

PEER REVIEW REPORT

ON COMPLIANCE WITH THE CODE OF PRACTICE AND
THE COORDINATION ROLE OF THE NATIONAL STATISTICAL INSTITUTE

DENMARK

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1. EXECUTIVE SUMMARY

Statistics Denmark (SD) is the main producer of European statistics in Denmark and the central authority for Danish statistics, according to the Act on Statistics Denmark. SD's professionalism and independence are unchallenged and widely recognised, and it enjoys a high level of trust. SD has a long and strong tradition for cooperation with other Nordic countries in the field of statistics, including methodological coordination and joint development projects.

Statistical production is based to a large extent on registers. Data from the administrative registers of other public authorities are edited and organised by SD into statistical registers, which are highly integrated across subject areas and time. Only a small proportion of data is collected using surveys of businesses or households. SD uses efficient methods for collecting data, especially from businesses. Most business surveys are mandatory, and the response rate for these surveys is very high.

SD has set up a strong mechanism for user consultation: eight thematic user committees meet once or twice a year, regular users surveys are conducted, and focus groups on dissemination and content are arranged with key users. SD has set up an impressive service to provide remote access for researchers to statistical microdata, and about 1,500 researchers in 400 institutions use the service.

Beyond the evident strengths that SD demonstrates, the Peer Review team identified four broad issues in which the compliance to the European statistics Code of Practice (CoP) could be enhanced. These issues are related to strengthening the institutional environment, ensuring the sustainability of the National Statistical System (NSS), continuing efforts on quality and efficiency, and improving analysis and dissemination.

While the NSS is fairly centralised, it remains relatively uncoordinated, with no formal link binding SD to the Other National Authorities producing European statistics (ONAs) or to other producers of statistics. SD should capitalise on its achievements in order to reinforce further its position as the central authority for Danish statistics and main producer of European statistics. In addition, the need to comply with the provisions of the recently adopted amended European Statistical Law provides a unique opportunity for Danish statistics in general, and for SD in particular, to build upon its principles to develop the NSS and to strengthen its mandate for data collection and coordination.

Like every other government agency in Denmark, SD has been facing for several years a continuous reduction of its budget. Being already a relatively efficient organisation, SD has limited capacity for increasing cost-effectiveness when facing further budget cuts. It is therefore important to ensure that the resources of SD are sufficient to meet forthcoming requirements related to European statistics. In addition, the Peer Reviewers consider that formalising data-sharing agreements with providers of administrative data could strengthen the sustainability of the register-based statistical model. These agreements should specify the time frame and format for delivery, and include provisions regarding reasonable advance notification of system changes, including provision for SD to give its views before such changes are finalised.

SD has recently strengthened its quality management procedures, in particular by producing quality declarations for each published statistic conforming to best international standards for quality reports. The Peer Review team considers that SD could bring about further improvements in quality and efficiency by improving response rates, moderating the perceived statistical burden,

enforcing methodological standards, strengthening the quality audit process, and improving organisational efficiency.

Finally, the already strong dissemination service provided by SD should be further developed, in particular to improve the accessibility and clarity of statistical releases by striving to find the best way of bringing the numbers to life by telling the story in an interesting and newsworthy way, and reinforcing this with appropriate graphics and interactive visualisations.

Generally, the Peer Review team considers that Statistics Denmark has a high level of compliance with the CoP. The recommendations in this report are intended to further enhance compliance.

RECOMMENDATIONS

Strengthen the institutional environment

1. New legislation on Danish statistics should be adopted, based on national needs and in compliance with the recently amended European Statistical Law, which should have specific provisions on the status of the National Statistician, statistical independence, statistical confidentiality, and the coordinating role of Statistics Denmark (European statistics Code of Practice, Principles 1, 2 and 5).
2. The role of the Board of Statistics Denmark should be specified in the new legislation, with a clear indication on the extent of its mandate (European statistics Code of Practice, Principle 1).
3. Statistics Denmark should be entitled by the new legislation to conduct a formal review of whether the European statistics produced by Other National Authorities could in some cases be produced with better cost-effectiveness and quality by Statistics Denmark (European statistics Code of Practice, Principle 10).
4. The role of Statistics Denmark as the coordinator of the production of official statistics should be laid down in the new legislation (European statistics Code of Practice, Principle 1).
5. Statistics Denmark should arrange for a clear definition of which national statistics are categorised as official statistics, and should conclude agreements with the producers of these official statistics, or update them if already existing, in order to formalise the National Statistical System (European statistics Code of Practice, Principle 4 and indicator 1.4).
6. Statistics Denmark should produce national guidelines, in line with European quality standards, for the development, production and dissemination of official statistics (European statistics Code of Practice, Principle 4 and indicator 1.4).
7. Statistics Denmark should arrange periodic reviews of the compliance of official statistics with the national quality guidelines, and should issue a quality label when conditions are met (European statistics Code of Practice, Principle 4 and indicator 1.4).
8. Statistics Denmark should establish and maintain a common dissemination portal for official statistics with the contribution of the other national producers, including a common release calendar (European statistics Code of Practice, Principle 15).

Ensure the sustainability of the National Statistical System

9. The Danish financial authorities should ensure that the resources of Statistics Denmark are sufficient to meet forthcoming European Union demands, taking account of any efficiency gains generated by the organisation (European statistics Code of Practice, indicator 3.1).
10. Statistics Denmark should complete formal agreements with all providers of administrative data, and any existing arrangements should be reviewed, to ensure that they include provisions regarding advance notification of system changes and the possibility for Statistics Denmark to give its views before such changes are finalised (European statistics Code of Practice, Principle 2 and indicators 8.8, 8.9, and 10.3).
11. Statistics Denmark should develop a project aimed at identifying the statistical potential of new data sources (big data), at promoting the change in the legal framework to allow access, and at upgrading production systems to allow its use (European statistics Code of Practice, Principles 2, 8, 9, 10, 11, and 13).

Continue efforts on quality and efficiency

12. Statistics Denmark should explain the rationale for the questions being asked in surveys and provide more information on the resultant statistics to which the respondents are contributing, and should improve the feedback given to business respondents by providing them with information on how they compare with similar companies in their economic area (European statistics Code of Practice, Principle 9).
13. Statistics Denmark should further extend the provision of user-friendly web-based questionnaires for all social surveys, taking into consideration possible impacts, and take initiatives to encourage their use (European statistics Code of Practice, Principle 9).
14. Statistics Denmark should review their method of spreading the statistical burden in the light of mandatory electronic data collection, especially for small companies (European statistics Code of Practice, Principle 9).
15. The methodology unit of Statistics Denmark should take steps to ensure that the agreed methodological standards for the organisation, particularly for sampling, editing (including selective editing), imputation, and seasonal adjustment are followed by the relevant statistical areas (European statistics Code of Practice, Principle 7).
16. When auditing the processes that produce key statistics, Statistics Denmark should consider strengthening the audit through the participation of external experts (European statistics Code of Practice, Principle 4).
17. The membership of the quality and methodology steering groups, currently at Director level, should be expanded to include the participation of some experts from various areas of Statistics Denmark (European statistics Code of Practice, Principle 4).
18. Statistics Denmark should further develop its quality management system by considering the alignment, where practicable, of its internal organisation with the Generic Statistical Business Process Model (European statistics Code of Practice, Principle 4).

Enhance analysis and dissemination

19. In order to ensure that its statistics are more widely used and reliably interpreted, Statistics Denmark should take steps to ensure that its statistical releases provide more in-depth analysis accompanied by additional graphics (European statistics Code of Practice, Principle 15).
20. Statistics Denmark should provide users with the option of using an interactive mapping tool to analyse the wide range of geographic data available on their website (European statistics Code of Practice, Principle 15).
21. For each research project that results in a published paper or report, a brief summary of the project and conclusions should be provided on a special page on Statistics Denmark's website (European statistics Code of Practice, Principle 15).
22. Statistics Denmark should allow users to assess punctuality by keeping track, on the website, of any late changes made to the release calendar (European statistics Code of Practice, indicator 13.4).
23. Statistics Denmark should publish English versions of the key high-profile European statistics it produces (European statistics Code of Practice, Principle 15).

2. INTRODUCTION

This peer review report is part of a series of assessments, the objective of which is to evaluate the extent to which National Statistical Institutes (NSIs) and the European Statistical System (ESS)¹ comply with the European statistics Code of Practice (CoP).

The CoP, which sets out a common quality framework for the ESS, was first adopted in 2005 by the Statistical Programme Committee and updated in 2011 by its successor, the European Statistical System Committee. The CoP – 15 principles and related indicators of good practice – covers the institutional environment, the statistical production process and the output of European statistics. The ESS is committed to fully complying with the CoP and is working towards its full implementation. Periodic assessments review progress towards reaching this goal.

The first global assessment, a round of peer reviews in 2006–2008, explored how the NSIs and Eurostat were progressing in implementing the parts of the CoP relating to the institutional environment and dissemination of statistics (principles 1–6 and 15). This resulted in reports for each NSI and Eurostat, available on the Eurostat website². These reports also include a set of improvement actions covering all the principles of the CoP; these informed the annual monitoring of the implementation of the CoP in the ESS in the period 2009-2013.

