

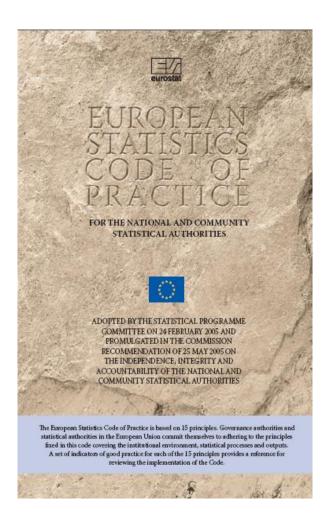
Naja Andersen, naj@dst.dk

23 - 26 March 2015

Activity 3.11: Quality Audit – III



### **European Statistics Code of Practice**



- 15 principles for official statistics – a overarching quality framework
- Adopted in 2005, Revised in 2011
- A set of indicators of good practice (a total of 82) is laid down for each of the Principles
- Quality Assurance Framework for principles 4, 7–15
- A self-regulatory instrument
- Implementation evaluated through peer reviews in the ESS



## The 15 Principles

# INSTITUTIONAL ENVIRONMENT

- Professional independence
- Mandate for data collection
- Adequacy of resources
- Commitment to Quality
- Statistical Confidentiality
- Impartiality and Objectivity

# STATISTICAL PROCESSES

- Sound Methodology
- Appropriate
   Statistical
   Procedures
- Non-excessive Burden on Respondents
- Cost–effectiveness

# STATISTICAL OUTPUT

- Relevance
- Accuracy and Reliability
- Timeliness and punctuality
- Coherence and comparability
- Accessibility and clarity



### Implementation of CoP in the ESS

- > 1st round of peer review
  - 2006-2008
  - Principles 1-6 and 15
  - Only NSIs



- European Statistical Governance Advisory Board (ESGAB) established in 2008
- Sponsorship on Quality
  - Recommendations (Report 2011)
    - Revision of the Code of Practice (Principle 1, 4 and 8)
    - New round of peer reviews with broader focus
    - Develop a Quality Assurance Framework 2011-12: Question framework for principles 4, 7-15



### Principle 4: Commitment to Quality.

Statistical authorities are committed to quality. They systematically and regularly identify strengths and weaknesses to continuously improve process and product quality.

Indicator 4.1: Quality policy is defined and made available to the public. An organizational structure and tools are in place to deal with quality management.

### Methods at institutional level

- A quality commitment statement. A Quality Commitment Statement is made publicly available, laying out principles and commitments related to quality in statistics which are consistent with the goals set out in the Mission and Vision statements.
- 2. An organizational structure for managing quality. There is a clear organizational structure for managing quality within the statistical authority<sup>1</sup>. Examples of such a structure are:
  - Quality Committee;
  - Quality Manager;
  - Centralized Quality unit;
  - Other structures (e.g. a selected group of staff trained as "quality pilots" to act as project/processes coach/advisers).
- Definition of Quality guidelines. Guidelines are defined on how to implement quality management within the statistical production process, comprising:
  - A description of the statistical production process and the identification of documentation for each stage, following the Business Process Model for Statistics or any other equivalent process representation;
  - A description of the methods to monitor the quality of each stage of the statistical production process.

### Indicator 4.2: Procedures are in place to plan and monitor the quality of the statistical production process.

#### Methods at institutional level

 Methodological and technical support and general tools. Methodological and technical support and general tools are provided by specialized / dedicated units, namely Quality, Methodology and IT, for implementing process quality monitoring/quality assurance plan.

### Methods at product/survey level

- Procedures to monitor process quality. Procedures are in place to monitor the quality of different stages of the statistical production, e.g. according to a quality assurance plan or a similar scheme, like the establishment of regular expert group meetings.
- 3. A quality assurance plan. The quality assurance plan, or any other similar scheme, describes the working standards, the formal obligations (such as laws and internal rules) and the set of quality control actions to prevent and monitor errors, to evaluate quality indicators and to control different points at each stage of the statistical process.

