official statistics. They are in line with the United Nations Fundamental Principles of Official Statistics and the European Statistics Code of Practice (as applicable) and merge some of the key principles of the European Statistics Code of Practice. Countries can decide nationally to include additional principles that are in line with the Fundamental Principles and the European Statistics Code of Practice (as applicable). A key principle is to establish professional independence from policy, regulatory or administrative authorities as well as private interests. Policy makers and government should recognize the authority of the National Statistical System to decide independently and free from any pressures on the development, production, dissemination and communication of statistics.</p> <p>What benefits to society? High-quality statistics will be produced, and trust of users and respondents will be secured. The main principles tell users what they can expect from official statistics, which includes professional independence, impartiality and objectivity, accuracy and reliability, coherence and comparability, clarity and transparency, confidentiality, relevance and cost-effectiveness. These principles represent a guarantee for high-quality statistics.</p> <p>As part of professional independence, the Chief Statistician and staff are entitled to speak about official statistics to the government and the public, and comment on erroneous or misleading use of statistics.</p> <p>These principles ensure that official statistics will serve as a source of objective information and do not represent any interests.</p> <p>Statistical confidentiality and exclusive use for statistical purposes are to be strictly respected. It gives respondents assurance that the data, referred to them, will be kept confidential, used for statistical purposes only and accessed solely by those authorized to do so by this law.</p> <p>Professional independence requires close consultations with users, data providers and other stakeholders to ensure that official statistics will maintain their relevance.</p> <p>Statistics are to be produced in the most efficient way possible while ensuring their high quality and relevance. Producers of official statistics have to follow a cost-efficiency principle, to exploit and use the existing data sources and technological achievements in the most effective way possible.</p>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
2.2 Definitions of the law	<p>Why needed? To explain the main concepts necessary for the interpretation and implementation of the law. The definitions are meant to be self-explanatory, but if necessary, they may be further specified and extended (according to national legal practice). This element includes only the main definitions that typically cut across the statistical law. Definitions used in individual chapters of the law may be defined therein.</p> <p>What benefits to society? These definitions help to interpret the statistical law correctly and increase the understanding of the concepts used in the law in order to apply the law correctly.</p>
III. Organization of the national statistical system	
3.1 Position of the NSO within the government	<p>Why needed? To specify and emphasize that the national statistical office acts as a professionally independent body and to clarify its relationship within the government. The position of the national statistical office may also be defined in other legislation, depending on the legal practice of each country.</p> <p>What benefits to society? The position of the national statistical office in the government may influence its professional independence and also the perception related to the professional independence. Therefore, the relationship within the government needs to be well defined.</p>
3.2 Tasks and role of the NSO	<p>Why needed? This provision has several intentions, and there could be slight differences across countries, depending on the variety of tasks that the national statistical office is responsible for. Firstly, to clarify that the national statistical office is the main producer and coordinates all the activities related to the development, production, dissemination and communication of official statistics in the country. Secondly, it clarifies the role and main tasks of the national statistical office as an actor of the National Statistical System. Third, it assigns the national statistical office a role to advise the government and the public in the area of statistics. Finally, it notes that the national statistical office cannot be assigned responsibilities that are in contradiction with professional independence, such as administrative tasks regarding individuals and entities.</p> <p>What benefits to society? It informs society on main tasks of the national statistical office and assigns tasks to ensure the availability of high-quality official statistics for everyone in society. It reaffirms the confidence that data collected for statistics are not used for administrative decisions.</p>
3.3 Coordination committee for official statistics	<p>Why needed? To define the main elements of coordination. To efficiently and comprehensively coordinate the work of the National Statistical System by having regular collaboration among all producers of official statistics, agreeing on work programmes and developing common procedures.</p> <p>What benefits to society? Coordination, whether done by a Coordination Committee or other means, aims to ensure alignment with the main principles of official statistics, knowledge sharing and application of international statistical standards and recommendations in all official statistics produced in the country, ensuring reliability of the National Statistical System and high-quality of official statistics.</p>
3.4 Appointment of the Chief Statistician	<p>Why needed? To assign the leadership of the national statistical office to the Chief Statistician (or Head/President/General Director/Chairperson). To ensure timely recruitment and appointment of the Chief Statistician in order to establish stable and strong position of the national statistical office. To regulate that the recruitment and appointment of the Heads of producers of official statistics are transparent and based on professional criteria only.</p> <p>What benefits to society? Selection of the Heads of producers of official statistics is based on professional criteria supports the compilation of statistics independently and on an impartial basis and builds trust in official statistics.</p>
3.5 Termination of office of the Chief Statistician before its expiry	<p>Why needed? To provide an exhaustive list of reasons when the term of office of the Chief Statistician could be terminated. To prevent inappropriate political or governmental interference in the development, production, dissemination and communication of official statistics and inappropriate access to information. To ensure that the term of office of the Chief Statistician is not linked to political changes, for instance to the change of government in a country.</p> <p>What benefits to society? It safeguards professional independence. This prevents putting pressure on the Chief Statistician and prevents early termination of his/her term of office. That maintains the integrity of statistics and the level of trust that is placed upon them. This also supports the national statistical office in acting impartially when developing, compiling and publishing statistics or allowing access to information.</p>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
3.6 Responsibilities of the Chief Statistician	<p>Why needed? To provide the Chief Statistician with the status and authority necessary to carry out the responsibilities in leading, coordinating and representing the National Statistical System nationally and internationally. To ensure that the Chief Statistician can coordinate the National Statistical System, and for instance set standards and guidelines in statistics and decide on statistical programmes in consultation with other parties. To ensure that the Chief Statistician can decide about the management and development of the national statistical office, its staff, use of resources and organization in the central and regional offices.</p> <p>What benefits to society? A publicly recognized strong and independent standing of the Chief Statistician helps resist political pressures. The Chief Statistician's role in setting priorities and deciding on the organizational structure and tasks of the national statistical office, including its central and regional offices is important in adapting to new requirements for knowledge, capacities and technologies. Issuing common standards is an important tool to develop professionalism and enhance users' trust. The Chief Statistician may also promote the use of common standards beyond the National Statistical System, for instance among administrative data providers, geospatial agencies and private data holders to improve usefulness and interoperability of data in society. This role ensures the harmonization of statistics and the related concepts, classifications and methods.</p>
3.7 Mandate of other producers of official statistics	<p>Why needed? Public authorities should take the necessary measures to improve the professional independence of entities that produce official statistics in accordance with this law as part of public administration, e.g. in organizational entities of ministries or other public agencies that develop, produce, disseminate and communicate statistics. The activities of producers of official statistics need to be fully in line with the law. It requires the positions of the Heads of producers of official statistics to be filled in a non-political process following the model for appointing the Chief Statistician and respecting the principle of professional independence.</p> <p>What benefits to society? It clarifies the role of other producers of official statistics as being part of the National Statistical System and explains that all of them should follow the same principles and regulations of the statistical law. A national statistical system formed of professionally independent entities will form a more coherent system that may be able to exchange individual data for statistical purposes since the borders are clear, and administrative tasks are performed by other authorities, not within the National Statistical System. This makes the foundation for an efficient, effective and data secure system.</p>
IV. Statistical advisory council and other advisory bodies	
4.1 Definition of the Statistical Advisory Council	<p>Why needed? To establish the Statistical Advisory Council not as a supervisory body, but as a body comprising the representatives of the key stakeholders of the National Statistical System with the aim to maintain and raise awareness of the importance of the professional independence and reliable statistical system, producing relevant and objective statistics in the country.</p> <p>What benefits to society? The Statistical Advisory Council will advise the National Statistical System on strategic issues to develop statistics that are relevant and needed in the country. The Statistical Advisory Council will promote transparency and ensure accountability of the National Statistical System.</p>
4.2 Composition of the Statistical Advisory Council	<p>Why needed? To ensure that the National Statistical System will have regular and systematic consultations with a broad spectrum of representatives of users of statistics and will listen to their needs. To ensure that sufficient resources and time are allocated to user consultations.</p> <p>What benefits to society? It ensures that statistics are produced to meet the needs of a broad range of users and user communities.</p>
4.3 Appointment of the members of the Statistical Advisory Council	<p>Why needed? To regulate the procedure for appointing the Statistical Advisory Council members, their term of office and chairing.</p> <p>What benefits to society? Membership will be limited to a certain term of office to ensure that users' views are represented broadly over the years.</p>
4.4 Tasks of the Statistical Advisory Council	<p>Why needed? To define the role and tasks of the Statistical Advisory Council in ensuring the relevance of official statistics.</p> <p>What benefits to society? The tasks of the Statistical Advisory Council aim to promote transparency and accountability of the National Statistical System, the application of main principles of official statistics and the use of statistics.</p>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
4.5 Definition of other advisory bodies	<p>Why needed? To provide flexibility to establish permanent or temporary advisory bodies in support of the development and coordination of specific statistical activities and methodological development.</p> <p>What benefits to society? The advisory bodies will help the National Statistical System to provide high-quality statistics by supporting statistical development in a specific statistical domain, in developing new methodologies, and carrying out projects with stakeholders.</p>
V. Coordination of the National Statistical System and statistical programmes	
5.1 Coordination of national statistical activities	<p>Why needed? To emphasize the necessity to work together among producers of official statistics and to ensure system-wide coherence and compliance with internationally agreed statistical standards.</p> <p>What benefits to society? Effective and uniform work of the National Statistical System resulting in high-quality statistics that are harmonized and comparable.</p>
5.2 Programming of national statistical activities	<p>Why needed? To define the purpose of statistical programmes, which is to plan strategic and operational activities of the National Statistical System and efficiently coordinate work between producers of official statistics. To suggest two types of statistical programmes: a multi-year programme for strategic development and an annual programme with a more specific list of activities for the year with inputs and outputs of statistical production. To require consultation with stakeholders on the planned statistical activities.</p> <p>What benefits to society? Statistical programmes will reflect needs of society as they have to be prepared in consultation with stakeholders. This provides accountability and transparency as it will be publicly known what will be produced and can be compared with what has been produced as an outcome. Preparing a statistical programme for the entire national statistical system increases the coordination to develop, produce, disseminate and communicate more comparable and coherent statistics.</p>
5.3 Criteria for inclusion as producers of official statistics	<p>Why needed? To ensure that the Chief Statistician has the authority to decide on the inclusion or exclusion of producers of official statistics and their deliverables in the statistical programmes. To provide the criteria for such decisions. It also strengthens the position and role of the Chief Statistician as a leading authority of the National Statistical System.</p> <p>What benefits to society? Being recognized as a producer of official statistics that is capable and willing to comply with the statistical law strengthens the entities' professional independence, quality improvements and statistical development, and facilitates professional exchange within the National Statistical System. Being a recognized producer of official statistics gives a strong mandate for surveying and ensures access to the necessary administrative data, enables regulated exchange of individual data for statistical purposes within the National Statistical System and keeps producers better informed of the latest international developments in statistics through the coordination of statistical work. It also ensures an overarching evaluation of response burden and reduces duplication of activities.</p>
5.4 Reporting on statistical programmes	<p>Why needed? To increase transparency through reports on the implementation of the statistical programmes. The Statistical Advisory Council will be able to provide its opinion publicly.</p> <p>What benefits to society? Everyone can see the publicly available implementation reports with the opinion of the Statistical Advisory Council to assess if and how user needs have been met and thus keeping the whole national statistical system accountable for work performance.</p>
5.5 Objective and scope of the multi-year statistical programme	<p>Why needed? To ensure that the National Statistical System has a strategy and priorities for developing statistics and an understanding of the existing and emerging user needs. The multi-year programme shall propose a vision for where the system should be after a certain number of years. It can also serve as a basis for allocation of budgetary resources.</p> <p>What benefits to society? The multi-year statistical programme will outline priorities for implementing the vision thus ensuring a more systematic development of statistics considering needs of society.</p>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
5.6 Objective and scope of the annual statistical programme	<p>Why needed? To define what should be included in the annual statistical programme. The annual statistical programme is a tool for coordination within the National Statistical System and consultation with stakeholders. To promote the reuse of survey and administrative data within the National Statistical System.</p> <p>What benefits to society? It shows what is done with the tax payers' money annually to meet information needs of society. Coordinated work of the National Statistical System will promote cost reductions and lower the burden on respondents as data can be reused. Information on the reuse of survey and administrative data ensures that society is informed on why and where the data are processed thus ensuring lawful data processing and trust in the work of producers of official statistics. The annual programme ensures accountability of statistical work.</p>
5.7 Adoption of statistical programmes	<p>Why needed? To obtain a mandate for statistical work from the government or from other relevant authority. To state that the government should not interfere with issues covered by professional independence when deciding on the statistical programmes. However, the government may identify priorities for using the limited resources and request developing new statistics or reducing response burden of specific activities. To ensure that users are listened to, the Statistical Advisory Council will be asked for their opinion before adoption.</p> <p>What benefits to society? The government cannot comment on or change the way the development, production, dissemination and communication of statistics will be performed. Therefore, statistics will remain objective and will not represent any interests, but their production will have a strong mandate. The Statistical Advisory Council and the government may provide views on priorities that reflect data needs in society.</p>
5.8 Resources for statistical production	<p>Why needed? To ensure that producers of official statistics can require sufficient funding for their activities and draw attention to any activities needing additional resources such as development of new statistics, major revisions of statistics and modernization of statistical production.</p> <p>What benefits to society? Having adequate human, financial and technical resources enables the production of high-quality statistics.</p>
VI. Data collection	
6.1 Mandate for data collection	<p>Why needed? To provide the mandate for data collection for official statistics and commit producers of official statistics to using existing data if they are compatible with or can be adjusted to the statistical requirements. To give access to both public and private data sources and for direct data collection.</p> <p>What benefits to society? To inform respondents and other data providers of the legal basis for collecting or accessing their data for statistical purposes. To ensure that statistics will be based on the best possible data that are either collected or available in society. To reduce response burden and increase reuse of existing data for statistical purposes. To limit costs of statistical data collection.</p>
6.2 Responsible data collection	<p>Why needed? To require that producers of official statistics select the data sources based on a balanced consideration of quality, costs and burden on respondents.</p> <p>What benefits to society? Data will be collected as efficiently as possible and producers of official statistics will consider how pressing the need to collect new data is. Businesses and individuals will be less burdened by surveying as existing data are reused.</p>
6.3 Mandate to process data in the possession of NSS	<p>Why needed? To regulate that data obtained by the National Statistical System for statistical purposes are in their possession meaning that producers of official statistics may process check, edit, validate, process, store, aggregate, disseminate and communicate statistics in full professional independence using survey data and data from administrative and other sources.</p> <p>What benefits to society? Producers of official statistics can handle any data without unnecessary legal or administrative constraints from other legislation, and all data obtained by the National Statistical System can be processed as necessary for statistical purposes.</p>
6.4 Exchange of data within the NSS	<p>Why needed? To ensure that data and metadata sharing can be done for statistical purposes within the National Statistical System.</p> <p>What benefits to society? Data sharing among producers of official statistics will help to avoid duplication of data collection, reduce costs and response burden and improve the quality of official statistics. It will ensure that exchange of data takes place solely for statistical purposes.</p>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
6.5 Informing respondents	<p>Why needed? To require that producers of official statistics inform respondents about data collections, for instance to state the purpose and scope of surveys and explain how the data will be used, whether is obligatory to reply and how confidentiality will be ensured.</p> <p>What benefits to society? Informing respondents helps to build trust in official statistics and, thus, facilitate the receipt of correct and accurate information for statistics. Respondents will know whether participation in the surveys is obligatory or not.</p>
6.6 Participation in statistical surveys	<p>Why needed? To regulate clearly when participation in statistical surveys is compulsory, and enable declaring surveys compulsory for individuals, households and other respondents in the annual statistical programme. The law may directly make participation in surveys compulsory for some entities, such as businesses to support efficiency of data collection.</p> <p>What benefits to society? Compulsory surveys provide higher response rates and thus better quality of data. Typically, business surveys are compulsory. Not all surveys are declared compulsory to keep burden on respondents limited and allow space for respondents to decide if they wish to participate.</p>
6.7 Respondents' responsibilities	<p>Why needed? To have the legal responsibility of respondents to provide the requested information truthfully, in the required format and free of charge.</p> <p>What benefits to society? The quality of statistics depends on the sense of responsibility of respondents. Therefore, the responsibilities in data provision are regulated in the law.</p>
6.8 Follow up with respondents	<p>Why needed? To provide that producers have the right, but not an obligation, to re-contact respondents to remind them about the survey and ask for complementary information if need be.</p> <p>What benefits to society? Non-response rates will be lower, and the quality of statistics better when the law enables access to the necessary information for producers of official statistics and that they can follow up with the respondents.</p>
6.9 Mandate to access to administrative data	<p>Why needed? To reinforce the legal position of producers of official statistics to receive administrative data, at the necessary level of detail, with metadata and free of charge. To oblige public authorities, ministries, tax authorities, geospatial agencies and others who collect or generate data as part of their activities, to provide their data for statistical purposes. To ensure that other legislation cannot restrict delivery of individual data to producers of official statistics. Continuity of the supply of administrative data is important to enable continuous and regular production of statistics.</p> <p>What benefits to society? The use of administrative data can improve the efficiency of statistical production; administrative data do not incur additional cost for data collection nor do they impose a further burden on respondents. The administrative data providers and their decisions and services may be improved as a result of the cooperation with producers of official statistics to improve their procedures and methods of quality control and error correction. This collaboration cannot jeopardize statistical confidentiality.</p>
6.10 Administrative data providers' obligation to consult	<p>Why needed? To oblige providers of administrative data to consult the national statistical office, and any other producer of official statistics affected, about significant changes in administrative data collection in advance.</p> <p>What benefits to society? Expected changes in the data collection or processing will be consulted in advance and as early as possible to avoid negative effects on official statistics.</p>
6.11 Statistical registers	<p>Why needed? To define what is meant by statistical registers and enable national statistical office to establish and maintain statistical registers to be used exclusively for statistical purposes.</p> <p>What benefits to society? Statistical registers are a cornerstone of modern official statistics as a basis for efficient sampling and a source of consistent basic data on statistical units, for instance businesses, households or dwellings, for various related statistics. Administrative and public registers may provide important input into statistical registers. As statistical registers are protected by confidentiality, no individual data can be provided from statistical registers to administrative registers unless otherwise regulated. Good statistical registers enable the production of statistics that are coherent with each other and cover their target population correctly.</p>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
VII. Statistical confidentiality	
7.1 Definition of confidential data	<p>Why needed? To define what kind of data should be kept confidential.</p> <p>What benefits to society? Individual data are not revealed when statistics are released, and privacy is ensured. Respondents' trust in data confidentiality facilitates receipt of correct and accurate information for the benefit of all users of statistics and recipients of services designed based on official statistics.</p>
7.2 Exemptions from confidentiality	<p>Why needed? To define individual data that are not protected by confidentiality. To allow the Chief Statistician to decide whether information on legal persons of the public sector will be considered confidential or non-confidential.</p> <p>What benefits to society? It allows exemptions from confidentiality of individual data in carefully defined cases where data are not sensitive in nature. Otherwise too much data would have to be hidden in statistical releases. For example, exceptionally large units may dominate their industry which makes the data of the entire industry confidential. This element provides the possibility to publish these data if the unit gives its consent.</p>
7.3 Exclusive use for statistical purposes	<p>Why needed? To define clearly that data collected for statistical purposes shall not be used for any administrative decisions concerning a natural or legal person.</p> <p>What benefits to society? A strict application of this law is important for maintaining respondents' trust in the National Statistical System. If respondents can provide truthful information for statistics without fear of consequences, statistics will reflect reality more accurately.</p>
7.4 Secure data processing	<p>Why needed? To ensure that the statistical infrastructure, administrative instructions and communication technology used for data collection, transmission and processing are designed to safeguard data confidentiality. This includes access to buildings where producers of official statistics and the production equipment and software are located.</p> <p>What benefits to society? The necessary is done to ensure that the confidentiality of data or aggregates is preserved at all times. In addition, non-confidential statistics will be protected prior to their release. Producers of official statistics will also protect privacy by taking account of all relevant means, such as data linking, that could be used to indirectly identify units. With a view to the increasing availability of open data and data disaggregated by geographic location, additional means of ensuring confidentiality may need to be developed.</p>
7.5 Secure data storage	<p>Why needed? To allow producers of official statistics to process and store individual data with identifiers. This is important for being able to reuse existing data and combine data on the same unit from different sources.</p> <p>What benefits to society? This enables combining data from different sources which results in the production of richer statistical information. The clear mandate to process and use natural persons' identifiers for statistical purposes only ensures consistent application of personal data protection principles.</p>
7.6 Access to individual data (exemptions)	<p>Why needed? To enable and regulate access to individual data without identifiers in limited cases. This allows the provision of public use files and the provision of individual data for research under strict regulations.</p> <p>What benefits to society? It maintains trust among users and respondents by reinforcing that producers of official statistics shall not disclose individual data to any user other than cases regulated in the law.</p>
7.7 Public use files	<p>Why needed? To enable the provision of more detailed datasets and regulate how producers of official statistics shall process the individual data in such a way that a natural or legal person cannot be identified either directly or indirectly.</p> <p>What benefits to society? It maximizes the use of data held by producers of official statistics in society to enable rich analysis of datasets for various purposes and at the same time ensure confidentiality.</p>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
7.8 Access to individual data within the NSS	<p>Why needed? To allow producers of official statistics to receive and provide individual data to and from other producers of official statistics so that data would only be collected once and could be reused. To limit the exchange of individual data within the statistical system exclusively for statistical purposes. To regulate that the Chief Statistician may authorize the transmission of individual data within the National Statistical System.</p> <p>What benefits to society? The burden on respondents will be lower when data are reused and not collected again by different producers. The costs of statistical data collection will be lower. Transparency regarding the use of individual data helps maintain trust.</p>
7.9 Researchers' access to individual data	<p>Why needed? To allow producers of official statistics to grant access to individual data without identifiers for scientific research projects. To define the criteria for researchers' access to individual data and make it transparent. To ensure that confidentiality commitments shall apply to any persons authorized to access data even without signing an agreement.</p> <p>What benefits to society? Researchers' access to datasets is crucial for making rich and enlightening studies on developments in society while ensuring confidentiality. Producers of official statistics have to ensure that the recipients have the administrative framework and technical infrastructure to protect confidential data. This reinforces statistical confidentiality and personal accountability. Anyone who accesses data shall have to ensure confidentiality during and after performing functions that include access to data subject to statistical confidentiality.</p>
7.10 Confidentiality commitments	<p>Why needed? To define what kind of data should be kept confidential.</p> <p>What benefits to society? Individual data are not revealed when statistics are released, and privacy is ensured. Respondents' trust in data confidentiality facilitates receipt of correct and accurate information for the benefit of all users of statistics and recipients of services designed based on official statistics.</p>
7.11 Subcontracting	<p>Why needed? To provide a basis for purchasing material or services from commercial enterprises.</p> <p>What benefits to society? Subcontracting can be cost-effective and provide skills and capacities that are not available in the National Statistical System.</p>
VIII. Quality of official statistics	
8.1 Quality commitment	<p>Why needed? To ensure that all producers of official statistics commit to continually improving the quality of their products and processes, with respect to user needs, the principles of official statistics and internationally agreed statistical standards and recommendations. This increases trust in and use of official statistics.</p> <p>What benefits to society? It supports the improvement of the quality of statistics. Producers of official statistics are motivated to continuously improve: build up their methodological know-how, follow up with international developments and share their knowledge with other producers of official statistics.</p>
8.2 Quality assessment	<p>Why needed? To ensure systematic assessment and review of quality in consultation with stakeholders, users, respondents, the scientific community and internal and external experts.</p> <p>What benefits to society? It provides access to high-quality statistics and transparent information about how the statistics have been produced.</p>
IX. Dissemination and communication	
9.1 Dissemination and communication of statistics	<p>Why needed? To promote timely, punctual and effective dissemination and communication of statistics as soon as reasonably practicable after they are compiled. To provide all users with fully equal and simultaneous access to official statistics.</p> <p>What benefits to society? Equal and simultaneous access to statistics for all users without special treatment builds trust in both statistics and their producers and helps to avoid interference before the release of statistics.</p>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
9.2 Advance release calendars	<p>Why needed? To support the National Statistical System in their professional independence in deciding when statistics are released. Any expected changes from the release calendar will need to be communicated in advance.</p> <p>What benefits to society? Having an advance release calendar protects the professional independence of the National Statistical System, thus supporting the production of impartial information for all users. It supports dissemination and communication of statistics as planned irrespective of the possible reaction by the government or political actors. When sticking to advance release dates, official statisticians, the Chief Statistician and the Heads of other producers of official statistics will be protected from attempts such as preventing the dissemination and communication of statistics that are unsuitable or disagreeable for the political actors. All users will be informed in advance when new official statistics will be released. Users will be able to plan ahead as to how they will use official statistics.</p>
9.3 Release of official statistics	<p>Why needed? To ensure that all releases of official statistics are accompanied by metadata and explanatory comments, access to releases is free of charge and that any errors are corrected transparently and quickly. The law requires that official statistics be clearly distinguished from any other statistics when released. In practice, this might mean that there is a label of official statistics (logo) for the entire national statistical system. Users have the right to use statistics in their own products by indicating the source.</p> <p>What benefits to society? Statistics are available to users widely, free of charge and without limitations of use. Open data shall be promoted. Users will know which releases include official statistics and what quality criteria they can be expected to meet. Metadata and explanatory comments enable users to understand the resulting statistics. Errors will be corrected at the earliest possible time to avoid the use of inaccurate information. Transparency in relation to errors assists in maintaining trust in official statistics and their producers. Access to official statistics, as a public good, will be free of charge, and further use of statistics in other products is allowed.</p>
9.4 Dissemination and communication policy	<p>Why needed? To improve customer service and support the correct use of statistics by the development of a coordinated dissemination and communication policy and unified terminology to be applied across the entire national statistical system.</p> <p>What benefits to society? Applying a unified terminology across statistics helps avoid confusion and misinterpretation. The more the results of official statistics in different domains use common definitions and classifications, the easier it is for users to compare and combine data across domains and the easier it is for producers to check consistency of statistics.</p>
9.5 Major revisions	<p>Why needed? To ensure that producers of official statistics should inform users in time about planned changes and about the effect on comparability over time, such as breaks in time series.</p> <p>What benefits to society? Users will be aware of major amendments, their impact and reasons for making them.</p>
X. Statistical services	
10.1 Statistical services	<p>Why needed? To enable producers of official statistics to provide statistical services while ensuring resources for the development, production, dissemination and communication of official statistics.</p> <p>What benefits to society? The statistical processing services facilitate effective use of existing data, skills and capacities of the National Statistical System making more information and knowledge available in society and helping to avoid duplication of data collection. This enables the provision of statistical services in support of government agencies and other bodies, for instance related to the use of common definitions, classifications and methodologies and to develop the quality and management of data.</p>
10.2 Provision of other services	<p>Why needed? To allow the use of the knowledge and resources of producers of official statistics, the so called non-statistical services, such as to use the IT infrastructure. This means that all data collected or obtained for statistics will be kept confidential and strictly segregated from the data set that other organizations may store in the IT infrastructure of the statistical system.</p> <p>What benefits to society? The full use of existing knowledge and resources in the government may help to save costs and increase the quality of service.</p>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
10.3 Funding the production of statistical services	<p>Why needed? To ensure that statistical processing services do not take resources from the regular budget for the development, production, dissemination and communication of statistics, and that customers requesting statistical services will pay for the additional costs of the required processing. The fees may only cover the additional costs of carrying out the service and the needed service development.</p> <p>What benefits to society? When producers of official statistics can recover the costs of producing statistical services from the customer, the use of existing datasets in the National Statistical System will increase adding to the possibility to carry out rich analysis of data in society. This ensures that individual customer requests are not fulfilled at the expense of other statistical work that serves the needs of wider society.</p>
10.4 Transparency in the production of statistical services	<p>Why needed? To ensure that the provision of processing services is transparent; a list of regularly produced processing services should be communicated, for instance on the website.</p> <p>What benefits to society? All users are treated equally. If a producer of official statistics provides any processing services without compensation, for example due to the very limited costs of processing, these results will become available to all users with the accompanying metadata. For payable services, anyone can purchase the same statistical service with the same price. Trust in official statistics and the producer of official statistics is enhanced.</p>
10.5 Provision of statistical services involving data collection	<p>Why needed? To ensure that data collection services can only be carried out on behalf of international, national or local authorities, not for the private sector or researchers. To allow each producer of official statistics to decide whether to engage in additional data collection. To ensure that surveys or parts of surveys carried out to provide data collection services for others cannot be declared compulsory for respondents, and that provisions of the statistical law concerning data collection shall apply.</p> <p>What benefits to society? Producers of official statistics are well placed to produce efficient and high-quality data collection services. They are likely to collect data more efficiently and in higher quality than other authorities that are not specialized in information industry. Respondents will be clearly informed of the voluntary nature of these surveys or parts of surveys and will not feel pressure to complete the survey. Respondents can trust in the confidentiality of data provided in these surveys. The authority requesting for the statistical service will not receive any individual data unless otherwise stated in the survey form.</p>
XI. International cooperation	
11.1 Engagement in international cooperation	<p>Why needed? To encourage producers of official statistics and their staff to take active part in international statistical work and bring forth the priorities and challenges of their country.</p> <p>What benefits to society? International collaboration creates opportunities for efficient development of new statistics in a joint effort of the experts. It reduces costs of producing official statistics through the development of common standards and tools and sharing of experience. Above all, it is crucial for ensuring the comparability of statistics across countries.</p>
11.2 International transmission of statistics	<p>Why needed? To control that the national statistical office is informed and asked to coordinate all transmissions of official statistical data, even when requests for official statistics are addressed to ministries or other authorities directly.</p> <p>What benefits to society? It prevents sending statistics that are not in line with official figures and related inaccurate conclusions. The quality of statistics submitted to international organizations is in line with national official statistics. International organizations' level of trust in official statistics is maintained and enhanced.</p>
11.3 International transmission of individual data for statistical purposes	<p>Why needed? To enable the national statistical office and other producers, as relevant, to exchange individual data for statistical purposes on a voluntary basis, in particular to improve the quality of statistics concerning cross-border activities. To require that the national statistical office is always involved in decisions on data exchange in the National Statistical System.</p> <p>What benefits to society? It enables the production of relevant and high-quality statistics on cross-border activities, improves the coherence of statistics across domains and prevents discrepancies of statistics across countries.</p>