The scope of this second round of peer reviews is broader: the assessment of CoP compliance covers all principles; the CoP compliance of selected other national producers of European statistics (as well as the NSI) in each country is assessed; and the way in which statistical authorities coordinate the production and dissemination of European statistics within their statistical systems is explored.

It should be underlined that there is a fundamental difference between the reports in the previous round of peer reviews conducted in 2006-2008 and the reports from this round. In the 2006-2008 round compliance with principles 1 to 6 and 15 of the CoP was assessed by means of a four-level scale (fully met; largely met; partly met and not met) and improvement actions were agreed on all 15 principles. After five years of continuous development most of the improvement actions have been implemented and significant progress towards full compliance with the CoP has been made. Therefore, rather than stating the state of play for all principles of the CoP, the reports from the 2013-2015 round mainly focus on issues where full compliance with the CoP has not been found or further improvements are recommended by the Peer Review team.

In order to gain an independent view, the peer review exercise has been externalised and an audit-like approach, where all the answers to the self-assessment questionnaires have to be supported by evidence, has been applied. As in 2006-2008, all EU Member States, the EFTA/EEA countries and Eurostat are subject to a peer review.

Each peer review in the Member States and EFTA/EEA countries is conducted by three reviewers and has four phases: completion of self-assessment questionnaires by a country; their assessment by Peer Reviewers; a peer review visit; and the preparation of reports on the outcomes. The peer

¹ The ESS is the partnership between the Union statistical authority, which is the Commission (Eurostat), the national statistical institutes (NSIs) and other national authorities responsible in each Member State for the development, production and dissemination of European statistics. This Partnership also includes the EFTA /EEA countries.

² <http://ec.europa.eu/eurostat/web/quality/first-round-of-peer-reviews>

review of Eurostat has been conducted by the European Statistical Governance Advisory Board (ESGAB).

To test and complete the methodology, it was piloted in two countries, Iceland and Slovakia, over the summer of 2013.

The peer review of Denmark was conducted by Mr Jean-Michel Durr (chair), Ms Michelle Jouvenal, and Mr Adrian Redmond, who conducted a peer review visit to Copenhagen on 12–16 January 2015. The programme of the visit is in Annex A and the list of participants in Annex B.

This report focuses on compliance with the CoP and the coordination of European statistics within the Danish statistical system. The report highlights some of the strengths of Danish NSS in these contexts and contains recommendations for improvement. Improvement actions developed by Statistics Denmark on the basis of this report will be published within the four-week period starting when the final report is sent to the NSI.

3. BRIEF DESCRIPTION OF THE NATIONAL STATISTICAL SYSTEM

Legislation

Statistics Denmark (SD) was founded in 1850, just one year after the adoption of Denmark's Constitutional Act. According to the Act on Statistics Denmark, adopted in 1966 and subsequently amended several times, SD is an independent institution, governed by a Board of six members, and chaired by the National Statistician under the parliamentary responsibility of the Minister of Economic Affairs. The National Statistician is responsible for the professional and administrative management of SD. The Board prioritises SD's activities and approves budget allocation, while the Minister of Economic Affairs is responsible for SD's financial appropriations from the national budget and personnel matters.

Statistical production in SD is based to a large extent on registers, whereby data from the administrative registers of other public offices are edited and organised by SD into statistical registers, which are highly integrated across subject areas and time. In fact, the last traditional population census was conducted as long ago as 1970, and censuses since then have been based exclusively on administrative registers. Only a small proportion of SD's data is collected using surveys of businesses or households.

The statistical registers are based on the three central identifiers from the core registers: the Central Person Register (CPR), the Central Business Register (CBR) and the Register of Buildings and Dwellings (BDR).

Objectives of Statistics Denmark

As laid down in the law, the main task of SD is to collect, process and publish statistical information on social and economic conditions in collaboration with other statistical bodies. Other tasks include the production of statistics for private and public customers, produced for a charge, and international statistical cooperation.

The mission of SD sets out the aim to produce impartial statistics on society as the basis for democracy and the national economy, while its stated vision is to be one of Europe's most user-friendly and data supplier-friendly statistical institutions, solving tasks digitally in an effective and innovative manner, and integrating official statistics into all social and economic conditions.

The year 2015 constitutes the last year of SD's fourth strategy plan, "Strategy 2015", which focuses largely on users and data suppliers. The strategy is implemented through annual work programmes and statistical programmes. While the former describe the main priorities and new developments in the coming year, the latter provide detailed descriptions of every statistic produced by SD.

Organisational structure

SD is organised into five departments: Social Statistics, Business Statistics, Economic Statistics, Sales and Marketing, and User Services, with a total of 22 divisions, as well as a Management Office responsible for cross-cutting national and international activities. The National Statistician, the departmental directors, and the head of the Management Office constitute the management of the office.

The overall SD budget in 2015 amounts to €56m. SD's Finance Act appropriation covers 62% of the budget, while the remaining part is covered by revenues generated from user-paid services (23%) and financial contributions from ministries and the EU (15%). A government decision in

force for more than 15 years requires public administration institutions, including SD, to achieve at least 2% efficiency gains yearly.

On 1 January 2015, SD had 538 employees (full-time equivalents), of which 58% were aged between 30 and 50 years, with an average age of 46. Staff numbers have remained relatively stable in recent years.

Data access and communication with users

SD makes its wide range of statistics and metadata available via the databank StatBank (containing several billion figures), which is also available in a mobile version. In addition, SD issues news releases and publishes yearbooks, newsletters, periodicals and thematic publications. It also provides a widely used information service, and has recently activated a Twitter account. Its yearbook presents data compiled by SD and other Danish authorities and institutions.

Since 1986 SD has provided researchers access to microdata sets from workstations within SD, and in 2001 it launched a new remote access system granting access to microdata for especially authorised research and analysis environments. SD's Research Service provides support for researchers and research projects. All access to microdata for research is given through powerful research servers, which are separate from the production network and contain only de-identified microdata. SD has contact with a large number of researchers, and uses feedback from their work to increase the data quality and improve documentation.

SD promotes the active involvement of users by means of a variety of advisory committees, user committees, focus groups and user satisfaction surveys. SD estimates that each year its statistics are used by over one million citizens, thus encouraging the continuation of this work to foster user engagement.

National Statistical System (NSS)

The Act on Statistics Denmark establishes SD as the central authority for Danish statistics, and SD produces the vast bulk of socio-economic statistics in Denmark. While the system is fairly centralised, it remains relatively uncoordinated, with no formal link binding SD to the Other National Authorities producing European statistics (ONAs) or other producers of statistics. Existing relations are based mostly on soft or voluntary agreements, or on other informal arrangements, mainly stemming from European requirements and based on need.

There are twelve other national authorities responsible for the development, production and dissemination of European statistics, including for example the AgriFish Agency, the Ministry of Education, the Environmental Protection Agency, and the Immigration Service.

SD is responsible for about 90% of all European statistics produced in Denmark.

4. COMPLIANCE WITH THE CODE OF PRACTICE AND THE COORDINATION ROLE WITHIN THE NATIONAL STATISTICAL SYSTEM

4.1 STRENGTHS OF THE NATIONAL STATISTICAL INSTITUTE IN RELATION TO ITS COMPLIANCE WITH THE CODE OF PRACTICE AND TO ITS COORDINATION ROLE

It was clear to the Peer Review team from discussions with staff, the media, ministries and other stakeholders, that SD's professionalism and independence are unchallenged and widely recognised, and that it enjoys a high level of trust (CoP Principles 1, 6, 12).

SD's main strength is its wide use of administrative registers in the production of statistics (CoP Principles 9 and 10).

The basic sources for the statistical system are the three core registers established in the 1960s and 1970s: the Central Person Register (CPR), the Central Business Register (CBR) and the Register of Buildings and Dwellings (BDR). These administrative registers cover people, businesses and dwellings, and are updated on a daily basis. The core registers are supplemented by many other registers in areas such as taxation, social welfare, health, education, employment and crime. The registers provide almost total coverage, and, as they act as the basis for many rights and duties, the data is of high quality. For example, an individual needs a CPR number when accessing many services in Denmark: opening a bank account, taking up employment, buying a house, taking out insurance, connecting utilities, joining a college, accessing publicly funded healthcare, etc. It is therefore in the interest of individuals to ensure that information held on them in the registers is accurate.

As the registers use unique identification codes for persons, businesses or buildings, they are readily linkable by SD. Register data, and only register data, are used by SD to produce statistics on population, migration (including internal migration), births, deaths, family formation, crime, education, and so on. SD conducted the world's first totally register-based Population and Housing Census in 1981 by combining data from all relevant administrative sources. It is estimated that 90-95% of SD's social statistics are based on administrative registers. Apart from the benefits of cost efficiency and burden reduction, using registers allows SD to produce more-detailed statistics than sample surveys would allow, such as statistics for small areas, and the registers are used as sampling frames for surveys of individuals and businesses.