The quality assurance plan or any other similar scheme:

- takes user's needs into account and checks the relevance of the statistical process;
- ensures effective technical and organizational design;
- assures the quality of data collection, including the use of administrative data;
- assures the quality of data treatment (coding, editing, imputation and estimation);
- ensures the systematic examination of possible trade-offs within quality;
- makes information accessible and comprehensible to users, and collects reactions/feedback from users;
- ensures suitable metadata is provided to users to aid their understanding of quality.

## Peer review 2014-2015

 Includes all 28 EU member states and the Commission statistical authority, Eurostat

### Purpose:

- To evaluate the implementation of the European Statistics Code of Practice in Member States
- ...and thereby strengthen the credibility and capacity of the ESS

### Focus:

- Compliance with all 15 principles of the Code of Practice
- NSIs and Other National Statistics producers
- Coordination within the national statistical system
- Cooperation within the European statistical system



### **ESS Peer review 2014-2015**

Self-assessment

- NSI: Self-assessment questionnaire re. implementation of Code of Practice (350 questions based on QAF) + questionnaire on coordination in national statistical system and cooperation in ESS
- ONAs: "Light-self-evaluation" based on Code of Practice
- Documentation needed for all answers

Review visit

- Visits in all EU member states from August 2014 to June 2015 (DK: 12 16 January 2015)
- Team of 20 independent peer reviewers and observers from Eurostat
- 5 day visit to NSI audit-inspired approach
- Involvement of users (media, researchers, ministries etc.) and data providers
- Involvement of ONAs

Recommendations and improvement actions

- Review-report and recommendations (including NSIs 'diverging views')
- NSI formulates 'improvement actions' procedure for yearly monitoring
- Eurostat drafts final report to EU Parliament and ECOFIN-council

Indicator 1.4:						
The heads of the National Statistical Institutes and, where appropriate, the heads of other statistical authorities have the sole responsibility for deciding on statistical methods, standards and procedures, and on the content and timing of statistical releases.						
5.	The responsibility of the head of the NSI for deciding on statistical methods, standards and procedures, and on the content and timing of statistical releases is set up in law.  Not implemented   Yes, partly implemented   Yes, fully implemented   Please specify (e.g. citation of the relevant law, any other support documentation of evidence, procedures of implementation, obstacles and difficulties to implementation):					
6.	The choice of statistical methods, standards and procedures is free of Ministerial approval / interference.					
	Not implemented \( \subseteq \text{Yes, partly implemented } \subseteq \text{Yes, fully implemented } \subseteq \)					
	<b>Please specify</b> (e.g. support documentation of evidence, procedures of implementation, examples of interference if not implemented):					
7.	The content of statistical releases is free of Ministerial approval.					
	Not implemented \( \subseteq \text{Yes, partly implemented } \subseteq \text{Yes, fully implemented } \subseteq \)					
	<b>Please specify</b> (e.g. support documentation of evidence, procedures of implementation, examples of interference if not implemented):					
8.	The timing of statistical press releases is free of Ministerial approval / interference.					
	Not implemented \( \subseteq \text{Yes, partly implemented } \subseteq \text{Yes, fully implemented } \subseteq \)					
	<b>Please specify</b> (e.g. support documentation of evidence, procedures of implementation, examples of interference if not implemented):					





