

Output documentation

Component A: Quality Management of Official Statistics
Activity A.7: Integrating the elements for quality management in the ICBS

3.-5. September 2017

Karin Blix, Quality Coordinator, Statistics Denmark, kwb@dst.dk

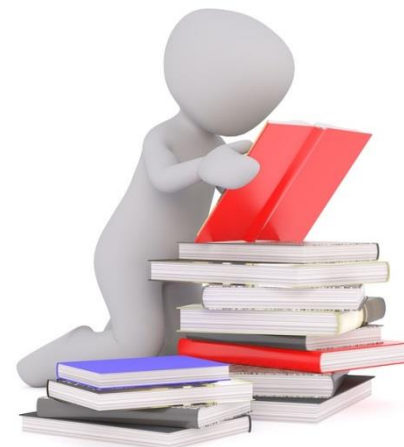
Rasmus Anker Kristiansen, Head of section, Statistics Denmark, rkr@dst.dk



Output documentation

Topics from ToR:

- Practical implementation of workflow
 - Supporting standards
 - At what level are metadata produced
 - Linkage to the component of the output documentation
- Internal and external users
- Integrations with other standards



Supporting standard

- New system for quality reporting in 2015
 - From October 2015 – Documentation of statistics
 - Colectica - DDI
 - GSIM
 - SIMS

EURO-SDMX Metadata Structure (Dec 2010)

1	Contact
2	Metadata update
3	Statistical presentation
4	Unit of measure
5	Reference period
6	Institutional mandate
7	Confidentiality
8	Release policy
9	Frequency of dissemination
10	Dissemination format
11	Accessibility of documentation
12	Quality management
12.1	Quality assurance
12.2	Quality assessment
13	Relevance
14	Accuracy and reliability
15	Timeliness and punctuality
16	Comparability
17	Coherence
18	Cost and burden
19	Data revision
20	Statistical processing
21	Comment

Single Integrated Metadata Structure

S.1	Contact
S.2	Introduction
S.3	Metadata update
S.4	Statistical presentation
S.5	Unit of measure
S.6	Reference period
S.7	Institutional mandate
S.8	Confidentiality
S.9	Release policy
S.10	Frequency of dissemination
S.11	Dissemination format, Accessibility and clarity
S.12	Accessibility of documentation
S.13	Quality management
S.13.1	Quality assurance
S.13.2	Quality assessment
S.14	Relevance
S.15	Accuracy and reliability
S.16	Timeliness and punctuality
S.17	Comparability
S.18	Coherence
S.19	Cost and burden
S.20	Data revision
S.21	Statistical processing
S.22	Comment

ESS Standard for Quality Reports Structure

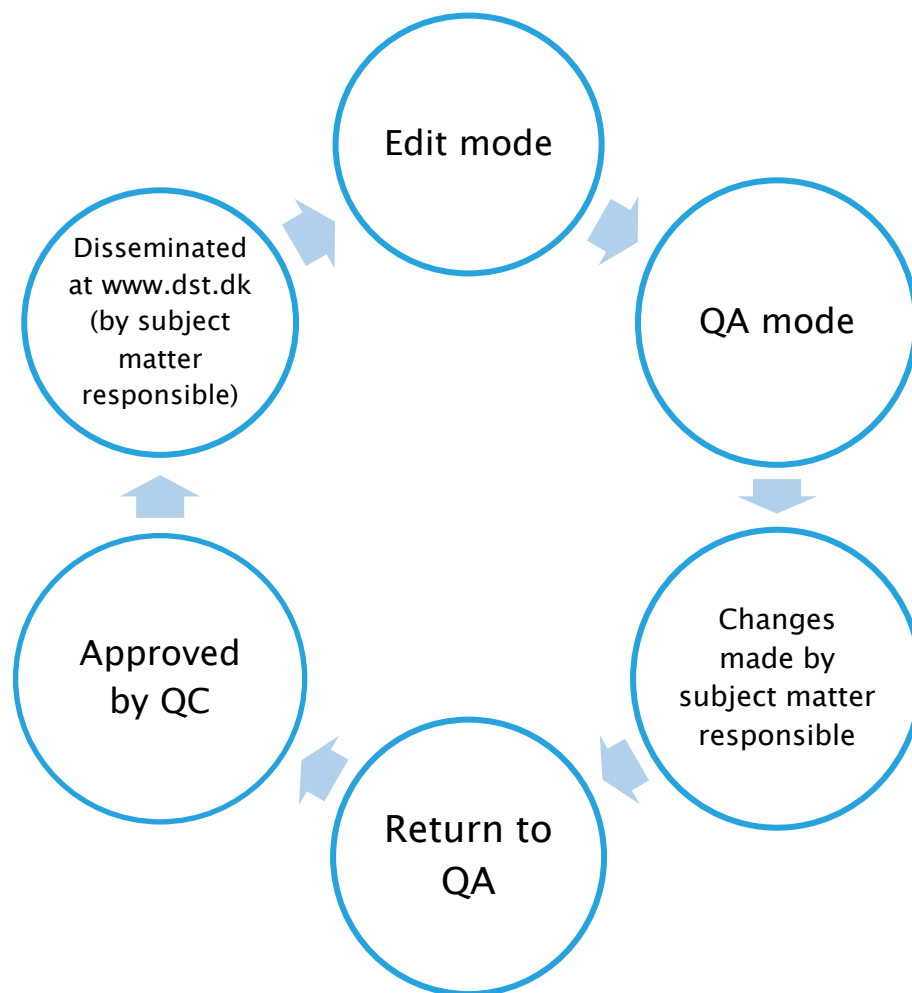
I	Contact
II	Introduction
XI	Confidentiality
VII	Accessibility and clarity
III	Quality assessment
IV	Relevance
V	Accuracy and reliability
VI	Timeliness and punctuality
VIII	Comparability
IX	Coherence
X	Cost and Burden
V.3.6	Data revision
XII	Statistical Processing
XIII	Comment



