RECOMMENDATION OF THE OECD COUNCIL ON

GOOD STATISTICAL PRACTICE







Recommendation of the OECD Council on Good Statistical Practice

As approved by the Council on 23 November 2015 [C(2015)128 - C(2015)128/CORR1 - C/M(2015)21]

FOREWORD

This document presents the Recommendation of the OECD Council on Good Statistical Practice, adopted on 23 November 2015. Recommendations are one of the OECD's legal instruments. They are not legally binding but practice accords them great moral force as representing the political will of member countries. This Recommendation on Good Statistical Practice is the OECD's first legal instrument concerning statistics. It reflects the fact that the quality of statistics is fundamental for the quality of evidence-based analytical work of the Organisation and also for the quality of statistical publications and databases produced by the OECD. There are twelve recommendations covering the institutional, legal and resource requirements for statistical systems; the methods and quality of processes of statistical production; dissemination; coordination and co-operation and statistical innovation. For each of the twelve recommendations in the Recommendation, a set of good practices has been compiled that is reproduced in the Annex.

The Recommendation was developed under the auspices of the OECD Committee on Statistics and Statistical Policy (CSSP). It was subject to an extensive consultation procedure with countries, and approved by the CSSP on 31 July 2015. The work was led by the OECD Statistics Directorate, with the assistance of the members of an informal Task Force composed of Canada, Israel, Italy, Japan, Mexico, Norway and Eurostat.

For more information, please visit the Toolkit website at: www.oecd.org/statistics/good-practice-toolkit or contact Julien.Dupont@oecd.org

PRESENTATION OF THE RECOMMENDATION

Background

In accordance with Article 3 of the OECD Convention, members agreed to "furnish the Organisation with the information necessary for the accomplishment of its tasks". However, no specific legal instrument had been developed in the area of statistics. This is also a distinguishing feature from the work of Eurostat and of other international organisations. Within the OECD, agreement to compile data from member countries is reached by consensus and by persuasion. This approach has served CSSP's objectives well to provide a forum for open and substantive exchange of views on matters of statistics and statistical policy. These features are appreciated by members and, in the European context, generate complementarities with Eurostat's role and mandate.

At the same time, a number of members have expressed the view that a set of recommendations adapted to the statistical systems of OECD member countries, along with guidance for their implementation would be of significant value for members and key partners wishing to benchmark their statistical systems to good OECD practice. The need for such a set of recommendations became more apparent with the OECD accession process, as this has highlighted the absence of clear guidance on producing and disseminating statistics in national statistical systems. During the accession process, the CSSP evaluated countries' legal and institutional frameworks against the background of the UN Fundamental Principles on Official Statistics (UN Principles)¹. While the UN Principles provide a useful reference point, they are general in nature and until recently have not been accompanied by more specific guidance or by indications of good practices.

Lessons from Accession

In recent years, and in accordance with the Accession Roadmap set out for each candidate country, the CSSP has undertaken a number of in-depth reviews with the aim to provide an evaluation of the policies and practices of accession countries as compared to OECD best policies and practices in the area of statistics and statistical policy. Four broad domains have been assessed to date:

- The legal and institutional framework for official statistics in the candidate countries.
- The *statistical infrastructure*, i.e. the main censuses, surveys, registers, and classifications.
- The quality of data and metadata and their comparability with those of OECD countries.

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See http://unstats.un.org/unsd/dnss/gp/FP-New-E.pdf

• The candidate country's capacity to be integrated into the Organisation's reporting and information systems by the time of accession.

In assessing the *legal and institutional framework* of accession countries, the Committee has considered the pertinent laws, regulations, and policies that govern the activities of all major producers of official statistics in the National Statistical System. The assessment was made against the ten Fundamental Principles of Official Statistics developed by the United Nations (UN) Statistical Commission in 1994. As the Fundamental Principles are of a rather general nature, the OECD Secretariat formulated a set of criteria and references to *good practices* that it has been using to review the legal and institutional frameworks of accession countries. Good practices relate for instance to legal provisions to guarantee the independence of statistics producers, and to processes ensuring professional standards, statistical quality and confidentiality.

The statistical review, based on information on Labour Force Surveys, Population and Housing Census, Agricultural census, statistical business register, enterprises surveys on labour, business surveys, earnings surveys, classifications, etc. also determines whether the statistical infrastructure of the candidate country is in conformity with those applied in OECD member countries.

With regard to the *quality of data and metadata*, the accession reviews examined specific subject matters such as national accounts but also reviewed more generally whether processes to ensure statistical quality were in place. Countries' *capacity to provide the necessary data* for the OECD was judged against the data demands arising from the Organisation's set of standard data requests. It should be noted that OECD data requests include, but are not limited to these standard data² regularly compiled by the Organisation. New analytical and policy questions regularly entail the collection of new data sets, as well as *ad-hoc* and *one-off* requests for information.

It has thus been suggested that the various principles and criteria that have been used in the course of accession be brought together to constitute a set of guidelines for use as a reference for OECD members in national and international discussions as well as in accession reviews or other types of engagement with non-members.