Common element	Intended outcome – Why is this element needed? What is the benefit it offers?
XII. Infringements	
12.1 Violation of confidentiality	<p>Why needed? To ensure that violations of confidentiality may be prosecuted when appropriate. Infringements will be prosecuted in compliance with the specific national legislation, such as the criminal code.</p> <p>What benefits to society? Trust is maintained in the ability of producers of official statistics to influence the behaviours of persons with access to data. Breaches of confidentiality can be responded to in appropriate ways. Data users are dissuaded from breaching confidentiality provisions and motivated to seek guidance if they are unsure as to what is required of them.</p>
12.2 Failure to fulfil the obligation to provide data	<p>Why needed? To allow producers of official statistics to take action to fine a respondent who wilfully fails to provide data, in spite of having been reminded, or who wilfully provides false data.</p> <p>What benefits to society? The quality of data provided for statistics should be ensured through close collaboration with the representatives of respondents and ensure the quality of data provided by avoiding underrepresentation or bias.</p>
12.3 Arbitrary conduct of respondents	<p>Why needed? To allow producers of official statistics to flag the need to take action to fine a respondent due to arbitrary conduct.</p> <p>What benefits to society? It promotes good collaboration on the respondents' side and ensure the quality of data provided by avoiding underrepresentation or bias. It protects the safety of individuals involved in the data collection process.</p>
XIII. Relationship to other legislation	
13.1 Relationship to other legislation	<p>Why needed? To emphasize that the statistical law shall apply if any conflicting legislation relating to statistics exists in a country. Other legislation applying to activities in official statistics should be adapted to comply with the statistical law. To limit the application of rights and responsibilities arising from the statistical law only to those authorities that produce official statistics. For instance, the broad mandate to collect data only applies to producers of official statistics, not other statistics or data.</p> <p>What benefits to society? It prevents confusion in case of conflicting legislation. It ensures that other legislation cannot override the rights and responsibilities resulting from the statistical law.</p>
13.2 Derogations from the personal data protection act	<p>Why needed? Specific regulation may be needed to clarify the relationship between the statistical law and the personal data act. To allow for data sets in the National Statistical System to be exempted from some articles of the personal data act, since the information in the National Statistical System is only used for statistical purposes and not for the handling of the affairs of individuals.</p> <p>What benefits to society? It ensures that the personal data act does not impair the availability of official statistics for users due to work from any conflicting regulations it includes and prevents unnecessary additional costs to statistical production.</p>
13.3 Derogations from legislation on access to individual data	<p>Why needed? To regulate the relationship between the statistical law and other legislation relating to access to individual data. To ensure that data sets in the National Statistical System may be exempted from certain requirements regarding individual access to data, since the information therein is only used for statistical purposes and not for the handling of the affairs of individuals.</p> <p>What benefits to society? It ensures that other legislation does not impair the availability of official statistics for users due to work from conflicting regulations and prevents unnecessary additional costs to statistical production.</p>
13.4 Obligation to consult statistical authorities regarding legislation	<p>Why needed? To require any party preparing legislation that may affect statistical data or activities to consult the national statistical office for its opinion.</p> <p>What benefits to society? It prevents the creation of new conflicting legislation and keep the statistical authorities up-to-date on new related legislation that should be taken into account in statistical production. This helps to ensure clear rights and responsibilities of the parties of the law, including respondents.</p>



6. GUIDANCE ON DEVELOPING, MODERNISING AND REINFORCING LEGAL FRAMEWORKS FOR OFFICIAL STATISTICS

175. This chapter provides guidance on developing, modernising and reinforcing of official statistics. The first section describes the process of reviewing and revising statistical legislation including the steps involved. The second section focuses on the advocacy on the sound legal and institutional frameworks. The last section discusses the links of statistical legislation to other legislation.

A. Process of reviewing and revising statistical legislation

176. The process of law creation differs among various countries. Even though the legislation is generally proposed by the government and adopted by the parliament, specificities depend on the political system, and legal and administrative traditions. Details of the process and advice on how to proceed can usually be sought from governments' and/or parliaments' legal services.

177. The position of the NSO within the government administration is a major factor that influences the process, as in many countries only government bodies (ministries and other governmental administrative organizations) can propose legislation to the government. Even if the statistical office had the power to propose legislation by itself, usually the legislation would be presented to the government cabinet and to the plenary session of the parliament by a minister or another responsible person (in rare cases this could be the Chief Statistician). Therefore, the ownership of the process cannot be fully attributed to the statistical office.

178. In some countries the independence of the statistical office from the government also means that they may not have a direct channel for proposing the legislation (for instance through a ministry). In such cases, the role of stakeholders, the user community and non-governmental organizations (NGOs) may be crucial for advancing changes in statistical legislation. Therefore, the most usual case is that the process of drafting the bill will be at least partially out of control of the NSO.

179. The revision process also may differ depending on the extent of the revision. In some cases, only amendments are needed to the statistical law, and in some cases a new statistical law is prepared. Germany describes the main changes brought by their latest statistical law in the annex II (see case study 7).

180. The process of the revision of statistical legislation has to be carefully planned and well-documented in order to minimize potential misinterpretation. Close collaboration among all members of NSS and consultation with stakeholders is therefore necessary throughout the process. In general, the process is envisaged to include ten steps (see figure 2).

1. Preparation phase

181. Ideally, the process of law creation should start with a vision paper explaining why changes are necessary. The vision paper should describe the current situation, assess and examine limitations of current legislation, envision main improvements and justify the reasons for change.

182. Inputs to the draft vision paper should be sought from statisticians and senior management across the NSS, but the final version should be reviewed by the legal department and approved by Chief Statistician.

183. If senior management and the Chief Statistician agree that the risks of opening a discussion on amending statistical legislation outweigh the potential gains from envisaged changes, relevant input should be collected and possible amendments considered later. Continuous collection of examples of the limitations of current legislation should be performed by all statistical offices.

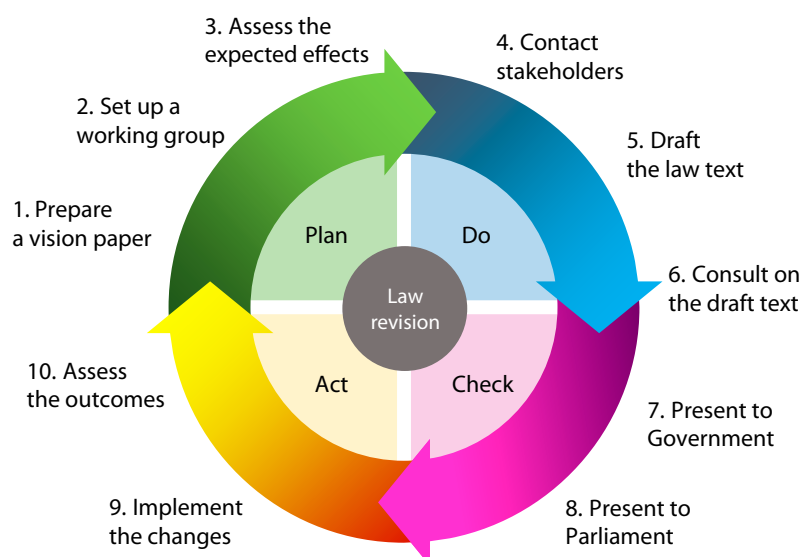
184. The vision paper should be presented to the Statistical Advisory Council or other representatives of users of statistics, since fundamentally changes of statistical legislation aim at ensuring the institutional environment necessary for the production of high-quality statistics. In order to ensure success, the mandate to revise or set up the statistical legislation has to be endorsed by the representatives of users.

185. The vision paper, or at least its summary, should be made public. The publication announces to those that may not be consulted but have an interest to provide their views. It also ensures a transparent process.

2. Launching the revision

FIGURE 2

Ten steps of the process of creating new and revising existing statistical legislation



186. Once the vision paper is discussed with users' representatives and if the proposal to change the legislation receives support, the statistical office should decide whether (and when) to go ahead and inform the government of the initiative to change the law. Governments usually plan legislative activities for the following year before the end of the current year and therefore the NSO (or responsible ministry at the initiative of the statistical office) should, through prescribed procedure use this opportunity to inform the government on the intention to change existing or to implement a new law.

187. Launch is usually followed by formation of a working group (and/or an advisory group) that should coordinate (or follow the process). The mandate and the composition of the group depends on the position of the office within the system of government administration. Offices that have the authority to propose legislation should form balanced working groups that are comprised of both internal and external experts (in order to get an external, non-statistical perspective), while offices where ministries are in charge of legal proposals should try to find other ways to maximize their influence on the process.

3. Assessment of the legislative effect

188. In line with the attempts to ensure efficiency and transparency of the government, many countries have prescribed various procedures that need to be fulfilled before a draft bill is accepted by the government. This almost always includes assessment of the potential costs of the bill, but in recent years also the assessment of the general impact, burden on enterprises, environmental impact, assessment of the alignment vis-à-vis other legislation, obligatory consultations with interested public and obligatory opinions by ministries. Assessments are performed by statistical office or by another body that has the ability to propose legislation.

189. It will be important to assess the impact of legislative changes on other legislation, such as on the central bank and other government bodies. Also, it is important to check other legislation, such as on data protection, public service, administrative procedures and classified data in order to avoid potential legislative conflicts. The relation of statistical legislation to other legislation is discussed in section 6C. All the assessment steps have to be finalized before the government adopts the bill, and even though they increase the quality of the law, they are the main reason why legislative procedure takes a lot of time. However, the assessments should provide important input for lobbying and consulting the draft bill with stakeholders.

4. Lobbying phase

190. The lobbying phase often runs alongside the whole law revision process. It starts at the moment the vision paper is finished and lasts until the bill becomes a law. During this phase, it is important to develop support for the changes and get approval to include the action on the government programme for legislative changes (as without it there is no law). Also, it may be beneficial to find a prominent person (minister, parliamentary or other influential person), who will become an advocate (or sponsor) of the bill and provide that person with all the necessary information that supports the adoption of the bill. It also may be beneficial to identify potential opponents, define a strategy on how to respond to potential challenges and in advance prepare answers to potentially controversial questions.

191. The Chief Statistician is usually heard as expert witness during the law revision process. These hearings, either in government, parliament or organized by NGOs, are also important lobbying for official statistics and for the necessary legislative changes. It is important to assign a legal expert to accompany the Chief Statisticians in these hearings. However, lobbying is not isolated to the Chief Statistician. Other senior management should also be involved.

192. Consultations with relevant actors (both those related to other issues) are also needed to promote the law. The lobbying phase and the related tools and sub-processes are explained in more detail in the guidance on advocacy in section 6B.

5. Drafting phase

193. The first phase of drafting should be the scope assessment (this can also be performed as a part of the vision paper). Scope assessment should determine whether the changes can be achieved by other, non-legislative measures (such as ordinance, change of another law or different interpretation of existing clauses), and also it should determine whether the changes are substantial enough (such as changing the legal position of the statistical office) to propose a new bill instead of amending existing legislation. For instance, in some countries revisions to more than one third of the law call for proposing a fully renewed law.

194. Even though some statistical offices do not have the authority to draft the bill, as the working group for amending the law is typically chaired by a responsible authority, inputs for the bill are sought by statistical office.

195. Drafting working groups usually have to reach consensus on particular issues and therefore at this point it is quite beneficial to analyse examples of statistical legislation in other countries and carry out the mapping exercise of existing legislation to the GLOS and the common elements of statistical legislation.

196. Upon finishing the draft legal text, it is beneficial to present the text to selected statisticians and senior management and seek their input. Also, this is the moment to consider relations with other legislation, as it may be possible to use the statistical law to prescribe exceptions to the general rule, such as data access regulation, personal data protection regulation or to prescribe other exceptions enabled by EU regulations.

6. Consulting the draft legislation

197. A consultation schedule should be well planned and will be strategic for allowing changes to the draft legislation. Often internal consultation within the NSS are carried out first to include expert input into the first drafts for discussion.

198. First user round of consultation should be carried out early in the process, with the vision paper. Thereafter, the stakeholders that are likely to have concerns about the proposal should be consulted first to ensure enough time to address their concerns. These stakeholders should also be consulted prior to consulting others as changes may be due in the draft texts. Usually, it is beneficial to hold separate meetings with major stakeholders that are influenced by the change and after they are finished (or in parallel) open the public consultations.

199. At the end of the consultations, a revised draft incorporating changes is prepared and stakeholders are informed of the revised version. Transparency is recommended, to the extent possible, to ensure a smooth revision process. Employees and stakeholders should be kept informed of the status of the review at all times.

7. Procedure in the government

200. In order to get a bill approved by the government, it usually has to be included in the government's legislative agenda (usually implemented at the beginning of the year) and a deadline for passing it should be set at this time. Including the bill to the legislative agenda usually provides additional administrative and political pressure and therefore it should be done at the right moment in order to ensure the momentum.

201. After all the previous steps have been taken, the bill is sent to the government procedure. Procedure usually includes discussion on responsible government committees or other government bodies depending on the country. These committees usually review whether all the prescribed steps have been taken and whether the main concerns have been addressed. The preparation process ends with preparation of the political summary for the minister or other responsible person who will be presenting the bill to the cabinet.

8. Procedure in the parliament

202. Once a bill is adopted by the government, it gets sent to the parliament where first it has to be discussed by the responsible parliamentary committees. Chief Statisticians usually get the opportunity to explain reasons for change to committees in expert hearings, and parliamentarians usually use committees to broaden their understanding of the issue. Therefore, it is important to be well prepared to explain all suggested changes clearly and unforeseen questions may be expected.

203. After committees finish their work, the bill gets sent to the plenary for discussion. Parliaments usually adopt bills in two readings, which is intended to further increase the quality of future law by providing time for the lawmaker to improve the text by providing amendments. In some countries, the exception to this rule are bills that are marked as urgent (i.e. bills that require immediate action or bills that transpose the *acquis communautaire* (EU law)), which may be discussed in one reading only. After the second reading, a vote is scheduled, and before the vote, all parliamentary parties and the government have the right to propose amendments. In case there are any amendments, they are voted upon individually first and after that, the whole law is voted upon. In case a political system has a two-dome parliament, there is usually one or two readings, but after a bill is adopted it gets sent to the upper house where a similar procedure is repeated.

204. After adoption, the bill gets sent to the person authorized to sign it (some political systems allow the President to return the bill to the parliament or to veto it), and after it is published in an official magazine, a bill becomes a law.

9. Implementation of the new law

205. Once the law has been passed, the process continues in order to support the implementation of new or changed regulation. The NSO should communicate the key changes to the other producers of official statistics, data providers, respondents, users and other stakeholders that are affected by the change. A generic note on the main changes should also be made available to the public with a link to the full statistical law and its amendments. Publication of the note, or other methods of promotion should be used in order to communicate the advantages of the law and to increase awareness and trust.

206. Example of good practice in the implementation of a new statistical law can be found from the Republic of Moldova, where the NSO created an action plan for the implementation of new statistical law, detailing the tasks that need to be implemented with clear responsibilities and deadlines (see case study 2 by the Republic of Moldova, annex II). Strong policy support and clear planning of actions are important for the implementation of a new statistical law (see case study 1 by Canada, annex II).

207. If legal changes influence the way in which the statistical system works internally or with stakeholders, specific working groups should be set up in order to define how these changes will be implemented in practice and to prepare practical instructions going forward. For instance, if the statistical law requires the creation of a mechanism for respondent representation and consultation, such a group should be formed and launched.

208. Implementation phase often includes updating or writing new by-laws (or ordinances) and internal policies, which may be needed to further define some specific areas of the statistical legislation. The implementation of the

by-laws usually follows a simplified procedure of adoption, however some of the steps of the law creation should be repeated to increase their quality (i.e. partial assessments and consultations with interested parties).

209. The process of the law implementation should be monitored in order to ensure full implementation. Once the law enters force, focus tends to shift to other priorities, and monitoring of the process of implementation can be used to ensure full implementation.

10. Assessment of the outcomes

210. The assessment should review how the changes have been implemented and what has been the impact compared to the pre-assessment done before the revision. This phase would also point to gaps in the implementation of the new law to be addressed.

211. The lessons learned and possible problems related to the new legislation should be noted for further improvement. This analysis can feed into an updated vision paper to be kept at hand for possible future revisions of the statistical legislation. Statistical legislation should not be viewed as static; it needs to be continually reviewed and adjusted to reflect emerging issues.

B. Advocacy on the sound legal frameworks for official statistics

1. Introduction

212. A government may determine that it needs to adopt a statistical legislation or make changes to a current statistical legislation to enable an efficient national statistical system. The inspiration for new legislation or amendments varies according to a country's economic, political and societal context but the ultimate objective is to render a robust, transparent and professionally independent statistical system that provides reliable information for evidence-based decision making.

213. The development of new legislation or provisions requires targeted effort to advocate the advantage of a new legislation or amendments to an existing law to the various stakeholders with different agendas. A strategic approach to advocating for a new legislation will increase the chances of an efficient and successful process.

214. In reality, in a democratic government, any new or amended legislation can be considered a political opportunity while meeting policy needs. It is this dual purpose that renders the adoption or changes to legislation more complex. The main goal of advocacy when changing statistical legislation is to secure conditions for producing high-quality official statistics and ensure users' trust in line with the Fundamental Principles of Official Statistics. Advocacy is needed to explain to stakeholders and government the required changes and their impact but also the special role of official statistics enshrined in the Fundamental Principles that guide statistical work.

215. As a legislative agenda is politically dependent, it is recommended that an NSO continuously examines the state of its statistical legislative governance and be ready for political opportunities for improvements. A country seeking to adopt new statistical legislation will undertake a slightly different political advocacy strategy than for amending legislation, but the end result remains the same.

216. The concept of advocacy for this analysis consists of both the consultation process and the need to build consensus that a statistical legislation would benefit the governments, businesses and citizens. Changing statistical legislation is an opportunity to strengthen relations with stakeholders and decision makers. A good engagement of NSO with decision makers will be helpful when statistical legislation needs to be developed. The following provides the breadth of considerations that an NSO or government must consider for their statistical legislative agenda. The intended outcomes of statistical legislation contained in chapter 5 provide further ideas and arguments for advocacy.

2. Focusing on the outcome

217. As in case of many other important changes in a government, political system or public administration, the focus of the change should not be on the expected changes of the law but on the expected outcomes of legislation. It is not the tangible result that should guide a legislative change but what we expect society to gain from the change. An NSO does not create statistics for its own purpose but for the benefit of its country, therefore the changes should not focus on the operations but on what they will bring.

218. By focusing on the outcomes of the legislation for society, the advocacy addresses the many different perspectives of a variety of stakeholders. It will assist in finding common ground to determine that a legislative change is required and also to identify other legislation that have similar objective or could be impacted by the legislative change.

219. For example, a legislative change that would enable the NSO to obtain administrative data should not focus on the legal provision to have the access but on the outcome to acquire more data in a timely manner to produce more relevant statistics for its citizens while reducing the response burden.

3. Building consensus

220. It is necessary to build consensus about the changes needed in the statistical law and their impacts and benefits. Building consensus requires the engagement of data users, research institutes/academia, respondents, entrepreneurs, employees, producers of national statistics and partners to determine their needs and develop legislation that is responsive to those needs. The stakeholders are most likely to become engaged if the changes are forward looking, seek efficiencies, modernize the current framework and if there is a clear benefit to them.

221. The first step to building consensus is to identify those stakeholders that should be consulted as part of the process. The selection of the stakeholders should include those that are expected to be critical of the legislative change. Addressing this criticism at the beginning of the process will expedite and facilitate the consensus building.

222. Consensus building will require persuading the government of the importance of the amendment or new legislation. The engagement of other government entities to endorse the legislative change is necessary.