Documentation of statistics

- Cycle:
 - Every new dissemination of statistics followed by an updated documentation of statistics
 - Send to Quality Assurance
 - QA reads and comments
 - Subject matter responsible updates – new QA
 - Ready for dissemination

Cycle for Documentation of statistics



Metadata in subject structure – level 1

The screenshot shows a web browser window with the URL <http://www.dst.dk/en/Statistik/dokumentation/documentation>. The page features the Statistics Denmark logo and a search bar. A navigation bar includes links for 'Find statistics', 'Documentation', and 'Documentation of statistics'. A 'SHARE THIS PAGE' section contains social media icons for Twitter, Facebook, LinkedIn, and Email. The main heading is 'DOCUMENTATION OF STATISTICS', followed by the text 'Each of the statistical products is described in Documentation of statistics.' Below this is a section titled 'Browse documentation of statistics' with a list of subjects: Population and elections, Living conditions, Education and knowledge, Culture and National Church, Labour, income and wealth, Prices and consumption, National accounts and government finances, Money and credit market, External economy, Business sector in general, Business sectors, Geography, environment and energy, and Other. A blue vertical menu bar is on the right side of the page.

STATISTICS DENMARK

SEARCH

MENU

Find statistics | Documentation | Documentation of statistics

SHARE THIS PAGE

Twitter Facebook LinkedIn Email

DOCUMENTATION OF STATISTICS

Each of the statistical products is described in Documentation of statistics.

Browse documentation of statistics

- Population and elections
- Living conditions
- Education and knowledge
- Culture and National Church
- Labour, income and wealth
- Prices and consumption
- National accounts and government finances
- Money and credit market
- External economy
- Business sector in general
- Business sectors
- Geography, environment and energy
- Other

Subject structure level 2

The screenshot shows the Statistics Denmark website. The browser address bar displays the URL <http://www.dst.dk/en/Statistik/documentation/documentation>. The page header includes the Statistics Denmark logo, a search bar, and a menu icon. Below the header, a breadcrumb trail reads: [Find statistics](#) | [Documentation](#) | [Documentation of statistics](#). The main content area is titled 'DOCUMENTATION OF STATISTICS' and includes a sub-header: 'Each of the statistical products is described in Documentation of statistics.' The page features a list of statistical products with expandable sections:

- [Browse documentation of statistics](#) (expanded)
- POPULATION AND ELECTIONS**
 - [Population and population projections](#) (expanded)
 - [Population Projections for Denmark](#)
 - [Urban Areas](#)
 - [The Population](#)
 - [Immigrants and their descendants](#)
 - [Births](#)



Subject structure level 3

The screenshot shows a web browser window with the URL <http://www.dst.dk/en/Statistik/dokumentation/documentation>. The page title is "POPULATION PROJECTIONS FOR DENMARK".

SHARE THIS PAGE

Twitter, Facebook, LinkedIn, Email

SUBPAGES

- Statistical presentation
- Statistical processing
- Relevance
- Accuracy and reliability
- Timeliness and punctuality
- Comparability
- Accessibility and clarity

POPULATION PROJECTIONS FOR DENMARK

Every year in February Statistics Denmark provides DREAM with updated data regarding immigration, emigration, live births, deaths and change in citizenship, which can be broken down by gender, age and ancestry. It is then DREAM who run the actual projection model for the whole of Denmark. Statistics Denmark and DREAM discuss the assumptions in the model regarding migration, fertility and mortality in order to assess whether changes in methodology are necessary. When the model is declared ready, DREAM provides Statistics Denmark with data. These data are both the foundation for the published statistics for the projection for the entire country as well as important background data for the regional models, which Statistics Denmark run.

Statistics Denmark has made population projections since 1963. In the beginning it didn't happen on an annual basis. With few exceptions annual projections has been made since 1978. Often several scenarios have been published. Now only one scenario is made with one set of assumptions.