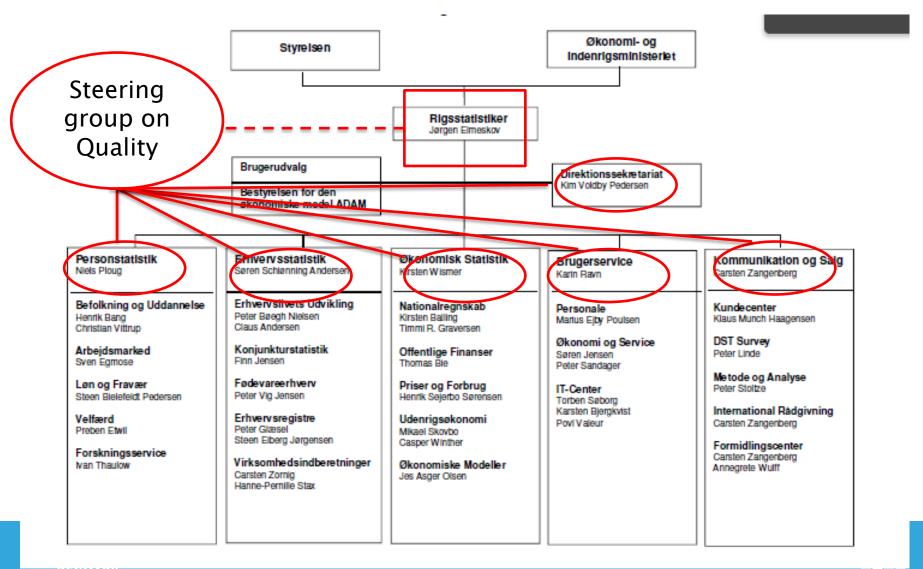
# Approach to peer review in SD

- Self-assessment as an opportunity to:
  - identify weaknesses
  - initiate improvement activities
  - raise awareness in SD about the CoP
- Top-management highly involved Quality Steering Committee (the 5 directors of SD and the head of the management office)
- Detailed information to all mid-level managers (written information and workshop)
- Information to all employees



# Organisation of peer review in SD

### **Involvement of top management**



DENMARK

# Organisation of peer review in SD

### **Self-assessment - responsibilities**

- Steering group on Quality responsible for the peer review self-assessment
  - Each member of the steering committee was responsible for drafting the answer to 2-3 principles and involving the relevant experts.
  - For each indicator a responsible expert was appointed to do a first draft
  - All answers discussed at the weekly meetings in the 5 departments
  - Discussion at steering group meetings, 1 hour per principle
  - Final approval by management (National statistician and directors)
- National peer review coordinator
  - Contact point for Eurostat and peer reviewers
  - Internal coordination (responsibilities, deadlines, documentation, harmonisation of answers etc.)



# Organisation of peer review in SD

### **Self-assessment - Process**

1st draft

- The responsible expert drafts first version of self-assessment answer to an indicator to principle 1
- The director responsible for principle 1 collects and edits all answers to the indicators of that principle

2nd draft

- First draft of self-assessment on principle 1 is discussed at the weekly meetings in the five departments and feedback is sent to the responsible director
- The director responsible for principle 1 edits the self-assessment together with the relevant experts

Final assessment

- Second draft of principle 1 is discussed at a meeting in the Steering group on Quality 2 and is revised accordingly
- Third draft is discussed and approved by the management
- · Final self assessment is approved by the management

# Organisation of peer review in SD Self-assessment - Information to SD staff

- Information meeting, mid-level management
  - Process and deadlines
  - Library for documentation at SD's intranet
  - How to complete questionnaire
    - Practical stuff: Language, max number of words, references
    - Content: Documentation needed for <u>all</u> answers, how to define whether something is partly og fully implemented?
  - Examples of completed questions
  - Information to all employees
    - National statistician speech
    - Information email
    - Internal magazine



### Indikator 6.7, spørgsmål 17

17.	17. Mechanisms are in place in the statistical authority to ensure equal access of a to statistics at predetermined times.  (Method: 6.7.2 at institutional level)						
	Not implemented ☐ Yes, partly implemented ☐ Yes, fully implemented ☐						
	Please specify (e.g. publication strategy, fixed release time):						
	All releases take place at 9:00:00 am. This regards the News releases on <a href="www.dst.dk">www.dst.dk</a> as well as <a href="www.StatBank.dk">www.dst.dk</a> tables. The punctual release is handled via a database system where one internet database is updated during the night, while another database is public on all the internet servers with "yesterday's news". At exactly 9:00:00 am a switch will give the public access to the updated version of the StatBank. The release date calendar for Statbank tables is not included in the Release calendar yet. Work is ongoing.						
	Other services available at 9:00.00: API.statbank.dk, alert service Datashoot <a href="http://www.dst.dk/da/OmDS/omweb/OmStatBank/2006/Datashoot1.aspx">http://www.dst.dk/da/OmDS/omweb/OmStatBank/2006/Datashoot1.aspx</a> , RSS <a href="http://www.dst.dk/da/OmDS/omweb/RSS.aspx">http://www.dst.dk/da/OmDS/omweb/RSS.aspx</a> Evt andet?						