223. User perspective is the most important factor to consider when advocating for new legislation or legislative changes. As an NSO is meant to produce statistics for the benefit of the citizens of a country – the users – it is crucial to identify how such legislative changes will improve the quality of the economic, social or environmental information used for evidence-based decision making.

224. Other important factors are the confidentiality provisions to respect the right to privacy and business interests and the independence of the NSO to guarantee unbiased information and access to the information for research purposes. Any of these factors can be related to the user perspective and contribute to the overall essence of statistical legislation.

225. To initiate consensus, it is recommended that the NSO develops its own vision paper that identifies the gaps in statistical legislation and improvement needs gathered from its internal statistical domains. This vision paper will provide a structure to guide the debates related to the legislative change and focus on the priorities.

226. In order to focus on the priorities identified in the vision paper, the NSO will be required to be transparent about the process for legislative change and manage the expectations of the stakeholders. Those limitations are usually set by the government and by existing legal frameworks.

4. Internal engagement

4.1 *ENGAGEMENT WITHIN THE NATIONAL STATISTICAL OFFICE*

227. The NSO employees working in thematic areas and legal services need to be engaged in the process.

228. The employees working in thematic areas are aware of the data users' needs, the respondent's considerations as well as the operational constraints to align these needs and considerations, so they can provide valuable ideas to implement in the statistical legislation. They should also be consulted prior to government approval of the drafting instructions and during the drafting of the legislation to limit expectations from the users, confirm that the bill aligns with the desired outcome and also provide risk analysis of the concepts to be implemented.

229. Internal advisory committees, such as the Statistical Advisory Council, will be useful in the development of the vision to provide a holistic view of the NSO and advice on the future of the NSO.

230. If employees working in thematic areas are aware of the government's move towards legislative change or a new legislation, they can provide valuable input towards the vision of the NSO. As employees are the greatest strength of an NSS, their engagement is crucial to the efficient implementation of any statistical legislation. They should be informed as soon as legislative change is considered and consulted at the very beginning of the creation of the vision.

231. Another important group of experts to seek engagement of are legal services in the government. They will manage the expectations of the government with regard to legal limitations. They will ensure that any concepts developed are valid and legitimate. The legal services will advise on any gaps, pitfalls and future considerations. They will also assist the NSO in the drafting of the legal provisions. The collaboration of statistical experts and legal services to draft new legislation or changes to legislation will ensure the alignment of the practical and theoretical concepts. It is crucial that legal services be part of the creation of the vision in order to understand the objective of the project and to advise on legal aspects before creating expectations that cannot be met.

4.2 *ENGAGEMENT WITH THE OTHER PRODUCERS OF OFFICIAL STATISTICS*

232. The statistical law is about the entire NSS. Therefore, the national producers of official statistics will play an important part to identify the current limitations of the existing legislation or their potential role in a new statistical framework. The identification of the limitations will permit the government to improve the legislation to meet their data needs and if changes are not possible, to develop processes that will close the gap created by these limitations.

233. It is recommended that other national producers of official statistics be consulted in the development of a vision paper on future statistical legislation. The involvement of other producers of official statistics will increase the weight of the change proposals, create ownership of the new legal frameworks, promote active implementation of the new law among producers and enhance collaboration within the statistical system.

5. External engagement

5.1 *POLITICAL ENGAGEMENT*

234. At the political level, the engagement of the responsible minister's office will play an important role to advance the legislative change as a government priority. Subject to a country's government structure, the minister will likely initiate the request for legislative change or new legislation. This means that they will need to completely endorse the suggested changes or new law. It is recommended to consult with the minister responsible early, near conception of the vision, for their support and agreed expectations and to continuously update the minister on the consultations with other stakeholders.

235. It is also recommended to seek the engagement of the relevant parliamentary committees that will be reviewing the legislation prior to its adoption. In order to have an adequate debate on the proposed changes, it may be beneficial to reach out to the committee members prior to their committee appearance to provide them with background information and answer any questions.

5.2 USER ENGAGEMENT

236. The important external stakeholders of the NSS to consult and seek the engagement of are the users of the data. As the ultimate product of the legislation is meant for the users, it seems obvious that data users should be consulted and that their data needs be considered when making legislative changes. It is recommended that such consultation be focused on the advanced users who are experienced in the area of official statistics. The users should be consulted when developing concrete legal concepts for legislative change as it will be easier to engage them at this stage.

5.3 RESPONDENT ENGAGEMENT

237. Once concepts are developed, it is recommended to consult with respondents to determine the impact of these changes on them. Finland provided a case study on their good practice of extensive respondent consultations and cooperation (see case study 3, annex II). Primarily, consideration for the burden of respondents should be taken into account as well as the privacy/confidentiality concerns. The engagement of respondents at this stage will likely facilitate the parliamentary process when debated by the parliamentary members who are the advocates of their constituencies.

5.4 DATA HOLDER ENGAGEMENT

238. Changes to the statistical law that relate to administrative data or collaboration with the providers of administrative or other data need to be consulted with the data providers in advance. A legislative provision may negatively affect the operations of a data providers' organization or business. Therefore, advanced consultation will permit to determine the limits acceptable to them to maintain their active participation in the statistical system.

5.5 ENGAGEMENT OF OTHER STAKEHOLDERS

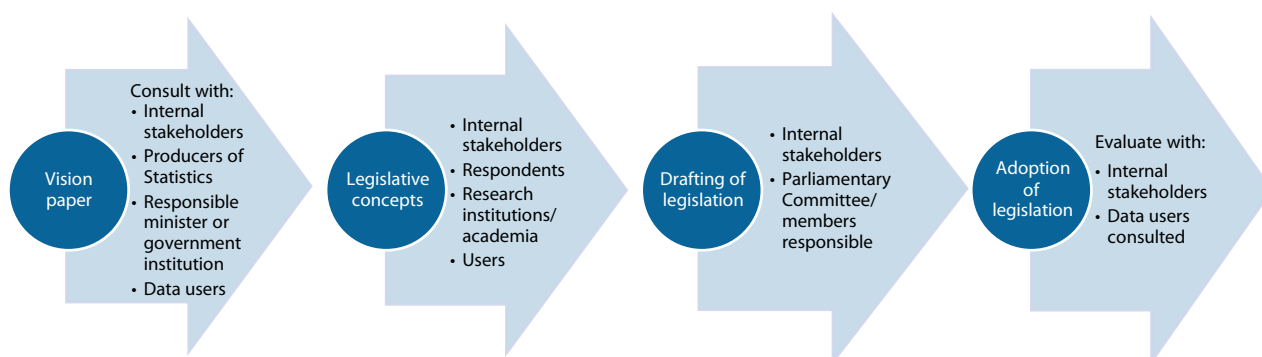
239. There are other partners whose engagement in this process will provide valuable input. The various levels of government, privacy experts, information sharing partners, cost-recovery partners as well as various committees can provide advice to improve the concepts proposed and help to avoid any last-minute impediments by these stakeholders.

6. Managing expectations in the process of advocacy

240. The process of consultation has two main purposes. The first is to seek ideas or advice on the vision or concepts developed. The other implicit purpose is to manage the expectations that stakeholders may have. It is an opportunity to discuss the constraints or limitations which a legislative change is subject to and explain the Fundamental Principles of Official Statistics supporting the proposed changes and the legislative process to the stakeholders. Once the law is adopted, it is important to follow-up with the stakeholders to have an evaluation of the process and provide explanations as to why certain concepts were not incorporated.

241. The timing for legislative change is a very important factor for success as well. There must be political appetite for such change which might sometimes be anchored in political platforms during electoral debates. The climate for legislative change has often been described as seasonal; but whether it will be at the beginning of a government's mandate or in the second or last year of a government is left to the specific situation of a country. In consideration of the political timing, it can only be recommended that an NSO be in constant review of its legislation to be at the ready for legislative change at any time.

242. Although an order for advocating cannot be pre-defined with certainty, figure 3 presents an example of a process with its important phases. The full process of revising statistical legislation is presented in figure 2 in the previous chapter.

FIGURE 3**Phases of advocacy when revising statistical legislation**

7. Challenges

243. Legislative changes will encounter many challenges. Some concerns will be raised and will need to be addressed in order to progress. The expected challenge to engage the NSO staff into legislative change is that new or amended legislation may create fear and resistance to the changes. It may be perceived as too significant a cultural shift for the organization. It will be important to manage the legislative change by using the principles of change management. This will provide for constructive and positive feedback from the NSO staff.

244. Other challenge is to determine if the legislative change should be specific or general in nature. Are the changes meant to address specific concerns within the statistical system or to address them in general, thus providing more flexibility but less clarity in the interpretation? The answer to this question will drive the direction of the legislative changes.

245. The NSO may be requesting legislative changes that will modify the structure of or powers afforded to the organization for which the government may not readily entertain at that stage. Therefore, the NSO should be ready to undertake legislative change incrementally by building foundational blocks in consideration of future legislative changes.

246. The most important challenge that will be raised will be importance of legislative change for a statistical agency and the country in comparison to other legislation on the government's legislative agenda. In consideration of the other governmental priorities, an existing statistical system in law may not seem to be a primary concern. The NSO will have to demonstrate the benefits to the legislative change that will support other government priorities.

247. Opening the statistical law for reconsideration could also lead to unexpected changes that would not all be useful for statistical work. Therefore, careful timing and planning of revisions is important. Advocacy should also include tools and arguments for resisting political interference in key elements of statistical legislation when the changes of the law are discussed.

8. Compromises

248. During the process for legislative change, the NSO will be challenged and will be asked to compromise on the recommended changes. It will be crucial for the NSO to know in advance which legislative changes are essential to meet the outcome and which suggested changes can be addressed in other ways such as policy changes or relationship building. Preparing well for advocacy provides a stronger readiness to stand for the essential changes of the statistical law. Advocacy may also help to build some more understanding of what official statistics are about.

C. Relation to other legislation

1. General description of different relationships regarding specific legislation and statistical legislation

249. Official statistics plays a central role in democratic societies as they provide public authorities, policy makers, citizens and other users with objective and impartial information to support taking evidence-based decisions and engaging in open debate. Therefore, statistical legislation has implications across other domains of society and is linked to other legislation as well. Sound statistical legislation supporting statistical systems is essential for the production of high-quality official statistics as it provides the principles, rules and conditions for the work. However, the statistical law is not the only legal framework influencing statistical work. This section, therefore, looks into the links of statistical legislation and other legislation.

250. Statistical legislation is part of the legal system of each country. When deciding to adopt a new statistical legislation or amend the existing one, other legislation related to statistical legislation should be reviewed and taken into account accordingly. Statistical legislation could be related to other legislation in different ways:

- It could refer to other legislation already regulating specific aspect (i.e. the definition of personal data) or
- It could have impact on other legislation as *lex specialis*, regulating a specific question differently or even regulating an exemption to other legislation (i.e. the appointment of public servants, personal data protection, etc.)

251. Aspects of the statistical law that have an impact on other legislation are more likely to be difficult to resolve than aspects that are referred to. Yet, in some areas, the statistical laws do provide exemptions from other legislation, especially to ensure full respect of the Fundamental Principles of Official Statistics. This may include, for instance, different procedures for the appointment and dismissal of Heads of producers of official statistics to enshrine professional independence; wide access to otherwise confidential data held by other authorities or private entities for statistical purposes only; and the right to retain income from statistical service activities to ensure sufficient resources allowing wider use of statistical datasets.

252. Statistical legislation may be composed of several legal acts regulating the activities of different statistical producers, regional activities or certain statistical areas. The statistical law may provide the framework for other legislation related to statistics, e.g. in some countries for the population census act. Changes in statistical legislation may also bring up the need to update other legislation, such as acts that regulate the work of other government authorities, for instance relating to administrative data. Similarly, changes in other legislation may sometimes influence statistical work or data availability for it. In these cases, the statistical offices should be consulted for opinion.

253. Many countries have a central legal office adapting draft legislation to the national context and reviewing it to avoid conflicting legislation. However, the statistical office needs to ensure that the review of links to other regulation takes into account the key requirements of statistical work properly. The statistical law is recommended to be given a priority to safeguard the United Nations Fundamental Principles of Official Statistics and avoid any risks to data confidentiality and professional independence of statistical authorities. The common elements of statistical legislation, thus, state that: "Any other legal act making reference to official statistics shall be adapted to comply with the statistical law. In case of conflicting legislation, the provisions of the statistical law or another act based on or mentioned in the statistical law shall apply."

254. As there could be variability in legislation across countries, this chapter provides examples of legislation that would most likely be related to statistical legislation or that have an impact of greater importance. Therefore, the list of identified legislation is not exhaustive but rather tentative, helping statistical offices or other responsible bodies involved in legislative process to properly navigate when reinforcing legal and institutional frameworks for official statistics.

2. Identified legislation that could be referred to or could have impact on the statistical legislation

2.1 COULD BE REFERRED TO IN:

A. Government act

255. Government act usually determines the institutional position of the NSO, the position of the Chief Statistician in the public administration, the legislative procedure for the adoption of statistical programmes, etc.

B. Information security act (ISA)

256. Information security act determines information security procedures and measures in public administration that the NSO belongs to. ISA provides for a minimal level of information security measures. It is not restrictive in upper limit.

C. Criminal code

257. Criminal code provides for a list of illegal acts in a specific country, of such importance, that are recognized as criminal offence. Other legislation, such as statistical, refers to a criminal code, identifying one or several acts as being criminal.

D. Minor offences act

258. Minor offences act determines the fundamental principles of minor offence proceedings that the statistical offices should follow when applying possible sanctions (i.e. presumption of innocence, the principle of material truth, the principle of free evaluation of evidence, the principle of procedural economy, the language of the proceedings, the right to request for judicial protection).

2.2 COULD HAVE AN IMPACT ON:

A. Public servants act

259. The public servants act could come into conflict with the appointment procedure and the mandate of public servants. Because of the principle of professional independence of statistical production, the appointment procedure and the mandate of the Chief Statistician should be defined in the statistical legislation.

260. The related common elements of statistical legislation note that “The procedures for the recruitment and appointment of the Head of national statistical office and, where appropriate, Heads of other producers of official statistics, are transparent and based on professional criteria only”. Furthermore, they recommend that “the Chief Statistician shall independently decide on the structure, use of resources, tasks and appointment of the staff”. The common elements also regulate that the “term of office of the Chief Statistician cannot be terminated before its expiry for any reasons compromising statistical principles”. The term of office may be terminated only for the reasons listed in the statistical law.

261. The statistical legislation could define the necessary supplementary conditions for the appointment, term of office and dismissal of the Chief Statistician and the staff if the legal order of the country allows. This should be done if the general legal acts on the appointment procedure lack some essential regulations which are highly important for preserving professional independence or include regulations which are in contradiction with the Fundamental Principle of professional independence. Additional provisions to the common elements may be applied, such as that the candidate cannot be a member of political parties; the Statistical Council shall select the candidates; and that any changes in the political environment cannot be a reason for the dismissal of the Chief Statistician.

B. Public finance act

262. Budgetary provisions of the public finance act may affect the principle of adequacy of resources of the European Statistics Code of Practice. This is most often affected by the legal provisions of the national financial regulation and by the way in which the NSO is embedded in the organizational structure of the government. The principle of adequacy of resources is a basis for arguing for having specific budgetary provisions in the statistical legislation.

263. The common elements of statistical legislation state that “Producers of official statistics shall be granted adequate human, financial and technical resources necessary for the implementation of the statistical programmes.”

264. In practice, the NSO should be directly involved in the process of harmonization (governmental procedure) and adoption (parliamentary procedure) of the draft budget if this is in accordance with the national legislative system.

265. The explicit provisions in statistical legislation should refer to adequate resources to implement the work programme and could refer to the different types of budgetary allocations (if provided in national financial legislation) and to the process of adopting the budget. The NSO and/or the Statistical Advisory Council could have the right to comment publicly on the budget allocation and its implications on the statistical work.

C. Different legal acts governing administrative or other data sources (registers, big data, privately held databases)

266. The statistical law typically gives a mandate for access to data from all existing registers held by public authorities and private data holders. Clear legal mandate in statistical legislation to access all administrative data sources.

267. The common elements of statistical legislation state that “Administrative data providers are obliged to provide producers of official statistics, free of charge, with data in their possession, including identifiers, at the level of detail necessary for the production of official statistics and with the metadata, where possible, that enable assessing data quality.” Furthermore, the common elements foresee an obligation of administrative data providers to consult statistical producers: “If the providers of administrative data plan to develop a new data collection or carry out a major revision in their data collection or processing in a way that may significantly affect data provided for official statistics, they shall consult the national statistical office and, where appropriate, the other producers of official statistics, in advance of the decision.”

268. Depending on the national legal setting, it could be the case that statistical legislation is not sufficient, but that the same provisions would need to be added to the sectoral legislation governing the activities of authorities that collect administrative data. If needed in order to guarantee lawful processing of personal data, such regulations could be reinforced by including in the statistical programme or in any other relevant document a list of all administrative data sources the statistical authority needs. If needed, such documentation could include information on the type, amount and purpose of personal data to be obtained from administrative data sources for statistical purposes. This would give a clear signal that statistical authorities’ operations with personal data are adequate, relevant and limited to what is necessary.

269. The common elements of statistical legislation also provide for access to private data holders’ datasets, if need be: “Producers of official statistics shall be entitled to access and collect data from all public and private data sources (...) Producers of official statistics shall be committed to limiting response burden and reusing data by considering data sources that already exist.” This provision aims to limit response burden in society by increased reuse of data.

270. These regulations could be extended, if needed, to state that statistical authorities can have access to databases of private parties containing personal data taking into account that further processing of data for statistical purposes shall not be considered to be incompatible with the initial purposes of data collection and processing. The same applies to processing of business data. Moreover, specific safeguards could be put in place to ensure that access remains proportionate and preserves the existing rights of the data holders, as well as a pricing mechanism could be envisaged, that guarantees some cost recovery for data extraction and preparation.

D. Electronic communication act

271. Electronic communication act may include an explicit ban of allowing access to electronic communication data for statistical or any other, except for very narrow purposes.

272. This is in contradiction with the common element on access to data: “Producers of official statistics shall be entitled to access and collect data from all public and private data sources.”

273. Data generated in publicly available electronic communications networks could be extremely useful for the production of official statistics. In Europe, electronic communication data are defined as traffic data which includes any data processed for the purpose of communication on an electronic network or for the billing thereof; and which includes location data indicating the geographic position of the terminal equipment of a user of a publicly available electronic communications service. As processing electronic communication data could mean an invasion of privacy, at least the EU legal act stipulates a very exhaustive and comprehensive framework for access to electronic communications data. A state authority can have access to such data for the purposes of:

- (a) National security
- (b) Defence
- (c) Public security
- (d) The prevention, investigation, detection and prosecution of criminal offences, or of breaches of ethics for regulated professions
- (e) An important economic or financial interest of a member state or of the European Union, including monetary, budgetary and taxation matters
- (f) A monitoring, inspection or regulatory function connected, even occasionally, with the exercise of official authority
- (g) The protection of the data subject or of the rights and freedoms of others.

274. In Europe in order for a statistical authority to have access to these data, national legislation should particularly stipulate when and for what reason a statistical authority can have access to electronic communication data. These data would provide unforeseen possibilities for making more timely statistics to analyse population densities and flows of migration, commuting and tourism. This is an issue of sectoral legislation and legal interpretation whether processing of data for statistical purposes can be considered, for example, public security issue or an important economic or financial interest of a state. To sum up, the issue of access to electronic communication data is multifaceted, and it is important to understand the legal regime of a country, and most probably it will not be enough to stipulate access to such data in statistical legislation. Moreover, in Europe, an important role in interpretation of these legal acts is vested in the European Court of Justice.

E. Privacy and data protection act (General Data Protection Regulation at level of the European Union)

275. The privacy and data protection act provide the legal basis for data processing identifying the statistical purposes. Official statistics are often provided exemptions from right of persons to review, correct or remove their data, because data held by statistical authorities are not used to make any decisions regarding individuals. Further, right to remove data would be harmful for statistical production and individuals’ requests to review all data about them in the statistical system would heavily burden statistical authorities. Where personal data are processed for purposes of official statistics, statistical legislation may provide for derogations from certain obligations for data processors or certain rights referred to individuals by the personal data protection act or by General Data Protection Regulation at the EU level.

276. The common elements of statistical legislation state that “Where personal data are processed for purposes of official statistics, statistical law may provide for derogations from the rights referred to in the personal data protection act [...], in so far as such rights are likely to render impossible or seriously impair the production of official statistic and as such derogations are necessary for the fulfilment of statistical programmes.” Similar formulation is used for derogations from those legal acts which set out provisions for access to individual data.

277. Furthermore, the common elements of statistical legislation underline that “Individual data obtained exclusively for statistical purposes shall not be used for any investigation, surveillance, legal proceedings, administrative decision making or other similar handling of matters concerning a natural or a legal person by any authorities or international organizations.”

278. In practice, providing personal data collected by others to statistical authorities for statistical purposes is understood as compatible with original purposes for which these data were primarily collected. This is because the intention is not to use the personal data for any decisions about the person or unit in question.

279. The privacy and data protection act (or General Data Protection Regulation at the EU level) provides that national statistical legislation may be granted derogations from specific rights of persons. For example, privacy and data protection act stipulates privacy rights of individuals: right of access by the data subject to its own data, right to rectification of data, right to erasure, etc. These rights of individuals (data subjects) could be restricted, under certain conditions and if provided so in national legislation. This could be regulated in the statistical legislation or, preferably, in the privacy and data protection legislation for reasons of legal certainty.

F. Archiving act

280. Archiving act provides for the procedure and archiving of data of national interest. The act applies when statistical data become part of the public archive and provide obligations for electronic archiving.

281. While the common elements of statistical legislation do not directly refer to archiving, they note that “The development, production, dissemination and communication of data shall respect the provisions of [names of the legal act, such as act on the openness of government activities, archives act, etc.] only if these are not in conflict with the statistical law.” The common elements do foresee that “Producers of official statistics may process and store individual data with identifiers for the time necessary for statistical purposes.” The elements dealing with confidentiality and their processing may also have links to the archiving act.

282. In some points, there could be some conflicting regulation between the statistical and archiving legislation, for instance about what is of national interest and what not, who could be the keeper of data of national interest and how those data should be archived, including the technological environment. The possible differences should be reviewed when revising either legislation.

G. Public information access act

283. Public information access act governs the procedure which ensures everyone free access to and reuse of public information held by state bodies, local government bodies, public agencies, public funds and other entities of public law, public powers holders and public service contractors. Confidential data, as defined in statistical legislation, should be an exemption to the general rule of free access to the data held by the government bodies.

284. The common elements of statistical legislation emphasize that as part of impartiality and objectivity “All users must be given equal and simultaneous access to official statistics.” Further, “Releases of official statistics shall be accompanied by metadata and explanatory comments, and access shall be granted to all users free of charge.” In addition, statistics are freely available for various uses: “Users are entitled to use official statistics and the related metadata in their own products with indication of the data source.”

285. Statistical confidentiality and exclusive use for statistical purposes means “that individual data collected or obtained by producers of official statistics that refer to natural or legal persons are to be strictly confidential used exclusively for statistical purposes and accessed solely by those authorized to do so under the statistical law”.

286. To avoid conflicting regulation, public information access act should define confidential statistical data as referred to in the statistical law, and these should be treated as an exemption in the public information access act.

287. Special attention is needed in cases where individual data may be publicly available but are treated as confidential information by statistical legislation. This is the case for instance with the Aarhus convention which provides for some data on pollution and environment to be publicly accessible, even if they are confidential when held by producers of official statistics.

3. How can a statistical office influence government and law-making whilst maintaining its independence?

288. Legislation process is usually strictly defined although it varies across countries. The role of the statistical offices is to prepare a draft of statistical legislation or to be involved in the preparation of it. Both cases require authoritative role of the statistical offices to provide an input to the legislative work based on the Fundamental Principles of Official Statistics, especially professional independence, and their implementation throughout the legal text. The involvement of the NSO is key to developing and adopting solid statistical legislation that provides a framework for producing high-quality official statistics.

289. The common elements of statistical legislation cover key issues to be regulated in the statistical law and describe the intended outcomes of these elements in society. However, as comprehensive these elements might be, they are not the only legal framework of statistical production. The legal framework of statistical production consists of the combination of statistical law and regulations on statistical activities as well as other legal acts regulating the activities of government bodies and acts forming the general legal environment in each country.



7. GOVERNANCE OF NATIONAL STATISTICAL SYSTEMS AND ITS LEGAL ASPECTS

A. Introduction

290. National statistical systems across the world vary greatly. The history and specific national circumstances of each country substantially influence the organization of an NSS. The governance structure of a NSS is reflected in statistical legislation.

291. The structure of NSSs can be closer to a centralized or decentralized system. Systems where a single organization is responsible for most of the official statistics are considered rather centralized. The common elements of statistical legislation apply more directly to such statistical systems. Even in centralized statistical systems other government authorities produce some of the official statistics in addition to those produced by the NSO. Some countries have more decentralized statistical systems, where the production of official statistics is distributed among a larger number of offices, such as in the United Kingdom or the United States.

