Introduction to QAF and self assessment

Component A: Quality Management of Official Statistics
Activity A.2: Introduction to tools and processes supporting the Code of Practice (CoP)

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EU TWINNING PROJECT 2016-2018
ENHANCING THE QUALITY OF OFFICIAL STATISTICS
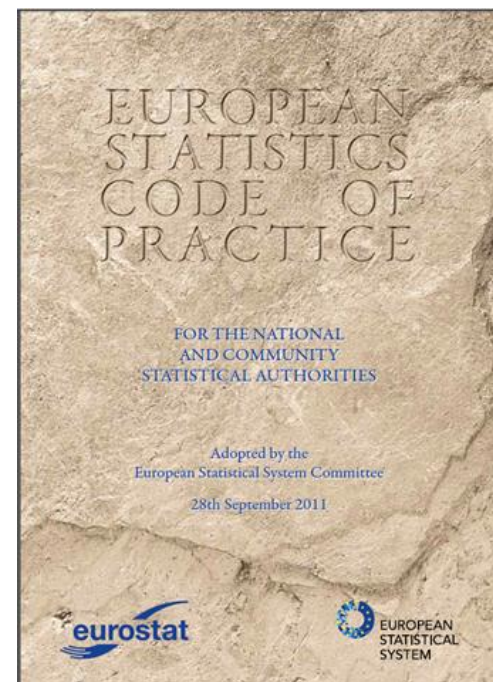
STATISTICS DENMARK

Quality framework

- European frame:
  - European statistics Code of Practice (CoP)
  - ESS Quality Assurance Framework
  - Peer Reviews

- Local frame
  - Quality awareness in dissemination of statistics
    - Documentation of statistics
    - Other metadata
    - User involvement
  - Quality awareness in the production of statistics
    - EU cooperation
    - Guidance from the methods department
    - Extensive use of administrative registers
    - Quality audits

Code of Practice (CoP)

- European statistics code of practice
  - First published in 2005 and updated in 2011
- Builds on UN's Fundamental principles for Statistics
  - Published in 1994
- 15 principles
  - Institutional environment
  - Statistical processes
  - Statistical output
- A set of indicators for good practice for each principle

EUROPEAN STATISTICS CODE OF PRACTICE

FOR THE NATIONAL AND COMMUNITY STATISTICAL AUTHORITIES

Adopted by the European Statistical System Committee

28th September 2011

eurostat

EUROPEAN STATISTICAL SYSTEM

....about quality

- **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.
    - **Indicator 4.2:** Procedures are in place to plan and monitor the quality of the statistical production process.
    - **Indicator 4.3:** Product quality is regularly monitored, assessed with regard to possible trade-offs, and reported according to the quality criteria for European Statistics.
    - **Indicator 4.4:** There is a regular and thorough review of the key statistical outputs using also external experts where appropriate.

    - http://dst.dk/en/OmDS/strategi-og-kvalitet/kvalitetspolitik

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Quality Assurance Framework (QAF)

- QAF is developed to assist the implementation of CoP
- In QAF possible activities, methods and tools to help achieving the goals in the principles of CoP
- A distinction is made between initiatives at the institutional level and at the level individual statistics
- Not all 15 principles are referred to
  - 4 Commitment to quality
  - Principles for statistical processes
  - Principles for statistical output

Quality Assurance Framework of the European Statistical System

EUROPEAN STATISTICAL SYSTEM

Version 1.2

Example from QAF

Principle 6 – Impartiality and Objectivity

Statistical authorities develop, produce and disseminate European Statistics respecting scientific independence and in an objective, professional and transparent manner in which all users are treated equitably.

Indicator 6.1 – Statistics are compiled on an objective basis determined by statistical considerations.

Methods at institutional level

1. **Guidelines on impartiality and objectivity.** Guidelines for assuring impartiality and objectivity exist at the statistical authority and are made known to statistical staff. The implementation of the guidelines is monitored.

2. **Objectivity of selection of external partners.** The criteria for the selection of external partners[8] to conduct statistical surveys/work of the statistical authority are objective and made public.

Methods at product/process level

3. **Methodological objectivity and best practices.** Sources, concepts, methods, processes and data dissemination channels are chosen on the basis of statistical considerations and national and international principles and good practices.