From 2010 and onwards Statistics Denmark has made the projection for the entire country in cooperation with DREAM. The methods in the new common model were primarily based on DREAM's former projections. DREAM's experience with more advanced methods within eg mortality was an important reason why the common projection is based on DREAM's former projection. On DREAM's website there is thorough description in Danish of the methods within all the areas of the projection.

CONTACT INFO

Population and Education, Social Statistics
Annika Klintefelt
+45 39 17 36 78
akf@dst.dk

GET AS PDF

[Population Projections for Denmark](#)

[Archive](#)

STATISTICAL PRESENTATION

Statistics Denmark makes an annual population projection for Denmark in cooperation with the research institution DREAM. From a given set of conditions and assumptions Denmark's future population is calculated and broken down by gender, age and ancestry.

Based on the projection for the entire country Statistics Denmark makes a regional projection which can be broken down by gender, age, province and municipality. The projection by provinces and municipalities are not broken down by ancestry.

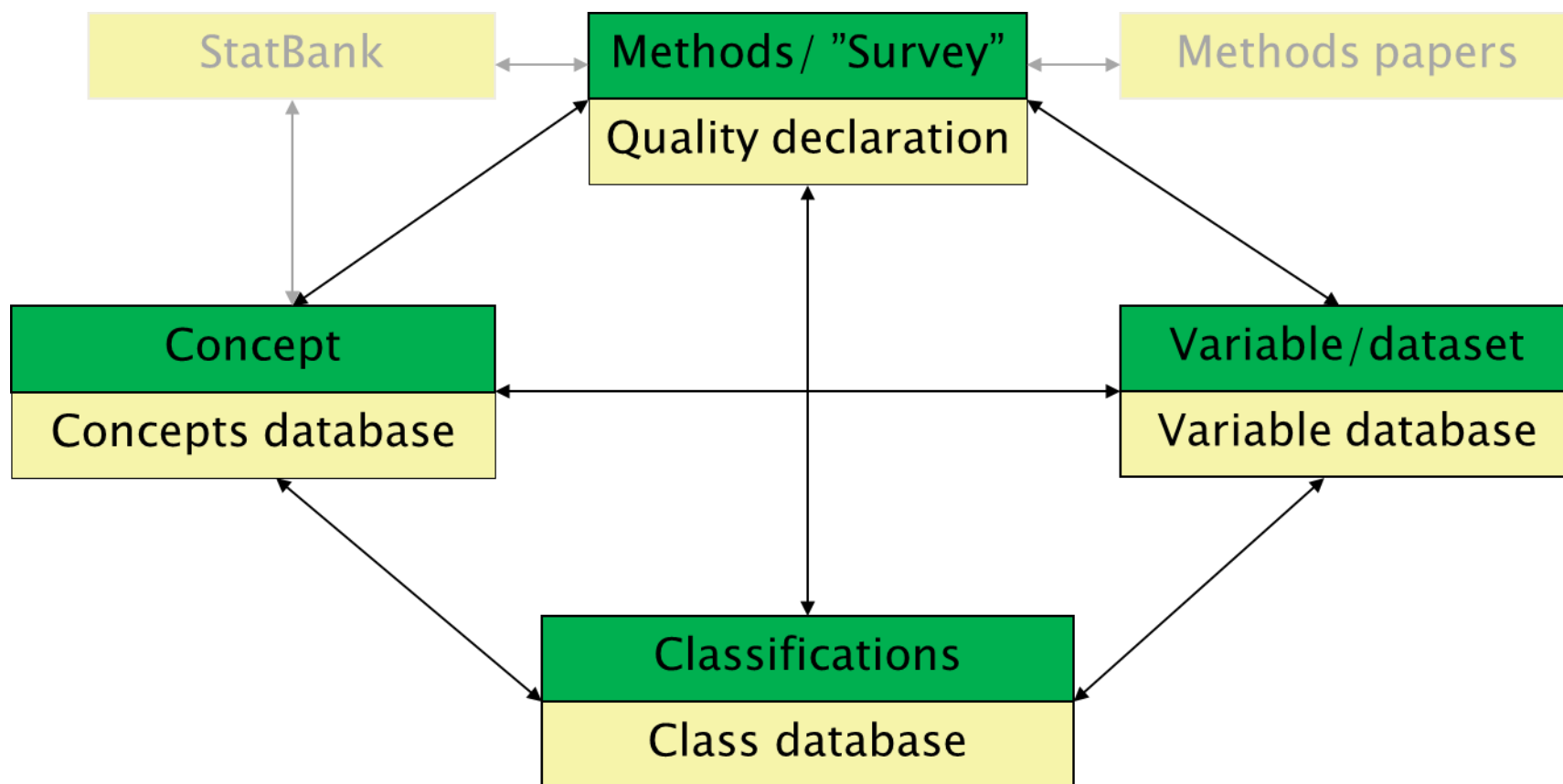
As a part of the projection, results are also available regarding changes in population concerning live births, deaths, immigration and emigration

[Read more about statistical presentation](#)