A related strength of SD is its Research Service: to facilitate register-based research, SD gives approved researchers secure remote access to de-identified microdata on individuals, families, households, and businesses. Moreover, data from SD can easily be linked to data from other sources, such as survey data or data from other governmental agencies. The linking is done by SD (using transformed identifiers to protect confidentiality). Researchers also have access to associated comprehensive documentation on methods and quality. The Peer Review team formed the impression that researchers were pleased with the service, which is widely promoted and used, not only by research establishments but also by research units in ministries and representative organisations. Currently, about 1,500 researchers in 400 institutions use the service, working on about 700 projects. Researchers are charged for the service on a cost-recovery basis (CoP indicator 15.4).

SD also contributes to the Law Model, a microdata-based service for policy makers. The Law Model has two basic elements. The first is a database of anonymised microdata containing thousands of variables on individuals, created and maintained by SD by linking data from various registers. The

second consists of computer models of legal acts (such as the personal tax law) developed and maintained by the Ministry of Economic Affairs. The purpose of the Law Model is to analyse the effects of contemplated legislative changes, especially in the areas of social assistance and taxation. Authorised users in the Ministry of Finance and other ministries can perform detailed analyses, such as of the distributional effects of transfers and taxes, of the development over time of disposable income for different subgroups of the population, and of the effect that legislative change would have on the public budget and on specific population subgroups.

There is a long and strong tradition for cooperation among the Nordic countries in the field of statistics, including methodological coordination, joint development projects, and the analysis of mirror statistics. There are annual meetings at Director General level, the Nordic Statistical Conference is held every three years, and there is a meeting at least every year among chief methodologists. Furthermore, statisticians in the Nordic countries share experience and best practice on a continuous basis through the so-called 'Nordic contact networks'. There are about 40 contact networks, mainly grouped in accordance with the ESS structure of Directors groups and working groups. The networks function partly through virtual communication channels and partly through meeting physically in relation to other international meetings. Each contact network consists of one representative from each country, and the chair rotates periodically.

SD uses efficient methods for collecting data, especially from businesses. Most business surveys are mandatory, and response rate in these cases is very high. Cases of businesses who do not respond to mandatory surveys are routinely passed to the police, who issue fines. Currently, about 90% of business responses are provided digitally, either using system-to-system solutions or using the www.virk.dk platform for digital reporting from businesses to government. According to Government policy, by the end of 2015 it will be mandatory for all businesses to use digital methods to communicate with the public sector. Accordingly all business returns will be provided to SD electronically (CoP Principle 10).

A wide range of user consultation takes place. The Board of Statistics Denmark has set up seven user committees (Population, Labour Market, Food Industry, Municipalities and Regions, Welfare, Knowledge-Based Society, Economic Statistics), each of which meets once or twice a year. There are surveys of the website, of citizens, and of key users, and of paying customers. Focus groups on dissemination and content are arranged with key user groups (CoP indicator 11.1).

Dissemination is strong, particularly via SD's widely used and highly regarded Statbank service. Recent website developments include issuing all releases in html rather than just in pdf form, the upgrading of quality declarations for all statistics to conform with best international standards, providing a mobile version of Statbank that works very well on small screens, developing an Application Programming Interface (API) to Statbank to allow users to programmatically access all statistics published in the databank, and the launch of a Twitter service with many followers (CoP Principle 15).

The statistics are timely (all Eurostat's deadlines are met) and punctual: out of 700 releases a year, only about one would fail to meet the calendar deadline. Nobody gets pre-release access (CoP indicator 6.7).

The Peer Review team formed the impression that SD is managed efficiently, has well-motivated staff, and has a very participative culture and a strong shared understanding of statistical ethics and confidentiality.

The Peer Review team identified the following innovative practices:

- Service for researchers:

The scale and quality of the register data available in Denmark, the comprehensive documentation and metadata, the ability to link the microdata with data from external sources, and the excellent service provided by SD, combine to make the remote access facility for researchers truly innovative. Researchers can even commission a new survey, from SD or elsewhere, and link the results with register data.

- "High Quality Data" documentation:

All variables in microdata files for researchers are documented. In this respect, the extremely intensive use of SD microdata through the Research Service is a very strong source of knowledge about the quality of key variables. To capture this knowledge, SD provides a special forum where authorised researchers can debate issues relating to the variables. They also work with the researchers to improve this documentation. As a result, so-called High Quality Data Documentation is now available for 600 of the most widely used variables in microdata files. This includes the documenting of historical discontinuities in a structured way, as well as providing special appendices. This project is innovative because of the involvement of the researchers in creating the documentation under SD's coordination.

4.2 ISSUES AND RECOMMENDATIONS

This section presents issues where the Peer Review team considers that the overall level of compliance with the CoP throughout the NSS could be enhanced:

- Strengthen the institutional environment;
- Ensure the sustainability of the NSS;
- Continue efforts on quality and efficiency;
- Enhance analysis and dissemination.

These issues are discussed with specific recommendations in the following sections of the report.

4.2.1 STRENGTHEN THE INSTITUTIONAL ENVIRONMENT

The strengths outlined above constitute a concrete asset for Danish official statistics. SD should strive to capitalise on their achievements in order to reinforce further its position as the central authority for Danish statistics and secure its role within the Danish administration. In addition, the need to comply with the provisions of the recently adopted amended European Statistical Law provides a unique opportunity for Danish statistics in general, and for SD in particular, to build upon its principles to develop the NSS and to strengthen the mandate for data collection and coordination.

The Peer Reviewers consider that an updating of the statistical legal framework is required in order to provide the basis for the effective implementation of the other measures or actions proposed.

This chapter considers how the institutional environment could be strengthened through:

- Updating the legal legislative framework;
- Strengthening the efficiency of the NSS;
- Establishing effective coordination.

4.2.1.1 UPDATING THE LEGAL FRAMEWORK

The Act on Statistics Denmark was adopted almost 50 years ago, and, although many amendments have been made over the years, its basic structure remains unchanged. Today, its provisions show the signs of time.

The Act does not provide for the existence of a formalised national statistical system, was not intended to transpose European requirements, and does not lend itself to strengthen and secure the role of SD and its governing structures. Its provisions have been stretched to adapt concepts in use in European statistics but no direct reference to these concepts appears in the Act.

The recent adoption of the EU Regulation amending the European Statistical Law will necessarily mean that many countries will have to adapt their national statistical legislation to the new provisions, including for instance provisions relating to the role and conditions of appointment of the heads of the NSIs. This will foster the process for the adoption of a new legal act, compliant to EU requirements and instrumental to SD's stronger role.

The present governing structure of SD consists of the National Statistician (Director General) and the Board. Despite the provision of the Act on Statistics Denmark that provides direct access for the National Statistician to the Minister for Economic Affairs, in practice he deals and interacts instead with the Permanent Secretary of the Ministry. This leaves the National Statistician unable to discuss issues of concern directly with the Minister. Nor does the National Statistician participate in the periodic meetings of the Group of Permanent Secretaries where issues that are relevant to SD might be discussed.

According to the Act on Statistics Denmark, the Board is composed of six members and chaired by the National Statistician. The most relevant action of the Board is its mandate to decide on SD's work programme, and therefore on the allocation of SD's financial resources. The Board also establishes the degree of coordination between SD and other public authorities and institutions as well as the extent of data collection. The Peer Review team sees some potential inconsistencies in the present arrangement of the chairmanship of the Board, and believes that there is scope for a more in depth analysis of the role of the Board itself, including whether it should have advisory or management functions. It has to be acknowledged that on the basis of practice so far, the present arrangement has been reported as functioning well: the Board has supported SD's activity and no issues of concern have occurred. On the contrary a positive relation has always existed to the benefit of SD's overall governance, thus reinforcing the idea that the present de facto situation, whereby the Board has decision-making power in certain aspects but in other aspects advises SD, ought to be maintained. To this end, the mandate and membership of the Board should be better specified in law and the relations between the Board and the National Statistician should be further clarified and delineated with a view to secure its effective functioning.

Another issue having an impact on the governance of SD and potentially on the NSS as a whole is the selection procedure for the appointment of the National Statistician, where neither clear professional requisites nor a predefined procedure to implement the selection process are

specified in the Law. This issue should be better defined in law, especially in light of the newly amended European Statistical Law.

While the statistical independence of SD is currently generally accepted, it is not enshrined in the Law. While a provision in the Act on Statistics Denmark states that “*the professional and administrative management of Statistics Denmark rests with the National Statistician*”, the act does not explicitly refer to the independence of the NSI from political or other external interference in developing, producing and disseminating official statistics.

There is no reference to statistical confidentiality in the Act on Statistics Denmark. It was stated to the Peer Reviewers that this is governed by the Act on Processing of Personal Data.

In the opinion of the Peer Review team, both statistical independence and statistical confidentiality need to be clearly regulated in the statistical law, including their extended applicability to the whole NSS.