Complementing Existing International Guidelines

An immediate question is whether there are codes of practice that exist already in other international fora that could be adopted directly or serve as a reference. For OECD countries, there are four such reference documents: the Fundamental Principles, discussed above, the International Monetary Fund (IMF) Special Data Dissemination Standards (SDDS), the 2011 European Statistics Code of Practice³ (ECOP) and the Code of Practice in Statistics for Latin

The standard OECD data collection programme: www.oecd.org/statistics/data-collection

http://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-32-11-955

America and the Caribbean⁴. While the UN Fundamental Principles and IMF SDDS apply to all OECD member countries, this is not the case for other Codes of Practice. Neither the UN Fundamental Principles nor the IMF's SDDS respond fully to the requirements identified by the CSSP.

The **UN Fundamental Principles of Official Statistics** offer too little specificity to be instrumental in the evaluation of national statistical systems. A first draft of implementation guidelines has been developed by the UN in 2014 with the aim to strengthen the effective implementation of the Fundamental Principles. The draft is not a legal document but mainly a guide providing recommendations on how to ensure the independence of national statistical systems. It provides practical advice for producers of official statistics, including numerous references to national sources and so complements the set of good practices annexed to the present Recommendation. Practical guidance is also provided by the United Nations National Quality Assurance Framework.

Concerning the IMF's SDDS, they are "[...] a global benchmark for disseminating macroeconomic data to the public. SDDS subscription indicates that the country meets a test of 'good statistical citizenship.' The <u>SDDS Guide for Subscribers and Users</u> contains details on commitments undertaken by a subscriber, and is available on the <u>Dissemination Standards Bulletin Board (DSBB)</u> of the IMF. Countries that subscribe to the SDDS agree to follow good practices in four areas: the coverage, periodicity, and timeliness of data; public access to those data; data integrity; and data quality". Thus, the IMF SDDS constitute a commitment by countries to disseminate a minimum set of macro-economic data according to certain quality criteria. It is thus different in focus and intent from the Recommendation.

The **European Statistics Code of Practice** comes very close to responding to the requirements expressed by the CSSP. Revised in 2011, the ECoP features 15 Principles covering the institutional environment, the statistical production processes and the output of statistics. A set of indicators of good practice for each of the Principles provides a reference for reviewing the implementation of the Code. The Principles are consistent with the UN Fundamental Principles of Official Statistics but are more specific. Likewise, the Indicators that accompany each of the 15 Principles are widely applicable to OECD member countries. However, this Code only applies to members of the European Statistical System, and has some features that are unique to the European Statistical System. The Recommendation has broader geographical application and somewhat different emphasis in terms of principles and good practices. For instance, explicit reference is made to need for a designated co-ordinating body in the National Statistical System. The Recommendation is also a tool intended to be open to non-members.

http://www.dane.gov.co/files/noticias/BuenasPracticas_en.pdf

http://unstats.un.org/unsd/dnss/gp/impguide.aspx.

http://unstats.un.org/unsd/dnss/QualityNQAF/nqaf.aspx

https://www.imf.org/external/np/exr/facts/data.htm

The Code of Good Practice in Statistics for Latin America and the Caribbean⁸ was created in 2011 by the Statistical Conference of the Americas at the Economic Commission for Latin America that endorsed a set of 17 Principles, along with Compliance Criteria, akin to the European Code of Practice. While there is broad consistency with the ECoP, the Latin American standard has its own emphasis and also puts forward themes such as International Cooperation that entails 'joint work on international statistical standards and activities' or International Comparability of Statistics.

Structure of the Recommendation

There are twelve specific recommendations put forward in the Recommendation. These correspond broadly to the following areas: recommendations 1-5 capture the institutional, legal and resource requirements that **enable** statistical systems to function in the first place; recommendations 6-8 relate to **methods**, **quality** and **processes** of statistical production; recommendation 9 is about **dissemination**; recommendations 10 and 11 deal with **co-ordination** and **co-operation**; and finally, recommendation 12 is about **looking ahead** and embracing statistical innovation.

List of Good Practices for Statistics

For each of the twelve recommendations in the Recommendation a set of good practices has been compiled and is available in Annex 1. These were developed on the basis of existing international and national guidelines and on the OECD's experience in accession reviews. None of these good practices by and in themselves are necessary or sufficient to consider a particular recommendation as fulfilled. The set of good practices should rather be considered as *indicative*. However, if a sizable part of these or similar practices have been put in place, this provides a good indication that the country practice lives up to the respective recommendation. Although the set of good practices is not formally part of the Recommendation, it remains under the auspices of the CSSP, allowing flexibility for future amendments.

Users and Uses of the Recommendation

The rationale for proposing a Recommendation of the OECD Council on Good Statistical Practice is based on four considerations. First, *quality statistics* are an indispensable tool for good analysis, transparency, accountability and ultimately for the functioning of democracies. From an OECD perspective, the quality of its statistics and analytical work depends largely on the quality of official statistics produced and transmitted by countries. The first, broad rationale for a Recommendation is thus that it would provide a common reference against which the quality of national statistical systems can be assessed. In addition, the good practices contained in the Recommendation will also serve as a reference for the statistical work done by the OECD.