292. National statistical systems may also be regionally centralized or decentralized. The latter is the case for instance in Germany. In that case, the statistical system is comprised of a number of regional bodies collecting and producing statistics, and a central body is in charge of producing statistics at the national level. The statistical system of the United Kingdom is also to some extent regionally decentralized, as Scotland, Wales and Northern Ireland identify their own statistical needs that have to be balanced with the need to produce statistics for the United Kingdom.

293. The governance of NSSs also varies in terms of reporting lines to the government. In principle, producers of official statistics should be distinct from the government and organized typically as separate entities from other government departments. In any case, statistical offices may report to the Prime Minister or President on issues that are not covered by professional independence. In some cases, statistical offices get their budget through a ministry, for instance the ministry of finance. There are countries where the statistical office reports to a ministry, but some statistical offices have a managerial independence in addition to professional independence related to statistical production. Armenia is in that end of the continuum, as they have an autonomous national statistical service with the State Statistical Council as the governing body. This Council consists of professional senior statisticians from the statistical system, and for clarity will be called the Managerial Board in this guidance. In this system, the statistical office does not report to a government body or ministry but directly to the President of the country.

294. The different governance models of statistical systems may require differences in some elements of statistical legislation. The common elements of statistical legislation, presented earlier in this report, are more directly applicable to centralized NSSs with or without subordinated regional offices. The common elements assume that the NSO is the main producer of official statistics in a country and the coordinator of the statistical system. This coordination function may also be assigned to a different body than the NSO, such as in the United States where the federal statistical system is coordinated through the Office of Management and Budget.

295. These differences in the organization of NSSs call for a further review of country specific issues to be considered when designing statistical legislation. This section provides three country examples that highlight some specificities relating to the link of governance models and statistical legislation. The countries have been selected to represent different types of governance models for NSSs so as to illustrate the relation to statistical legislation with practical examples of challenges and solutions for addressing them.

B. Armenia

1. Description of the National Statistical System – autonomous statistical office

296. The statistical system of Armenia is a centralized system headed by the National Statistical Service that is organized as a professionally autonomous body. The National Statistical Service is “a body implementing functions aimed at the public interest that is independent from state and local self-government bodies of the Republic of Armenia in its activities” (Law on State Statistics, article 6).

297. The key components of the statistical system are:

- The National Statistical Service which “implements the state statistical work and coordinates it on the territory of the Republic of Armenia” (Law on State Statistics, article 7).
- The State Council on Statistics, here the so-called Managerial Board, which is the supreme body of governance of the National Statistical Service and its units.
- The President of the National Statistical Service that organizes the implementation of the state statistical work programme and represents the National Statistical Service in internal and external relations.

298. The Board has a key role in the management of the NSS and the National Statistical Service. The President of the National Statistical Service holds the post of the Chairman of the Board. The Board confirms the annual and draft of the three-year programmes of state statistical work; confirms the regulations and structure of the National Statistical Service, its territorial and functional units; oversees the implementation of the programmes of state statistical work; confirms the report on the implementation of the annual and three-year programmes; and adopts legal acts in the domain of statistics.

299. The Board is composed of 7 members, appointed for a term of 6 years by the President of the Republic. The appointed members of the Board have to be citizens of Armenia with high education and be appointed for reasons of practical or scientific and educational experience in demography, sociology and public activity, international statistical cooperation, financial and banking, nature protection, management of entrepreneurial activity and/or information technologies. Termination of membership before the defined term is strictly regulated in the statistical law.

300. The following regulations provide the legal basis for the functioning of the NSS:

- Law on State Statistics, adopted on 4 April 2000
- Law on Population Census, adopted on 12 October 1999
- Law on Agricultural Census, adopted on 27 November 2008
- Laws on Three-Year State Statistical Work Programmes

301. Around 70-80 per cent of official statistics in Armenia are produced by the National Statistical Service; thus, some partners are considered to produce state statistics even if, formally speaking, those partners are listed in the legislation as producing administrative statistics. The two major partners of the NSS are the Central Bank of Armenia and the ministry of finance. In addition, the ministries of health, education and science, nature protection, agriculture, labour and social affairs, and transport and communication also collect data and produce some statistics in their area of expertise.

2. Benefits of the governance model

302. The law provides a strong legal basis for the National Statistical Service with regard to professional independence through a higher degree of managerial independence of the statistical system. Having a supreme body of governance with the right to adopt secondary legislation in statistics provides a high position for statistics in public administration.

303. The President of Armenia appoints the President of the National Statistical Service for terms of six years at a time; a different schedule than that of the elections of the President of Armenia. The law protects the President of the National Statistical Service and Board members against an inappropriate dismissal during their term of office and this is an institutional safeguard of professional independence.

304. The composition of the Board is key to ensuring that there is no interference to professional independence. In Armenia, this is secured through the strict requirements for Board members. The President of the National Statistical Service holds the position of the Chairman of the Board, and currently the other six members are in management functions within the NSS.

305. The institutional governance arrangements of the NSS in Armenia provide the National Statistical Service with a solid legal basis for the enforcement of professional independence, impartiality and objectivity, and for the implementation of sound methodology and appropriate statistical procedures while safeguarding confidentiality of statistical information.

306. Beyond securing the principle of professional independence, the law grants the National Statistical Service and its supreme governance body a strong managerial autonomy in the planning and implementation of statistical work. If the three-year work programme is approved by the parliament as a law after consultation with all stakeholders, its operational translation in the form of the annual statistical work programme is approved by the Board and executed by the National Statistical Service.

3. Challenges of the governance model

307. The current Law on State Statistics does not define the National Statistical System or official statistics precisely but mainly regulates the work of the National Statistical Service. It does, however, give the National Statistical Service a clear mandate for coordination of statistical work in the country.

308. The law considers the National Statistical Service as the only producer of state statistics, and statistics produced by other public authorities are called administrative statistics.

309. In the given organizational model in Armenia, the State Council on Statistics (the Managerial Board) is actually composed of producers of official statistics, and there is in addition a Scientific and Methodological Council formed of users of statistics. However, there is no precise provision describing the Council of users in the Law on State Statistics.

310. Challenges related to the adequacy of human, financial and technical resources for the implementation of statistical programmes persist regardless of the professional independence and managerial autonomy of the National Statistical Service.

4. Special legal aspects of the governance model

311. The statistical law of a country with an autonomous NSO needs to have specific regulations establishing the Board of Producers as the governing body of the NSS. The *Generic Law on Official Statistics* provides an example of such provision. The provision details the procedure for appointing Board members, lists the main tasks and regulates termination of membership in the Board.

312. Possible future revisions of the statistical law in Armenia could extend the coverage of the Law on State Statistics to all producers of official statistics, establish a definition of official statistics instead of state statistics and administrative statistics, include articles regulating census taking into the law itself as well as articles on the quality of official statistics and on international statistical cooperation.

313. In addition to a strong Board of Producers, the law should establish a Council of Users of Statistics to present proposals on the statistical programmes, present opinion on the implementation of statistical programmes and organize discussions on relevance, effectiveness and efficiency of statistical production

C. Germany

1. Description of the National Statistical System – Federal Statistical System

314. In Germany, article 1 of the Federal Statistics Law defines the federal statistics as “the results provided by federal statistics service to analyse social, economic and ecological interrelationships for use at the federal, Länder and municipal levels, by the scientific and research community and by society at large”.

315. The key components of the “system of statistical offices” in Germany are:

- The Federal Statistical Office established by the constitution as an autonomous federal higher authority.
- The 14 statistical offices of the Länder collect data and produce regional statistics under their own legislation.
- Other bodies also produce federal statistics, like financial statistics and labour market statistics.

316. The Federal Ministry of the Interior carries administrative responsibility of the Federal Statistical Office. The Federal Statistical Office needs the prior consent of the Ministry to take any major organizational, personnel or financial decisions. In addition, various federal ministries exercise their specialist supervision on statistics in their subject matter areas to ensure the proper and timely compilation of federal statistics. However, the Federal Statistical Office is independent and not subject to any directions in statistical work.

317. According to the so-called principle of regional decentralization, the statistical offices of the Länder are responsible for conducting statistical surveys stipulated by law. It is usually the statistical offices of the Länder that are responsible for collecting and processing data in due time. Only the Federal Statistical Office is responsible for compiling, disseminating statistics at the federal level. The statistical offices of the Länder and the Federal Statistical Office also disseminate and statistics jointly.

318. Due to the federal structure of the Federal Republic of Germany, the Länder are autonomous states. Consequently, the Länder statistics laws may be shaped quite differently. There are two distinct types of Länder statistics laws: laws of Länder that have broadly a similar structure as the Federal Statistics Act (usually in the eastern Länder, e.g. Sachsen), and other Länder laws which may differ from the Federal Statistics Act in terms of their structure and scope, for instance in Hessen and Bayern. Some Länder statistics laws also include provisions on municipal statistics and, in some cases, they provide for the setting up of statistical authorities at the municipal level, that is, outside the statistical offices.

319. However, most German official statistics are federal statistics, which means that they are produced for the whole country and governed by the Federal Statistics Act. Only a relatively small number of statistics are compiled for specific Länder purposes and regulated by their respective laws. Furthermore, Federal Statistical Act may also provide for central surveys for which the Federal Statistical Office carried out all the production stages. These statistics count for about one third of the federal statistics, i.e. the data are collected and processed centrally, which is the case for instance in foreign trade statistics and cost structure statistics. In the case of central surveys, the reporting obligations towards the Federal Statistical Office are clearly regulated.

320. The other bodies that produce federal statistics include, for instance, the Deutsche Bundesbank that compiles monetary, currency and balance of payments statistics and the Federal Employment Agency that provides several statistics on the labour market.

321. The statistical offices of the Länder are independent from the Federation in terms of public servants’ law and finance. They are not bound by instructions of the Federal Statistical Office or Federal Ministries. The Federal Statistical Office develops statistics for federal purposes in consultation with the statistical offices of the Länder. The details of cooperation and coordination between the statistical offices and the other national authorities are based on partnership and practical arrangements.

2. Benefits of the governance model

322. The principle of regional decentralization follows from the federal structure of the Federal Republic of Germany. The Länder offices are responsible for implementing the relevant laws regionally which enables people to influence decisions regarding the local community and its needs.

323. The concentration of statistical work in the NSO enables matching individual sets of statistics to obtain a coherent and consistent overall picture of development. The clear division between statistical production and administrative processes ensures that the information provided is neutral and objective.

324. Statistical offices can share statistical and IT know-how needed for the production of various statistics. They also make all statistical results, or at least most of them, available in one single place.

325. In Germany, the burden on respondents can be limited by using information from central registers that are available to all statistical offices.

3. Challenges of the governance model

326. Cooperation among the statistical offices is based on voluntary contacts and agreements. Lately, this collaboration has increased notably. A Master Plan for a Reform of Official Statistics was agreed in early 2003 to extend this collaboration to the processing of statistics. At the end of 2012, the statistical offices agreed to pursue a joint strategy with a set of coordinated measures. After an evaluation of the results in 2014, the persisting tasks and further development of official statistics was formed into a Strategic Priority Plan with about 40 actions. A conference of the Heads of German statistical offices regularly discusses cooperation between the offices of the Länder and the Federal Statistical Office.

327. A possible extension towards a federally organized system of official statistics or Länder statistics coordinated by the Federal Statistical Office has been discussed.

328. Furthermore, many Länder offices are specialized according to subject-matter and now act as responsible organizations for some sets of statistical surveys covering related subjects.

329. As regards ad hoc statistics needed to meet emerging or short-term data requirements, the Federal Statistical Office is authorized to produce statistics, but the Länder offices have to be involved.

4. Special legal aspects of the governance model

330. The Federal Statistical Office is not empowered to directly coordinate the statistical work or give directions to the statistical offices of the Länder. The statistical law does not include an element of coordination of the NSS as such.

331. The statistical offices do not establish an annual or multiannual statistical programme that would have a legal status. In the Generic Law, the statistical programme is a central tool for coordination and a means of defining the producers of official statistics in a flexible way. Currently in Germany, all essential parameters of a survey (variables, group of respondents and periodicity) need to be specified by law. Due to the lengthy legislative procedures, the introduction of new statistics may take a long time.

332. The Länder have their own statistical legislation, which makes changes at the federal level more difficult to reach. Some statistical offices of the Länder also have their own user Councils that advise them on priority data needs. These data needs will then be balanced with the federal data needs and EU requirements.

D. United Kingdom

1. Description of the National Statistical System – National Statistics Authority

333. In the United Kingdom (UK), the Statistics and Registration Service Act 2007 provides the legal basis for the UK statistical system, and the term “official statistics” has a legislative meaning which is any statistics published by a public authority. This means that the NSO (the Statistics Board, which is more commonly known as the UK Statistics Authority (UKSA)) is only actually responsible for producing approximately 65 per cent of official statistics. This semi-decentralized approach is supported by a strong NSO with a legislative role to oversee and regulate statistics and a well-coordinated professional community.

334. The key components of the statistical system are:

- The UK Statistics Authority is responsible for promoting and safeguarding the production of all UK official statistics to ensure they serve the public good.
- The Office for National Statistics (ONS) is the executive office of the Authority.
- The UK government departments and devolved administrations are responsible for producing and publishing statistics related to their area of competence.
- The Government Statistical Service (GSS) is a professional community for all staff who work towards producing and publishing official statistics in England, Scotland and Wales.
- The National Statistician is the government’s main adviser on statistical matters and the Head of the Government Statistical Service and Chief Executive of the Authority. The National Statistician is also the main adviser of the Authority Board, and a member of the Board.
- The Chair of the Statistics Board is the non-executive Chairman of the Board who is appointed by the Crown. The Head of Assessment is a member of the Authority Board, and is responsible for the assessment, reassessment and accreditation of National Statistics.

335. The UK Statistics Authority is responsible for coordinating statistical work across the statistical system. A large proportion of official statistics are produced by organizations other than UK Statistics Authority. However, the UK Statistics Authority supplies up to about 60 per cent of statistics required by EU. It is responsible for many of the key economic, social and demographic statistics. The UK Statistics Authority is a non-ministerial department independent of government and reporting directly to the UK parliament.

336. The UK Statistics Authority was established under the Statistics and Registration Service Act 2007. The Authority has a statutory objective of promoting and safeguarding the production and publication of official statistics that “serve the public good”. The public good includes:

- Informing the public about social and economic matters
- Assisting in the development and evaluation of public policy
- Regulating quality and publicly challenging the misuse of statistics

337. The GSS is a professional community of staff that produce the vast majority of official statistics in the country. Statistical staff in Northern Ireland maintain a close professional relationship with the GSS but are not formally members.

2. Benefits of the governance model

338. The UK Statistics Authority focuses on promoting the production of statistics that serve the public good. It operates at arm’s length from government as a non-ministerial department and reports directly to the parliament. It advises the producers of official statistics in developing the relevance of statistics and challenging the misuse of statistics.

339. The UK Statistics Authority has a clear coordination role across the NSS, and official statistics are produced by subject matter experts in the relevant government departments. This supports timely development of new statistics to respond to emerging data needs.

340. The GSS provides a professional community that promotes collaboration and exchange among various professionals participating in statistical production, such as statisticians, data scientists, economists, social researchers and communicators. All members have to meet professional standards which are set by the GSS.

3. Challenges of the governance model

341. Creating a coherent and efficient NSS is challenging in the decentralized system, where each government department and devolved administration produces statistics in their own area of competence.

342. Until the introduction of the Statistics and Registration Service Act there was no formal legislative arrangements for central coordination of the statistical system. It depended on the cooperation of a large number of government organizations. The Statistics and Registration Service Act introduced a requirement for the UKSA to issue statutory Code of Practice for the production of official statistics and gave the UKSA responsibility to determine and assess compliance with that Code. This has led to a much stronger role for the UKSA in coordinating the NSS.

343. Until recently another challenge in the legal framework that also relates partially to the organization of the statistical system was the limited access to administrative records for statistical purposes. The emphasis of public policy has rather been on the protection of personal privacy than reuse of data. The decentralized production of official statistics across administrative bodies presented difficulties in sharing and reusing government data for multiple purposes. This has recently been addressed in data sharing legislation (the Digital Economy Act 2017), which allows anybody to share information with the UKSA, provided that this does not breach the Data Protection Act.

344. While the new legislation solves a number of issues regarding access there are still a number of issues, not least that the administrative records themselves are located in different government organizations and may also not offer a complete coverage of the population or consistency in terms of terminology and classifications used.

345. A major issue is also the coherence of statistics across the UK. There have been separate governance arrangements for Scotland, Wales and Northern Ireland, and each has identified its own statistical needs to inform its policy developments. These have to be balanced against the needs for UK statistics and to meet international obligations and allow regional comparison. In 2001, a Concordat on Statistics was signed between the four administrations to work together to meet UK data needs.

4. Special legal aspects of the governance model

346. The Statistics and Registration Service Act came into force in 2007. It was the first overarching statistical law of the United Kingdom.

347. Coordination requires a lot of effort due to the high number of other producers of official statistics. The coordination is more difficult to ensure the high-quality and application of common standards and methods. Specific procedures may need to be included for that purpose in the statistical legislation. Compared to the provisions that have been identified as common elements of statistical legislation for more functionally centralized NSSs, the system in the United Kingdom requires a more flexible delineation of the NSS in the law with a transfer of this prerogative to the National Statistician and the Authority Board. In return, provision on data collection, data processing and data exchange between producers of official statistics may be reinforced.

E. Conclusions

348. Statistical laws reflect national circumstances, historical choices and values on which the public sector builds in each country. The governance model of the NSS will influence what needs to be regulated in the statistical law. The common elements of statistical legislation, presented in this report, are most fit for a rather centralized statistical system. However, they are generally common to all statistical systems but never ready for use without adjustment to the national context.

349. The above considers specific issues to take into account with governance models such as:

- Functionally decentralized statistical systems – the United Kingdom
- Regionally decentralized statistical systems – Germany
- NSSs that are autonomous from the government – Armenia

350. The organization of the NSS has a notable impact on the coordination of statistical work. The coordination is essential for securing consistency, coherence and comparability of statistics within a country, and is becoming even more relevant with the monitoring of the 2030 Development Agenda and the compilation of statistics for Sustainable Development Goals, which requires the involvement of multiple data providers.

351. Regardless of the differences of NSSs and the way in which they are governed, learning from the benefits and challenges brought by the different governance models and the solutions implemented in statistical legislation can be useful. For instance, the Managerial Board in Armenia is a good example of an effective tool for the coordination of the NSS. The Armenian experience inspired the inclusion of a common element on a managerial board to this guidance.

352. Coordination of statistical production aims at answering questions such as “what”, “how”, “when” and “by whom”, and in that respect is an important element for efficiency and effectiveness of the system. Coordination mechanisms and tools such as integrated strategic and annual work programmes, the role of the Statistical Advisory Council (as the user advisory body) and the role of a possible board of producers differ greatly depending on the governance model of the statistical system.

353. Coordination of producers of official statistics from different layers of a Federal State is in general not something to be regulated primarily by law (i.e. law on statistics) but rather at constitutional level. It is important, however, to mention that some federal states do not have a typical federal statistical system such as in Switzerland where the constitution stipulates that this is a federal prerogative (Federal Constitution, art. 65).

354. To conclude, there is one fundamental element for the coordination of statistical production, which is to identify who is a producer of official statistics and who is outside the system. In some countries, the delineation of the NSS is not clear and this certainly hampers the capacity of the designated authority to coordinate statistical production and ensure its highest quality.



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8. EMERGING ISSUES RELATED TO STATISTICAL LEGISLATION

355. This chapter discusses emerging issues that may have implications for statistical legislation: providing official statistics as open data, exchanging data nationally and internationally, changing nature of census taking, cooperation with central banks or geospatial agencies and government data management.

A. Open data, linked open data and official statistics

356. Official statisticians strive for increased accessibility and availability of data at the aggregated level. Providing statistics in easily linkable and machine-readable formats is a logical choice in today's society. Producers of official statistics, however, need to ensure that even the most detailed data published by them meet the high-quality requirements of official statistics.

357. The question is also how open official statistics can be without risking confidentiality. When providing vast amounts of statistics as open data that can be linked with various other data sources, the risk of disclosure of confidential information increases. NSOs are very experienced in applying and developing confidentiality methodologies and could also contribute to enhanced disclosure control of open data beyond official statistics.

1. What are open data and linked open data?

358. Open data are data that can be freely used, reused and redistributed by anyone for any purpose. The key criteria include:

- **Availability:** the data must be available as a whole at no more than a reasonable reproduction cost. The data must also be available in a convenient and modifiable form including machine-readable and open formats.
- **Reuse and redistribution:** the data provider must permit reuse and redistribution including linking with other datasets.
- **Equal access:** everyone must be able to use, reuse and redistribute the data. There should be no restrictions, for instance to prevent commercial use.⁹

359. Following the above-mentioned criteria, all data published by statistical offices can be categorized as open data. However, there are significant differences in degrees of openness, and a star rating system for open data proposed by Tim Berners-Lee, the founder of the World Wide Web, is used to clarify the issue.

360. To score the maximum five stars, data must (1) be available on the Web under an open license, (2) be in the form of structured data in order to make it machine readable, (3) be in a non-proprietary file format in order to reduce costs and ensure compatibility with all systems, (4) use metadata and standard identifiers compliant with open standards from W3C in order to enhance compatibility and (5) include links to other data sources. To score 3 stars, data must satisfy all of (1) to (3), etc.

361. Open data paradigm takes into account the need to protect personal data and third-party copyrights. As long as privacy is ensured, open data can bring many benefits to society, such as increase transparency, add value to data through reuse, empower people to participate, support data markets and contribute to job creation.

362. Open data helps to increase transparency and accountability of public bodies, as the data they collect and use in their decision making are made publicly available. Making data publicly available can also increase the focus on the quality of data, and thus, improve the information basis of policy decisions and administration. People can hold governments more easily accountable when data about their activities are openly available.

363. Open data does not equal linked data. Open data can be made available to everyone without links to other data. At the same time, data can be linked without being freely available for reuse and distribution. It is only possible to get the full value of data if they are easy to access, extract, use, link and combine with other data. This type of data is referred to as linked open data.

364. Use of linked open data can add value and content to a number of products, and trigger innovation that leads to better and improved services. There are a number of interesting products developed using linked open

⁹ See: <http://opendatahandbook.org>

FIGURE 4**Degrees of openness of data**

Source: <http://5stardata.info/en>

data, for example there is an application that provides insights into neighbourhoods where someone might be interested in moving and provides statistics on rental and owner-occupied apartments, trends and prices in real estate, and characteristics of the area and also information on locally available services.

365. Linked open data could be used to inform individuals about the communities in which they live and, thus, empower people to participate in democratic processes. Having information more easily available and usable with other information can promote participation and inclusion in decision making. Open data about how people make their living or how much they consume can help them make better decisions affecting their lives.

366. As open data can encourage innovation and add value to products and services, it clearly has a monetary value. Open data can increase growth and create jobs in the information industry. Private businesses value data as a strategic asset and invest important amounts in data. Governments promote open data as a driver of economic growth and job creation. Studies show that fast-growing economies often base their success on rich information and can thus produce diverse products¹⁰.

2. Where are statistical offices with open data?

367. The principles of official statistics are largely compliant with the ideas of open data. The role of the national statistical offices is to provide independent information and knowledge for effective debate and decision making across government, business and society. Good quality statistics help people to understand the changes taking place in the country's economy and in our society.

368. In most countries, official statistics are available for reuse as open data at the aggregated level. NSOs provide statistics free of charge and most often in easily reusable machine-readable formats. When statistical offices prepare public-use files with microdata, these datasets need to be anonymized¹¹ to ensure confidentiality of data. Both direct and indirect disclosure of individual data needs to be prevented when providing open data, and especially linked open data. In making decisions about which data can be made available as open data, statistical offices can refer to the "Five safes" framework developed by the UK Office for National Statistics. The framework defines five dimensions of data management decisions – projects, people, settings, data and outputs – in which the right combination of control levels needs to be ensured.¹²

¹⁰ Hidalgo, Cesar (2015): *Why Information Grows. The Evolution of Order, from Atoms to Economies*.

¹¹ Anonymization is a set of procedures and actions that are intended to prevent both the direct and indirect identification of individual units. The term should not be confused with pseudonymization, that is, removal of direct identifiers from the dataset.

¹² See: <https://www.ukdataservice.ac.uk/use-data/secure-lab/security-philosophy>

369. Official statistics have a special role as open data. Other open data may be compared to official statistics to test their comparability, and official statistics may be used as a benchmark for accuracy. Another benefit of official statistics is their wide coverage of population and societal issues. NSOs have uniquely rich datasets that integrate data from direct statistical surveys, government datasets and other sources.

370. Through providing their data as open data or linked open data, statistical offices also promote the use of common standards, such as classifications, definitions and methods agreed by the international statistical community. An appropriate presentation of open statistics and provision of the suitable metadata is an important element of making open statistics available for users. This industrialization of data handling has wide benefits for efficiency and quality also beyond statistical systems.