As an overarching issue, the new legal framework should provide a clear legal basis for the coordinating role of SD in relation to the production of statistics by ONAs and other producers of statistics.

In order to provide an adequate framework for Danish statistics and to ensure compliance with the CoP, the Peer Reviewers recommend that:

1. **New legislation on Danish statistics should be adopted, based on national needs and in compliance with the recently amended European Statistical Law, which should have specific provisions on the status of the National Statistician, statistical independence, statistical confidentiality, and the coordinating role of Statistics Denmark (European statistics Code of Practice, Principles 1, 2 and 5).**
2. **The role of the Board of Statistics Denmark should be specified in the new legislation, with a clear indication on the extent of its mandate (European statistics Code of Practice, Principle 1).**

4.2.1.2 STRENGTHEN THE EFFICIENCY OF THE NSS

For many of the ONAs, statistics are only a by-product of their administrative activity, carried out with limited human resources. Although their regulatory activity calls for accurate data for their own administrative purposes, their statistical expertise is rather modest, as mentioned during the interviews by some ONAs. In addition, the lack of coordination in the NSS does not allow the ONAs to benefit from SD’s experience and standards of quality.

SD has the capacity and the expertise to use administrative data to produce reliable statistics, and could probably take over the production of some of the European statistics produced by the ONAs. This could strengthen the efficiency of the NSS as a whole. A thorough review should be conducted to assess the possibility and the potential benefits in terms of cost-effectiveness that such centralisation could generate.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

3. **Statistics Denmark should be entitled by the new legislation to conduct a formal review of whether the European statistics produced by Other National Authorities could in some cases be produced with better cost-effectiveness and quality by Statistics Denmark (European statistics Code of Practice, Principle 10).**

4.2.1.3 ESTABLISH EFFECTIVE COORDINATION

The Act on Statistics Denmark does not formally provide for the establishment of the NSS, and the obligations of SD do not extend to other national authorities producing statistics. At present no statistical requirements formally apply to statistics produced outside the NSI. The law solely provides that SD shall be informed when statistical information is collected and processed by another public authority or institution in order to negotiate coordination.

Article 5 of the Act on SD states that the “*Minister for Economic Affairs may establish a committee to assist the co-operation between Statistics Denmark and other public authorities and institutions*”. However, this provision was never put into effect. Indeed, a proposal for such a committee was considered in parliament in 2003, but was rejected by the Government.

In the light of this, even though some amendments to the Act on SD were made to accommodate new European requirements, SD has never been provided with the legal responsibility for the coordination of the development, production and dissemination of European statistics, and, in fact, other national producers do not recognise SD as having this function. But over time, SD has increasingly engaged in establishing relations with the other national producers, and continued efforts have been made by SD to exchange information on standards, classifications and European requirements. However, given the absence of formal obligations in this regard, effective coordination is far from adequate. SD has established a Coordination Committee for European Statistics, with a formalised membership and set rules of procedures, but this committee largely acts as a forum for sharing information, not for real coordination. While the committee is chaired by the National Statistician, attendance from other producers is in general not at a very senior level.

SD has no clear overview of the ONAs or of their compliance to standards. When compiling the self-assessment questionnaire, SD clearly declared that it was reporting about SD only and not about the ONAs, about which it did not have sufficient information.

However, and also taking into account the enhanced European requirements, an empowered joint venture between SD, ONAs and other producers of statistics could only be mutually beneficial. It would create economies of scale and support the case for statistics, not only to ensure compliance with the CoP, but also to strengthen the role of statistics as a public good, at the service of stakeholders and users. Today, while SD provides 90% of European statistics, the concepts of both European statistics and official statistics are loose and no clear-cut sense of them exists.

In summary, the coordination powers assigned to SD in the Act have proved ineffective. There is no real coordination of statistical production with the aim of ensuring that the statistics published follow certain minimum standards such as statistical independence, quality, objectivity and availability. Further, there has in recent years been a trend towards institutions building their own database environments and developing further statistical production. This present situation has risks: poor quality standards; inconsistencies between statistics; inefficiency; lack of independence; and unnecessarily increasing the statistical burden on respondents. This could result in a lowering of trust in official statistics, including European statistics.

In fact, the Peer Review team considers that proper coordination should encompass all official statistics, not just European statistics. The limiting of coordination to European statistics, thus excluding other official statistics, would have two drawbacks. First, there is no real distinction, nationally, between European statistics and other official statistics. Second, a lack of trust in one

important national official statistic (which happens not to be a European statistic) could affect the reputation of all official statistics, including European statistics.

In order to improve the overall coordination across the NSS, the **Peer Reviewers recommend that:**

- 4. The role of Statistics Denmark as the coordinator of the production of official statistics should be laid down in the new legislation (European statistics Code of Practice, Principle 1).**

In Denmark, it is not clear which statistics are official, and official statistics are not awarded with a conformity label or quality mark if they meet certain standards. It is the opinion of the Peer Review team that such a quality label would be a useful indication that the corresponding statistic is relevant and complies with quality standards. In adopting a set of requirements for official statistics, it would be beneficial to have the European standards of quality apply also to other national official statistics. In this way there would be only one standard for official statistics which served national and European purposes, in compliance with the CoP, and enforced by the adoption of the new or revised national legislation

Clear definitions of which national statistics are to be regarded as European statistics or official statistics would help SD to establish a clear inventory of all ONAs and other producers. Furthermore, the Peer Reviewers believe that SD should establish agreements (or update existing agreements) with these producers in order to formalise the NSS. The situation in this respect was reported to the Peer Review team to vary from one institution to another: some formal agreements exist, but in most cases any collaboration that exists is informal.

To enhance compliance with the CoP, the **Peer Reviewers recommend that:**

- 5. Statistics Denmark should arrange for a clear definition of which national statistics are categorised as official statistics, and should conclude agreements with the producers of these official statistics, or update them if already existing, in order to formalise the National Statistical System (European statistics Code of Practice, Principle 4 and indicator 1.4).**
- 6. Statistics Denmark should produce national guidelines, in line with European quality standards, for the development, production and dissemination of official statistics (European statistics Code of Practice, Principle 4 and indicator 1.4).**
- 7. Statistics Denmark should arrange periodic reviews of the compliance of official statistics with the national quality guidelines, and should issue a quality label when conditions are met (European statistics Code of Practice, Principle 4 and indicator 1.4).**

Having established a clear definition of official statistics, and having concluded standard formal agreements with the ONAs and other producers of official statistics, SD could enhance the dissemination and accessibility of official statistics by providing a common portal and a common release calendar.

To further enhance compliance with the CoP, the **Peer Reviewers recommend that:**

- 8. Statistics Denmark should establish and maintain a common dissemination portal for official statistics with the contribution of the other national producers, including a common release calendar (European statistics Code of Practice, Principle 15).**

4.2.2 ENSURE THE SUSTAINABILITY OF THE NSS

The current NSS was assessed around three pillars considered by the Peer Reviewers as essential for sustainability:

- The adequacy of resources;
- The administrative source based production model;
- The changing environment for producing statistics.

4.2.2.1 ENSURE SUSTAINABLE RESOURCES

Like every other government agency in Denmark, SD has been facing for more than 15 years a continuous reduction in its budget of a minimum of 2% annually. This reduction in financial resources has been absorbed by gains in efficiency. Indeed, only 62% of SD's budget is covered by general government appropriation, 23% being provided by sales and 15% by co-financing from ministries and the EU. Every year, each directorate of SD is required to elaborate a budget reduction of 3% compared to the previous year, in order that the remaining 1% can be redeployed for specific investments or new priorities.

SD is already a relatively cost-efficient organisation, and therefore has little room for increasing cost-effectiveness when facing further budget cuts.

Further European statistical requirements may need additional resources. From 2005 until 2010, there was an informal understanding in the responsible ministries on the necessity of financing new EU obligations by increasing the general appropriation. While it is the opinion of the Peer Review team that SD could generate some further efficiency gains through a greater standardisation of some of its processes (as developed later in this report), the absence of a mechanism for adjusting financial resources to meet increasing EU statistical demands is problematic. It was confirmed by a representative of the Ministry of Economic Affairs that SD would need to face an extraordinary situation before receiving additional resources from the Ministry of Finance.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

- 9. The Danish financial authorities should ensure that the resources of Statistics Denmark are sufficient to meet forthcoming European Union demands, taking account of any efficiency gains generated by the organisation (European statistics Code of Practice, indicator 3.1).**

4.2.2.2 COMPLETE FORMAL AGREEMENT WITH ALL PROVIDERS OF ADMINISTRATIVE DATA TO ENSURE SUSTAINABILITY OF THE REGISTER-BASED MODEL

SD rightly makes extensive use of register and administrative data for the production of statistics. This approach has the advantage of increasing cost-effectiveness, lowering the response burden borne by respondents to statistical surveys, and providing a sound basis for drawing samples for surveys. However, the relationship between SD and the administrative data providers is critical, and the model leaves the organisation highly dependent on the quality, the stability and the completeness of these sources, which makes the system vulnerable to changes in these characteristics.