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http://www.cepal.org/deype/publicaciones/externas/6/47276/codigo-regional-buenas-practicasALC-ENG.pdf

Further, the Recommendation and its good practices would be referred to in the context of applying the Organisation's Quality Framework and Guidelines for OECD Statistical Activities. 9

Second, the Recommendation complements those international guidelines or codes of practice that currently apply to *all* OECD countries by (i) offering a greater level of specificity, and (ii) by emphasising aspects that correspond to developed statistical systems. Each of the recommendations in the Recommendation is accompanied by a list of good practices. While the set of good practices is not exhaustive and while not every single good practice constitutes a necessary condition for compliance with the Recommendation, taken together they are designed to be indicative of compliance. The ECoP example shows how spelling out good practice ('Indicators' in EU terminology) along with a Code of Statistical Practice are successfully put to work in a process of peer reviews of the European Statistical System at national and at European level. Concerning (ii), the Recommendation includes guidance concerning new sources of information; it points to the need for having one designated institution that acts as a coordinator of the national statistical system and it relates to OECD countries' commitment to engage in international cooperation, including data provision for the OECD reporting system.

Third, the Recommendation provides a *benchmark* against which the statistical system of accession countries can be assessed. Accession reviews now examine an accession country's statistical system systematically against each element of the Recommendation.

Fourth, the Recommendation and good practices constitute a tool for self-assessment of non-members. Key partners in particular are encouraged to use — and would likely benefit from the use of — the Recommendation as a benchmark which can facilitate needed improvements in their statistical systems.

Modalities for assisting and monitoring the implementation of the Recommendation

The CSSP is a Committee with high-level officials as delegates, typically the Heads of National Statistical Offices (NSO) who are responsible for a sizable part of national official statistics. Often, NSOs also have a coordinating role with other producers of official statistics at a national level. As a consequence, the CSSP and its delegates will be able to support the implementation of the Recommendation directly through their functions as Heads of NSOs and as representatives of the national statistical systems. This is a specific feature of the CSSP that will enhance the Committee's ability to effectively assist and monitor the implementation of the Recommendation. CSSP Delegates will therefore act as focal points for the implementation of the Recommendation at the national level.

The following modalities for assisting and monitoring the implementation are proposed:

 Accession candidates are requested to position themselves vis-à-vis all the substantive legal instruments adopted within the OECD framework prior to joining the Organisation, including any new instruments that may be adopted during the accession process.

⁹ http://www.oecd.org/fr/std/qua<u>lityframeworkforoecdstatisticalactivities.htm</u>

Reviews of statistical systems of any accession countries should therefore be conducted with the Recommendation as a reference.

- The Recommendation will be open to non-members' adherence. Adherents would participate in the monitoring of the implementation of the Recommendation and any future discussion on its eventual revision.
- Individual assessments of countries on the basis of the Recommendation could take several forms: (i) a simple self-assessment by the country; (ii) an evidence-based self-assessment where implementation to the Recommendation and good practice is substantiated through documentation and referencing; and (iii) a peer review by the CSSP with the help of the Secretariat. A peer review will only take place at the request of the country concerned and will be subject to the availability of funding.
- The Recommendation proposes that the CSSP monitor its implementation and report to Council no later than three years after its adoption. This monitoring report to Council will allow the CSSP to assess the relevance and impact of the Recommendation. It is proposed that the report build on the individual assessments (self-assessment and/or peer reviews), as well as on peer reviews done in the context of the European Statistical System (this review will be considered a substitute for an OECD peer review supplemented by any elements in the Recommendation that may not be within the scope of the European review) and the accession review to the OECD.
- Individual assessments and the monitoring report will be made publicly available, in accordance with the rules and practice of the OECD, through the OECD website and/or via national dissemination.

To facilitate implementation, the CSSP will consider individual recommendations for in-depth discussion at its meetings, generating a common understanding and promoting exchange of information around issues such as access to administrative data or the use of non-conventional data sources for official statistics.

When an assessment indicates that the statistical system of an adherent significantly deviates from the Recommendation, the adherent will be invited to present the issues at hand to the CSSP. The discussion could then lead to the development of an action plan to assist the concerned adherent with its implementation of the Recommendation.

RECOMMENDATION OF THE OECD COUNCIL ON GOOD STATISTICAL PRACTICE

[as available in the database on Decision, Recommendations, and other Instruments of the OECD]

THE COUNCIL,

HAVING REGARD to Article 5 b) of the Convention on the Organisation for Economic Cooperation and Development of 14 December 1960;

HAVING REGARD to the fact that the quality of statistics produced by the OECD for its analytical work and for inclusion in its reporting system depends largely of the quality of official statistics produced by countries;

HAVING REGARD to relevant international guidelines, such as the United Nations Fundamental Principles of Official Statistics and the European Statistical Code of Practice;

CONSIDERING that quality statistics are an indispensable tool for good analysis, transparency, accountability and ultimately for informed decision-making and the functioning of democracies;

NOTING that international guidelines or codes of practice that currently apply to all OECD can usefully be complemented by recommendations that offer the level of specificity and emphasise aspects that correspond to developed statistical systems;

RECOGNISING that a set of concrete and practically-oriented recommendations would be of significant value to Members and non-Members seeking to assess their statistical systems and formulate their statistical policy;

On the proposal of the Committee on Statistics and Statistical Policy (CSSP),

- **I. AGREES** that, for the purpose of the present Recommendation, the following definitions are used:
- Administrative source refers to the organisational unit responsible for implementing an administrative regulation (or group of regulations), for which the corresponding register of units and the transactions are viewed as a source of statistical data.
- Co-ordination of the National Statistical System refers to procedures allowing the
 existence of effective co-ordination among statistical agencies to ensure consistency and
 efficiency of the statistical system.