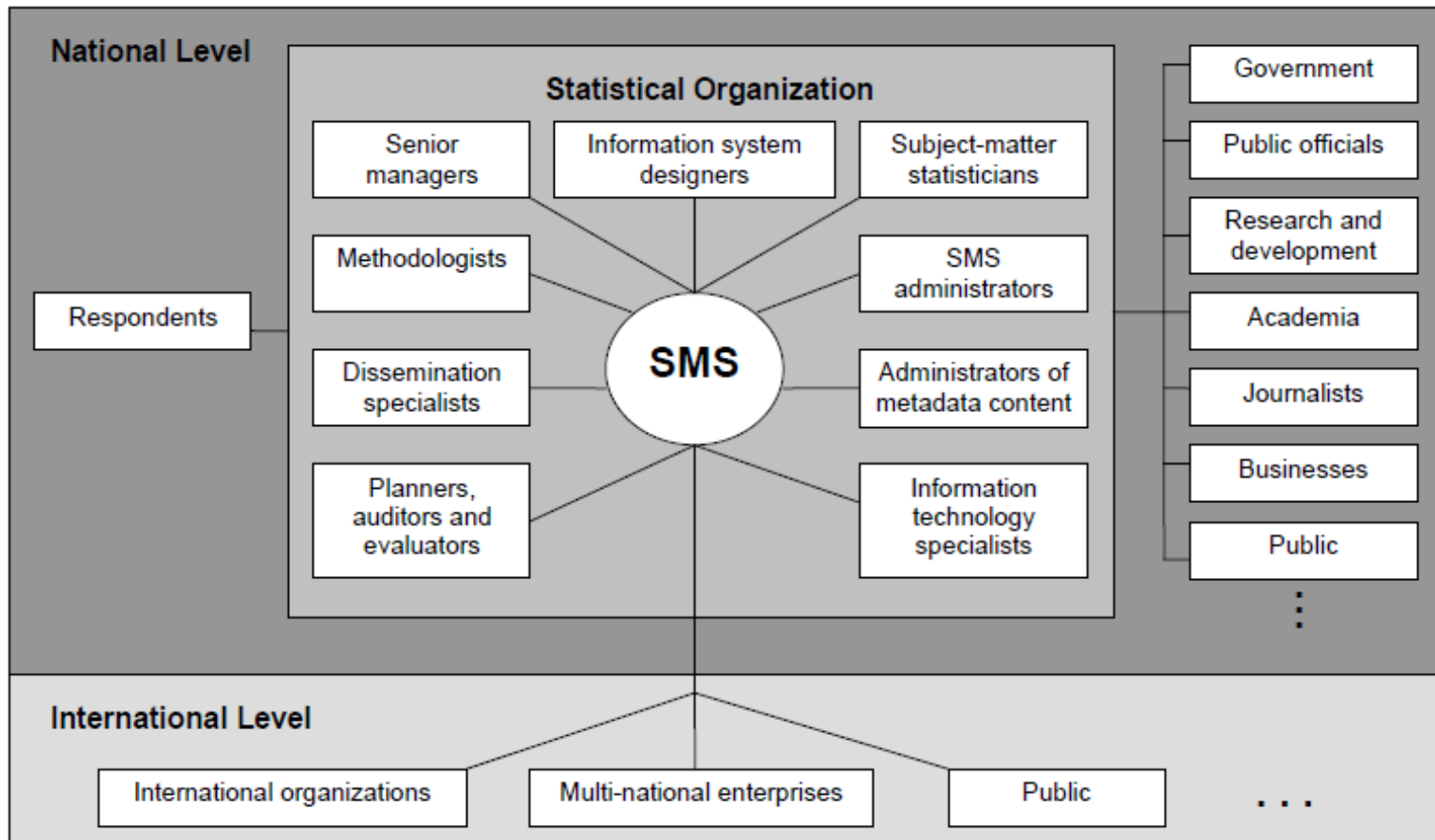
Subject structure

- Documentation of statistics is done at our level 3 in our subject structure.
- In most cases the level 3 subject is equal to the title of the documentation of statistics.
- In a few cases there will be more than one documentation of statistics at one subject level 3
- In a few cases there will be one documentation of statistics linking to more than one level 3 subject

Linkage in output documentation



Metadata users



OMS5: MANUFACTURERS' SALES BY INDUSTRY (DB07), TYPE OF TURNOVER AND SEASONAL ADJUSTMENT

Unit : DKK 1,000 (current prices)

[Select](#)
[Advanced selection](#)
[Information](#)

INDUSTRY (DB07) (48)

More options... ▼

- BC Mining and quarrying and manufacturing
- B Mining and quarrying
- 06000 Extraction of oil and gas
- 08009 Extraction of gravel and stone
- 09000 Mining support service activities
- C Manufacturing
- CA Manufacture of food products, beverages and tobacco
- 10001 Production of meat and meat products
- 10002 Processing and preserving of fish

TYPE OF TURNOVER (8)