The Act on Statistics Denmark provides that “*Within the framework of the working programme adopted by the Board, public authorities and institutions shall supply such information as they possess when called upon to do so by Statistics Denmark*”. However, the current regulatory or administrative framework does not specify conditions pertaining to this data sharing, nor any obligation to inform SD of any change or discontinuity affecting the source. Therefore there is a risk that variables could be changed or removed if they are no longer needed by a particular administration, thus affecting the production of statistics that rely on them. This risk could intensify with policy changes or with budgetary constraints. The Peer Review team was informed of instances of unannounced changes in administrative registers that had a negative effect on the production of statistics. For example, when the period required to benefit from unemployment allowances was reduced from four to two years, it resulted in a significant challenge to the unemployment series. This was solved by compiling the Labour Force Survey monthly instead of quarterly.

Among the 58 registers or administrative sources that SD uses to produce statistics, 36 are subject to a formal agreement. The provision of data from the Central Person Register, which is one of the pillars of the system, is only covered by an informal agreement. Even if data delivery has been conducted for a long period of time without any problems for most of the sources, the Peer Review team considers that formalising data sharing agreements with providers of administrative sources would strengthen the sustainability of the register-based statistical model. These agreements should specify the time frame and format for delivery, and include provisions regarding a reasonable advance notification of system changes, as well as a provision for SD to give its views before changes are finalised.

To further enhance compliance with the CoP, **the Peer Reviewers recommend that:**

- 10. Statistics Denmark should complete formal agreements with all providers of administrative data, and any existing arrangements should be reviewed, to ensure that they include provisions regarding advance notification of system changes and the possibility for Statistics Denmark to give its views before such changes are finalised (European statistics Code of Practice, Principle 2 and indicators 8.8, 8.9, and 10.3).**

4.2.2.3 BE PREPARED FOR THE CHANGING ENVIRONMENT FOR PRODUCING STATISTICS

The widespread use of electronic tools and systems for activities such as communication, location and navigation, registering traffic flows, and purchasing goods, generates huge databases, often referred to as big data. Generally, such data are privately owned.

These sources have considerable statistical potential. But there are challenges, including legal issues, the need to develop partnerships with data owners, and acquisition of the tools and skills needed to extract and analyse the data.

The Peer Review team was informed that SD is closely following developments in this area. Since 2011, SD has been receiving scanner data from the largest supermarket chains and will use them in the calculation of the price statistics from 2015 onwards. SD is also a member of the United Nations’ Global Working Group on Big Data for Official Statistics and is planning to cooperate with the University of Copenhagen to organise a conference this year.

Further actions include:

- Exchanging experiences with other NSIs in the use of big data;
- Participating in think tank forums on the issue;
- Identifying potential big data sources and studying tools and methods to access and process them;
- Assessing the cost-effectiveness impact of the use of big data;
- Starting discussions with big data owners, processors and providers.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

- 11. Statistics Denmark should develop a project aimed at identifying the statistical potential of new data sources (big data), at promoting the change in the legal framework to allow access, and at upgrading production systems to allow its use (European statistics Code of Practice, Principles 2, 8, 9, 10, 11, and 13).**

4.2.3 CONTINUE EFFORTS ON QUALITY AND EFFICIENCY

Quality management underpins the production of relevant, accurate and reliable statistics. Quality can be improved by increasing response rates, which is related to the reduction in the statistical burden, or at least the perceived statistical burden. The standardisation of methodological techniques, in editing and other areas, can also contribute to improvements in quality and efficiency. This chapter focuses on how SD could bring about further improvements in quality and efficiency through:

- Improving response rates;
- Moderating the perceived statistical burden;
- Enforcing methodological standards;
- Strengthening the quality audit process;
- Improving organisational efficiency.

4.2.3.1 TAKE ACTION TO IMPROVE RESPONSE RATES

The response rate to business surveys varies, though for mandatory surveys it is very good. The situation is different for social surveys. While social statistics are mainly obtained from administrative sources – for example for population, education, health and crime statistics – direct collection from households/individuals is used for the Labour Force Survey (LFS), the Household Budget Survey (HBS) and the Survey on Income and Living Conditions (SILC). Data collection for the LFS and the HBS is contracted out to private companies. There are also many smaller user-funded surveys.

All household and individual surveys are, by law, voluntary, and their response rates are rather modest. For instance, the response rate for the LFS is around 60-65%.

SD makes many efforts to moderate the burden of statistical inquiries and to improve the response rates: they consult with representatives of data providers, they use a sound methodology for testing questionnaires, they optimize sample sizes and they try to use user-friendly methods to collect the data. The Peer Review team considers that the response rate might be improved, and

the perceived burden reduced, by providing relevant information to respondents at the point of initial contact.

In discussions with representatives of data providers, the Peer Review team was informed that respondents sometimes got limited information on the surveys that they responded to. The Peer Review team considers that respondents would see the relevance and value of the statistics, and of their own contribution to them, if they could see how they compared to similar companies operating in the same economic area. This could be done by providing automated feedback, or by providing a link to a comparison tool for the companies to use by themselves.

To further enhance compliance with the CoP, **the Peer Reviewers recommend that:**

- 12. Statistics Denmark should explain the rationale for the questions being asked in surveys and provide more information on the resultant statistics to which the respondents are contributing, and should improve the feedback given to business respondents by providing them with information on how they compare with similar companies in their economic area (European statistics Code of Practice, Principle 9).**

While cost-efficient web-based and other electronic means of data collection are widely used in all business surveys (and will become mandatory this year), social interviews tend to rely on interviewing. While the web is used to collect data in most of the social surveys, its use should be encouraged and expanded, taking into account possible impacts. Its use will suit some groups of users, and, if delivered in a user-friendly way and sold persuasively, it will improve the response rate.

To further enhance compliance with the CoP, **the Peer Reviewers recommend that:**

- 13. Statistics Denmark should further extend the provision of user-friendly web-based questionnaires for all social surveys, taking into consideration possible impacts, and take initiatives to encourage their use (European statistics Code of Practice, Principle 9).**

Much effort is made by SD to reduce the burden on business respondents. In business surveys, the probability of selection increases as the size of the company increases. A limited number of small businesses are included, while all large companies are selected. The samples are usually obtained as panels, so that the same company is part of the sample over a period. For smaller companies this is followed by a period outside the sample when they are exempted from reporting. This ensures continuity in the statistical basis, while reducing the burden on smaller enterprises. Despite these laudable efforts to minimise the burden, representatives of small companies noted the inconvenience of moving in and out of coverage, particularly given the systems or procedures put in place to deal with mandatory electronic reporting.

To further enhance compliance with the CoP, **the Peer Reviewers recommend that:**

- 14. Statistics Denmark should review their method of spreading the statistical burden in the light of mandatory electronic data collection, especially for small companies (European statistics Code of Practice, Principle 9).**

4.2.3.2 ENHANCE WORK ON QUALITY AND METHODOLOGY

SD's unit for statistical methodology has a staff of seven. Given that subject matter divisions of SD are usually in charge of the implementation of a complete statistical process, the unit focuses on providing support and guidance on selected methodological areas, in particular on survey sampling, editing/imputation, and seasonal adjustment. It has produced guidelines covering these

three main methodological areas. However, guidelines are not standards, and much is left to the discretion of the survey area. Each document states the preferred options for standard operations, but still leaves room for differences between individual statistics. Centralised monitoring and validation is only partly implemented, due to lack of resources. Similarly, the methodological unit has recommended a range of tools for different stages, including variance estimation, seasonal adjustment and editing, but the use of these tools is at the discretion of the survey units.

As regards sampling, SD conducts around 40 recurring surveys, and most of the samples have been designed based on input from the methodology unit. However, due to limited resources not all are subjected to a periodical examination. A prioritisation is made to ensure that the most vulnerable designs (those with the largest non-response or potential for bias) are regularly examined.

As regards editing/imputation, the methodology unit conducts internal courses covering these techniques. During the courses a considerable effort is made to promote harmonised methods, for example by recommending the use of standard software. Nonetheless, methods used are quite diverse and considerably less harmonised than would be desired. Selective editing (or macro editing, concentrating on the errors that have the most effect on the published statistics) is used in some areas, but the more traditional micro-editing at the level of the individual record is more commonly used.

SD is taking steps to address these concerns. For instance, methodology and information technology (IT) experts are working on the details of a standardised process for editing and imputation.

The Peer Review team considers that SD should move from the current system, where guidelines are set but only partially followed, to a system where standard methods are used.

To further enhance compliance with the CoP, **the Peer Reviewers recommend that:**

- 15. The methodology unit of Statistics Denmark should take steps to ensure that the agreed methodological standards for the organisation, particularly for sampling, editing (including selective editing), imputation, and seasonal adjustment are followed by the relevant statistical areas (European statistics Code of Practice, Principle 7).**

SD has done some excellent work on quality. It devotes much effort to managing the quality of their processes. It has a full range of quality declarations, one for each published statistic, containing details of coverage, legal basis, source data, editing, accuracy, revisions, comparability, coherence, and much else besides, and conforming to international standards for quality reports.