- National Statistical Authorities refers to the leading statistical agencies within a national statistical system, which are responsible for the design of the statistical policy according to national legislation.
- **National Statistical Office** (NSO) refers to the leading statistical agency within a national statistical system.
- **National Statistical System** (NSS) refers to the ensemble of statistical organisations and units within a country that jointly collect, process, and disseminate official statistics on behalf of national government.
- Official statistics refer to statistics that are disseminated by the national statistical system.
- **Statistical Data and Metadata eXchange** (SDMX) refers to an initiative to foster standards for the exchange of statistical information, sponsored by the Bank for International Settlements (BIS), the European Central Bank (ECB), the Statistical Office of the European Union (Eurostat), the International Monetary Fund (IMF), the OECD, the United Nations (UN) and the World Bank.
- **Statistical data** refers to data from a survey or administrative source used to produce statistics and/or the data comprising such statistics.
- **Statistical producer** refers to the producers of official statistics.
- **II. RECOMMENDS** that Members and non-Members adhering to this Recommendation (hereafter the "Adherents"):
- **1**. Put in place a clear **legal and institutional framework** for official statistics which should in particular provide:
 - details as to the organisation of the NSS, the legal status and role of the NSO, as well as the legal status, functions, relationship, rights and responsibilities of other institutions within the NSS;
 - ii) a clear mandate for institutions of the NSS to collect data for statistical purposes.
- **2. Ensure professional independence of National Statistical Authorities**. To this end, Adherents should ensure that the National Statistical Authorities:
 - i) are professionally independent from other policy, regulatory or administrative departments and bodies, as well as from private sector operators, considering that professional independence of the producers of official statistics is essential for the production and the dissemination of objective statistics;
 - ii) have the exclusive authority, as part of their professional independence, to decide on statistical methods and dissemination;

- iii) are protected, through the inclusion of explicit provisions in statistics legislation, from political and other interference in developing, compiling and disseminating official statistics.
- **3.** Ensure adequacy of human financial and technical resources available to the National Statistical Authorities for the production and dissemination of official statistics. To this end, Adherents should ensure that the resources are:
 - sufficient to allow National Statistical Authorities to meet their commitment to quality, and to meet professional standards thereby fulfilling their role as providers of reliable, relevant and accessible data for national and international use;
 - ii) adequate to produce a minimum core set of data, to be defined nationally or internationally, to monitor the economy, society and the environment.
- **4. Protect the privacy of data providers** (including individuals, households, enterprises, administrations, and all levels of government) and guarantee by law the confidentiality of the individual information provided and its use for statistical purposes only.
- **5.** Ensure the **right to access administrative sources** to produce official statistics. To this end, Adherents should ensure that:
 - i) National Statistical Authorities have the right to access administrative data for the regular production of official statistics and to use them in the interest of ensuring quality of official statistics, raising the analytical value of official statistics, reducing burden on survey respondents and reducing the cost of statistical programmes;
 - ii) National Statistical Authorities co-operate with owners of administrative records as regards their statistical quality and have authority to influence their design to ensure they are fit for statistical purposes.
- **6.** Ensure the **impartiality, objectivity and transparency** of official statistics, through the development, production and dissemination by the National Statistical Authorities of statistics respecting scientific independence put in place in an objective, professional and transparent manner in which all **users are treated equitably**. Equitable treatment implies in particular equal access to data by all users.
- **7.** Employ **sound methodology and commit to professional standards** used in the production of official statistics. To this end, Adherents should:
 - apply appropriate statistical procedures and methods, including a stated revisions policy;
 - ii) strive to adhere to international norms and standards, such as methodological manuals developed by the United Nations Statistical Commission or by the OECD, and international classifications in the statistics collected by the OECD.

- **8.** Commit to the **quality of statistical outputs and processes**, in particular to key quality dimensions as defined in national and international quality assessment frameworks, for instance in the *Quality Framework and Guidelines for OECD Statistical Activities*: timeliness and punctuality (statistics are released in a timely and punctual manner); relevance (statistics meet the needs of users); accuracy (statistics accurately and reliably portray reality); credibility (confidence is placed by users in statistical products); coherence and comparability (statistics are consistent internally, over time and in space and it is possible to combine and make joint use of related data from different sources); and interpretability and accessibility (see Recommendation 9).
- **9.** Ensure **user-friendly data access and dissemination**, so that statistics are presented in a clear and understandable form, released in a suitable and convenient manner, including in machine-readable form ('open data'), can be found easily, and are available and accessible on an impartial basis with supporting metadata and guidance. This also entails a commitment to respond to major misinterpretations of data by users.
- **10.** Establish responsibilities for **co-ordination of statistical activities** within the NSS. To this end, Adherents should ensure that:
 - the co-ordination of statistical activities among statistical producers is done through the use of standard concepts and classifications and avoids the duplication of effort;
 - ii) responsibilities for such co-ordination function are clearly laid out and anchored in statistical legislation.
 - **11.** Commit to **international co-operation**. To this end, Adherents should:
 - i) encourage statistical producers to achieve common goals in statistics jointly with the statistical producers in other countries and with international organisations, with a view to developing internationally comparable statistics, to designing international standards and to exchanging information on good practice.
 - ii) provide the necessary data for the OECD's reporting system and analytical work, in compliance with international statistical standards as recognised by the OECD and preferably using the Statistical Data and Metadata eXchange method/standard in particular for domains with internationally agreed Data Structure Definitions (DSDs).
- **12.** Encourage **exploring innovative methods as well as new and alternative data sources as inputs for official statistics**, and in particular encourage statistical agencies to actively explore possibilities to use new data sources (including large datasets owned by the private sector), or to combine existing and new data sources as input for official statistics. At the same time, these opportunities are weighted against the limits of using modern information technologies and the need to maintain the quality of official statistics.