More options... ▼

- Total turnover
- Sales of own commodities
- Invoiced discounts, freight charges etc., not distributed to commodities
- Construction work for other enterprises
- Reconditioning and repair work for other enterprises
- Contract work for other enterprises
- Commercial (resale) turnover
- Other turnover

SEASONAL ADJUSTMENT (2)

More options... ▼

- Non-seasonally adjusted
- Seasonally adjusted

QUARTER

More options... ▼

- 2017Q2
- 2017Q1
- 2016Q4
- 2016Q3
- 2016Q2
- 2016Q1
- 2015Q4
- 2015Q3
- 2015Q2

Number of selected data cells for the table: 1 (select max. 10000)

CANCEL

SHOW TABLE

[←](#)
[↻](#)
[http://www.statistikbanken.dk/OMS5](#)

[Tabeller i Statistikbanken: Indu...](#)
[Statistikbanken](#)

[DST.DK](#)
[LOG ON](#)
[DANSK](#)
[HELP](#)

[StatBank Denmark](#) | [Business sectors](#)

OMS5: MANUFACTURERS' SALES BY INDUSTRY (DB07), TYPE OF TURNOVER AND SEASONAL ADJUSTMENT

Unit : DKK 1,000 (current prices)

[Select](#)
[Advanced selection](#)
[Information](#)

TABLE INFORMATION

Next release: 01-12-2017 09:00:00
Published: 01-09-2017 09:00:00

Footnotes:
The drop in turnover in 'CF Pharmaceuticals' in the third quarter of 2016 is due to organizational changes in the pharmaceutical industry. Only the series 'total turnover' is seasonally adjusted, and only for activity groups, that has significant seasonality. For those series that are not seasonally adjusted, the non-seasonally adjusted series are shown in the table when the seasonally adjusted data are chosen.

Contact : Heidi Sørensen hsn@dst.dk +45 39 17 35 62

DOCUMENTATION

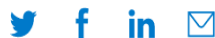
Documentation of statistics contain information about the statistical product. This documentations may cover a number of tables in StatBank Denmark and related publications.

[Show documentation of statistics](#)

RELATED PUBLICATONS

[Manufacturers' sales \(supplement\)](#) - Next release: -
01-09-2017 09:00:00

SHARE THIS PAGE



SUBPAGES

- [Statistical presentation](#)
- [Statistical processing](#)
- [Relevance](#)
- [Accuracy and reliability](#)
- [Timeliness and punctuality](#)
- [Comparability](#)
- [Accessibility and clarity](#)

MANUFACTURERS' SALES OF GOODS

The purpose of the statistics is to describe the Danish industrial production by detailed type of goods. Manufacturers' sales of goods is the source for Danish Prodcom statistics, regulated by and submitted to Eurostat.

STATISTICAL PRESENTATION

The statistics describe manufacturers' sales of goods measured in terms of volume and value by detailed types of goods according to the international classifications CN and SITC. In addition to this, total sales (turnover) are distributed by industries (NACE groups).

[Read more about statistical presentation](#)

STATISTICAL PROCESSING

Data are collected through a quarterly survey of all enterprises in manufacturing (including mining and quarrying) with at least 10 employees, approx. 3,000 units. Reported data are validated, by checking against previous reports as well as against other sources. Data are then aggregated by industrial groupings as well as commodity groups. Series with seasonality are seasonally adjusted.

[Read more about statistical processing](#)

RELEVANCE

The statistics are in high demand from many different users, including the National Accounts, ministries, trade associations, market analysts, researchers, consultants and businesses.

CONTACT INFO

Short-Term Statistics, Business Statistics
Thomas Eisler
+45 39 17 32 49
tme@dst.dk

GET AS PDF

[Manufacturers' Sales of Goods](#)

Archive



SHARE THIS PAGE



STATISTICAL PRESENTATION

MENU

The statistics describe manufacturers' sales of goods measured in terms of volume and value by detailed types of goods according to the international classifications CN and SITC. In addition to this, total sales (turnover) are distributed by industries (NACE groups).

DATA DESCRIPTION

The statistics describe manufacturers' sales of goods measured in terms of volume and value by detailed types of goods. In addition to this, sales are distributed by industries (NACE groups).

CLASSIFICATION SYSTEM

Goods are classified according to the [CN, the Combined Nomenclature](#) and to SITC, [↓ Standard International Trade Classification](#).

For submission to Eurostat, data are converted from CN to Prodcom codes using the key between the two lists of commodities.

Industrial activity is classified according to [Dansk Branchekode 2007](#), which is the Danish national classification based on NACE rev. 2.

SECTOR COVERAGE

Mining and quarrying (NACE B) and manufacturing (NACE C). Exemptions are units in 10.71.20 (national DB07 activity code for bakeries, these are instead included in the retail trade statistics) and in 32.11.00 (NACE 32.11, striking of coins).

STATISTICAL CONCEPTS AND DEFINITIONS

Other turnover: Other turnover is for turnover not related to activities in manufacturing or mining and quarrying. This can be from construction, research and development or renting.