371. Statistical offices need to ensure the quality of their outputs. The highest quality can only be ensured at the output level. The same quality cannot apply to unit-level datasets that are used as a source for statistical outputs. Statisticians do a large part of quality improvements by applying statistical methods when compiling different source data into statistics. This is much less costly than attempting to build a complete high-quality dataset for each statistical unit and variable. Much more quality checking and editing needs to be done at the unit level if the intention is to provide access to datasets rather than statistics.

372. Making data available is costly. Statistical offices do not have the resources to make aggregates of all possible combinations of data readily available for a possible user. This would also not be the best use of government resources. Statistical offices' work focuses on the priority data needs of society, and resources cannot be dedicated to serving specialized data needs. Therefore, many statistical offices provide chargeable statistical services to enable access to data for specialized needs.

373. Traditionally NSOs do not promote the use of their data for commercial purposes, but these cases are becoming more common. We should recognize that official statistics are commercially valuable and can be used for business purposes. Official statistics are a key input to a wide variety of commercial products and services in the economy already today.

374. Many statistical offices aim to increase the amount of open data and linked open data. Open Data Watch monitors developments in this regard. It works at the junction of open data and official statistics, monitoring open data policies, measuring the success and impact of such policies, sharing knowledge and making rankings of the openness of statistical offices across countries.

375. The experience and skills of NSOs would be valuable for others providing open data. Statistical offices could lend their expertise in confidentiality methods, data governance, dissemination and communication practices to others providing open data, especially in the public sector. While statistical offices' approach to confidentiality is strict and conservative with restrictions on access and heavy disclosure methods, this also ensures the privacy of individuals and businesses and provides a publicly trustworthy approach to confidentiality that could be applied in the public sector more widely.

3. Legal considerations related to linked open data and official statistics

376. Official statistics have a great value as open data and linked open data. To realize the full potential of official statistics as open data, **statistical offices need to ensure that data can be stored, accessed and shared safely within a robust governance framework that fully protects privacy and confidentiality.**¹³ Open data communities often stress privacy as the paramount concern for building, maintaining and nurturing public trust and social license, whereas statistical communities stress the need to fully ensure confidentiality in line with the statistical legislation.

377. Reuse of data across government and the private sector is increasing. **In line with the principle of symmetry, as more and more statistics are available as open data and linked open data for business use, similarly data held by private entities should be available for statistical purposes.**

¹³ Eoin MacCuirc, *CSO Ireland: Open data is coming: The Irish Experience*

378. Reuse of data has the potential to improve efficiency of the information industry, and to reduce costs and burden caused to respondents. From the legal viewpoint, data collected for statistical purposes can only be used for statistics. Therefore, and due to confidentiality constraints, statistical offices rather provide “open statistics” than the data itself.

379. There may be a need to identify areas where data principles and standards need to be expanded or adjusted, particularly in relation to non-traditional sources of data. However, statistical concepts and classifications may not always take into account other than statistical needs, as they are tools developed for the purposes of statistical production.

380. It is important to reiterate that while official statistics are already open by definition, there is a pressing need to keep abreast of emerging concepts and technologies in collaboration with the wider information industry. Statistical offices could look for multi-stakeholder partnerships in developing inclusive data standards and data governance frameworks.

381. To enable the use of the rich statistical datasets in society, as suggested in the common elements, the statistical offices may provide access to datasets for research purposes in line with their current regulation. Furthermore, the availability of statistical data can be increased by providing statistical services against a fee that covers the costs of compiling the necessary information for customers from the existing datasets.

382. Whenever statistical legislation is being updated, it is necessary to review other data-related legislation, especially such that deals with open data, access to data, data rights, etc. It may be useful to have a consultation with the organizations involved in open data initiatives when revising the statistical law.

383. To enable data linking, reuse and provision of linked open data, NSOs need to engage with other data communities, especially those involved in national linked open data initiatives. Clear roles and responsibilities need to be agreed in memoranda of understanding. The principles and standards employed by other data communities currently differ from statistical practices. Statistical offices could provide their expertise and advice on disclosure prevention, as appropriate, to other agencies wishing to increase the availability of information as open data.

384. Open data should comply with the below principles, but they cannot directly apply to official statistics that need to comply fully with the Fundamental Principles of Official Statistics. **The open data principles and some differences to official statistics are highlighted below:**

1. Data must be complete. All public data are made available as open data **vs.** Official statistics are compiled on priority data needs of society.
2. Data must be primary. Data are published as collected at the source, with the finest possible level of granularity, and not in aggregate or modified forms **vs.** Primary data collected for official statistics can only be used for statistical purposes and thus published as statistics only.
3. Data must be timely. Data are made available as quickly as necessary to preserve the value of the data **vs.** Official statistics need to consider the trade-off between quality and timeliness.
4. Data must be accessible. Data are available to the widest range of users for the widest range of purposes **vs.** Official statistics provide equal and simultaneous access to statistics for all users.
5. Data must be machine-processable. Data are structured in a manner that they can be processed in an automated way **vs.** Official statistics apply internationally agreed classifications, definitions and methods to ensure wide comparability.
6. Access must be non-discriminatory. Data are available to anyone, with no registration requirement **vs.** Official statistics are available to all users preventing disclosure of individual data.
7. Data formats must be non-proprietary. Data are available in a format over which no entity has exclusive control **vs.** Official statistics can be used freely with reference to the producer of the statistics as the source of information.
8. Data must be license-free. Data are not subject to anyone’s copyright, patent, trademark or trade secrets regulation. Reasonable privacy, security and privilege restrictions may be allowed as governed by other

statues **vs.** Official statistics should be available free of restrictions by referring to the statistical office as the source. However, statistical data are subject to strict confidentiality rules that influence their availability.

9. Permanence refers to the capability of finding information over time **vs.** Official statistics are produced regularly over time.
10. Usage costs. One of the greatest barriers to access to ostensibly public available information is the cost imposed on the public access **vs.** Official statistics cannot be made available at the unit level due to confidentiality constraints, and all possible non-confidential combinations are too costly to produce.

B. Data exchange among producers of official statistics

1. Increasing need for data exchange among statistical producers

385. This section focuses on challenges of data exchange based on the reflections of the UNECE Task Force on the exchange and sharing of economic data¹⁴. Statistical offices are urgently looking for new solutions to enable effective exchange of data nationally and internationally, especially to capture the activities of multinational enterprise groups. Statistical law can be both an enabler and an obstacle to data exchange among producers. Therefore, this section considers the legal aspects of data exchange for statistical purposes.

386. Without a full picture of international activities, it is a challenge to ensure meaningful and correct measurement of global production and trade, and to understand the influence of multinational enterprise groups on macroeconomic and business statistics.

387. Better possibilities of secure data exchange, nationally and internationally, could help some statistical offices to enhance the quality, coherence and relevance of economic statistics and the efficiency of their production. Part of this exchange can be carried out at the aggregated level, but it will be necessary to find solutions allowing the exchange of individual data in a secure environment for statistical purposes only.

388. The 2015 and 2016 meetings of the joint UNECE/Eurostat/OECD Group of Experts on national accounts recognized that data exchange is essential when looking for solutions to the challenges related to global production. At the meetings, countries emphasized the need for data confrontation within a country and between countries to enable proper data validation to improve quality, relevance and consistency of data across domains.

389. Both legal and technological solutions will need to be sought to enable such data exchange in a highly controlled environment, while avoiding any risks to privacy and fostering the trust of respondents and the public.

2. Current practices in data exchange for statistics

390. In 2016, Statistics Finland and UNECE carried out a survey of countries to review the current practices of data sharing for statistical purposes, at national and international levels. In total, 48 statistical offices replied to the survey.

391. All offices indicated exchanging some data nationally among producers of statistics, most commonly aggregated data (80 per cent of countries). In addition, almost 80 per cent of NSOs receive microdata from other producers of statistics and 75 per cent receive microdata from administrative data providers. Half of the offices obtain microdata from commercial sources, and over half provide microdata to other producers of statistics. Further, over two thirds of offices make anonymized microdata available for research purposes.

392. The importance of international data exchange is shown by the result that over 90 per cent of offices engage in international data exchange. However, in most cases, this international data exchange involved aggregated data only. The survey shows that only 30 per cent of offices engage in international microdata exchange.

393. Usually, data exchange takes place in statistics where cross-border transactions are recorded and the exchange aims at minimizing bilateral asymmetries between the same cross-border flows reported by different

¹⁴ *Exchange and sharing of economic data*. ECE Task Force on exchange and sharing of economic data. Report to the 11th Meeting of the Advisory Expert Group on National Accounts, 3-5 December 2017, New York, United States

countries. International data exchange may be facilitated by international organizations, for instance Eurostat and the European Central Bank do this in Europe, or they are based on bilateral or multilateral agreements between countries.

394. Exchange of data on multinational enterprise groups is still relatively rare. Every fourth responding office had examined the activities of multinational enterprise groups with other countries and every third office within a country with other producers of official statistics.

395. In the survey, almost 90 per cent of offices reported improved consistency as the main benefit of data sharing and over 80 per cent reported better data quality such as accuracy, relevance and timeliness. Efficiency gains and reduced response burden were pointed out in two thirds of the replies. Data sharing may also increase coverage of target population and enable a more detailed analysis and understanding of business activities. The increased collaboration and reuse of data helps to promote common standards and classifications.

3. The legal frameworks regulating data exchange

396. National legislation regulating data sharing exists in 90 per cent of countries that responded to the survey. A common business identifier is used in over 75 per cent of countries. The protection of confidential data is well ensured in the legal frameworks.

397. Sometimes data exchange is agreed and defined in the statistical work programmes. Agreements on the provision of administrative data to the producers of official statistics are very common with various administrative data providers. It is becoming more common that the statistical law provides a mandate for access or an obligation to use administrative data sources for statistical purposes.

398. While in some countries statistical legislation may not allow the exchange of individual data even among the producers of official statistics, the common elements of statistical legislation do. The common elements recommend a mandate for exchanging individual data among the entities belonging to the NSS exclusively for statistical purposes in the respective area of competence of each producer of official statistics.

399. In the European Union (EU), the regulation 223/2009 provides a legal framework for the exchange of confidential data between NSOs and central banks for statistical purposes. However, the national legislation may be more restrictive than the European legislation. This European legislation has provided a very helpful principle for improving the quality of monetary, financial and other economic statistics. It has also led to the closer integration of work, streamlining of data collection, reduction of costs and burden as well as a more effective exchange of knowledge.

4. Challenges of data exchange relating to the legal framework

400. According to the survey, robust procedures to ensure confidentiality of data complicate data exchange among producers of official statistics. Two thirds of offices sometimes refrain from data exchange to avoid risks of possible disclosure of confidential data by the counterpart. Legal frameworks are considered too limiting in 60 per cent of offices. In addition, insufficient technological readiness prevents data exchange for statistical purposes in almost half of the offices. While most offices judge their legal and institutional frameworks providing strict confidentiality, about 15 per cent of offices consider that a decrease in respondents' trust is a key risk when exchanging data.

401. In some countries, statistical legislation prevents the exchange of individual data among producers of official statistics. In some cases, such exchange of individual data is allowed without identifiers. This makes the exchange and linking of datasets challenging. In some countries, data exchange is allowed between few organizations that have been explicitly mentioned in the legislation. **Statistical legislation should allow the exchange of individual data among the producers of official statistics nationally, as recommended by the common elements.**

402. On national level, data flow also from other data providers towards the statistical system. The common elements recommend that administrative data providers should have a legal obligation to provide the necessary unit-level data to statistical offices for statistical purposes.

403. Currently, international data exchange for statistical purposes is not usually allowed or mentioned in the legal frameworks of countries. Outside of the EU (where the ESS law defines the necessary concepts) it is difficult to determine who is a producer of official statistics in the counterpart country, or who belongs to the international system of official statistics. Eurostat maintains and makes available lists of producers of European statistics. **In principle, legal frameworks should be developed to enable voluntary international exchange of individual data among NSOs or other producers of official statistics.** For this purpose, however, having global and unique identifiers would be ideal for identifying entities across borders.

404. Instead of trying to define all producers of official statistics of each country, the principle used in the common elements could apply to international data exchange. **The producer of official statistics that authorizes access to or exchanges its confidential data, shall ensure that the recipient has the necessary legal framework in place for the full protection of confidential data.**

405. Based on the consultations with the UNECE Task Force on the exchange and sharing of economic data, the proposals relating to statistical legislation can be made:

- It is necessary to add a common element on the voluntary exchange of individual data with other countries' NSOs and possibly with their other producers of official statistics. Exchange of individual data, including identifiers, with foreign producers of official statistics may take place exclusively for statistical purposes in the respective area of competence of each producer, and provided that this transmission is necessary for the efficient development, production, dissemination and communication of official statistics or for increasing the quality of official statistics. The responsibility lies with each office allowing the exchange of their data.
- Quality improvement should be added as one part of the definition of "use for statistical purposes" as it is an important justification for engaging in data exchange. Therefore, "use for statistical purposes" is defined as the exclusive use of data for the development, production, dissemination and communication of official statistics, quality improvement, statistical analyses and statistical services, including all activities regulated by the statistical law.

C. Evolving population and housing census and the legal aspects

1. Types of population and housing censuses

406. As countries are developing the way in which they organize the population and housing census operations, renewing data sources used in censuses and making use of new technologies and methods, there will be a need to develop the legal basis of census taking accordingly. The different census approaches require different types of regulation. Therefore, the common elements do not provide a solution that fits all countries.

407. Instead, this section discusses the key legal aspects of census taking based on the Conference of European Statisticians' *Recommendations for the 2020 Censuses of Population and Housing* and the publication on the Practices of *UNECE Countries in the 2010 Round of Censuses*.

408. There are three basic approaches to conducting a census, based on the method of data collection:

- The traditional method of full enumeration based on a field operation (possibly including online data collection) at a given time.
- A combined approach with full field enumeration for selected variables, or a sample field collection, supported with data taken from registers.
- A register-based approach using registers and other administrative data sources exclusively or supported by data from existing sample surveys.

409. These different types of censuses may need to be reflected in a different way in statistical legislation. The decision to include census as a particular element of the statistical law or to have a separate census act depends on the situation in each country. Some countries may not need a special legal act on censuses, some may decide to have such article in the statistical law and some only need the general statistical law without any special articles concerning the population and housing census.

410. Typically, countries carrying out a register-based census do not have a separate regulation on censuses, but the majority of countries that carry out the traditional census through surveying do have a dedicated census act. Regardless of the chosen approach, the overall responsibility for census operations is most often assigned to the NSO as the coordinator of the NSS.

2. Changing methods of census taking

411. The UNECE survey on national practices in the 2010 census round, carried out in spring 2013, showed that the traditional census approach (30 countries) was still the most commonly adopted approach in the UNECE region. At the same time, new technologies are increasingly used for census taking, such as online questionnaires.

412. However, since the previous census round, more countries had moved to a combined (11 countries) or register-based (9 countries) census methodology. Registers now play a more prominent role in census taking than in the previous census rounds, and this trend is likely to continue in the future.

413. The focus of the legal setting depends on the choice of census approach in the country. Most countries having a traditional census have a dedicated census act in place, whereas 8 out of 9 countries with a register-based census carry out their censuses under the statistical law. In total, 7 out of 11 countries with a combined methodology have a dedicated census act, and in the remaining 4 countries, the general statistical law covers the census.

414. In 21 countries, the legislation governing the census taking is permanent, while in 27 countries the census act has to be amended or revised for each census round. The countries with a traditional or combined census usually need to revise their legislation for each census round.

415. The survey showed that in all responding countries, the legislation protects the confidentiality of personal information collected for census purposes. About half of the countries provide access to census microdata for scientific or statistical research purposes.

416. More innovative methods of censuses such as online enumeration may also need more detailed legislation and there is interaction with other legislation relating to equality in order to ensure that these innovative approaches do not disadvantage any particular section of society.

3. Special legal considerations related to census taking

3.1 CONFIDENTIALITY OF CENSUS DATA

417. Confidentiality is extremely important in census taking, not least to retain the trust of people to participate in the census and provide truthful information. The challenge is amplified in the traditional census as it is a complex operation involving many organizations and staff that may not be fully aware of the fundamental principles and legislation governing statistical work.

418. Confidentiality encompasses the whole census operation: from the security of the completed census questionnaires both in the field and during processing to the protection of individual data when the census results become publicly available. The census authorities and any person employed for the census operations must treat the information in strict confidence.

419. The following principles, falling within the common elements, should govern the treatment of information given in the census:

- Only persons under the management or control of defined census authorities, or agents acting on their behalf, have access to personal census information and should have signed a confidentiality undertaking.

- Individual household members should be able to give personal information in a way that will not reveal it to others in the household, or to the enumerator.
- The physical security of documents containing personal information must be enforced.
- The computer systems handling census data must have strict safeguards.
- Special precautions apply to statistical outputs for small areas.

420. The common elements state: “A confidentiality commitment shall apply upon taking up functions in official statistics”, including to any “persons who are authorized to access data subject to statistical confidentiality”. This includes the temporary enumeration staff whose activities need to be governed by the statistical legislation to strictly preserve the confidentiality of the data that they collect.

421. The exchange of data subject to statistical confidentiality can only happen within the NSS, and not with other government units that may participate in the census operations for any non-statistical purposes.

422. National statistical offices may receive requests to allow public access to, or reduce the period of closure for, census records for researching family histories. However, statistical offices keep confidential records closed until such a time that minimizes the risk of disclosure of information about living individuals. After such a time, the statistical office may make the records available to the national archives for any individual research requests. The common elements do not directly refer to this case that falls under other national legislation, e.g. on archiving.

3.2 PROFESSIONAL INDEPENDENCE IN CENSUS TAKING

423. Professional independence is a particular consideration when undertaking a full enumeration census or census operations that involve a number of non-statistical authorities. Many government agencies have special interests in the results of the population and housing census, and the census operations depend on the government’s support and budget allocations. It is important to consult the relevant stakeholders, specifically if significant changes to census are proposed, however, decisions regarding data sources and census methodologies need to be taken entirely within the NSS.

424. The common elements of statistical legislation define professional independence. The Chief Statistician has the full responsibility for the professional quality of the census results, for the integrity of the whole chain of processes and for the strict application of confidentiality rules. *The 2020 CES Census Recommendations* contain a detailed list of issues falling under professional independence in the census operations that should be free from any outside influence (see annex II, paragraph 21). Furthermore, the NSO has to be free of any non-statistical assignments that relate to census taking and might create a conflict of interest.

425. Pressure from outside interest groups may give rise to problems with professional independence. For instance, there may be pressure to include certain variables in the census data collection. In general, **the legislation on censuses should not regulate the methods, questions and types of statistical outputs of the census**. These issues are part of the professional independence of the statistical system. Although the NSO should not be pressured by an outside interest group, it is important to consult with the wider user community and other stakeholders the questions to be included in a census from the viewpoint of data needs and relevance.

426. The release of census results should not include a clearance process involving bodies outside the statistical system. All official statistics have to be publicly accessible, disseminated and communicated simultaneously for all users at dates determined by the statistical system. The NSO has the right to communicate directly with the media.

427. The Chief Statistician should decide on the allocation of overall resources for official statistics between subject areas, with only the total budget decided at the political level as part of the normal budgetary process.

428. Some government bodies that are not part of the statistical system, notably local and regional bodies, may be involved in the data collection process of traditional censuses. In that case, **the role, responsibilities and rights of government bodies from outside of the NSS participating in data collection should be regulated, for instance in a dedicated census act**. The participating organizations have to be fully subject to the Fundamental Principles and in particular to statistical confidentiality.

3.3 SUBCONTRACTING OF PARTS OF CENSUS OPERATIONS

429. Some countries subcontract (or consider subcontracting) parts of the census operations to third parties, for instance the printing of questionnaires. External suppliers may bring considerable technical experience and expertise, which would otherwise be unavailable. Subcontracting may also provide the opportunity for efficiencies and increase the value for money.

430. According to the common elements “Producers of official statistics may subcontract parts of tasks related to statistical production or support activities to a third party only when the full protection of statistical confidentiality and professional independence can be ensured. Third parties shall use and maintain the data exclusively for the operations and only for the duration defined in the subcontract.”

431. Contracts should set the objectives of the project, the expected outputs and the standards these outputs must meet in terms of quality, timeliness, costs, etc. The contracts need to cover measures to ensure confidentiality in detail. For the census processes, it is important to allow for the possibility of requirements and objectives to be changed over the lifetime of the project.

432. The contracts should detail the key deliverables linked to the payment schedule. The census authority needs to monitor the work continuously to ensure that no part of the subcontracted operations may result in any reputational damage or loss of trust in the NSI. The following criteria need to be considered and ensured when subcontracting:

- Strict protection of data confidentiality
- Guaranteed quality assurance
- Effective management and monitoring

433. Any subcontracting of tasks that pose an actual or perceived risk to data confidentiality should be avoided. Any form of delegation of parts of the census activity to either public or private organizations does not diminish the full responsibility of the NSO and the Chief Statistician.

4. General legal aspects of census taking

434. The preparation and conduct of a census regardless of the methodology requires a legal basis, be it the general regulations of the statistical law, a specific article in the statistical law or a dedicated census act. In countries where dedicated census regulation is required, it is important to launch the preparation of the census act well in advance of launching the census data collection to avoid any delays due to the legislative process.

435. Even among those countries planning to continue with a traditional census approach, several reported that they would utilize additional sources of administrative data, for instance as a framework or for control purposes. Therefore, having a clear legal mandate to access to administrative data sources for statistical purposes in line with the common elements is important in all countries.

436. **When introducing new technologies for census operations, equal treatment of population groups needs to be considered.** For instance, online questionnaires may provide more flexibility, for instance an easier possibility to ask follow-up questions and thus collect richer information. However, all population groups may not have access to the online survey version which might also influence the census results and could possibly disadvantage those groups.

437. The legislation typically regulates the following issues related to censuses:

- Funds allocated for the overall census operations
- General scope and timing of the census
- Division of work, responsibilities and rights of the participating organizations
- Obligation of citizens to provide complete and accurate census information and of the enumerator to record the responses faithfully, and the sanctions and penalties to be imposed for failure to comply
- Uses and linkage of registers to produce census data or to support field operations
- Confidentiality of individual information collected in the census operations and sanctions for confidentiality breaches

438. The allocation of funds, the scope, content and timing of the census and division of responsibilities between the involved organizations may need to be regulated in a dedicated census act.

439. While the first three points of the above list are more specific to census taking, the general statistical law may cover the latter three. These are included in the common elements governing the respondents' responsibilities, a mandate to access administrative data free of charge and at the level of detail necessary, statistical confidentiality provisions and sanctions. **There may be a need to regulate some of the issues covered in the statistical law in more detail for the traditional census.**

440. Participation in the census is usually obligatory for the respondents. Therefore, the NSO needs to consider the overall response burden. Certain questions should be voluntary depending on their level of privacy and sensitivity.

441. In the case of a full field enumeration of population, census act must enable the use of selected data items collected in the census operation for updating the population register while strictly preserving the confidentiality of those data collected for statistical purposes only.

442. It is also important that the national legislation governing the work of administrative data providers is up-to-date and in line with expectations towards them in census taking. As suggested in the common elements, legislation should ensure that where changes to the content or structure of administrative data are being considered, the NSO will be consulted in advance.

D. Collaboration with central banks

1. Collaboration of national statistical offices and central banks

443. The turmoil in the financial markets and increasing economic globalization call for close collaboration of NSOs, central banks and other producers of key economic statistics, such as ministries of finance and customs. Central banks have a strong, independent status in countries, and in Europe they have their own European System of Central Banks parallel to the European Statistical System. Therefore, this section discusses questions on what the role of the entities of central banks that produce official statistics should be in relation to the NSS and how to enable an effective collaboration in statistical production, quality improvement and development.

444. Inter-agency collaboration is important for the quality of key economic statistics, such as international trade statistics, balance of payments, and sector accounts and the rest-of-the-world accounts compiled as part of the national accounts. This chapter discusses the relationship between the central bank and the NSO, including the NSS.

445. Three main factors influence the conditions for successful cooperation between central banks and NSOs¹⁵:

- Division of tasks between the producers of official statistics
- Structure and governance of the NSS
- Collaboration and regular sharing of expertise

446. Central banks are amongst the heavy users of official statistics, for instance in the preparation of macroeconomic projections and simulations and carrying out economic research. For these purposes, central banks may also seek to develop new statistics where there are gaps. One such example is the household finance and consumption survey, initiated by the central banks in Europe.

¹⁵ See for instance: *Conditions for a successful statistical cooperation between national central banks and statistical offices*. Abdelhamid El Maazouzi, Central Bank of Morocco. ISI2017 World Statistics Congress. www.bis.org/ifc/events/wsc_isi/ips021_elmaazouzi_pres.pdf

2. Institutional arrangements for collaboration with central banks

447. The central bank and the NSO cooperate in statistical activities, including the compilation of the balance of payments and financial accounts. Many countries have established inter-agency agreements or working groups involving NSOs and other producers of macroeconomic statistics, mainly the entities producing official statistics in central banks and ministries of finance.