- III. INVITES Adherents and the Secretary-General to disseminate this Recommendation;
- IV. INVITES Adherents to disseminate this Recommendation at all levels of government;
- V. INVITES non-Adherents to take account of and to adhere to this Recommendation;
- **VI. INSTRUCTS** the Committee on Statistics and Statistical Policy to monitor the implementation of this Recommendation and to report thereon to the Council no later than three years following its adoption and regularly thereafter.

ANNEX 1. SET OF GOOD STATISTICAL PRACTICES

In the table below, each of the 12 recommendations included in the Recommendation is accompanied by a set of good practices. They were developed on the basis of existing international and national guidelines and based on the OECD's experience in accession reviews. None of these good practices are by and in themselves necessary or sufficient to consider a particular recommendation as fulfilled. The set of good practices should rather be considered as indicative. However, if a sizable part of these or similar practices have been put in place, this provides a good indication that country practice lives up to the recommendation in question.

Good practices directly adopted from the *European Statistics Code of Practice* are signalled by "ECoP".

- 1. Put in place a clear legal and institutional framework for official statistics.
- 1.1. Existence of a comprehensive and coherent statistical legislation periodically revised and amended. The statistical legislation defines the nature of official statistics; the legal framework for the compilation, production and dissemination of official statistics; the legal status, role in the system, relationship, rights and responsibilities institutions within the NSS; the mandate for data collection; the coverage of statistical activities; and the role, functions and composition of the Statistical Council. The statistical legislation also regulates the organisation of the NSS; the independence of the NSO and its head; the relationship between the producers of statistics and respondents; the access to administrative records and their use for statistical purposes; the dissemination policy; the legal infrastructure for ensuring the confidentiality and the penalties in case of breach of confidentiality; budget issues; the availability of sufficient resources for financing statistical programmes, international statistical co-operation, and the co-ordination of statistical activities within the country's statistical system.
- 1.2. Laws and regulations governing the collection, compilation and production of official statistics are consistent with the UN Fundamental Principles of Official Statistics.
- 1.3. Statistical authorities have a clear mandate for data collection and the authority to compel respondents to comply with data requests (e.g. the Population and Housing Census, Agricultural Census, surveys, administrative sources, etc.). In the case of Population and Housing Census, obligation for citizens to participate and to respond to the questionnaires is

legally binding and established by law.

- 1.4. Statistical Authorities are required by law to conduct a Census of Population and Housing and a Census of Agriculture at least every ten years.
- 1.5. Statistical laws and regulations are publicly available.
- 2. Ensure professional independence of National Statistical Authorities.
- 2.1. The professional independence of the Statistical Authorities from other policy, regulatory or administrative departments and bodies, as well as from private sector operators in compiling and disseminating official statistics is explicitly guaranteed by law and ensured in practice by all entities of the NSS.
- 2.2. The Head of the NSO, and where appropriate, the heads of other National Statistical Authorities, have responsibility for ensuring that statistics are developed, produced and disseminated in an independent manner. (ECOP)
- 2.3. The Head of the NSO, and where appropriate, the Heads of other National Statistical Authorities, have the sole responsibility for deciding on statistical methods, standard and procedures, and on content and timing of statistical releases. (ECOP) This is explicitly provided by law.
- 2.4. The Head of the NSO, and where appropriate, the Heads of other National Statistical Authorities, have sufficiently high hierarchical standing to ensure senior level access to policy authorities and administrative public bodies. They are of the highest professional calibre. (ECOP)
- 2.5. The appointment of the Heads of the NSO and, where appropriate, the Heads of other National Statistical Authorities, is based on professional competence only. The reasons on the basis of which the incumbency can be terminated are specified in the legal framework. These cannot include reasons compromising professional or scientific independence. (ECOP)
- 2.6. National legislation provides clear and detailed description of the procedure for appointment and dismissal of the Head of the NSO. A list of conditions under which the Head of the NSO can be dismissed is provided for by law.
- 2.7. A clear reporting system for the Head of the NSO is provided for by law in order to ensure and reinforce its technical independence.
- 2.8. The statistical work programmes are published and

periodic reports describe progress made (ECoP).