Self –assessment in SD

- Assisted self-assessment
- The ESS CoP as basis
- Each of the indicators from Principle 4 are evaluated
- QAF is used for inspiration on the level of single statistics
- Degree of compliance
  - A – Most of the demands fulfilled, including documentation
  - B – Some of th demands fulfilled, but still some missing
  - C – Only few of the demands fulfilled, much missing
  - X – not relevant

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The "audit" in A2

- This mission: A-C
  - Introduction to the audit
  - Self-assessment form
  - Documentation
- CoP – ENP South countries
- QAF
- What documentation?

Example – self-assessment

- Two preliminary questions
- Ensuring reflection of the purpose

Preliminary questions	Answers
a) What is the purpose of these statistics?	
b) What are you doing to live up to this purpose?	

Example –Principle 4

Principle	Indicator	Self-evaluation	
		Degree of com- pliance	Specificy - strenghts, weaknesses - comments
4. **Commitment ro quality**	This relates to actions taken regarding the production of this survey/statistics. It can be for example a plan for quality assurance - in the form of checklists, built-in controls etc.		
	2	Procedures are in place to plan and monitor the quality of the statistical production and dissemination processes.		
	3	Product quality is regularly monitored, assessed with regard to possible trade-offs, and reported according to the quality criteria for Official Statistics.		

Indicator 4.3: Product quality is regularly monitored, assessed with regard to possible trade-offs, and reported according to the quality criteria for European Statistics.

Methods at institutional level

1. **Procedures to monitor product quality.** Procedures based on quality reporting are in place to internally monitor product quality. Results are analysed regularly and senior management is informed in order to decide improving actions.

2. **User satisfaction surveys.** User satisfaction surveys or other indirect methods are implemented on a regular basis and their results are made public and incorporated where useful in Quality Reports, since they monitor "Relevance", amongst other dimensions.

Methods at product/process level

3. **User oriented quality reports.** User oriented quality reports are made public, bearing in mind the standards for reference metadata and quality indicators, in particular the Single Integrated Metadata Structure (SIMS).

4. **Producer oriented quality reports.** Producer oriented quality reports are published regularly (periodicity to be determined: e.g. by the specific Regulation and the survey life cycle), bearing in mind the standards for reference metadata and quality indicators, in particular the Single Integrated Metadata Structure (SIMS).

5. **Product quality monitoring.** Users and producers quality reporting is used for regular quality monitoring over time.

Example – Principle 4 - Ph.D. statistics

Principle	Indicator		Self-evaluation	
			Degree of com-pliance	Specificy - strenghts, weaknesses - comments
4. **Commitment ro quality**	This relates to actions taken regarding the production of this survey/statistics. It can be for example a plan for quality assurance - in the form of checklists, built-in controls etc.			
	2	Procedures are in place to plan and monitor the quality of the statistical production and dissemination processes.	A	There is an ongoing evaluation of the procedures that are rutinely under development. The production process is described in the PhD production system
	3	Product quality is regularly monitored, assessed with regard to possible trade-offs, and reported according to the quality criteria for Official Statistics.	A	Quality control is carried out continuously as well as individual-institution level. This notification is xml format or excel - both with built-in data quality checks. There also kept up meetings with external users.

- Could ask for a description of the latest changes or a description of how the evaluation takes place
- Could ask for a description of the quality controls/desk instructions

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Example – Principle 6

6.	Impartiality and objectivity	This is about special measures taken in connection with these statistics to ensure impartiality and objectivity. This may be related to the choice of methods - guidelines are provided to follow a professional assessment of "best practices", a description of methods and processes used is published, e.g. in the documentation of the statistics, errors detected in the statistics are corrected and the corrections announced.		
		1	Statistics are compiled on an objective basis determined by statistical considerations.	
		2	Choices of sources and statistical methods as well as decisions about the dissemination of statistics are informed by statistical considerations.	
		3	Errors discovered in publish statistics are corrected at th earliest possible date and publicised.	
		4	Information on the methods procedures used is publicly available.	
		5	Statistical release dates and are pre-announced.	
		7	All users have equal access statistical releases at the sa time. Any privileged pre-rele access to any outside user limited, controlled and publi In the event that leaks occu release arrangements are r so as to ensure impartiality.	

Indicator 6.1 – Statistics are compiled on an objective basis determined by statistical considerations.

Methods at institutional level

1. **Guidelines on impartiality and objectivity.** Guidelines for assuring impartiality and objectivity exist at the statistical authority and are made known to statistical staff. The implementation of the guidelines is monitored.

2. **Objectivity of selection of external partners.** The criteria for the selection of external partners[8] to conduct statistical surveys/work of the statistical authority are objective and made public.