448. The entities in charge of official statistics in central banks play an important role in statistical production as producers of many key economic statistics. Central banks and NSOs have different mandates for their statistical work. In the European Union, NSOs belong to the European Statistical System (ESS) and central banks to the European System of Central Banks (ESCB). Central banks produce statistics to inform monetary and financial policies. As these statistics provide important information on economic development, they are often considered as official statistics.

449. In the EU, according to the regulation (EC) no 223/2009 on European statistics “It is important to ensure close cooperation and appropriate coordination between the ESS and the ESCB, notably to foster the exchange of confidential data between the two systems for statistical purposes”. It further states: “European statistics will thus be developed, produced and disseminated by both the ESS and the ESCB but under separate legal frameworks reflecting their respective governance structures”.

450. Article 5(a) of the amended regulation (EC) no 223/2009 notes that “Each Member State shall ensure that other national authorities responsible for the development, production and dissemination of European statistics carry out such tasks in accordance with the national guidelines produced by the Head of the national statistical institute.” In the EU, therefore, the coordination by the NSO clearly reaches out to all statistical authorities, including entities of central banks that produce official statistics required by EU legislation. This encourages collaboration between the Chief Statistician of the NSO and the Heads of other producers of official statistics, including with the Head of the entity producing official statistics in the central bank.

451. According to article 21 of the regulation, transmission of confidential data between statistical authorities and central banks “may take place provided that this transmission is necessary for the efficient development, production and dissemination of European statistics or for increasing the quality of European statistics”. This provision has been important for the improvement of consistency and quality of national accounts, balance of payments and other economic statistics in many countries. However, some countries have more restricting legislation in place.

452. Some countries mention the central bank explicitly in their statistical law as an entity belonging to the NSS; some countries do not. If the entity producing official statistics in the central bank is part of the NSS, the entity is subject to the coordination of statistical activities in the country and subject to the statistical law.

453. The NSS aims to ensure a clear division of responsibilities between the producers and the application of common methodologies, concepts and classifications. The NSS is also a platform for joint development of statistical work. According to a survey on the implementation of the Fundamental Principles of Official Statistics in 2012 (with 126 country respondents) 87 per cent of countries had organizational arrangements in place to coordinate data collection, agree on statistical standards and avoid duplication of activities at the national level¹⁶.

¹⁶ *Conditions for a successful statistical cooperation between National Central Banks and Statistical Offices.* Abdelhamid El Maazouzi, Central Bank of Morocco. ISI2017 World Statistics Congress. www.bis.org/ifc/events/wsc_isi/ips021_elmaazouzi_pres.pdf

3. Challenges of collaboration between statistical offices and central banks

454. Even though central banks compile key monetary and financial statistics, they are not always considered as a producer of official statistics that belongs to the NSS, possibly due to their highly independent standing. For instance, in the EU, only 8 countries list the central bank as other national statistical authority.¹⁷

455. The division of work between central banks and NSOs varies in countries. While NSOs most often compile national accounts and price statistics, in some countries, those are compiled by the central bank. Central banks typically produce the balance of payments statistics. However, NSOs compile the balance of payments in a couple of countries.

456. Central banks are typically institutionally independent from the government to avoid any political interference. The independence of central banks may include institutional independence in monetary policy decisions, in setting its own goals, determining the best way of achieving these goals, high security of tenure for its high governors and autonomy on their budget. Some central banks, like the European Central Bank, have their own legal personality allowing them to ratify international agreements without government's approval.

457. Due to the strong independent status of central banks, NSOs may not have a direct coordination role vis-à-vis the statistical work of the entity in charge of official statistics in the central bank. Central banks are also traditionally strong institutions, well-resourced and pose strong independent views on economic development.¹⁸

458. The current legal frameworks typically do not allow the NSO and entity producing official statistics in the central bank to exchange individual data for the production of their statistics. This may also hamper the exchange of expertise between the two organizations. Countries are increasingly putting in place formal agreements to enable the necessary data exchange.

459. Regular exchange of expertise and joint work addressing the links between business statistics, national accounts and financial statistics would be beneficial. This could include a review of survey questionnaires, data collection methods and available information to measure properly the activities of multinationals involved in global production.

460. Furthermore, NSOs and the entities producing official statistics in central banks may not be fully aware of the statistical requirements to be filled by each organization, nor the possible synergies of their activities. Thus, opportunities for joint, streamlined statistical work remain largely untapped.

4. Legal aspects of collaboration with central banks

461. As the macroeconomic, financial and monetary statistics produced by central banks are key official statistics, their role in the statistical work should be reinforced. Therefore, **the entities of central banks that produce official statistics should be recognized as statistical authorities and be considered part of the NSS. To be part of the NSS**, these entities have to be professionally independent from the rest of their organization. This would enable many efficiencies within the NSS, improved consistency of statistics and effective collaboration and coordination of work to avoid duplication.

462. Whatever the formal setting is in each country, good coordination of statistical activities with the entity producing official statistics in the central bank is necessary to ensure the quality and consistency of key macroeconomic statistics and streamline work. Furthermore, the use of common definitions, classifications and methodologies is important in the key macroeconomic statistics.

463. The NSS should acknowledge the data requirements towards the entity producing official statistics in the central bank as part of national statistical obligations. This may call for exchange of data between the NSO and the entity in the central bank to reuse existing data and avoid duplication of data collection. Similarly, the entity in the central bank should take into account in its work the data needs the NSO and other producers of official statistics have to fill.

¹⁷ Situation as in December 2017, see the *List of National Statistical Institutes and other national authorities* here: <http://ec.europa.eu/eurostat/web/european-statistical-system/overview?locale=fr>

¹⁸ See for instance: *A strategic vision for statistics: Challenges for the next 10 years*. Fourth ECB Conference on Statistics, on 24-25 April 2008, Germany. www.ecb.europa.eu/pub/pdf/other/strategicvisionstatistics2008en.pdf

464. It may be useful to formalize the division of labour in the legal setting, the statistical programmes or formal agreements between the organizations. Such coordination is likely to increase the alignment of work between the entity producing official statistics in the central bank and the NSO. Some countries have integrated data collection frameworks of the entity in the central bank and the NSO with good results.

465. Exchange of microdata between the NSS and the entity producing official statistics in the central bank should be allowed in the statistical legislation or other agreements for statistical purposes only. In the Netherlands, for instance, the exchange of business register data between the NSO and the entity in the central bank that produces related statistics has helped to reduce response burden, reduce costs and increase the quality of data, as the NSO shares its data and expertise on non-financial institutions and the entity in the central bank on financial institutions.

466. It would be beneficial to have a body to coordinate statistical work of the NSS in each country consisting of producers of official statistics. **The coordinating body of official statistics should be composed of all producers of official statistics, including the entity producing official statistics in the central bank**, whether it is part of the NSS or not.

E. Integrating geospatial data and statistics

1. What are geospatial data?

467. Official statistics provide a wide range of data about social, economic and environmental issues. Regional analyses play an increasingly important role in policy making and research which increases the need for spatially referenced statistical data. Users of statistics are more frequently asking producers of official statistics to provide statistical variables on maps and by regions defined by the user.

468. In general, all statistics are somehow linked to a regional reference system using codes, such as geographic area codes, postal codes, name of an area, address and geocode or a coordinate. The location information is assigned to a legal, administrative, statistical and reporting unit.

469. Coding statistical variables with a geocode that provides the exact location of an event or object increases possibilities for flexible and rich analyses for users. Geocoding refers to the process of assigning geographic codes to features in a digital database to define geographic location.

470. Spatially referenced data are easiest to use in a geographical information system (GIS). It is a system of hardware, software and procedures designed to support the capture, management, analysis, modelling and display of geospatial data.

2. Advancing the integration of geospatial data and official statistics

471. Despite several success stories in the use of geo-referencing, most NSOs still have limited capacity for provision of geospatial data. In 2012, the Australian Bureau of Statistics (ABS) led, on behalf of the global statistical system, a review of national geospatial activities through a global consultation to which 52 countries replied. The results of the consultation show that many statistical offices are developing ways to provide statistical information for smaller geographic regions.¹⁹

472. In Mexico and Brazil, geospatial and statistical activities are closely integrated as a single organization is in charge of both areas of work. In addition, for example Canada, Colombia, Netherlands, New Zealand, Norway and Singapore have good geospatial capabilities in the NSO and collaborate closely with the geospatial authorities. Several European and Nordic countries disseminate official statistics using grids, particularly to disseminate regional information on issues such as population density, commuting, land use, flood impacts and related statistics.

¹⁹ *Integrating statistical and geospatial information, cultures and professions: International developments and Australian experience*. Gemma Van Halderen, Stuart Minchin, Martin Brady and Greg Scott. Statistical Journal of the IAOS 32 (2016), pp. 457–470

473. The System of Environmental-Economic Accounting (SEEA) is one of the examples where the integration of statistical and geospatial data can be highly beneficial. In Australia, for example, land parcels are often the minimum geospatial building block for land accounts, as they are commonly available from administrative registers. Earth observations, including satellite imagery, are combined with the register information to compile land accounts.²⁰

474. In July 2011, the Economic and Social Council (ECOSOC) adopted a resolution creating the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM). In July 2016, ECOSOC called for strengthening institutional arrangements on geospatial information management and requested the United Nations Regional Commissions to provide support to the work of regional bodies of the UN-GGIM. This resolution launched even closer integration of work between the statistical work coordinated by UNECE and the geospatial work by the UN-GGIM: Europe.

475. UN-GGIM: Europe aims to ensure that the national mapping and cadastral authorities and NSOs work together towards a more effective management and availability of geospatial information in Europe. Among other tasks, the work encourages interoperability, harmonization and sharing between statisticians and geospatial experts. This section reflects on discussions at expert meetings touching upon legal aspects of integrating geospatial and statistical data.

3. Challenges of integrating geospatial and statistical data

476. Integration of geospatial and statistical data is a complicated endeavour that could result in many benefits for users and efficiencies for data producers after the initial investment. Even increasing the availability of geocoded statistical data can be challenging to statistical offices²¹. The challenges include the following²²:

- Access to geospatial data
- Confidentiality and privacy
- Data quality
- Interoperability
- Roles of different organizations

477. Official statistics typically disseminate statistical data free of charge according to open data principles. This may not always be the case for geospatial data provided by the national mapping agency or regional authorities. Therefore, access to geocoded data is not self-evident or could be costly for statistical authorities.

478. Statistical offices disseminate statistics in formats, such as tables, maps, graphs, infographics, news releases, public-use files, etc. The geospatial community makes use of traditional vector data – points, lines and polygons, but also prepares large grids to disseminate their earth observations data, particularly on the environment. Publishing statistics on smaller areas and in an increasing number of formats makes the risk of disclosure higher. Very detailed aggregations pose risks to privacy of individual data. Furthermore, the data protection methods used by mapping agencies and statistical offices differ which can make comparison of data difficult.

479. Assigning a geocode to statistical variables is not only a technical task. Statisticians need to ensure the quality of geocoded statistical data. It is not always straightforward to assign activities to an exact location. For instance, it may be difficult to allocate activities reported on the level of an enterprise to its local units in different regions.

480. Building datasets for regional analysis requires combining data from various databases that may be scattered across different organizations. The ways in which statistical offices and mapping agencies collect, process and disseminate data are not harmonized. The resulting datasets may take various forms and use different definitions or classifications. In addition, handling large datasets with a spatial dimension requires a lot of computing power, and the skills needed to integrate geospatial and statistical data are limited in statistical offices.

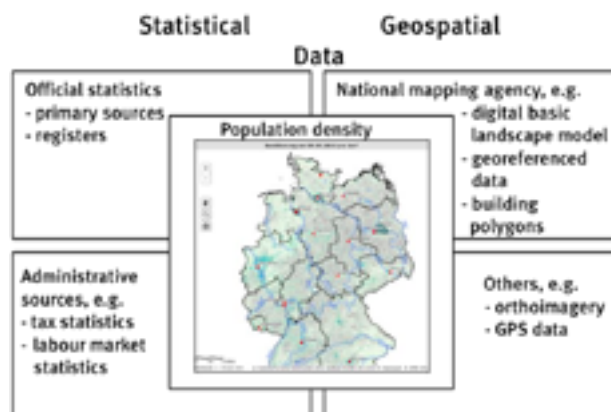
²⁰ *Ibid.*

²¹ See the analysis of challenges in: *A proposal for building an infrastructure for European geospatial statistics*. Marie Haldorson, Statistics Sweden and Ekkehard Petri, Eurostat

²² List extended from: *Combining statistical and geospatial data. Challenges and possible solutions from German official statistics' perspective*. Susanne Schnorr-Bäcker and Malte Etienne, Federal Statistical Office of Germany. Paper for the European Forum for Geography and Statistics, 2016, Paris, France, 14-17 November 2016.

FIGURE 5

Integration of statistical and geospatial data



Source: *Combining statistical and geospatial data – challenges and possible solutions from German official statistics' perspective*, S. Schnorr-Bäcker and M. Etienne, Federal Statistical Office of Germany

481. The integration of statistical and geospatial data is a complex exercise involving various organizations in different roles.

482. National mapping agencies are key partners for NSOs in increasing the availability of high-quality geospatial information. They provide digital basic landscape models, building polygons and georeferenced address data, etc. The availability of geospatial data is also increasing from other sources and new providers of georeferenced data are appearing.

4. Legal aspects of integrating geospatial data and statistics

483. The integration of geospatial and statistical data relies heavily on people – to bring the two communities together to understand each other and work jointly – and technical solutions – to recognize the standards each community uses and find solutions to improve interoperability. However, there are also aspects of the legal framework that should be developed to encourage and enable such integration.

484. The geospatial experts and statisticians have defined five principles of the Global Statistical-Geospatial Framework:

- Principle 1: Use of fundamental geospatial infrastructure and geocoding.
- Principle 2: Geocoded unit record data in a data management environment.
- Principle 3: Common geographies for dissemination of statistics.
- Principle 4: Statistical and geospatial interoperability – Data, Standards and Processes.
- Principle 5: Accessible and usable geospatially enabled statistics.

485. The communities are still elaborating these principles, but legal issues relate to all of the above principles, in particular to principle 4 on interoperability. There is a consensus between expert communities that although there are some technical issues to be solved, focusing on the development of human and institutional issues, including the legal framework, is more pressing. **The legal frameworks should regulate and enable the cooperation of statistical offices and mapping agencies.** Joint agreements and platforms for collaboration can promote joint work.

486. The legal basis should ensure that the producers of official statistics have access to geospatial data as necessary for statistical purposes free of charge. Currently, fees, legal restrictions and copyright issues often limit access to these data. Furthermore, producers of official statistics need to be allowed to disseminate regional statistics based on geocoding without any consequences due to licensing of geocoded data.

487. A special issue is also that grid cells used in georeferenced statistics may cut across national borders. To provide complete information, the legal framework needs **to allow the exchange of georeferenced data among statistical authorities of different countries when necessary for statistical purposes.** Such

exchange has to ensure the protection of confidentiality and be in line with the data protection rules of involved countries.

488. When publishing statistics in a number of ways, combining traditional dissemination of statistics with grids and maps, the risk of indirect disclosure becomes higher. There are practical solutions for ensuring confidentiality in these cases. In general, the confidentiality of geospatial statistics will fall within common confidentiality regulations of statistical legislation. **The confidentiality regulations of the statistical law need to take into account all necessary means to prevent direct and indirect disclosure** when using various new types of data with increasing dimensions, one of which is the geospatial dimension.

489. Lack of harmonization between geospatial and statistical communities can affect data quality significantly. Different reference dates, terms and classifications may hamper the quality of integrated datasets. Therefore, the legal framework should **promote harmonization of statistical and geospatial information, and the related concepts, definitions and classifications**, to increase coherence. This also calls for **the use of standard geographical terms and classifications across the NSS**.

490. The UN-GGIM identifies the establishment of a legal framework as one of the instruments of developing the geospatial information management. In August 2017, **UN-GGIM noted that legal frameworks would be able to catalyse an institutional change process in the geospatial information management**²³. The Working Group on Legal and Policy Frameworks for Geospatial Information Management²⁴ is reviewing the issues related to legislation.

F. Statistical offices and government data management

The need to manage government data better

491. Government agencies collect data related to their activities and assemble a great amount of information in the production of registers, tax data, administrative reporting, statistics and decisions. The growing quantities of data are prompting governments to consider how to extract the full value of these data and ensure that the best possible information is available for decisions being made by government agencies.

492. A number of countries are considering options to manage government data more systematically, and reviewing available technologies, secure environments, data integration across sectors, storage possibilities, knowledge and legal possibilities. A managed approach to collecting, storing and using government data can offer a variety of benefits:

- Increased data integration and standardization
- Pooling of data management and handling skills
- Improved possibilities for evidence-based decision making
- Easier access to, and linking of, rich data sets generated across government
- More comprehensive and harmonized security control methodologies
- Increased cost-effectiveness and less duplication of data collection

493. Typically, government data are scattered across various databases of different government agencies. Comprehensive understanding of the types of data collected or held by the different organizations is often lacking.

494. Some countries are discussing possible new solutions for managing the massive amounts of government data. The challenges are getting larger now especially as data from various sources, including from private data holders, are combined with government data for the administrative and statistical work.

495. New technologies are extending the possibilities of managing large amounts of data in a more structured and cost-effective way. Having richer possibilities to use, combine and analyse data could provide greater value not only for government, but also for citizens.

²³ *Trends in national institutional arrangements in global geospatial information management*. UNGGIM, 7th session, 2-4 August 2017, New York. http://ggim.un.org/meetings/GGIM-committee/7th-Session/documents/E_C.20_2017_6-1708216E.pdf

²⁴ See: <http://ggim.un.org/UNGIM-expert-and-working-groups/>

496. There are many technical options for organizing government data pools. These are centred around two principal options²⁵:

1. Data warehouses generally consist of data in a highly structured model designed for reporting. They usually simplify the use of the information by providing cleaned up, structured and organized data. Data warehouses are not the best option for storing non-traditional, unstructured data that take many formats. However, they are easier to use by less experienced users if standard query and analysis tools are available.

2. Data lakes are able to store various types of structured and unstructured data in one place and can manage massive amounts of data in their raw format. Data may flow from various sources and producers to the lake without editing or structuring. Authorized users can access the lake to examine, take samples or explore the potential use of the data. Data lakes can also contain non-traditional data such as web server logs, sensor data, social network activity, text and images. Using data from a data lake requires more knowledge, skills and ability to apply varying methodologies depending on the type of data being extracted.

497. Governments may need to store and use massive amounts of data, but these data should also be easy to link and use for decision making. Government users would also need guidance and metadata to make use of data sets with information from various sectors.

2. The roles of statistical offices in government data management

498. When developing the national data infrastructure, it is vital that the data be organized in a coordinated way using unique identifiers and internationally agreed definitions and classification, as widely as possible. By better organizing and coordinating the management of data, the potential of that information can be unlocked. To extract maximum benefit from such an information system, the infrastructural design is crucial. Only with an integrated system can the interactions and interrelationships between citizens, businesses and the state be measured and understood.²⁶

499. When national governments consider new ways of organizing government data and making them more readily available for decision making, they often contact the NSO. The NSOs are centres of excellence in statistics and have strong skills and experience with collecting, handling, managing and analysing various forms of data. They have the necessary infrastructure to ensure that data are handled efficiently and securely.

500. There is an increasing number of requests to NSOs for guidance in using and managing data and making correct conclusions, even when the data are not produced by the statistical system. NSOs are more and more investing in high level statistical and data science skills, which are proving crucial for managing data across the information industry, as well as in banks, insurance companies, ministries, research institutes and many other organizations.

501. It is, therefore, not surprising that NSOs are often asked to be involved in developing government data pools for various administrative purposes. This is a reasonable goal, but may not fall, as such, within the scope of tasks regulated in statistical legislation. Sometimes statistical offices are asked to provide statistical services related to the maintenance of government data pools with tasks in data integration, quality improvement, development of metadata and instructions.

502. In the Netherlands, for example, such data centres provide a platform for organizations to compute, use and store their data. Municipalities have joined forces with Statistics Netherlands to use data more effectively in local administration by establishing urban data centres.²⁷

²⁵ *Top five difference between data lakes and data warehouses*, Chris Campbell, January 2015. www.blue-granite.com/blog/bid/402596/top-five-differences-between-data-lakes-and-data-warehouses

²⁶ See: *Statistical capacity building for sustainable development: Developing the fundamental pillars necessary for modern national statistical systems*, Steve MacFeely and Nour Barnat, Statistical Journal of the IAOS 33 (2017) 895–909.

²⁷ *CBS Urban Data Centers. An innovative concept servicing local data needs*, Robert Hermans, Statistics Netherlands, UN World Data Forum 2017. https://undataforum.org/WorldDataForum/wp-content/uploads/2017/01/TA3.11-5_robert_hermans_cbs_udc_english_world_data_forum.pdf

Challenges related to the statistical offices' involvement

503. The Fundamental Principles of Official Statistics apply where statistical data are concerned, or when statistical offices are involved in managing government data. While a well-organized system of government data will bring many benefits, MacFeeley and Barnat caution that with such power comes the risk of abuse²⁸. Such risks need to be carefully considered and strictly controlled to prevent problems. In the United Kingdom, the National Statistician's Data Ethics Advisory Committee has identified six ethical principles aligned with the Fundamental Principles that illustrate the issues to be taken into account.

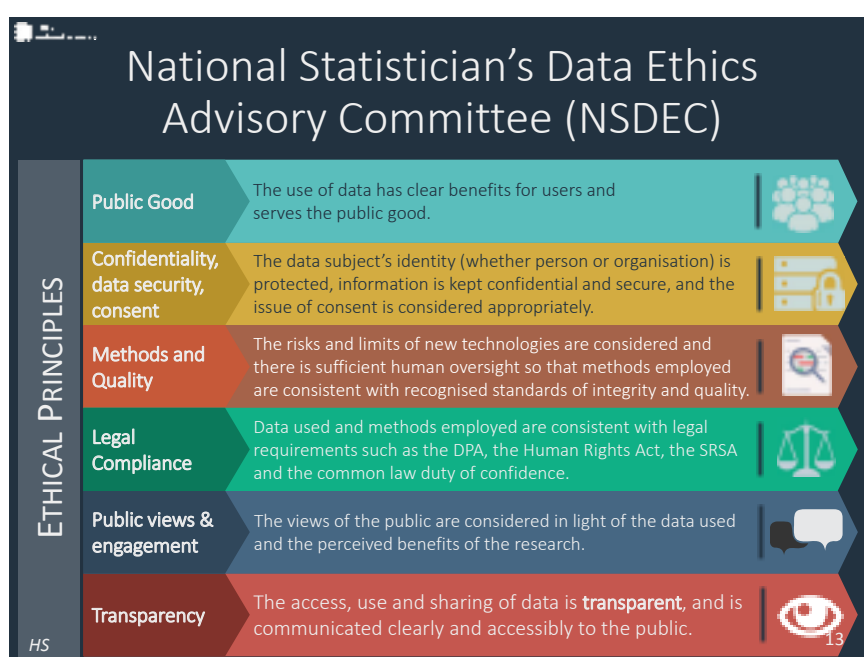
504. According to UK data ethics, government data pools should present clear benefits for users and serve the public good. It is not enough that government data pools be useful for the government in its work, but they should also benefit society by allowing private citizens to make more informed decisions and receive improved services.

505. Data confidentiality needs to be guaranteed by having rules on access and use of data, and these rules need to be monitored and strictly enforced. The rules and procedures of accessing, using and sharing data need to be made public.

506. Furthermore, data should be used only for purposes for which data subjects have provided consent, or as otherwise permitted by law. Generally, this means that data can only be used for the purposes for which they were collected in the first place. Offices that provide their data need to ensure that data are analysed using appropriate methodologies and that misinterpretations and misuse are avoided.

FIGURE 6

Data ethics applied in the United Kingdom



Source: High-level Panel Discussion, Ms. Heather Savory, Deputy National Statistician, United Kingdom <https://unstats.un.org/unsd/bigdata/conferences/2017/default.asp>

²⁸ See: *Statistical capacity building for sustainable development: Developing the fundamental pillars necessary for modern national statistical systems*, Steve MacFeeley and Nour Barnata, Statistical Journal of the IAOS 33 (2017) 895–909.

507. Despite the many competencies statistical offices bring to the management of government data, involvement as administrators of large government data repositories would put their reputations at risk, especially if any data breach occurs. Even where statistical offices are not directly responsible for a breach, public trust is eroded, as respondents often do not differentiate between the authorities under which the information was collected. The views of the public need to be carefully analysed when developing the national data infrastructure.

4. Legal aspects related to government data management

508. The legal frameworks of official statistics do not allow NSOs to provide unit level data to data pools that could be used across government agencies. Data held by the statistical system cannot be used for administrative decisions regarding individuals.