- 2.9. Statistical releases are clearly distinguished and issued separately from political/policy statements (ECoP).
- 2.10. The NSO and where appropriate, other National Statistical Authorities, comment publicly on statistical issues, including criticisms and misuses of statistics as far as considered suitable (ECOP).
- 2.11. Data collection, data production and release of information are ensured without formal approval from third parties.
- 2.12. A Statistical Council including external experts advises the Heads of the National Statistical Authorities on strategic statistical issues. The nature of the Statistical Council and the reporting arrangements to government are provided for by law.
- 3. Ensure adequacy of human financial and technical resources available to the National Statistical Authorities for the production and dissemination of official statistics.
- 3.1. National Statistical Authorities have sufficient funding for statistical production and dissemination, to support staff training, to develop computing resources, and to implement innovation. Resources are adequate in magnitude and in quality to meet statistical needs.
- 3.2. The adequacy of resources is regularly monitored.
- 3.3. The scope, detail and costs of statistics are commensurate with needs (ECoP).
- 3.4. Procedures exist to assess and justify demands for new statistics against their cost (ECoP).
- 3.5. Procedures exist to assess the continuing need for all statistics, to see if any can be discontinued or curtailed to free up resources (ECOP).
- 3.6. National Statistical Authorities implement a policy of continuous vocational training for their staff (ECoP).
- 4. Protect the privacy of data providers (including individuals, households, enterprises, administrations, and all
- administrations, and all level of government), and guarantee by law the confidentiality of the individual information
- 4.1. Statistical confidentiality is guaranteed by law (ECoP).
- 4.2. Specific measures are in place to ensure the full protection of individual data from any potential disclosure without consent, with the aim to ensure the confidence of data providers in participating in statistical surveys: written instructions and internal guidelines are provided to statistical authority staff on the full protection of statistical confidentiality in the production and dissemination processes; appropriate penalties are prescribed for wilful breach of

provided and its use for statistical purposes only.	confidentiality and for any disclosure of individual data of a private nature that could infringe upon private life. These penalties are well-known to statistical staff and new employees sign legal confidentiality commitment upon appointment.
	4.3. The confidentiality policy is made known to the public (ECoP).
	4.4. Physical, technological, administrative and organisational provisions are in place to protect the security and integrity of statistical databases (ECoP).
	4.5. Provisions are in place and internal guidelines are available to allow external user access to micro-data for statistical research purposes under strict protocols and only after anonymisation of the data.
	4.6. Privacy issues as regards the use of new data sources (e.g. social network data) are identified and procedures are implemented to guarantee statistical confidentiality.
5. Ensure the right to access administrative sources to produce official	5.1. The Statistical Authorities are authorised by law to use administrative records for the regular production of official statistics.
statistics.	5.2. Administrative sources are used whenever possible and cost-effective to avoid duplicating requests for information and reduce reliance on direct surveys.
	5.3. National Statistical Authorities are involved in the design of administrative data in order to make administrative data more suitable for statistical purposes. (ECoP)
	5.4. National Statistical Authorities co-operate with owners of administrative data in assuring data quality (ECoP).
	5.5. Agreements are made with owners of administrative records which set out their shared commitment to the use of these data for statistical purposes (ECoP).
	5.6. Recommended practices are available for the reporting and presentation of administrative data.
	5.7. Linking administrative data with survey data is encouraged by National Statistical Authorities with the aim of reducing the burden on respondents, reducing the costs in producing official statistics, and increasing the analytical value of official statistics.
6. Ensure impartiality,	6.1. Official statistics are collected, compiled and disseminated

objectivity and transparency official of statistics, through the development, production and dissemination by the National Statistical Authorities of statistics respecting scientific independence put in place an objective, professional and transparent manner in which all users are treated equitably. Equitable treatment implies particular equal access to data by all users.

- on an impartial and objective basis and determined by statistical considerations only.
- 6.2. Equal access to official statistics for all users at the same time is guaranteed by law. If a public or private body has access to official statistics prior to their public release, this fact and subsequent arrangements are publicised and controlled. In the event that a leak occurs, pre-release arrangements are revised so as to ensure impartiality.
- 6.3. Choices of sources and statistical methods as well as decisions about the dissemination of statistics are informed by statistical considerations (ECOP).
- 6.4. Errors discovered in published statistics are corrected at the earliest possible date and publicised (ECoP).
- 6.5. Information on the methods and procedures used is publicly available (ECoP).
- 6.6. Statistical release and statements made in press conferences are objective and non-partisan (ECoP).
- 6.7. Statistical release dates and times are announced in advance. A twelve-month-ahead advance release calendar is provided. Official statistics are released according a standard daily time. Any divergence from the dissemination time schedule is publicised in advance, explained, and a new date is set.
- 6.8. Any major revisions or changes in methodologies are announced in advance.
- 6.9. Internal guidelines are made available by statistical authorities to respond to erroneous interpretation and misuse of statistics. These are well-known by staff.
- 6.10. Statistical plans and programmes, methodologies, processes and procedures, quality assessments are made publicly available by the statistical authorities.
- 6.11. Guidelines exist for the presentation of data, including the treatment of time series breaks, and seasonally adjusted data, with the aim to ensure that official statistical data and metadata are presented in a way that facilitates proper interpretation and meaningful comparisons.
- 7. Employ sound methodology and commit to professional standards
- 7.1. Official statistics are produced according to strictly professional considerations, including scientific principles and professional ethics with regards to methods and procedures

used in the production of official statistics.

used for the collection, processing, storage and dissemination of statistical data.