Own goods: The statistics measures sales of own goods, that is goods extracted, produced, processed or assembled by the reporting enterprise. Own goods are also products manufactured by a subcontractor, if the reporting enterprises owns the inputs for the subcontracted manufacturing. Traded goods are not included.

Commercial (resale) turnover: Commercial (resale) turnover is turnover from sales of goods that are bought and sold with any processing. Repackaging does not constitute processing.

CONTACT INFO

Short-Term Statistics, Business Statistics

Thomas Eisler

+45 39 17 32 49

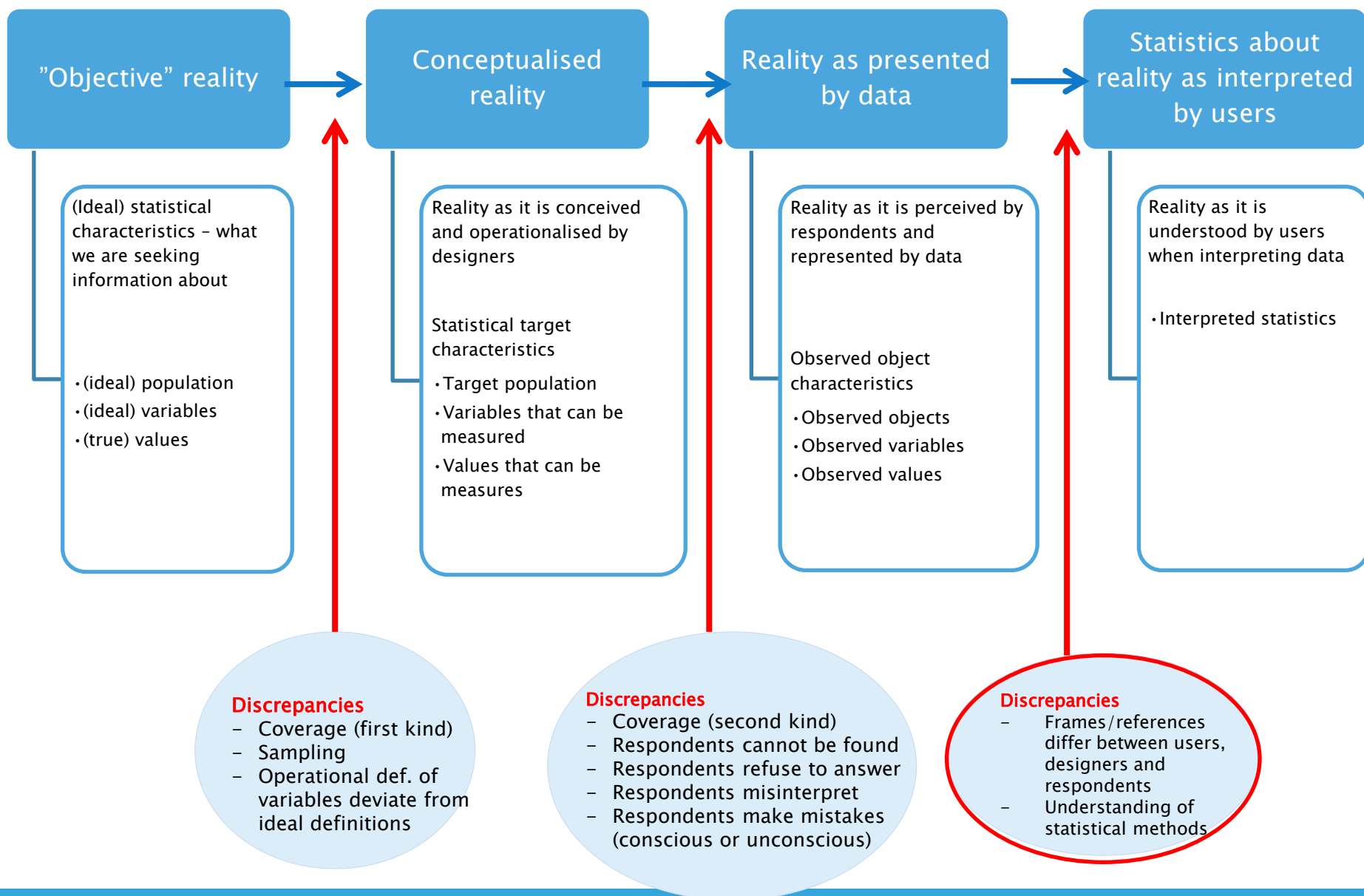
tme@dst.dk

GET AS PDF

[↓ Manufacturers' Sales of Goods](#)

Producing statistics

- Producing statistics is about describing phenomena in the society
- Not just anything – but some important phenomena in the society – something that some users seek information about
 - Population
 - Education
 - The economy
 - Etc.
- An illustration is given by the Swede Bo Sundgren in *Statistical systems: Some fundamentals*