However, there is currently no quality monitoring or auditing, though SD is now taking steps to address this deficiency. A Quality Coordinator was recently appointed, and will take the lead in conducting quality audits for surveys (including processes that use administrative sources). The plan is to audit 3-5 surveys each year. The more important statistics will be prioritised for early audit. Each audit will commence with a self-assessment by the statistical area in question, and will be done by the Quality Coordinator, section experts, and two experienced SD experts from outside the area. While the Peer Review team welcomes the plans for quality audits, it considers that such evaluations would be more useful and more credible if there were some participation by external experts, particularly for key, high profile statistical outputs.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

- 16. When auditing the processes that produce key statistics, Statistics Denmark should consider strengthening the audit through the participation of external experts (European statistics Code of Practice, Principle 4).**

SD has set up a steering group for methodology, whose members are the five directors of the organisation. This group meets three or four times a year, and also conducts an annual review and appraisal of the guidelines issued by the methodological unit. Similarly, SD has set up a quality steering group to monitor progress on quality issues, and this group also consists of the five directors. While the work of these steering groups is undoubtedly beneficial, the Peer Review team considers that they would function more effectively if they were to include some level of expert participation from different areas of the office.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

- 17. The membership of the quality and methodology steering groups, currently at Director level, should be expanded to include the participation of some experts from various areas of Statistics Denmark (European statistics Code of Practice, Principle 4).**

4.2.3.3 FURTHER IMPLEMENT THE GENERIC STATISTICAL BUSINESS PROCESS MODEL (GSBPM)

The GSBPM describes and defines the set of business processes needed to produce official statistics. It provides a standard framework and harmonised terminology to help statistical organisations to modernise their statistical production processes, as well as to share methods and components³. The GSBPM has been successfully used by statistical organisations as a framework to map their statistical production and in some case to re-organise themselves according to the model.

SD is currently mapping its activities and processes against the GSBPM, though it does not have plans to reorganise its structure according to the model. However, the Peer Review team considers that SD should further develop its quality management system by considering the alignment of its internal organisation with the GSBPM, where practicable.

The Peer Review team has recommended (see above) the strengthening of the statistical methodology by moving from guidelines to explicit standards. However, a step for further centralisation of the methodology could be envisaged. In particular, the methodology unit could be expanded and take responsibility for drawing samples for all surveys, as well as developing standard computerised editing/imputation procedures.

Large, complex businesses, including multinational enterprise groups, can have a significant effect on statistics. Their accounting practices can lead to large apparent discrepancies in the data they supply to statistical and other authorities. SD management informed the Peer Reviewers that they were planning to set up a unit to deal with statistics on large corporations. This unit would profile large enterprise groups, including constituent companies with virtually no employment but large flows of funds that are significant for balance of payments statistics. It could also assess the consistency of data reported in statistical surveys (such as industrial production and Intrastat) and

³ Generic Statistical Business Process Model. Version 5.0 – December 2013. UNECE. <http://www1.unece.org/stat/platform/display/GSBPM/GSBPM+v5.0>

data collected by other authorities (such as taxation and company accounts), and make statistical adjustments if required for consistency purposes. The Peer Review team supports this initiative, which it believes to be particularly beneficial for national accounts statistics.

There are about 95 IT staff members in SD. About 80 work on maintenance and development, while the rest work on IT operations and the Help Desk. The majority of maintenance and development staff is widely distributed in non-IT divisions: 15 in the Social Statistics division, 13 in Business Statistics, 11 in Economic statistics, and 11 in Sales and Marketing. While these IT staff are using standard tools and methods, they are related to non-IT managers in the user divisions. While such a decentralised system has strengths (for example, good communication between the IT staff and the customers they serve), it also has weaknesses: poor control of IT resources at the corporate level; lower level of standardisation, and therefore of efficiency, across the organisation; poorer documentation; and uneven development of IT skills. SD management recognises the weaknesses in the current system and plans to move towards a centralised model for IT, where all IT staff is working in the IT department. The Peer Review team fully supports this.

The acquisition and processing of administrative data could also be centralised to harmonise the methods used in various divisions.

Consequently, it is the opinion of the Peer Review team that SD would benefit from some alignment of its organisation to the GSBPM. This would enable SD to further optimise its organisation and generate additional efficiency gains. SD could also take advantage of the experience of other European countries that have made progress in implementing this model.

To further enhance compliance with the CoP, **the Peer Reviewers recommend that:**

- 18. Statistics Denmark should further develop its quality management system by considering the alignment, where practicable, of its internal organisation with the Generic Statistical Business Process Model (European statistics Code of Practice, Principle 4).**

4.2.4 ENHANCE ANALYSIS AND DISSEMINATION

4.2.4.1 DEVELOP ANALYSIS

This chapter considers how analysis and dissemination could be enhanced through providing:

- Additional analysis and interactive visualisations on the website;
- Summary information on the wealth of research projects that use SD's microdata;
- English versions of the key high-profile statistics.

On most weekdays, at 9 am, SD publishes statistical releases. For statistical offices, such releases are a key component of dissemination, providing the latest information to the media, specialist users, and the general public. Well-written releases that tell the story behind the figures in an interesting and attractive way will draw attention, inform users effectively, and be communicated more widely. However, while SD's releases are factual, objective and well laid out, the Peer Review team formed the view that many are rather short on text and graphics, and that some failed to tell the story behind the statistics: the text contained rather too many statements like "this rose by x%, while that rose by y%", which for less informed users can be uninteresting and difficult to digest. In order to improve the accessibility and clarity of statistical releases, statisticians should take the time to examine the data structurally and over time, find the best way of bringing the numbers to

life by telling the story in an interesting and newsworthy way, and reinforce this with appropriate graphics.

For an organisation that provides such a wealth of published data on local areas, such as municipalities and parishes, the Peer Review team were struck by the relative dearth of statistical maps available on or via the SD website. While Statbank users have the facility to generate maps based on extracted data, this facility, despite Statbank's otherwise excellent strengths, is rather basic. An interactive mapping facility would considerably enhance the value of statistical data that has a geographic dimension.

To further enhance compliance with the CoP, **the Peer Reviewers recommend that:**

19. In order to ensure that its statistics are more widely used and reliably interpreted, Statistics Denmark should take steps to ensure that its statistical releases provide more in-depth analysis accompanied by additional graphics (European statistics Code of Practice, Principle 15).

20. Statistics Denmark should provide users with the option of using an interactive mapping tool to analyse the wide range of geographic data available on their website (European statistics Code of Practice, Principle 15).

4.2.4.2 ENHANCE DISSEMINATION AND ACCESSIBILITY

At any one time, hundreds of researchers are using SD's Research Service. Much of this use results in papers published in journals and elsewhere. If a very short summary of the published papers were provided on the website, including a simple statement of the main conclusions, it would offer additional information to the general user on the value of SD's data, and would provide a useful overview for researchers on the scale of the research being done.

To further enhance compliance with the CoP, **the Peer Reviewers recommend that:**

21. For each research project that results in a published paper or report, a brief summary of the project and conclusions should be provided on a special page on Statistics Denmark's website (European statistics Code of Practice, Principle 15).

All of SD's releases are announced in advance in its release calendar. Initially, the date is set a year in advance. This can be changed later if there is a professional reason for doing so. However, eight days before the release date, the date is fixed. Any change after that time has to be approved by the National Statistician and to be explained on the website. Such late changes happen only very rarely. The Peer Reviewers observed that SD does not keep the initial calendar available to users, and consider it would be advisable to allow users to assess the timeliness indicator by keeping track of any changes in the 8-day release calendar.

To further enhance compliance with the CoP, **the Peer Reviewers recommend that:**

22. Statistics Denmark should allow users to assess punctuality by keeping track, on the website, of any late changes made to the release calendar (European statistics Code of Practice, indicator 13.4).

Much of SD's output is available on their website in English, thus rendering it accessible to international users. This applies, for example, to all of Statbank and to all the quality declarations. However, the statistical releases are published only in Danish. With several hundred releases a year, the Peer Review team accepts that translation of all releases would be very onerous, but considers that at least the key high-profile European statistics should also be provided in English.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

23. Statistics Denmark should publish English versions of the key high-profile European statistics it produces (European statistics Code of Practice, Principle 15).

4.3 NATIONAL STATISTICAL INSTITUTE VIEWS WHERE THEY DIVERGE FROM PEER REVIEWERS' ASSESSMENT

Statistics Denmark would like to thank the peer reviewers for their thorough and professional work and for the constructive discussions during the peer review visit. Statistics Denmark welcomes the overall conclusions regarding the high level of compliance with the Code of Practice in Statistics Denmark and also finds that the areas identified for further improvements are relevant.

Statistics Denmark has a diverging view on two specific recommendations:

3. Statistics Denmark should be entitled by the new legislation to conduct a formal review of whether the European statistics produced by Other National Authorities could in some cases be produced with better cost-effectiveness and quality by Statistics Denmark (European statistics Code of Practice, Principle 10).