- 7.2. Sound statistical methodology requiring adequate tools and procedures and expertise is implemented and guaranteed by the national statistics law (ECoP).
- 7.3. International statistical standards, guidelines and good practices are applied in the NSS as appropriate.
- 7.4. National statistical classifications developed by statistical authorities are consistent with international classifications. Detailed concordance exists between national classifications and the corresponding international classifications.
- 7.5. Procedures are in place to ensure that standard concepts, definitions and classifications are consistently applied throughout the National Statistical Authorities (ECOP).
- 7.6. Subject matter advisory committees made up of external experts advise on relevant statistical matters.
- 7.7. Graduates in the relevant academic disciplines are recruited (ECoP).
- 7.8. Co-operation with the scientific community, academic institutions and international organisations is organised to improve methodology and the effectiveness of the methods implemented, and to improve methodological and technical skills of staff.
- 7.9. Strategies for recruitment, as well as processes for technical and managerial development and training of existing staff, are established, implemented and revised as required.
- 7.10. In the case of statistical surveys, questionnaires and systems for production are systematically tested prior to the data collection.
- 7.11. Parallel runs are undertaken when systems or questionnaires are redesigned in any significant way.
- 7.12. Survey designs, sample selections and estimation methods are well based and regularly reviewed and revised as required (ECOP).
- 7.13. The business register and the frame for population surveys are regularly evaluated and adjusted if necessary in order to ensure high quality. (ECOP)
- 7.14. Data collection, data entry, and coding are routinely

monitored and revised as required. (ECoP)

- 7.15. Appropriate editing and imputation methods are used and regularly reviewed, revised or updated as required. (ECoP)
- 7.16. Revisions follow standard, well-established and transparent procedures. (ECoP)
- 7.17. A revision schedule is published by the producers of official statistics.
- 7.18. The design of statistical questionnaires used in survey-based data collection processes is regularly reviewed.
- 8. Commit to the quality of statistical outputs and processes, in particular with key quality dimensions as defined in national and international quality assessment frameworks, for instance in the Quality Framework and Guidelines for OECD Statistical Activities: timeliness and punctuality (statistics are released in a timely and punctual manner), relevance (statistics meet needs of the users), (statistics accuracy accurately and reliably portray reality), credibility (confidence placed by users in statistical products), coherence and comparability (statistics are consistent internally, over time and in space and it is possible to combine and make joint use of related data from different sources), and interpretability and accessibility (see Recommendation 9).

<u>Quality management, monitoring, evaluation plans and</u> reports

- 8.1. A quality policy ensures that the producers of official statistics systematically assess the quality of official statistics. Quality policy is publicly available through guidelines, framework, reports, etc. and staff members receive appropriate training for their application.
- 8.2. An efficient, and possibly independent, quality management system exists. It includes an appropriate organisational structure; quality indicators and other tools and processes for the planning, implementation, and monitoring of the quality of source data; and the collection, processing, and dissemination of official statistics.
- 8.3. The national quality management systems are based on recognised models for quality frameworks, such as the IMF Data Quality Assessment Framework (DQAF), the European Foundation for Quality Management, European Code of Practice, the European Statistical System Quality Assurance Framework, Total Quality Management and ISO EN 9001, etc.
- 8.4. There are regular and thorough reviews of key statistical outputs involving external experts where appropriate (ECoP).
- 8.5. Quality assessment and certification processes guarantee the official nature of statistics produced in various parts of the NSS.
- 8.6. The organisational structure of the entities belonging to the NSS and governance arrangements are appropriate and regularly reviewed to assess and justify new statistical demands and related costs.
- 8.7. Information and communication technologies are regularly monitored and assessed for use in data collection,

data processing and data dissemination.

Accuracy

- 8.8. Source data, intermediate results and statistical outputs are regularly assessed and validated (ECoP).
- 8.9. National Statistical Authorities put in place processes to ensure that sampling and non-sampling errors are measured, systematically documented, and that information is made available to users.
- 8.10. Studies and analysis of revisions are regularly conducted according to transparent procedures and the results are made available to users.

Timeliness and punctuality

- 8.11. Timeliness meets international statistical release standards.
- 8.12. The periodicity of statistics takes into account user requirements as much as possible (ECoP).
- 8.13. A standard day time for the release of statistics is made public. (ECoP)
- 8.14. Preliminary results of acceptable aggregate accuracy are released when considered useful. (ECoP)

Coherence and comparability

- 8.15. Official statistics are consistent within datasets (i.e. elementary data are based on comparable concepts, definitions and classifications and can be meaningfully combined), across datasets (i.e. data are based on common concepts, units, definitions and classifications, or that any differences are explained and can be allowed for) and over time (i.e. data are based on common concepts, definitions, units, classifications, and methodology over time, or that any differences are explained and can be allowed for).
- 8.16. Statistics from the different sources and of different periodicity are compared and reconciled (ECOP).
- 8.17. Statistics are compiled according to common standards with respect to scope, definitions, classifications, and units in the different surveys and sources. (ECOP)