Methods at product/process level

3. **Methodological objectivity and best practices.** Sources, concepts, methods, processes and data dissemination channels are chosen on the basis of statistical considerations and national and international principles and good practices.

Example – Principle 6 - Ph.D. statistics

6.	Impartiality and objectivity	This is about special measures taken in connection with these statistics to ensure impartiality and objectivity. This may be related to the choice of methods - guidelines are provided to follow a professional assessment of "best practices", a description of methods and processes used is published, e.g. in the documentation of the statistics, errors detected in the statistics are corrected and the corrections announced.		
		1	Statistics are compiled on an objective basis determined by statistical considerations.	A	In the preparation of this statistic the instructions in the Strategy 2020 is followe as described in the Documentation of the PhD statistics
		2	Choices of sources and statistical methods as well as decisions about the dissemination of statistics are informed by statistical considerations.	A	Statistics sources and methods are chosen based on statistical criteria and strategy 2020 is followed, as described in the Statistical Documentation. There is a technical cooperation with the Ministry about statistics, and in some cases with the source selection take place in cooperation with the Ministry of Higher Education and Science. The Ministry is not involved in the choice of method.
		3	Errors discovered in published statistics are corrected at the earliest possible date and publicised.	A	If errors is dicovered, the internal policy rules established and desribed by Statistics Denmark will be followed
		4	Information on the methods and procedures used is publicly available.	A	Desribed in the Documentation of the PhD statistics
		5	Statistical release dates and times are pre-announced.	A	Dates for publication will be announced in the release calendar on dst.dk
		7	All users have equal access to statistical releases at the same time. Any privileged pre-release access to any outside user is limited, controlled and publicised. In the event that leaks occur, pre-release arrangements are revised so as to ensure impartiality.	A	In this area, the internal rules established for Statistics Denmark are followed. No external users will gain access to the data prior to the publication by Statistics Denmark.

Example – Principle 11

11.	Relevance	This is about special measures taken in connection with these statistics to ensure that users' needs are satisfied. Some measures could be regular contact with users in different foras of users, regular meetings with important users. Others could involve maintaining lists of users who can be contacted to investigate whether the statistics satisfy their needs etc .		
		1	Processes are in place to consult users, monitor the relevance and utility of existing statistics in meeting their needs, and	
		2	Priority needs are being reflected in the work prog	
		3	User satisfaction is monit a regular basis and is systematically followed u	

Indicator 11.1: Processes are in place to consult users, monitor the relevance and utility of existing statistics in meeting their needs, and consider their emerging needs and priorities.

Methods at institutional level

1. **Legislation on user consultation.** The statistical laws (National and European) include an obligation to consult users.

2. **User consultation activities.** Regular and structured activities for the consultation of users, including for instance a users' Committee, are in place focusing on both, the content of the statistical programme and the product quality of the statistics.

3. **Analysis of the data on the use of statistics.** Data on the use of statistics (e.g. evaluation of downloads, subscribers of reports) are analysed to support priority setting and user consultation.

Methods at product/process level

4. **A classification of users.** A classification of users of a given product is regularly updated and made available.

5. **A list of key users and their data uses.** A list of key users and their data uses, including a list of unmet user needs, is regularly updated and made available.

6. **User consultation procedures.** Procedures for user consultation on the statistics are in place.

7. **Relevance measurement and assessment.** Quality indicator(s) on relevance are regularly assessed.

Example – Principle 11- Ph.D. statistics

11. Relevance	This is about special measures taken in connection with these statistics to ensure that users' needs are satisfied. Some measures could be regular contact with users in different foras of users, regular meetings with important users. Others could involve maintaining lists of users who can be contacted to investigate whether the statistics satisfy their needs etc .			
	1	Processes are in place to consult users, monitor the relevance and utility of existing statistics in meeting their needs, and	A	Regularly meetings with Ministry of Education and Science and annual meetings with the Danish Agency for Science, Technology and Innovation. Also regular meetings with the data provider, the Contact Committee for Education and the Liaison Committee of research statistics. In addition, the use of Statistics Bank is monitored
	2	Priority needs are being met and reflected in the work programme.	A	Described in the working plan
	3	User satisfaction is monitored on a regular basis and is systematically followed up.	B	See also section 11.1. When tailor made data is provided customer satisfaction is automatically collected. In addition, follow-up systematically on user satisfaction

- Could ask for minutes from a meeting
- Could ask for the working plan
- Could ask for a filled in customer satisfactory form