Indicator 4.1:						
Quality policy is defined and made available to the public. An organizational structure and tools are in place to deal with quality management.						
iality Commitment Statement is made publicly available.						
(QAF Method: 4.1.1 at institutional level)						
mplemented  Yes, partly implemented  Yes, fully implemented						
<b>Please specify</b> (e.g. support documentation, link to website if publicly available, obstand difficulties to implementation):						
The quality policy is available both in Danish and English, and is publicly available on our website: <a href="http://www.dst.dk/">http://www.dst.dk/</a>						
Dette kræver at vi lægger den erklæring ud på vores hjemmeside, som er beskrevet i 014_04.1_01a_quality commitment statement						
e is a clear organizational structure for managing quality within the NSI.						
Method: 4.1.2 at institutional level)						
mplemented  Yes, partly implemented  Yes, fully implemented						
se specify (e.g. type – central/decentralized unit – and function of such organization, acles and difficulties to implementation):						
Quality manager has a formal status within the NSI and is working in a full time position uality matters ( <a href="http://dst.dk/en/OmDS/organisation.aspx">http://dst.dk/en/OmDS/organisation.aspx</a> ) NB: Dette kræver, at viør vores organisation, således at Metadata og kvalitet får en heltids kvalitetschef, som dinerer og overser kvalitetsarbejdet.  ality steering group at Directors' level is monitoring the work.						



### **Outcomes of the self-assessment**

### Findings:

- Overall high compliance with the CoP in SD
  - E.g. on independence, confidentiality, methods etc.
  - Use of administrative data in SD is very important in complying with the CoP, e.g. re. non-excessive burden on respondents, costeffectiveness, accuracy and reliability
- However, challenges regarding:
  - Principle 4: Commitment to quality
  - National coordination

### Activities 'inspired' by the self-assessment:

- Quality committee, quality policy, quality manager
- National coordination draft of action plan for official statistics in Denmark, December 2014
- CoP part of introduction programme to all new employess
- ...more



# Peer review visit 12 – 16 January 2015 in SD

- 3 peer reviewers and 1 observer from Eurostat
- Participation of all directors and National statistician
- Participation of relevant experts
- Participation of junior staff
- Participation of external participants
  - Main users: Ministries, Researchers, Journalists
  - Data providers Large business associations
  - The Board of Statistics Denmark
  - The Ministry of Economic Affairs and the Interior



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, pos- sibly, 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 Stiil			
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,	Statistics Denmark	Mr Lars Thygesen, Mr Niels Ploug, Mr Peter T			

data processing and

principles 2, 7 and 8)

administrative data (CoP

Stoltze, Mr Henrik Bang, Mr Carsten Zornig,

Observers: Mr Mogens Grosen Nielsen, Mr

Mr Casper Winther

# Outcome - Peer review report on compliance with the Code of Practice, DK

### Recommendations – 4 main themes

- Strengthen the institutional environment
  - Update the legislative framework
  - Establishing effective coordination in the national statistical system

### Ensure the sustainability of the NSS

- Ensure adequacy of resources
- Establish formal agreements with providers of administrative data
- Be prepared for changing environment Big data

### Continue efforts on quality and efficiency

- Improving response rates
- Moderating the perceived statistical burden
- Enforcing methodological standards
- Strengthening the quality audit process
- Improving organisational efficiency further implement GSBPM

### Enhance analysis and dissemination

- 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.