<u>Relevance</u>

8.18. Processes are in place to consult users, monitor the relevance and utility of existing statistics in meeting their

needs, and consider their emerging needs and priorities. (ECoP)

- 8.19. User satisfaction surveys are undertaken on a regular basis. The results are publicly released and considered as an input for decisions about plans and priorities and they are reflected in the statistical work programmes.
- 9. Ensure user-friendly data access and dissemination, that statistics are presented in a clear and understandable form, released in a suitable and convenient manner, including in machinereadable form ('open data'), can be found easily, and are available and accessible on an impartial basis with supporting metadata and guidance This also entails commitment to respond to major misinterpretations of data by users.
- 9.1. Statistical information is available through different dissemination tools, including media channels, Internet, online database and paper publications and easily downloadable in different formats.
- 9.2. A dissemination policy ensures the free dissemination of official statistics.
- 9.3. In order to ensure equal access to national statistics for international users, English-language statistical information (data and metadata) is available on websites of National Statistical Authorities.
- 9.4. A corporate strategy and appropriate guidelines are in place for the preparation of statistical publications (paper and electronic).
- 9.5. A corporate database and glossaries promote the use of standard statistical concepts and definitions.
- 9.6. Users are kept informed about the methodology of statistical processes including the use of administrative data (ECoP).
- 9.7. Metadata are documented according to standardised metadata systems (ECoP).
- 9.8. A corporate strategy and appropriate guidelines are in place for the preparation and dissemination of metadata on concepts, scope, classifications, basis of recording, data sources, statistical techniques, differences from internationally accepted standards, annotation of good practices, geographical coverage, etc.
- 9.9. Processes ensure that sampling and non-sampling errors are measured and systematically documented and that information is made available to users for all key statistical outputs.
- 9.10. Internal guidelines are available in statistical agencies on responding to erroneous comments. These guidelines are well known by staff.

	9.11. Access to micro-data is allowed for research purposes and is subject to specific rules or protocols (ECoP).			
	9.12. Where a pricing policy exists for specific services or custom-designed products, conditions of sale are clearly communicated.			
	9.13. Educational material is developed with the aim to enhance the use of official statistics and to avoid their misuse and misinterpretation.			
	9.14. Official statistics are released in machine-readable form ('open data') that encourage reuse and analyses.			
10. Establish responsibilities for co-ordination of statistical	10.1. The role and responsibilities of all producers of statistics are clearly determined by law. A co-ordinator of the NSS, such as the NSO, is also designated by law.			
activities within the NSS.	10.2. The designated co-ordinator has responsibility to co-ordinate the statistical activities of official producers in the NSS and to represent the NSS as a whole. This concerns in particular the use of appropriate statistical concepts and procedures, the implementation of international standards and efforts to minimise duplications in data collection, production and dissemination of official statistics.			
	10.3. Procedures, mechanisms, tools, guidelines, or agreements are in place to ensure effective co-ordination within the NSS. Procedures include:			
	Establishment of a national statistics plan;			
	Co-ordinated data dissemination, e.g. through a single data portal;			
	Assistance with implementation of international standards and classification; and			
	Common quality management processes.			
	10.4. Exchange of statistical information between statistical agencies is actively undertaken.			
11. Commit to international cooperation.	11.1. National statisticians participate actively and regularly in international expert groups, conferences and workshops.			
	11.2. National Statistical Authorities participate in joint projects with other countries to share development burden.			
	11.3. Heads of NSOs or their staff chair international statistical bodies.			
	11.4. National Statistical Authorities participate in the main			

international statistical fora to exchange on their statistical practices, to participate in research and conceptual work and to contribute actively to the definition and design of international norms and statistical standards.

- 11.5. Access to micro-data by international organisations is explored as a means to reduce the burden of countries responding to questionnaires.
- 11.6. National Statistical Authorities provide complete and timely answers to the questionnaires of international organisations.
- 11.7. Producers of official statistics use modern statistical and IT tools, such as SDMX for the regular transmission of data and metadata to international organisations, notably the OECD.
- 12. Encourage exploring innovative methods and new and alternative data sources as inputs for official statistics, and in particular, encourage statistical agencies to actively explore possibilities to use new data sources (including large datasets owned by the private sector) or to combine existing and new data sources as input for official statistics. At the same time, these opportunities are weighted against the limits of using information modern technologies and the need to maintain the quality of official statistics.

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- 12.1. National Statistical Authorities actively encourage and undertake research on new sources and new methods for official statistics, including in the private sector and through combination of existing sources.
- 12.2. National Statistical Authorities develop methodological work and IT structure to ensure the quality of official statistics when new and alternative data sources are used as input.
- 12.3. An explicit policy is formulated towards the use of "Big Data¹⁰" and private data that considers legal, technical and methodological implications.
- 12.4. Implications for statistical infrastructure, statistical methods, and analytical tools are systematically assessed.
- 12.5. There are explicit agreements between producers of official statistics and owners of private data; and legislation which regulate access to this information and deal with privacy issues.
- 12.6. National Statistical Authorities participate in the development of capabilities to process geospatial data.

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Big data refer to data sources that can be generally described as high volume, velocity, and variety of data that demand cost-effective, innovative forms of processing for enhanced insight and decision making.



www.oecd.org/statistics/good-practice-toolkit