A revision of the current Act on Statistics Denmark is foreseen within the next few years and one of the main purposes of the revision is to strengthen the coordinating role of Statistics Denmark considerably (also in line with recommendations 1 and 4 of the peer review). Rather than moving towards further centralisation, Statistics Denmark is of the opinion that the establishment of a well-functioning coordination within the national statistical system is the most viable way forward for improving efficiency and quality of Danish statistics. In this perspective and taking into consideration the functioning of the Danish administrative system, efforts to implement recommendation 3 run the risk not only of being unsuccessful because information on costs are not available on a comparable basis, but also of being counterproductive to the aims of strengthening national coordination.

17. The membership of the quality and methodology steering groups, currently at Director level, should be expanded to include the participation of some experts from various areas of Statistics Denmark (European statistics Code of Practice, Principle 4).

Statistics Denmark fully acknowledges the need to ensure sufficient involvement of experts in the work of the steering groups on quality and methodology. However, in order to ensure that the steering groups remain bodies for decision-making at the highest level, Statistics Denmark finds that the current organisational set-up should be maintained – keeping membership of the steering group at Directors level. The steering groups work closely with the experts in the methodology and quality units and on top of this, the steering groups may set up working groups and task forces.

Additionally, regarding recommendation 9 which states:

9. The Danish financial authorities should ensure that the resources of Statistics Denmark are sufficient to meet forthcoming European Union demands, taking account of any efficiency gains generated by the organisation (European statistics Code of Practice, indicator 3.1).

Statistics Denmark would like to stress that efficiency gains generated by Statistics Denmark shall cover new EU demands as well as other necessary activities demanding resources (e.g. quality improvement, national user needs, new dissemination tools etc.). As such, when ensuring that resources are sufficient to meet forthcoming EU demands, financial authorities should take account of “efficiency gains generated by the organisation as well as other demands on resources”. Statistics Denmark would have preferred that this was reflected in the wording of the recommendation.

ANNEX A - PROGRAMME OF THE VISIT

PEER REVIEW VISIT TO DENMARK

12-16 JANUARY 2015

STATISTICS DENMARK, SEJRØGADE 11, COPENHAGEN

Time		Programme	Organisation	Participants
Day 1 – Monday 12 January 2015				
09.00 – 10.00	1	PR team discussion to finalise the preparation of the visit.	PR Team	PR team
10.00 – 10.30	2	Preparatory meeting with the NSI coordinator team and, possibly, other national participants in the visit to discuss practical aspects of the visit.	Statistics Denmark	Mr Lars Thygesen, Mr Kim Voldby, Ms Naja Andersen, Ms Anja Stiiil
10.30 – 10.45		Coffee break		
10.45 – 11.00	3	Welcome and introduction of programme, organisational matters	Statistics Denmark	Mr Jørgen Elmeskov, Mr Lars Thygesen, Mr Niels Ploug, Mr Søren Schiønning Andersen, Ms Kirsten Wismer, Ms Karin Ravn, Mr Kim Voldby, Ms Naja Andersen
11.00 – 12.00	4	General information session with a description on how the national statistical system is organised (bodies, distribution of responsibilities, relations between authorities).	Statistics Denmark	Mr Jørgen Elmeskov, Mr Lars Thygesen, Mr Kim Voldby, Observers: Mr Bo Johansen, Ms Naja Andersen
12.00 – 12.45		Lunch		
12.45 – 14.00	5	The statistical law and related legislation (CoP principles 1, 2, 5 and 6)	Statistics Denmark	Mr Jørgen Elmeskov, Mr Lars Thygesen, Mr Kim Voldby, Mr Bo Johansen Observers: Ms Naja Andersen
14.00 – 15.15	6	Co-ordinating role of the NSI	Statistics Denmark	Mr Jørgen Elmeskov, Mr Lars Thygesen, Mr Kim Voldby, Mr Bo Johansen Observers: Ms Naja Andersen
15.15 – 15.30		Coffee break		
15.30 – 17.00	7	Programming, planning and resources, including training (CoP principles 3, 9 and 10)	Statistics Denmark	Ms Karin Ravn, Mr Søren Schiønning Andersen, Mr Carsten Zornig, Mr Kim Voldby, Mr Søren K Jensen, Mr Marius Ejby Poulsen Observers: Mr Bo Johansen, Mr Lars Thygesen, Ms Naja Andersen
Day 2 – Tuesday 13 January 2015				
09.00 – 10.30	8	Methodology, data collection, data processing and administrative data (CoP principles 2, 7 and 8)	Statistics Denmark	Mr Lars Thygesen, Mr Niels Ploug, Mr Peter T Stoltze, Mr Henrik Bang, Mr Carsten Zornig, Mr Casper Winther Observers: Mr Mogens Grosen Nielsen, Mr Peter Linde, Ms Naja Andersen, Ms Karin Blix,
10.30 – 10.45		Coffee break		
10.45 – 12.00	8	Methodology, data collection, data processing and administrative data (CoP principles 2, 7 and 8) – cont.	Statistics Denmark	Mr Lars Thygesen, Mr Niels Ploug, Mr Peter T Stoltze, Mr Henrik Bang, Mr Carsten Zornig, Mr Casper Winther Observers: Mr Mogens Grosen Nielsen, Mr Peter Linde, Ms Naja Andersen, Ms Karin Blix,
12.00 – 13.00		Lunch		

Time		Programme	Organisation	Participants
13.00 – 14.30	9	Meeting with main users – Ministries and other public/private institutions (including Central Bank as a user)		Mr Niels Arne Dam, Ms Tine Mercebach, Mr Martin Nygaard Jørgensen, Ms Dorthe Høeg Koch, Mr Michael Lund, Ms Lene Andersen Observers: Ms Kirsten Wismer, Mr Niels Ploug, Ms Naja Andersen
14.30 – 14.45		Coffee break		
14.45 – 16.00	10	Meeting with main users – Scientific community		Ms Mie Dalskov Pihl, Mr Gunnar Gislason, Mr Esben Agerbo, Observers: Mr Lars Thygesen, Mr Ivan Thaulow, Ms Naja Andersen
16.00 – 17.15	11	Meeting with main users - Media		Mr Lars Erik Skovgaard, Mr Thomas Bernt Henriksen, Mr Tage Otkjær, Observers: Mr Lars Thygesen, Mr Carsten Zangenberg, Ms Naja Andersen
Day 3– Wednesday 14 January 2015				
9.00 – 10.30	12	Meeting with data providers		Mr Lars Knudsen, Mr Ove Holm, Mr Klaus Rasmussen, Mr Jacob Thiel, Mr Claus Ørum Mogensen, Ms Janicke Schultz-Petersen Observers: Mr Lars Thygesen, Ms Hanne-Pernille Stax, Ms Naja Andersen
10.30 - 10.45		Coffee break		
10.45 -12.00	13	Quality (organisational structure, tools, monitoring, ...) (CoP principles 4 and 11 to 15)	Statistics Denmark	Mr Lars Thygesen, Mr Niels Ploug, Ms Kirsten Wismer, Mr Søren Schiønning Andersen, Mr Mogens Grosen Nielsen, Ms Karin Blix, Mr Peter T Stoltze, Observers: Ms Naja Andersen
12.00 – 12.45		Lunch + Presentation of PSD Social statistics database by Niels Ploug		
12.45 – 14.00	14	Implementation of Quality management: concrete example and discussion. Example: The LFS production process by Michael Frosch	Statistics Denmark	Mr Lars Thygesen, Mr Niels Ploug, Ms Kirsten Wismer, Mr Søren Schiønning Andersen, Mr Mogens Grosen Nielsen, Mr Peter T Stoltze, Ms Karin Blix, Mr Sven Egmos, Mr Michael Frosch Observers: Ms Naja Andersen
14.00 – 14.45	15	Cooperation / level of integration of the ESS	Statistics Denmark	Mr Jørgen Elmeskov, Mr Lars Thygesen, Mr Kim Voldby, Observers: Ms Naja Andersen
14.45 – 15.00		Coffee break + Presentation of Employee satisfaction survey and Management evaluation survey by Marius Ejby Poulsen		
15.00 – 16.00	16	Meeting with Danish Immigration Service	Danish Immigration Service	Mr Thomas Mortensen, Ms Louise Ersbøll Leimand Observers: Mr Lars Thygesen, Mr Kim Voldby, Ms Naja Andersen, Mr Thomas Klintefeldt
16.00 – 17.00	17	Meeting with representatives from the Board of Statistics Denmark	Statistics Denmark	Mr Peter Gorm Hansen, Ms Elsebeth Lyng, Observers: Mr Lars Thygesen, Ms Naja Andersen
Day 4– Thursday 15 January 2015				
09.00 – 10.30	18	Dissemination, including user's consultation (CoP principles 6, 11 and 15)	Statistics Denmark	Mr Lars Thygesen, Mr Niels Ploug, Ms Kirsten Wismer, Mr Søren Schiønning Andersen, Mr Carsten Zangenberg, Ms Annegrete Wulff Observers: Ms Naja Andersen