Solution: quality declarations

- Help for the user to understand the statistics – giving the user information about the frame we have worked within
- Explain the content of the statistics
 - History
 - Purpose of the statistics
 - Content – population, variables etc.
- Quality = Fitness for use
- Quality of contents:
 - Relevance, Accuracy & reliability, Timeliness and punctuality, Coherence & comparability, Accessibility and clearness

SIMS – Single integrated metadata structure

EURO-SDMX Metadata Structure (Dec 2010)

1	Contact
1.1	Contact organisation
1.2	Contact organisation unit
1.3	Contact name
1.4	Contact person function
1.5	Contact mail address
1.6	Contact email address
1.7	Contact phone number
1.8	Contact fax number

2	Metadata update
2.1	Metadata last certified
2.2	Metadata last posted
2.3	Metadata last update

3	Statistical presentation
3.1	Data description
3.2	Classification system
3.3	Sector coverage
3.4	Statistical concepts and definitions
3.5	Statistical unit

Single Integrated Metadata Structure

S.1	Contact
S.1.1	Contact organisation
S.1.2	Contact organisation unit
S.1.3	Contact name
S.1.4	Contact person function
S.1.5	Contact mail address
S.1.6	Contact email address
S.1.7	Contact phone number
S.1.8	Contact fax number

S.2	Introduction
------------	---------------------

S.3	Metadata update
S.3.1	Metadata last certified
S.3.2	Metadata last posted
S.3.3	Metadata last update

S.4	Statistical presentation
S.4.1	Data description
S.4.2	Classification system
S.4.3	Sector coverage
S.4.4	Statistical concepts and definitions
S.4.5	Statistical unit

ESS Standard for Quality Reports Structure

I	Contact
I.1	Contact organisation
I.2	Contact organisation unit
I.3	Contact name
I.4	Contact person function
I.5	Contact mail address
I.6	Contact email address
I.7	Contact phone number
I.8	Contact fax number

II	Introduction
-----------	---------------------

Content of the Statistical documentation in Denmark (Re-organized SIMS)

1 Introduction (s2):

2 Statistical presentation (s4):

2.1 Data description (s4.1):

2.2 Classification system (s4.2):

2.3 Sector coverage (s4.3):

2.4 Statistical concepts and definitions (s4.4):

2.5 Statistical unit (s4.5):

2.6 Statistical population (s4.6):

2.7 Reference area (s4.7):

2.8 Time coverage (s4.8):

2.9 Base period (s4.9):

2.10 Unit of measure (s5):

2.11 Reference period (s6):

2.12 Frequency of dissemination (s10):

2.13 Legal acts and other agreements (s7.1):

2.14 Cost and burden (s19):

2.15 Comment (s22):

Content of the quality declarations

3 Statistical processing (s21):

3.1 Source data (s21.1):

3.2 Frequency of data collection (s21.2):

3.3 Data collection (s21.3):

3.4 Data validation (s21.4):

3.5 Data compilation (s21.5):

3.6 Adjustment (s21.6):

4 Relevance (s14):

4.1 User Needs (s14.1):

4.2 User Satisfaction (s14.2):

4.3 Data completeness rate (s14.3):

Contents (cont.)

5 Accuracy and reliability (s15):

5.1 Overall accuracy (s15.1):

5.2 Sampling error (s15.2):

5.3 Non-sampling error

5.4 Quality management (s13):

5.5 Quality assurance (s13.1):

5.6 Quality assessment (s13.2):

5.7 Data revision - policy (s20.1):

5.8 Data revision practice (s20.2):

6 Timeliness and punctuality (s16):

6.1 Timeliness and time lag - final results (s16.1):

6.2 Punctuality (s16.2):

Contents (cont.)

7 Comparability (s17):

- 7.1 Comparability - geographical (s17.1):
- 7.2 Comparability over time (s17.2):
- 7.3 Coherence - cross domain (s18.1):
- 7.4 Coherence - internal (s18.2):

8 Accessibility and clarity (s11):

- 8.1 Release calendar (s9.1):
- 8.2 Release calendar access (s9.2):
- 8.3 User access (s9.3):
- 8.4 News release (s11.1):
- 8.5 Publications (s11.2):
- 8.6 On-line database (s11.3):
- 8.7 Micro-data access (s11.4):
- 8.8 Other (s11.5):
- 8.9 Confidentiality - policy (s8.1):
- 8.10 Confidentiality - data treatment (s8.2):
- 8.11 Documentation on methodology (s12.1):
- 8.12 Quality documentation (s12.2):

Contents (cont.)