509. **Statistical confidentiality and privacy need to be strictly observed.** These are key building blocks of reliable and trustworthy official statistics. There are several options for ensuring the confidentiality of statistical data in this context; for example, **establishing a practice where the statistical system does not provide data to the government data pool, and the pool is located outside of the statistical system.** Each administrative body and other data holders provide their data directly to the pool if that is in line with the purposes for which their data were collected. In this option, the data in the pool could be used at the unit level freely across the authorized organizations assuming this is in line with the related legal frameworks, and that data are collected for government use widely. Data from statistical surveys would not be available. The statistical office could provide statistical services on request to improve data quality, metadata, etc.

510. This type of government data pool would provide an important source of accessing data for statistical purposes. The NSS could make statistics available as open data to the government in an aggregated form.

511. Having the data of various administrative agencies in the same data pool would require the consent of data subjects, of the persons and businesses concerned, or be permitted expressly by law. Any such consent would need to be freely provided and fully informed. However, it would not be feasible to ask respondents for consent for each different use. When collecting government data, the administrative bodies **should define and communicate the purposes for which data are collected so that various uses are included.** How this might affect respondents' willingness to provide information is another consideration.

512. **The role of the service provided by the NSO in the area of government data management has to be clearly agreed.** The common element on statistical services enables the involvement of the statistical office in the maintenance and development of government data: "On customers' request, producers of official statistics may provide statistical services using data collected or obtained for statistical purposes or provided by the customer. Statistical services shall not jeopardize the production and quality of official statistics or the credibility of the National Statistical System. The confidentiality provisions and the quality provisions of the statistical law shall fully apply to the provision of statistical services."

513. **The statistical office may have a role in the quality assurance, guidance on suitable methodologies, metadata development, harmonization and support to the correct interpretation of data.** However, there may be difficult questions about who is responsible for the overall data quality, about possible misinterpretation, or about insufficient methodologies applied. The final responsibility should lie with the provider of each dataset.

514. **In general, the activities related to government data management would need to be regulated in another legal framework that should be in line with the statistical law,** especially when it comes to the role of the statistical system and the use of statistical data.



9. CONCLUSIONS AND FURTHER WORK PROPOSALS

515. This guidance aims to support further work in countries and internationally to modernize the legal and institutional frameworks of statistical production. The guidance is not intended to be binding, it is simply an aid intended to support countries wishing to review or revise their statistical legislation. It brings together the strategic aspects of a strong and solid legal framework of official statistics that is based on the Fundamental Principles of Official Statistics, the European Statistics Code of Practice and the OECD Recommendation on Good Statistical Practice.

516. The process of revising statistical legislation (figure 2) follows the Deming wheel which is an iterative quality management method for continuous improvement. While statistical legislation should provide a solid and rather stable foundation for statistical work, the assessment and development of the legal and institutional framework should be a continuous process. Therefore, the recommendation to develop and maintain a vision paper on the gaps and challenges of the current statistical law is important, even after the approval of a new statistical law.

517. To facilitate taking forward this continuous action, the Task Force makes the following proposals:

- All countries are invited to make use of the *Guidance on modernizing statistical legislation* to review the national statistical law and other related legislation. National statistical systems would benefit from preparing their vision for future development of the statistical law based on the current gaps and challenges.
- The work to generate and exchange information on best practices in the development of legal and institutional frameworks of official statistics is urgent and an area where not a lot of exchange has been done within the statistical community. To this end, the Conference of European Statisticians should host regular meetings of legal and managerial experts of statistical offices to review progress and collect experience and best practice in the modernization of legal and institutional frameworks of official statistics.
- An organizing committee or a steering group, composed of a few countries, could be established to organize these expert meetings, consider the need for future guidance and coordinate requests for assistance from countries developing their statistical laws.
- Additional ad hoc meetings could be held to address specific subjects related to legal considerations, such as data exchange. These meetings should include other relevant experts such as data security professionals.
- Both anticipated and unanticipated developments are taking place. These include the debates related to the post-truth politics, the increasing globalization and the related needs to exchange data internationally as well as the enormous challenges of reporting on progress towards the SDGs. The Task Force recommends keeping an eye on the legal and institutional frameworks of official statistics to anticipate needs and develop statistics in an agile and forward looking way.
- Countries should supply their own relevant material to the expert meetings to share their experience, especially in emerging issues such as access to and use of private data sources, cooperation with geospatial agencies, new roles of the NSO for instance in government data management, etc.
- Legal experts and managers of statistical offices are invited to consider what kind of exchange of experience, supporting materials and practical guidance would need to be developed to strengthen statistical legislation and implement it effectively.
- Improving the governance of statistical production and the legal frameworks is a priority for the community of official statistics and fundamental to producing high-quality statistics. Therefore, UNECE should seek collaboration with other international organizations and donor countries to support countries with developing statistical systems in this area.
- The UNECE work should contribute actively to global initiatives to develop legal and institutional frameworks of official statistics beyond the CES region, such as to the renewal of the UNSD Handbook of Statistical Organization.
- It would be useful to review after five years whether this guidance needs updating in the light of experience gathered nationally and internationally and taking into account new changes to the statistical and legal environment.

ANNEX I. TERMS OF REFERENCE FOR THE TASK FORCE ON COMMON ELEMENTS OF STATISTICAL LEGISLATION

I. Background

1. Referring to the Fundamental Principles, official statistics provide an indispensable element in the information system of democratic societies serving the government, the economy and the public with data about the economic, demographic, social and environmental situation to support taking evidence-based decisions. To be able to carry out this task, statistical systems need to have a strong legal and institutional setting.
2. Although the ways in which statistical systems are organized vary across countries, some common principles on the functioning of statistical systems apply. Recently, the need to further reinforce legal frameworks to guarantee the independence, integrity and accountability of statistical systems, high-quality of official statistics and data security has arisen in many countries.
3. Moreover, an up-to-date statistical legislation could support modernization of official statistics by removing unnecessary barriers to releasing the full value of statistics. As the landscape of information producers is rapidly changing, statistical offices need a legislative and institutional infrastructure that supports developing new business models, engaging in partnerships and using new data sources and technologies.
4. Under these conditions, countries would benefit from guidance on the essential features of statistical legislation that could strengthen their statistical systems, enable more agile strategic development of official statistics, and further alignment with the United Nations Fundamental Principles.
5. In 2015, UNECE developed a generic model for a law on official statistics under the United Nations Development Account (UNDA) 9th tranche project for Eastern Europe, Caucasus and Central Asia in cooperation with EFTA and Eurostat. At its February 2016 meeting, the CES Bureau decided that this generic law should be presented to the 2016 CES plenary session. Furthermore, the Bureau noted that the generic law developed under the UNDA project could be used as a basis when identifying common elements of statistical legislation that CES countries could use when benchmarking and developing statistical legislation.

II. Mandate

6. The Task Force work is conducted within the framework of CES and its Bureau, and it reports to the CES Bureau. The Task Force will be created for a period from June 2016 to June 2018.

III. Objective

7. The objective of the Task Force will be to identify common elements of national statistical legislation for use by CES countries, in line with the Fundamental Principles of Official Statistics, the European Statistics Code of Practice and the OECD Recommendation on Good Statistical Practice.
8. The work aims to support CES countries in further reinforcing their legal frameworks to guarantee independence, integrity and accountability of national statistical systems and high quality of official statistics and help remove legislative barriers to releasing the full value of official statistics.

IV. Planned activities and outputs

9. The Task Force will undertake the following activities:
 - (a) Review the key factors, strengths and shortcomings of legal and institutional frameworks of official statistics in the CES countries based on existing material and analysis relating, but not limiting, to:
 - i. Professional independence of statistical offices
 - ii. Role and status of the Head of the national statistical office
 - iii. The scope of national statistical systems and definitions of official statistics
 - iv. National statistical office's role in the coordination of the statistical system

- v. Mandate to collect data, access administrative data and use information in the National Statistical System
 - vi. Obligations and practices with confidential data and access to microdata
 - vii. Quality management frameworks
 - viii. Systems for collaboration with (i) data providers (respondents or administrative data providers, etc.), (ii) users of statistics, and (iii) key stakeholders including other national statistical offices.
 - ix. Statistical work programming
 - x. Statistical communication and release strategies, including research access to data
 - xi. Independent regulation and assurance of the integrity of official statistics
 - xii. Any other matters relevant to releasing the full value of official statistics
- (b) Review the key challenges, expectations and limitations arising from the operational environment with implications on the legal and institutional frameworks of official statistics in order to develop guidance that CES countries could use when benchmarking and developing statistical legislation;
- (c) Review the generic model for a law on official statistics developed under the United Nations Development Account (UNDA) 9th tranche project for Eastern Europe, Caucasus and Central Asia as a starting point for identifying common elements that may be useful for all CES countries;
- (d) Identify common elements of sound legal and institutional frameworks of official statistics that CES countries could use when benchmarking their statistical legislation;
- (e) Draft good practice guidance, taking into account relevant sub-regional legal instruments and recommendations, to support countries in reinforcing their legal and institutional frameworks to guarantee independence, integrity and accountability of national statistical systems and high quality of official statistics by focusing on these expected outcomes.
10. The main output will be Guidance on common elements of national statistical legislation (working title). The output should provide guidance on the minimum level, but it should not restrict modernizing the statistical legislation further.

V. Timetable

11. The activities of the Task Force for the period from June 2016 to June 2018, are planned according to the indicative timetable:

Timing	Task
June 2016	Agree on the work plan; Identify task leaders for review tasks (a) to (c)
Jun-Aug 2016	Analyse the findings of the reviews (a-c).
Aug-Dec 2016	Identify common elements that CES countries could apply in statistical legislation (d)
Jan-Mar 2017	Explore countries' differences and look for alternative options for statistical legislation, where common elements do not apply (d)
Apr-Jun 2017	Draft guidance to help reinforce legal frameworks in CES countries (e)
Jul-Sep 2017	Finalize and draft the guidance (e)
Oct 2017	Submit the guidance to the CES Bureau for comments
Nov 2017 – Jan 2018	Revise the guidance to take into account comments by the CES Bureau
Jan 2018	Electronic consultation of the guidance with all CES members
Feb-March 2018	Based on the outcome of the consultation, submit the guidance to CES 2018 plenary session

VI. Methods of work

12. The Task Force will primarily work via email and telephone conferences. Face-to-face meetings may be organized, preferably on the occasion of events attended by a significant number of Task Force members. Participation to the meetings will be self-funded.
13. The Task Force will coordinate activities with the UNECE High-Level Group for the Modernisation of Official Statistics.

VII. Membership

14. Albania, Armenia, Australia, Canada, Germany, Latvia, New Zealand, Slovenia, United Kingdom, United States, Eurostat and the United Nations Statistics Division participate in the Task Force.
15. UNECE will act as Secretariat to the Task Force

ANNEX II. EXAMPLES OF EFFECTIVE REGULATION AND IMPLEMENTATION OF LEGAL ELEMENTS

16. The following case examples illustrate practical implementation of some of the recommended legal practices and might be useful for other countries planning to change their legal framework in a similar way.

Case study 1. Canada – Strong policy to support implementation of legislation

17. The adoption of a new statistical law or amendments to an existing one will only be as effective as the actions to implement the law. As such, it is crucial to develop policies to communicate the authorities and responsibilities found in the legislation and assist those individuals implementing the law.

18. The policies will also assist employees with consistently implementing the legislation through time and circumstances based on principles. There are six important elements to create strong policies and procedures:

1. Clear objectives: any policy or procedure developed for the purpose of supporting the application of the statistical law must clearly demonstrate the objective of the legislation as well as the expected results. A policy should be based, preferably, on principles and not specific actions to allow latitude in the application and to remain within the authority of the law.
2. Transparency: any policy or procedure must be made available to all employees, users of information, respondents and data providers. This transparency element increases the trust afforded to the NSO by respondents and data providers as it clearly demonstrates the expected use, disclosure and protection of their information.
3. Accountability: any policy or procedure should clearly define the responsibilities assigned to the employees. It should also demonstrate who to consult with in case of ambiguity and who has authority to make exemptions to the policy or procedure. It is recommended that each policy be reviewed by a specific committee on a regular basis to ensure its relevancy.
4. Legal context: in developing policies, the statistical law and other legislation that may be impacted should be referred to. In addition, an explanation as to how the policy aligns with the legal requirements of a specific law should be provided. For example, how does the collection of personal information for statistical purposes align with privacy legislation?
5. Compliance: With any responsibility and authority comes accountability. As such, it is important that a policy include the consequences for non-compliance to the policy both for the NSO and the employee. The description of the consequence will reinforce the importance of compliance.
6. Audit and review: the audit of compliance to the policy demonstrates to employees and respondents the due diligence taken by the NSO to respect the statistical law. A review of the policy or procedure is also recommended to keep the information relevant in time and circumstances.

Case study 2. Republic of Moldova – Efficient implementation of newly revised legislation

19. The Republic of Moldova has reviewed their statistical law based on the *Generic Law on Official Statistics* (GLOS). The new statistical law was approved in May 2017. For a successful adoption, the key element is to ensure that the adoption is part of the main strategic planning documents. In the Republic of Moldova, it was stipulated in the Association Agreement between the European Union and the Republic of Moldova.

20. Before the approval, the NSO carried out a very comprehensive review of its legislation and benchmark materials, especially GLOS, engaging both national and international experts. Sectorial consultations proved to be very important, in particular with the central bank and the Agency of Personal Data Protection. The consultations with stakeholders were crucial for gaining a full understanding of the role and relevance of official statistics and the related requirements for statistical legislation.

21. New elements and approaches were considered in developing the statistical law:

- Double approach with regard to rights of producers of official statistics and responsibilities of respondents and holders of administrative data.
- Clear specification of institutional and professional independence of the central authority in statistics.
- National Council of Statistics mainly consist of representatives of the public sector, rather the non-public one, as it was envisaged as an efficient coordination instrument of official statistics. Having a Coordination Committee might be a useful approach for less developed statistical systems.
- The access to data covers the information from administrative bodies and other legal persons (including private companies) as well.

22. The approval of the law was followed by a thorough planning of follow-up actions to implement the law in practice. It brought about some fundamental changes to the NSS in the Republic of Moldova. The NSO launched the following activities to implement the statistical law:

- Creation of a working group on the implementation of law and development of a roadmap with actions for the next three years.
- Development of new secondary acts on the National Council on Statistics, on the organization, structure and functioning of NSO, on the approval of other producers of official statistics, on the organization of a competition for the position of the General Director, etc.
- Review and modification of other related legislative and normative documents.
- Development of regulations to implement various articles of the law, such as access to microdata, quality certification of statistics produced by other producers of official statistics, etc.

23. The new statistical law strengthened the role of the NSO role as the coordinator of the NSS. Achieving the new role also required effective action to achieve the change in practice. To new National Council on Statistics and an envisaged Centre for Professional Training in Official Statistics will help to strengthen the role of the NSO further.

24. The NSO will promote the new law and the changes it will bring in seminars with other producers of official statistics, data providers and with the main users of statistics.

Case study 3. Finland – Cooperation with respondents' representatives

25. In Finland, the statistical authorities must, under the Statistics Act, negotiate with the respondents or with their representatives (e.g. central organizations of industry, trade or local government) before starting a data collection. Consultation must always be arranged when data are collected by virtue of statutory obligation to provide data. The obligation to provide data comes into effect only if the negotiations have taken place. The duty to consult with those obliged to provide data means that all data suppliers or their representatives must be consulted – including e.g. state authorities.

26. The aim of the negotiations is to inform the respondents about new data collections or changes in existing one and to get their views for improving and making easier the data supplying to Statistics Finland. The meaning of these negotiations is to take into account the views of the respondents in the planning of the data collection and to allow the respondents to adapt their information systems to produce the required data. The consultation must be arranged early enough to allow the views of the respondents to be taken into account in the planning of the data collection and allow the respondents to adapt their information systems to produce the required data. The conclusions from the consultation will be confirmed in writing by drawing up a protocol or an agreement. Law does not require unanimity to be reached in the consultation, although this is the aim.

27. The issues to be discussed with the respondents' representatives include:

- The data to be collected and the purpose for which they are to be used.
- The timings and procedures to be applied in the data collection.
- Provision of advance information (the start of the collection and the data that will be collected, but other information may also be given about the collection as necessary).
- The duration for which the data are to be stored.

- Whether the data are to be collected with identification data and whether the data to be collected are sensitive or relate to business or trade secrets.
- Rules and procedures applied in non-disclosure and other protection of the data.
- Feedback for respondents and ways of providing it.
- The purpose for which the data are to be used, i.e. the statistics and statistical topics, as well as other regular purposes for which the data will be used.
- The costs from the data collection to the parties concerned.

28. A consultation must also be arranged if changes are planned to one or more matters referred to above if the changes are significant from the perspective of any party concerned. In addition, a consultation must always be arranged if a representative of the respondents request it.

29. The organizations representing data providers (e.g. central organizations of industry, trade or local government) are met at specifically set up cooperation groups. The groups are not only intended as a platform for the compulsory negotiations but also for providing general information on upcoming changes and development of data collection.

30. Direct consulting of respondents may be applicable when the statistical domain concerned has only very few data suppliers or when indirect collection of data from authorities or corporations is concerned. The negotiations take place regularly.

31. Close cooperation with the relevant authorities is important to the effective use of administrative data sources. The use of these sources can be improved by working as closely as possible with the authorities, by exercising a real impact on the data content of registers, and by disseminating a better understanding of the use of administrative data for statistical purposes.

32. The cooperation with respondents takes place at many levels. Statistics Finland arranges annual meetings on the Directors General level with the main register authorities to discuss key issues and to monitor progress in cooperation. Statistics Finland has appointed for each register authority a contact person whose job is to maintain open channels of communication with that authority, to monitor developments within the field concerned, and to work towards maintaining or improving the statistical applicability of register data. Each register authority has nominated a contact person for statistics.

33. Statistics Finland also actively follows the operational environment so that new established registers would be accessible to the statistical service as soon as possible. In many cases, Statistics Finland participates in the development and planning of new registers from the beginning.

Case study 4. Finland – Criteria and system of official statistics

34. The recommendations of the Advisory Board of Official Statistics of Finland guide the quality assurance and publication of Official Statistics of Finland.

35. The most important recommendations concern the quality criteria of official statistics. The quality criteria are compatible with the European Statistics Code of Practice and define the issues that must be ensured in the production of statistics.

36. The *Recommendation on Quality Description* defines how the quality of statistics should be described when publishing statistics. The *Publication Guidelines* provide instructions on the ways of publishing, on the statistics released to users and on the presentation of statistics. In addition, the Advisory Board of Official Statistics of Finland makes recommendations on quality assurance, quality criteria, quality description and release guidelines.

I. Quality assurance by producers of official statistics of Finland

37. The producers of official statistics of Finland have signed a quality assurance in which they commit to the principles that steer statistical production. The quality assurance concerns the contents of statistical data, production processes and service to data users.

38. According to the principles, the producers of official statistics of Finland offer all Finnish citizens reliable official statistics that have been produced independently and describe Finnish society exhaustively. The quality of the activity is materialized, for instance, in the following:

- Statistics correspond to the needs of users.
- Statistics and statistical services are reliable, and the data published in them are up-to-date, impartial and as comparable as possible.
- Statistical production processes are smooth, efficient and transparent, only necessary data are collected as the basis for the statistics, and providing the data has been made as easy as possible.
- Privacy of the data suppliers is respected.
- Statistical personnel serve users of statistics well and the services are easy to use.
- The activity is continuously improved.
- The producers of official statistics of Finland also commit to measuring and reporting continuously on the quality of the statistical data.

39. The Official Statistics of Finland comprise around 270 different statistics. The quality criteria and quality assurance principles for Official Statistics of Finland are based on the Fundamental Principles of Official Statistics and on the European Statistics Code of Practice. The *Quality Assurance Commitment has been signed by 17 producers of statistics within the public sector, including Statistics Finland.*

II. Quality criteria

40. The Advisory Board of Official Statistics of Finland has in 2010 updated the criteria that should be fulfilled by statistics in the Official Statistics of Finland series. These criteria have been harmonized with the quality criteria of Eurostat. The purpose of the criteria is to develop and maintain the usability of Official Statistics of Finland in order to meet society's information needs. The criteria that statistics in the Official Statistics of Finland series must fulfil are listed below.

A. Impartiality and transparency

41. The principles adhered to in the production and reporting of statistics are based on professional statistical considerations and ethics independent of external interest perspectives. The principles are public and detected errors are corrected visibly. The statistics are accessible to everybody under equal conditions.

B. Quality control

42. The quality of statistical data is monitored continuously with recognized procedures and it is adequately reported. The minimum requirement in quality reporting is an up-to-date quality description approved by the Advisory Board of Official Statistics of Finland. The aim is that approved procedures for quality assurance are in place for all official statistics.

C. Confidentiality

43. The data obtained from data providers are only used for the purpose that has been informed to the respondent at the time of data collection, and their privacy and trade secrets must be efficiently protected.

D. Efficiency

44. Statistics are produced with adequate resources and mandates, professionally and as efficiently as possible while minimizing the response burden of the data providers.

E. Relevance

45. Official statistics contain essential and nationally comprehensive data on the topic they describe to serve the needs of their users.

F. Accuracy and reliability

46. Official statistics describe the examined phenomena, their state and its changes, in an accurate and reliable manner. Clear descriptions are presented of the used statistical methods and revisions in them. Their effects on the obtained results and other possible factors causing uncertainties in the statistics are analysed and reported. The measures for correcting possible errors in the statistics comply with the recommendations approved by the Advisory Board of Official Statistics of Finland.

G. Timeliness and punctuality

47. The data of official statistics are as up-to-date as possible. The times of their release are made known in advance. Their publisher must maintain a release calendar in accordance with the guidelines issued by the Advisory Board of Official Statistics of Finland (the Official Statistics of Finland release guidelines).

H. Coherence and comparability

48. Official statistics are coherent and as comparable as possible over time and regionally. General and established, primarily internationally approved concepts and statistical classifications are used in the Official Statistics of Finland. The factors affecting the coherence and comparability of the statistics are documented and explained in the quality descriptions of the statistics. Data describing the same that deviate due to different definitions of the phenomenon are clarified by using different concepts.

I. Accessibility and clarity

49. The Official Statistics of Finland are presented in a clear, transparent and understandable form, and disseminated in a suitable and convenient manner. The data and the supporting metadata, as well as guidance for the users are made impartially accessible. The statistics are presented in a form that facilitates their proper interpretation and comparisons. The basic data of the statistics are made available for research purposes without compromising confidentiality. Custom-designed analyses can be produced from the statistics for the needs of an individual user or group of users.

III. Quality description

50. All Official Statistics of Finland must be accompanied by a quality description. The quality description should be a concise assessment of the quality, reliability and suitability of the statistics for different purposes. Its central objective is to show how the Official Statistics of Finland quality criteria are fulfilled in the statistics in question.

51. This recommendation for a quality description was approved at a meeting of the Advisory Board of Official Statistics of Finland in January 2007. It will be reviewed against feedback from users.

A. Publication of quality description and referring to it

52. A quality description is published at the same time as the statistics concerned, so that the users of the statistics have easy access to it. The quality description is posted on the publisher's website and the web address of the description is given in all publishing formats of the statistics. The quality description can also be published as part of a printed publication.

53. The quality description always relates to statistical data released at a certain point of time. Different versions of the quality description will be stored.

54. Where necessary, the quality description can refer:

- To a separate text in a printed publication, such as the conceptual part of a statistical publication, or to a separate publication, such as a handbook or methodological description.
- To the Concepts Database or other electronic accounts from which the users of the statistics can find the data that are too extensive to be presented in the quality description.
- To a separate publication, such as a handbook that focuses entirely on the description of a certain statistical, benefit or similar system.

55. In compilation publications of several different statistics, reference can be made to the quality description by table or data group. If included are both Official Statistics of Finland and other statistics, Official Statistics of Finland and their quality descriptions can be indicated with the Official Statistics of Finland symbol in, for example, source references.

B. Contents of a quality description

- Name of the producer of the statistics.
- Grounds for the compiling of the statistics: References are made to the possible acts, decrees and recommendations on which the compilation of the statistics is based.
- Funding basis of the statistics: The financing of the production of the statistics is specified, especially from the standpoint of the continuity of the production of the statistics.

1. RELEVANCE OF STATISTICAL INFORMATION

- A summary of the information content and purpose of use of the statistics. The national comprehensiveness of the data is defined.
- An introduction to the concepts essential for understanding the statistics, and the used classifications, research subject and data providers.
- An account of how the users' perspective is taken into consideration in the development of the statistics.

2. ACCURACY AND RELIABILITY OF DATA

- A proof that the statistics measure the phenomenon they are supposed to measure.
- An account of the research method of the statistics, that is, the population, used basic data, survey design (census or sample survey), (sampling design), data collection method, estimation methods and use of weighting coefficients in sample surveys.
- An account of the issues that can influence the reliability of the statistics. In addition, the main elements that may cause uncertainty, that is, possible sources of error (e.g. non-response or undercoverage), should be reported. Where necessary, parameters related to survey quality are tabulated for estimates by main classifications. For example, in sample surveys they should contain estimates of design-based standard errors and/or confidence intervals, and design effects.
- Descriptions of revision practices and procedures for correcting errors in the statistics.