### **Next steps - improvement actions**

- Improvement actions for each recommendation
- Improvement actions need to be SMART
  - Specific Answer to "What?" "Why?" "Who?" "Where?" "Which?"
  - Measurable Answer to "How much?" "How many?" "How to know when the improvement action is accomplished?"
  - Attainable Is the improvement action realistically achievable?
  - Relevant Is the improvement action compatible with the recommendation?
  - Time-bound By when has the improvement action been implemented? Specific
- Improvement actions will be monitored by Eurostat every year



# Improvement actions - proces

- Directors are responsible for developing and implementing improvement actions within their fields of responsibility
- Improvement actions shall be approved by the management and the Board of SD
- Improvement actions follow Eurostat template



#### Updating the legal framework

 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).

#### Current situation:

#### Improvement action 1: Facilitate and take active part in the preparation for new legislation

Statistics Denmark will facilitate and take part in the preparation for new legislation in close cooperation with the Ministry of Economic Affairs and the Interior:

- 1.1. Statistics Denmark will provide input to and discuss with the Ministry of Economic Affairs and the Interior on issues relating to the implications of the revised regulation on European Statistics, the European Statistics Code of Practice and the recommendations from the 2014-2015 peer review exercise.
- 1.2. Statistics Denmark will launch a national consultation process to establish a clear definition of official statistics and discuss modalities for coordination and quality assurance of official statistics.

Statistics Denmark has prepared an action plan for official statistics and ways to enhance coordination within the NSS, which has been sent to all national statistics producers for comments. On this basis, SD will arrange dialogue meetings with national producers with the aim to establish a clear definition of official statistics, common quality criteria for official statistics and modalities for monitoring the quality of official statistics (periodic reviews). This in order to provide a basis for including provisions on the coordinating role of SD in a new law.

1.3. Possibly an inter-ministerial committee will be established to prepare the proposal for a new law on Danish statistics and in that case Statistics Denmark will take active part in this committee.

#### Timeline:

- 1.1. T: Q4 2015
- 1.2. T: Q1 2016
- 1.3. T: Q4 2016
  - 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).

#### Current situation:

Improvement action 2: See improvement action 1.1 and 1.3.

Timeline: See improvement action 1.1 and 1.3.

### Peer reviewer's recommendations and improvement actions in response to the recommendations

#### Enhance work on quality and methodology

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

#### Current situation:

In Statistics Denmark parts of the production processes are already organized by functions e.g. dissemination and data collection...

#### Improvement action 18 Align further to the GSBPM

18.1. In connection with the development of a quality management system we are updating the process model for Statistics Denmark, which is based on GSBPM.

In general, we prepare moving towards more standardization in the production processes by preparing more detailed guidelines and examples of best practices on single processes in GSBPM.

As a part of current reform initiatives in Statistics Denmark, we aim to align even further to GSBPM i.a. by establishing a unit to handle large enterprise groups and by centralizing IT-personnel.

#### Timeline:

T: Establishing a unit to handle large enterprise groups -2016

T: Centralizing IT-personnel - 2016.

#### Peer reviewer's recommendations and improvement actions in response to the recommendations

#### Enhance dissemination and accessibility

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

#### Current situation:

All statistics are available in English on the website and in StatBank.dk. However, only some publications are available in English: The Statistical Yearbook, Denmark in Figures, the introduction to topics on the subject pages at dst.dk, Key economic indicators as well as the quality declarations documenting the statistics.

#### Improvement action 23: Conduct feasibility study on publishing parts of the daily statistical releases in English

23.1. Statistics Denmark will assess whether part of the daily "News from Statistics Denmark" could be written in English and presented on the website. This might be done by the authors of the individual "News". It will also be considered to have the authors of the "News" write the headline of the "News" in English in the same process as writing the Danish version. However, it must be ensured that an English translation does not delay statistical releases.

#### Timeline<sup>2</sup>:

T: A feasibility study will be conducted by 2016.

# Preliminary experiences from other countries

- Peer review exercise has been well executed
- Overall high level of compliance in the ESS
- Several countries have received recommendations re.
  - National coordination
  - User involvement and user orientation
  - Standardisation of processes
  - Quality management
  - Use of administrative data
- Reports and improvement actions available at: http://ec.europa.eu/eurostat/web/quality/peer-reviews