Time		Programme	Organisation	Participants
10.30 – 10.45		Coffee break		
10.45 – 11.45	19	Meeting with Danish Agri-Fish Agency	Danish Agri-Fish Agency	Mr Troels Pade, Ms Sidsel B. Meier Observers: Mr Kim Voldby, Mr Peter Vig Jensen, Ms Naja Andersen
11.45 – 12.30	20	Confidentiality (CoP principles 5)	Statistics Denmark	Mr Lars Thygesen, Mr Torben Søborg, Mr Peter Bøegh Nielsen, Mr Kim Voldby Observers: Ms Naja Andersen
12.30 – 13.15		Lunch + Presentation of Statistics Denmark's IT organisation by Torben Søborg		
13.15 – 14.15	21	Meeting with Danish Environmental Protection Agency	Danish Environmental Protection Agency	Mr Mikkel Stenbæk Hansen, Mr Bo Møller Gottlieb, Mr Christian Fischer, Mr Jens Michael Poulsen, Mr Anne Nielsen Observers: Mr Lars Thygesen, Mr Kim Voldby, Ms Naja Andersen
14.15 – 15.15	22	Meeting with the Ministry of Economic Affairs and the Interior re. The Ministry's role in the management of Statistics Denmark resources and HR matters		Ms Cecilie Brøkner, Mr Palle Dam Leegaard Observers: Mr Kim Voldby, Ms Naja Andersen
15.15 – 15.30		Coffee Break		
15.30 – 17.00	23	Meeting with Junior Staff	Statistics Denmark	Ms Anette Hertz, Ms Katrine Sæe, Mr Jonas Giefeldt, Mr Lars Jacobsen, Ms Susanne Maibom Theilgaard, Mr Rasmus Ostenfeld Firla-Holme, Mr Niels Pelle Wang Holm, Mr Jes Ravnbøl,
Day 5– Friday 16 January 2015				
09.00 – 11.30	24	PR team discussion	PR Team	PR team
11.30 – 11.45		Coffee break		
11.45 – 13.00	25	Clarifications, remaining or additional issues and focus areas	Statistics Denmark	Mr Jørgen Elmeskov, Mr Lars Thygesen, Ms Karin Ravn, Mr Kim Voldby, Ms Naja Andersen, Ms Camilla Leth
13.00 – 14.00		Lunch		
14.00 – 16.00	26	Meeting with senior management: conclusions and recommendations	Statistics Denmark	Mr Jørgen Elmeskov, Mr Lars Thygesen, Mr Niels Ploug, Mr Søren Schiønning Andersen, Ms Kirsten Wismer, Ms Karin Ravn, Mr Kim Voldby Observers: Ms Karin Blix, Ms Naja Anderse

ANNEX B - LIST OF PARTICIPANTS

	Peer reviewers
1	Mr Jean-Michel Durr (chair)
2	Ms Michelle Jouvenal
3	Mr Adrian Redmond
	Eurostat observer
4	Ms Zsuzsanna Kovacs, Administrator in Unit D4. Government Finance Statistics – Risk and quality management, Eurostat
	Management Statistics Denmark
5	Mr Jørgen Elmeskov, National Statistician
6	Mr Lars Thygesen, Director Sales and Marketing
7	Mr Niels Ploug, Director Social Statistics
8	Mr Søren Schiønning Andersen, Director Business Statistics
9	Ms Kirsten Wismer, Director Economic Statistics
10	Ms Karin Ravn, Director User Services
11	Mr Kim Voldby, Head of division, Management office
12	Peer review coordinator team Statistics Denmark
13	Ms Naja Andersen, Head of section, Management office
14	Ms Anja Stiil, Senior head clerk, Management office
	Other participants from Statistics Denmark
15	Mr Bo Johansen, Chief advisor, Management office
16	Mr Carsten Zornig, Head of division, Business Surveys
17	Mr Søren K Jensen, Head of Finance
18	Mr Marius Ejby Poulsen, Head of HR
19	Mr Peter T Stoltze, Deputy head of division, Research and methods
20	Mr Henrik Bang, Head of division, Population
21	Mr Casper Winther, Deputy head of division, External economy
22	Mr Mogens Grosen Nielsen, Chief Advisor, Research and methods
23	Mr Peter Linde, Head of division, Survey
24	Ms Karin Blix, Quality Coordinator, Research and methods
25	Mr Ivan Thaulow, Head of division, Research and Methods
26	Mr Carsten Zangenberg, Head of Communication
27	Ms Hanne-Pernille Stax, Deputy head of division, Business Surveys
28	Mr Thomas Klintefeldt, Chief Advisor, Population, Statistics Denmark
29	Ms Annegrete Wulff, Head of division, Communication

30	Mr Peter Vig Jensen, Head of division, Food Industries, Statistics Denmark
31	Mr Torben Søborg, Head of division, IT
32	Mr Peter Bøegh Nielsen, Head of division, Business Dynamics
33	Mr Sven Egmos, Head of division, Labour market statistics
34	Mr Michael Frosch, Senior advisor, Labour market statistics
35	Ms Camilla Leth, Chief advisor, Personnel
	Junior staff Statistics Denmark
36	Ms Anette Hertz, Head of section, External Economy
37	Ms Katrine Søre, Head of section, Government finances
38	Mr Jonas Gielfeldt, Head of section, Labour market
39	Mr Lars Jacobsen, Head of section, Research and methods
40	Ms Susanne Maibom Theilgaard, Head clerk, Business Dynamics
41	Mr Rasmus Ostenfeld Firla-Holme, Head of section, Business Surveys
42	Mr Niels Pelle Wang Holm, Head of section, Finance and Service
43	Mr Jes Ravnbøl, Head of section, Short term statistics
	Participants from the Board of Statistics Denmark
44	Mr Peter Gorm Hansen, Member of the Board of Statistics Denmark (Vice-Chair)
45	Ms Elsebeth Lynge, Member of the Board of Statistics Denmark
	Representatives of main users, data providers/respondents
46	Mr Niels Arne Dam, Assistant Head of the Domestic Economy Division, Danmarks Nationalbank (Central Bank of Denmark)
47	Ms Tine Mercebach, Chief advisor, Danish Agency for Labour Market and Recruitment Mr Martin Nygaard Jørgensen, Head of division, Ministry of Economic Affairs and the Interior
48	Ms Dorthe Høeg Koch, Chief advisor, Ministry of Business and Growth Denmark
49	Mr Niels Arne Dam, Assistant Head of the Domestic Economy Division, Danmarks Nationalbank (Central Bank of Denmark)
50	Ms Tine Mercebach, Chief advisor, Danish Agency for Labour Market and Recruitment Mr Martin Nygaard Jørgensen, Head of division, Ministry of Economic Affairs and the Interior
51	Mr Michael Lund, Chief advisor, Danish Ministry of Finance
52	Ms Lene Andersen, Senior advisor, Danish Ministry of Finance
53	Ms Mie Dalskov Pihl, Chief analyst, The Economic Council of the Labour Movement
54	Mr Gunnar Gislason, Professor, Department of Cardiology, Gentofte Hospital
55	Mr Esben Agerbo, Professor, National Centre for Register-based Research,
56	Mr Lars Erik Skovgaard, Reporter, Berlingske Tidende
57	Mr Thomas Bernt Henriksen, Editor Economic Affairs, Børsen

58	Mr Tage Otkjær, Editor Economic Affairs, Politiken
59	Mr Lars Knudsen, Head of statistics, The Confederation of Danish Employers (DA)
60	Mr Ove Holm, Deputy-Director, Danish Transport and Logistics Association
61	Mr Klaus Rasmussen, Chief economist, Confederation of Danish Industry
62	Mr Jacob Thiel, Chief economist, the Danish Federation of Small and Medium Sized Enterprises
63	Mr Claus Ørum Mogensen, Head of division, Local Government Denmark (KL)
64	Ms Janicke Schultz-Petersen, Business advisor, MJK Automation
65	Ms Cecilie Brøkner, Head of division, Ministry of Economic Affairs and the Interior
66	Mr Palle Dam Leegaard, Senior advisor, Ministry of Economic Affairs and the Interior
	Participants from ONAs
67	Mr Thomas Mortensen, Head of division, Danish Immigration Service
68	Ms Louise Ersbøll Leimand, Chief advisor, Danish Immigration Service
69	Mr Troels Pade, Head of division, Data and risk assessment, Danish Agri-Fish Agency
70	Ms Sidsel B. Meier, Danish Agri-Fish Agency
71	Mr Bo Møller Gottlieb, Danish Environmental Protection Agency
72	Mr Mikkel Stenbæk Hansen, Head of unit, Danish Environmental Protection Agency
73	Mr Christian Fischer, Chief advisor, Danish Environmental Protection Agency
74	Mr Jens Michael Poulsen, Technician, Danish Environmental Protection Agency
75	Mr Anne Nielsen, Graduate engineer, Danish Environmental Protection Agency