3. TIMELINESS AND PROMPTNESS OF DATA

- The release frequency and measurement period of the statistics are indicated.
- A notification is given about whether the data are preliminary or final. Where the statistics are first published as preliminary data, the time when the final data will be available is stated.
- If the data may become revised in future due to, for example, seasonal adjustment the probability of change must be made explicit to the users of the data.
- The web address where the release calendar can be found is given.

4. COHERENCE AND COMPARABILITY OF DATA

- The uniformity and coherence of the statistics are assessed relative to other statistics on the same topic. The used general classifications and concepts are identified, and reasons are given if they are not used.
- Information is given about the temporal comparability of the statistics and their comparability with other data. The lengths of the available time series are given for the statistics from whose data comparable time series have been produced.

5. ACCESSIBILITY AND CLARITY OF DATA

- The publication channels of the statistics and the contact details of the unit producing information services are stated. The publication channels can comprise paper publication, online database, set of HTML pages, CD, etc.

- Information is given on where the description, metadata, and extensive quality and methodological descriptions of the statistics can be found.
- Procedures concerning the release of microdata are described.

IV. Release guidelines

56. Official Statistics of Finland is a system of statistics comprising the central and high-quality part of Finnish social statistics. The Advisory Board of Official Statistics of Finland maintains a list of the statistics accepted into Official Statistics of Finland. The release guidelines for Official Statistics of Finland are available here: http://www.stat.fi/meta/svt/julkaisuperiaatteet_en.html.

Case study 5. Lithuania – Criteria for identification of other producers of official statistics

57. Official statistics of Lithuania are produced by Statistics Lithuania, National Bank of Lithuania and other producers of official statistics. The Law on Statistics empowers Statistics Lithuania to coordinate activities of other producers of official statistics in the field of organization and methodology of statistics. The coordination of official statistics embraces the whole cycle of production of statistics, starting from the planning phase (i.e. elaboration of the Official Statistics Work Programme), ending with dissemination and assessment of implementation of the Official Statistics Work Programme.

58. Statistics Lithuania applies the following criteria, which are assessed before granting the status of other producer of official statistics and before including statistics into the Official Statistics Work Programme:

- The institution has to be a public authority.
- The institution has to have been formally given the responsibility to produce specific statistics at the national level; the responsibility to produce specific statistics has to be laid down in legislation.
- The institution has a responsibility to produce specific statistics, for instance those required by EU legislation.
- The institution has the capability and commitment to comply with the European Statistics Code of Practice.

59. In Lithuania, the framework for coordinating statistical activities covers the following:

- (1) Statistics Lithuania signs bilateral agreements with other producers of official statistics, which allow gaining personal commitment of the top management of the producers of official statistics and ensuring the application of the European Statistics Code of Practice principles and awareness of them. The agreements include a commitment by the producers of official statistics to:
 - Adhere to the principles of the European Statistics Code of Practice and to establish measures for the implementation of the provisions.
 - Provide information to Statistics Lithuania for the Official Statistics Work Programme and to report on its implementation.
 - Harmonize statistical data collection questionnaires with Statistics Lithuania.
 - Harmonize statistical methodologies with Statistics Lithuania.
 - Monitor and assess labour and other costs incurred by respondents in relation to statistical data collection and implement their reduction measures.
 - Ensure the confidentiality of statistical data collected for the purposes of official statistics.
 - Ensure the accessibility of statistical indicators and metadata on the Official Statistics Portal.
 - Provide statistical data to Eurostat according to agreed schedules.
 - Cooperate with Statistics Lithuania on the development of official statistics.
- (2) In order to make coordination more effective, Statistics Lithuania developed the *Procedures for the Coordination of Other Producers of Official Statistics*. The Procedures establish the main directions of coordination, responsibilities of Statistics Lithuania's structural divisions, coordination-related communication.
- (3) Statistics Lithuania has also developed *Recommendations for the Implementation of the Code of Practice in Lithuania* as a resource for coordination. The recommendations contain a checklist of measures, which have to be implemented for each principle of the European Statistics Code of Practice.

FIGURE 7**Statistical programming and reporting at Statistics Lithuania**

Source: Presentation by Daiva Jurelevičienė, Statistics Lithuania on the Coordination in Statistics Lithuania: Legal and Practical Aspects. At the High-Level Seminar on the Law of Official Statistics in the Republic of Moldova, on 21-22 November 2017.

60. Statistical programming and reporting is a key coordination tool and involves various stages of consultation with other producers of official statistics and stakeholders.

61. Statistics Lithuania coordinates the NSS through the process of statistical programming and reporting, but also in the area of methodology, quality monitoring, dissemination and data transmission, communication, workshops and knowledge sharing.

62. The national legislation empowers Statistics Lithuania to harmonize statistical methodologies and statistical questionnaires of other producers of official statistics. To this end, Statistics Lithuania standardizes statistical methodologies and questionnaires, monitors their updating, harmonizes statistical indicators, their definitions, etc.

63. The Methodology Commission approves the application of methodologies. The coordination of the methodology of specific statistical areas is performed by subject matter divisions of Statistics Lithuania. They are responsible for the organization of the production of certain statistics: they consult other producers of official statistics and provide methodological guidance. The coordination role of Statistics Lithuania is strengthened by cross-institutional working groups or commissions chaired by Statistics Lithuania (for instance in national accounts, sectoral accounts and foreign trade). They include specialists from Statistics Lithuania and other producers of official statistics and contribute to statistical methodology and organizational development.

64. It is obligatory to consult statistical questionnaires with Statistics Lithuania. According to the statistical law, other producers of official statistics have the right to approve statistical questionnaires and filling-in guidelines only after prior coordination with Statistics Lithuania. They should comply with the general requirements set by the statistical law. These consultations help to manage response burden and avoid duplication of data collection.

65. In order to assure quality of official statistics, the producers of official statistics carry out self-assessments using agreed procedures and compile quality indicators on their statistics. Statistics Lithuania has also established a cross-institutional working group to guide the implementation of the European Statistics Code of Practice.

66. The NSS is working towards the goal to have all official statistics published on the Official Statistics Portal, irrespective of the producer of official statistics. The Official Statistics Portal is a multifunctional state statistics

information system. The coordination of dissemination covers the following: compilation of a detailed list of indicators to be published, setting release dates, preparation of templates for uploading information, elaboration of metadata reports.

67. Statistics Lithuania provides a statistical forum for professional exchange among statisticians with registered users from other producers of official statistics. Also, regular workshops and knowledge sharing are organized. Statistics Lithuania provides a statistical forum for professional exchange among statisticians with registered users from other producers of official statistics. The workshops and knowledge sharing in 2016-2017 included:

- Preparation of methodology
- User satisfaction surveys
- Reduction of burden on respondents
- Intrastat data quality assurance
- Practical implementation of dissemination policy
- Quality monitoring
- Functionality of the Official Statistics Portal
- Statistical analysis

Case study 6. United Kingdom – Branding of national statistics

68. In the United Kingdom (UK) there are two types of statistics, official and national. Official statistics are defined by the statistical law as any statistics produced by a public authority. This is quite a wide definition and encompasses pretty much all statistics produced in the public sector in the country. All official statistics should comply with the Code of Practice issued by the UK Statistics Authority.

69. National statistics are a subset of official statistics. These are official statistics that have been either identified by the authority as being of such importance that they should be branded national statistics, or they have been selected by the producer for inclusion as national statistics. In either event this process is not automatic, for a statistic to be given the label national statistic it must conform and meet every element of the Code of Practice. Once awarded it is subject to regular review by the UK Statistics Authorities regulatory team who have on occasion withheld or withdrawn the right to describe a statistic as a national statistic, much to the public embarrassment of the statistical producer. When this has been a government department (which can include the national statistical office), this often requires senior officials being called before parliament for an explanation.

Case study 7. Germany – Recent revision to statistical legislation

70. In Germany, the Federal Statistical Act was amended in 2016 to take into account new good practice. This regards the coordination role of the Federal Statistical Office of Germany towards the other national authorities producing European statistics in Germany. The responsibility of the President of the Federal Statistical Office as well as the Heads of the National Authorities has been strengthened relating the decisions on statistical methods and standards.

71. Another important aspect of the amendment was the underlining of the independence of the statistical office by inserting the term “professional independence” into a prominent place at the beginning of the legal act.

72. Given the requirement to establish formalized communication with institutions collecting administrative data and provide them with tools for systematic assessment of data quality, a new regulation on the statistical use of administrative data has been introduced in the Federal Statistical Act. While administrative data were frequently used already, the new regulation will make it a general principle and, therefore, encourage both the legislators and the statistical offices to envisage more often the use of administrative data for the production of federal statistics. For the first time the institutions collecting administrative data will have an obligation to formally cooperate with the Federal Statistical Office by transmitting metadata and, upon request, also anonymized microdata in order to allow the Federal Statistical Office to examine the data for its statistical suitability.

73. In addition, several legal amendments came into force to develop the data sharing among statistical authorities in order to avoid multiplication of surveys and enable the linkage of data sources to reduce

reporting burden. This concerns in particular the new permanent register of addresses which has been included in the Federal Statistical Act to ensure that the next census is elaborated in such a way that the data are archived permanently and not just for a limited period of time. Furthermore, a regulation for the statistical business register was introduced to stipulate the exchange of microdata between the Federal Statistical Office and the German Central Bank. The Federal Statistical Office is now also allowed to link the statistical data produced by the German Central Bank with the data from the statistical business register.

74. Physical and logical protection as regards the access to confidential data for scientific purposes was also developed. It is now easier for the researchers to access statistical data in a special protected area within the statistical offices.

Case study 8. Croatia – Access to data held by private legal persons

75. In Croatia, the most recent change of the statistical law enables access to data held by private legal persons containing information on other statistical units for statistical purposes. The following article 54, point 3, of the Croatian Statistical Law enables this:

76. Obligations of reporting units

- (1) For the purpose of carrying out the activities of official statistics established by the Annual Implementation Plan, reporting units are required to provide data on the request of the producer of official statistics.
- (2) Reporting units are required to provide accurate, complete and up-to-date information without a fee in the content and format specified by the producer of official statistics and according to the deadlines set out in the Annual Implementation Plan.
- (3) Where the Croatian Central Bureau of Statistics determines that the databases in the possession of reporting units may be used to reduce the burden of reporting units or for other developmental needs of official statistics, reporting units are obliged to ensure their use, on which a special agreement shall be concluded.

Case study 9. Latvia – Access to data held by private legal persons

77. In Latvia, some recent changes of the statistical law enable the NSO to access data held by private legal persons containing information on other statistical units for statistical purposes. This was enabled by the change to the definition of administrative data sources (article 1). The definition was extended to include different data sources which have or have not yet come to the knowledge of statistical authorities. In combination with article 13 and 16 this broad approach has also allowed the Central Statistical Bureau of Latvia to access data sources of legal persons governed by private law.

78. Article 1 defines administrative data sources as registers, data bases, information systems and other sources of information.

79. Article 13 states that:

“For the production of official statistics the statistical institution shall obtain data on statistical units from the following sources:

- 1) Directly from respondents;
- 2) Directly observing statistical units;
- 3) Indirectly from administrative data sources.”

80. Article 16 states that “A legal person governed by private law, an association of such persons or a state institution shall upon a substantiated request of the statistical institution provide data from its administrative data sources, including restricted access information needed for production of official statistics. Data from administrative data sources of a State institution shall be provided free of charge.”

81. Currently, based on these articles, Latvia has received individual data from private entities for example in the following instances:

- Data on electricity consumption from the maintainer and developer of the electricity network in Latvia
- Data on individual students from private universities
- Individual data from personalized e-tickets from the provider of public transport systems, motor transportation and parking services
- Individual data from the Council of Sworn Notaries of Latvia

Case study 10. Slovenia – Full mandate for data collection from all available sources

82. According to the National Statistics Act (NSA), the Statistical Office of the Republic of Slovenia (SURS) has a clear and broad legal mandate to collect information for the development, production and dissemination of statistics. Paragraph 1 of article 34 of the National Statistics Act stipulates that in order to implement the programme of statistical surveys, the Office shall have the right to collect data from all existing sources.

83. SURS has full legal cover to use administrative data for statistical purposes. Article 32 of the NSA stipulates that for the purpose of rational implementation of the activities of the national statistics, the Office (and other authorized producers) may use identifiable individual data from various official and other administrative data collections of the public and private sectors (records, registers, databases, etc.) which are kept on the basis of law or written consent of the individual. In compliance with law, register holders must, free of charge, submit to the Office and to authorized producers all the requested information.

84. SURS has a strong legal basis to collect data from all existing sources in its own legislation (NSA) (article 34), including from sources held by public institutions (article 32) which are considered as official data collections established by regulations or general acts of public power holders (article 4). There are, however, some limited cases where also specific sectoral legislation of an individual public institution provides for transmission of data to SURS for statistical purposes (i.e. for tax data - the Tax Procedure Act, for the administrative business register - the Business Register of Slovenia Act, for the register of persons relating to obligatory pension insurance - the Act Governing the Register of Insured Persons and Beneficiaries of Rights Provided under Pension and Disability Insurance). These are rather legislation that reinforces mandate for data collection under the NSA.

85. Moreover, there is a clear obligation to reply to surveys, provided in article 35 of the NSA. Reporting units which are bound to report in accordance with the law and the programme of statistical surveys must transmit complete and correct data to the Office and authorized producers free of charge, at the proper time and in the prescribed manner. The obligation of reporting units shall continue as long as they perform the activity or until the obligation to report has been abrogated. article 36 of the NSA further stipulates that if the transmitted data are incorrect or incomplete, the reporting units must correct and complete them in accordance with instructions of the Office or authorized producer.

86. The NSA also contains penalty provisions for dealing with non-response. On the basis of article 54, reporting units having an obligation to report to national statistics shall be liable to a fine of €1,251.88 for violation of such obligation if they do not timely transmit comprehensive and correct data requested by the Office or authorized producers (article 35) or if they do not correct reported data in accordance with instructions (article 36). There are also additional sanction provisions for the responsible person of the reporting unit (paragraph 3 of article 54) and for the responsible person of a register authority (article 56). Despite the clear legal possibility and in order to compel a response, SURS has not started a procedure in the court yet. Instead, SURS takes the so-called “positive action approach”, including simplification of questionnaires, direct telephone contacts with reporting units, giving better feedback to reporting units by sending them survey results, etc.

Case study 11. Poland – Cooperation with the central bank

87. National Bank of Poland (NBP) is an important producer of statistics in the country. The basic statistical tasks of the NBP include collection, processing and ongoing analysis of data on among others balance of payments, foreign debt and international investment position. The Bank, being part of the European System of Central Banks, contributes however to some specific parts of European statistics collected within the European Statistical

System. NBP representatives also take active part in the working groups on various statistical topics established by Statistics Poland.

88. Provisions introducing the practices of cooperation between Statistics Poland and the National Bank of Poland were implemented to the Polish legislation as amendments to existing acts regulating the work of both entities. Cooperation between Statistics Poland (GUS) and the National Bank of Poland is ensured pursuant to art. 21a of the Law on Official Statistics and based on art. 23 (10) and (11) of the Act on the National Bank. Both acts contain the same general provision: “The exchange of non-identifiable microdata between Statistics Poland and the National Bank of Poland, and in special cases resulting from the participation of the Republic of Poland in the European Statistical System (ESS) and the European System of Central Banks (ESCB) in the exchange of identifiable microdata concerning entities of the national economy, as well as the results of aggregations of such data, shall be conducted free of charge, on the principle of mutuality and in the scope necessary to perform statutory tasks while observing statutory confidentiality”.

89. The mere fact of existence of a legal provision on cooperation between institutions is probably not exceptional. However, a special attention should be paid to the art. 23 (11) of the Act on the National Bank of Poland: “The detailed scope and procedure of data transmission referred to the art. 23 (10) is specified in the agreement on the exchange of information between the President of the National Bank of Poland and the President of Statistics Poland”.

90. While it was relatively easy to establish general wording of this agreement, that refers to the legal provisions mentioned above, the most challenging and time-consuming part was to agree on detailed solutions that could be then provided in the annexes as integral part of the contract, especially regarding: scope of information needs of both parties, their implementation (including confidentiality principles enshrined in the law) and description of individual data sets, including dates and frequency of making them available. This required an intense and coordinated work of many units from both organizations. On the one hand, each of them had to report its own needs to the other party and at the same time carefully analyse and give its opinion about the possibility to provide data required by the other institution. It took several months for experts from the NBP and GUS to finalize arrangements and prepare a list of data sets, indicators and excerpts from registers accepted by both parties for cyclical and systematic exchange under the contract.

91. The agreement between the NBP and GUS also envisages the possibility of submitting requests for access to identifiable (confidential) data provided that the following conditions are met:

- The request for the transfer of data must contain their detailed scope, date and purpose of transfer and can be submitted only by authorized persons.
- Access to confidential data is justified by the need to meet the obligations incumbent on the National Bank of Poland or Statistics Poland as a consequence of the participation in the ESCB or the ESS respectively.
- The transfer of confidential data is “necessary for the efficient development, production and dissemination of European statistics or for increasing the quality of European statistics” within the respective competences of the ESCB and the ESS (article 21 point 2 of the EU Regulation No 223/2009 on European Statistics).
- The transfer of confidential data is conditioned by the applicant’s justification for the necessity of their transmission (article 21 point 2 of the EU Regulation No 223/2009 on European Statistics).

92. When submitting an application for access to confidential data, it is necessary to take into account both the provisions of the national law and EU regulations. It should be emphasized though that so far there was no case of confidential data transfer by Statistics Poland to the National Bank of Poland.

93. The agreement between the NBP and GUS contains another significant provision, stating that the data is transmitted electronically. Taking into account this provision together with the fact that the agreement ultimately concerns the transfer of about 600 datasets annually from Statistics Poland to the National Bank of Poland and about 160 datasets from the National Bank of Poland to Statistics Poland, a new method of data transfer has been implemented to fulfil mutual obligations. Now, online electronic channels are in use instead of traditional methods (physical data carriers). Such solutions enable transfer of data sets of practically unlimited size, in a short time and in compliance with security requirements adapted adequately to the nature of the transmitted data.

94. On the basis of the system that was used for the implementation of the censuses a completely new functionality was created – an application dedicated to the implementation of this particular project.

95. The concept of the system refers to the existence of two parties that send data files in the agreed format and structure. The data is made available to the parties via Statistics Poland resource server, which is the place of temporary storage of files sent from the user's computer and waiting to be downloaded by another user in the partner unit. The download process itself is implemented using the mechanism of the given web browser, and the user's task is to indicate the location on the local computer where the file will be saved.

96. The file transfer process is monitored. Every significant operation performed by the user, in particular related to sending or receiving a file, is recorded in the system along with accompanying information, such as the deadline and the contractor. Moreover, the description of the processes relevant to users (e.g. whether the operation of sending a file to the resource server was successful) is available in the application interface. Especially important issue is the availability of information about who sent the file and when the file was sent, as well as who and when received it in the partner unit, indicating the IP numbers of these users' computers.

97. The use of a user application for transferring data sets of practically unlimited size in a short time and in compliance with security requirements adapted to the nature of data transmitted is an effective solution, however there are some important issues remaining to be solved. As the contract between the NBP and Statistics Poland was signed for an indefinite period of time, an important task of the coordinators at Statistics Poland and the National Bank of Poland, in addition to the ongoing monitoring of the timeliness of file transfers, is gathering information about all methodological changes within the contract scope and about new information needs of the institutions to be mutually transferred. In case of a large number of significant changes (e.g. changes in legal regulations or in methodology), each party may initiate the signing of an annex or a procedure for negotiating a new agreement.

Case study 12. Colombia – Criteria for defining official statistics and statistical quality assurance

I. Criteria for defining official statistics

98. In 2015 Colombia established the following conditions and characteristics of official statistics (Decree 1743 of 2016, article 2.2.3.2.1):

- That the statistical operation that generates it is incorporated into the National Statistical Plan.
- That the statistical operation that generates the statistics has passed the evaluation of the statistical quality established for the National Statistical System.

99. These conditions are established by Decree and their implementation involves all the members of the National Statistical System that produce official statistics in Colombia. As a result, in Colombia the assurance of statistical quality is associated with "official statistics".

100. The first condition promotes statistical production that is relevant to the country and that is agreed upon according to the needs of statistical information in Colombia and is recorded in the National Statistical Plan (PEN). Regarding the second condition, the National Statistical Office, DANE, as the coordinator and regulator of the NSS, established a Technical Standard for Quality of the Statistical Process, which presents the quality requirements in the statistical process. This Standard is aligned with the Generic Statistical Business Process Model (GSBPM) and is the evaluation framework for all the producers of official statistics in the country.

101. These two conditions have been developed during the last two years. In April 2017, the National Advisory Council for Statistics (CANE) issued the first National Statistical Plan 2017-2022, which established the country's statistical supply: 510 statistical operations produced by 107 national entities. DANE performs the evaluation of quality with respect to the statistical process for each of the above statistical operations, with the verification of compliance with the requirements established in the Technical Standard.

II. Statistical quality assurance

102. The National Statistical Office, DANE, as the leading and coordinating body of the National Statistical System of Colombia, is responsible, among other things, for the assurance of the quality of the statistical information produced by the members of the National Statistical System. In order to ensure statistical quality, DANE has been carrying out certification processes since 2006 by means of evaluating the statistical operations of the System. In

total, 255 quality assessments have been carried out, in which 81 per cent of the operations under assessment have obtained a certification (PEN, 2017: 7).

103. This process was formalized in 2016, by establishing the quality assessment as a mandatory condition of official statistics in Colombia. The statistical quality evaluation process is carried out based on the Statistical Process Quality Technical Standard (NTC-PE 1000), deemed to be the first technical quality standard worldwide in which requirements are established with respect to the statistical process. The entities producing statistics are subject to quality evaluation according to the Annual Statistical Evaluation Program, which is published one year in advance.

104. The fulfilment of the Technical Standard is evaluated by a Commission of Independent Experts (CEI) consisting of three independent evaluators (experts in the thematic area, statistics and statistical process respectively). Once the Commission presents its recommendation, a Certification Committee that has not participated in the evaluation issues its decision pertaining to the certification in statistical quality of the evaluated entity based on the CEI report.

105. The certification is a guarantee of quality with respect to the statistical information produced and provides trust in the use of information. The certification is valid for five years; however, in order to ensure continuous improvement, based on the findings of the assessment, the entity responsible for the statistical operation must present an improvement plan and, annually, conduct a self-evaluation with respect to the progress made in such plan and other improvement actions that it may have identified, and subsequently present the report to DANE.

106. This experience has allowed both DANE and the National Statistical System to generate new developments, facilitating the institutional coordination with the entities of the System and promoting the standardization of processes. Furthermore, it is a pioneering process that can be replicated in other statistical systems in the region. By the end of 2018, approximately 30 statistical operations of the National Statistical System will have been evaluated.

Case study 13. Colombia – Exchange of microdata within the National Statistical System

107. Since 2016, it became possible to exchange non-anonymised microdata between the entities of the National Statistical System. In particular, regulation allows for exchanges of information with the purpose of production or improvement of official statistical information in Colombia.

108. National Advisory Council for Statistics (CANE), which is made up of 11 members of the public, private and academic sectors, at the national and regional levels, decides on whether or not to perform these exchanges. Any member of the National Statistical System can make the requests, establishing the official statistics that will be improved or the information gap that it intends to meet by means of the production of new official statistics.

109. Based on the request as well as the justification on the development and the statistical impact that the use of the microdata will generate in Colombia, the Council conducts a voting process with absolute majority criteria, thereof all member attending the meeting must agree upon the exchange process. Once the decision is issued, the National Statistical System entity responsible for the information relating to the exchange is obliged to comply with it.

110. To date, three exchanges of non-anonymised microdata have been carried out between the Central Bank of Colombia and DANE. These exchanges were associated with the improvement in the production of official statistics in the areas of international trade in services and foreign investment.

Guidance on Modernizing Statistical Legislation

Official statistics are an indispensable element of the information system of democratic societies, serving governments, economies and the public with data that can help them understand and make decisions: about the economy, about the population, about society and the environment. An essential precondition for carrying out this task is a strong legal and institutional setting for statistical systems, so that their independence, integrity and accountability are guaranteed and statistical quality and data security are assured.

Aligning with the United Nations Fundamental Principles of Official Statistics, this publication provides guidance for countries to develop the statistical legislation needed to support the modernization of statistical systems, and to unleash the full value of official statistics.

The publication identifies common elements of effective legal frameworks and guides countries through the process of reviewing and revising statistical legislation. The publication also discusses emerging issues with implications for statistical legislation: open data, national and international data exchange, new ways of conducting censuses, cooperation with central banks and geospatial data agencies, and government data management.

The Guidance, developed by a UNECE Task Force composed of experts from national statistical offices and international organizations and endorsed by the Heads of statistical offices of more than 60 countries, is a valuable resource for countries wishing to benchmark or update the legal framework of their national statistical system.

An electronic version of the Guidance is available at www.unece.org/stats

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