9 Contact (s1):

9.1 Contact organisation (s1.1):

9.2 Contact organisation unit (s1.2):

9.3 Contact name (s1.3):

9.4 Contact person function (s1.4):

9.5 Contact mail address (s1.5):

9.6 Contact email-address (s1.6):

9.7 Contact phone number (s1.7):

9.8 Contact fax number (s1.8):

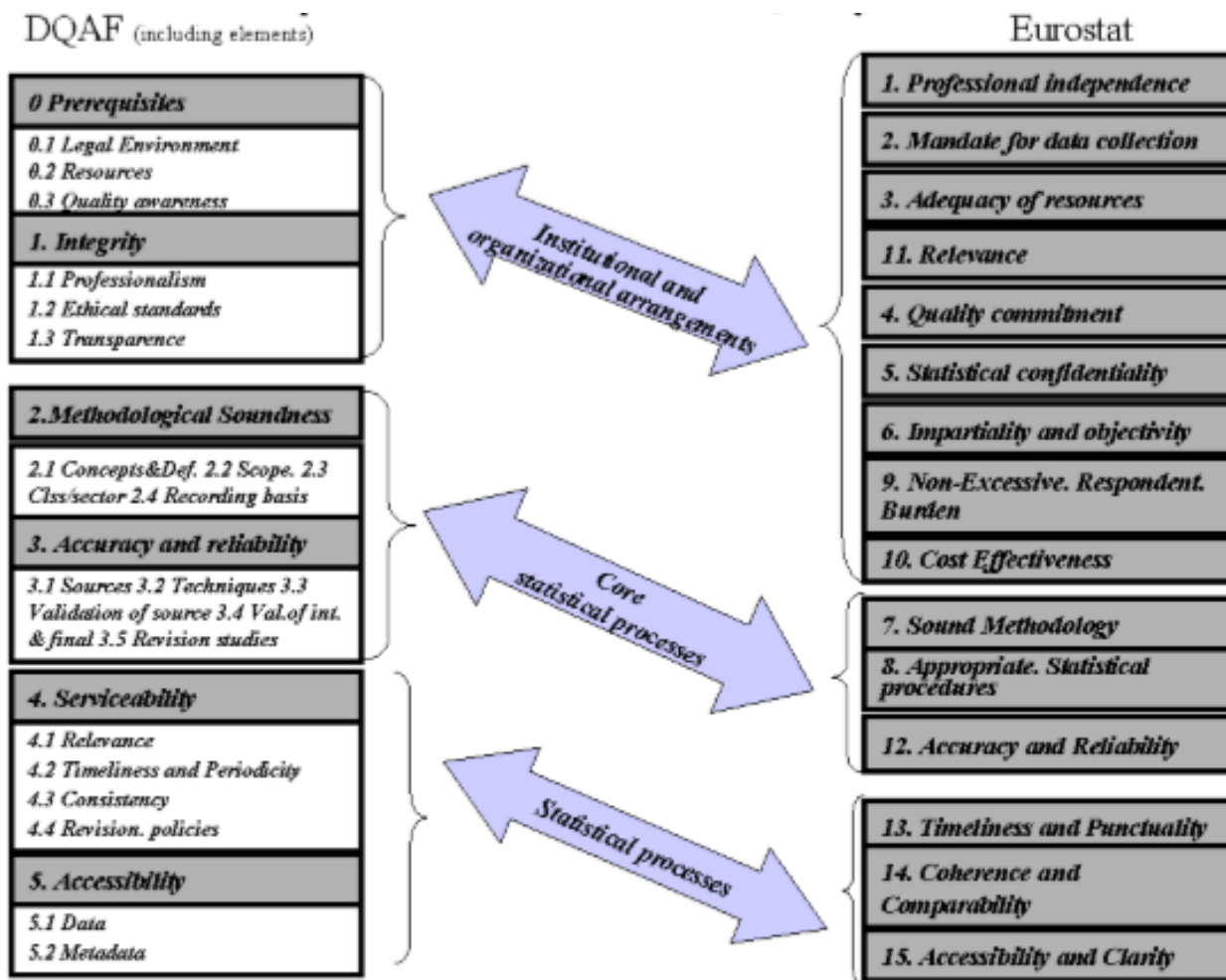
SDDS

- The Special Data Dissemination Standard (SDDS)
- Established in 1996 to guide members that have, or might seek access to international capital markets
- Enhance the availability of timely and comprehensive statistics
- Release calendar
- Detailed information on statistical practices or metadata
- DQAF – data quality assessment framework

DQAF – data quality assessment framework

- Five dimensions
 - assurances of integrity
 - methodological soundness
 - accuracy and reliability
 - serviceability
 - Accessibility
- Special for each of the domains:
 - National Accounts Statistics
 - Consumer Price Index
 - Producer Price Index
 - Government Finance Statistics and Public Sector Debt Statistics
 - Monetary Statistics
 - Balance of Payments and International Investment Position Statistics
 - External Debt Statistics
 - External trade in goods

Comparison of IMF and EU quality dimensions (2006)



ESS Quality Reporting

<http://ec.europa.eu/eurostat/web/quality/quality-reporting>

you will find:

[ESS handbook for quality reports 2014](#)

[ESS Quality and Performance Indicators 2014](#)

[Single Integrated Metadata Structure and its Technical Manual](#)

[ESS Quality Glossary](#)

[Handbook on Data Quality - Assessment Methods and Tools](#)

[Handbook on improving quality by analysis of process variables](#)

