

## Activity 3.3: Quality assurance II

### النشاط 3.3: ضبط الجودة II

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## Overall schedule for this week

### جدول عمل الأسبوع الحالي

Sunday: Follow-up since activity 3.2	الأحد: متابعة المستندات بعد النشاط الأخير 3.2
Monday: Quality assurance check lists Your drafts + our feedback/input	الاثنين: قوائم التحقق من بنود ضبط الجودة مسوداتكم + رأينا وملاحظاتنا
Tuesday: Quality declarations Our input + contribution from DoS?	الثلاثاء: بيانات الجودة عرضنا + مساهمات دائرة الإحصاءات العامة
Wednesday: Quality indicators and org. Issues Our input + contribution from DoS?	الأربعاء: مؤشرات الجودة والجوانب التنظيمية عرضنا + مساهمات دائرة الإحصاءات العامة
Thursday: Quality mgt./assurance training Our input + contribution from DoS?	الخميس: الدورة التدريبية لإدارة وضبط الجودة عرضنا + مساهمات دائرة الإحصاءات العامة

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## Agenda for Sunday afternoon

### برنامج العمل لبعده ظهر يوم الأحد

- Program for this week
- Participants in this week's activities
- Work in the Quality team since Activity 3.2
- Feedback from CoP conference (tomorrow)
- Briefing to new Director General on QM?
- Contributions from Quality team for Tuesday's and Wednesday's program
- Danish templates on user involvement

مناقشة برنامج الأسبوع الحالي  
 المشاركون في أنشطة الأسبوع الحالي  
 العمل مع فريق الجودة للتعرف على المستندات بعد النشاط 3.2  
 التعرف إلى نتائج مؤتمر قواعد الممارسات (غدا)  
 إعداد موجز للمدير العام الجديد حول إدارة الجودة؟  
 مساهمات فريق الجودة للمشاركة في برنامج يومي الثلاثاء والأربعاء  
 عرض النماذج الدنماركية حول مشاركة المستخدمين

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## Involvement of external stakeholders in Advisory Committees

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## Material sent to DoS

- Background note explaining purpose of adjustments made in 2010 in order to revitalize the committees (especially to make the users more active)
- Two sets of terms of reference (examples):
  - The user committee concerning economic statistics
  - The respondent committee
- Two concrete meeting agendas (examples):
  - The user committee concerning economic statistics
  - The respondent committee

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## Types of committees

- User committee
- Respondent committee
- Coordination committee for European Statistics
- Committee concerning the macro economic model
- Joint consultation committee (e.g. with Central Bank, Ministry of Finance and Tax authority)
- Contact committee concerning specific statistics

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## Current user committees

- Economic statistics
- Welfare statistics
- Labour Market statistics
- Population forecasts
- Food statistics (agriculture, fishery)
- Knowledge society statistics
- Research committee

## More specific 'contact committees'

- Employment
- Earnings and absence
- Culture
- Price indices
- Construction and housing
- Transport
- Quarterly national accounts
- Environment
- Social expenditures
- Account statistics on agriculture, fisheries and aqua-culture
- Price committee on agriculture and horticulture

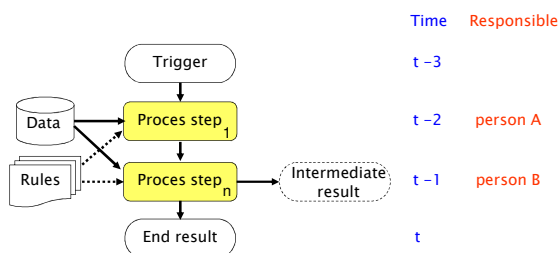
## Terms of reference and work method

- Basis: Law on Statistics Denmark (possibility – not an obligation)
- Tasks: Discuss and evaluate emerging needs, plans (especially the annual Work Plan), priorities, results, dissemination, quality and metadata/documentation
- Method of working: Statistics Denmark chairs the committees and do secretarial tasks
- Normally two meetings per year – plus written procedures is needed
- Subsidiary working groups can be established
- Members appointed (in effect) by participating authorities and organisations

Templates for quality assurance checklists etc.

## Possible approach for version 2

- Take a process approach – we suggest the GSBPM
- Simple generic model:



## Gradual development of QA checklists

### Version 1:

- Focus: "What to do" and "whether it is done" (yes/no)

### Version 2:

- Focus: Extend with "how it is done" (i.e. the work process) and evidence for compliance)

### Version 3:

- Focus: Extend further with "how well it is done" (i.e. scale for levels of compliance with 'good DoS practice')
- This reflects the approach in HM King Abdallah's excellence award

## Quality declarations

## Possible quality indicators

- As a general rule, it is recommended to have as many quality and performance indicators as possible (QPI's)
- The European Statistical Advisory Committee (ESAC) has recommended 8 indicators (from SIMS) that are considered useful as user-oriented quality indicators

## Quality declarations

- What is the content of the statistics
- SIMS (Single Integrated Metadata Structure) is an international standard classification of quality terms
- Who is the quality declarations intended for
- We recommend the User-oriented view as a start
  - Technical Manual of the Single Integrated Metadata Structure (SIMS), Eurostat
- Make it simple
- Chose items from SIMS

## SIMS – User-oriented items

U	P	Single Integrated Metadata Structure (SIMS)	P	S.15.1	Sampling error / A1. Sampling errors - indicators for U	P	S.17.2	Comparability - over time and CC2. Length of comparable time series for U	
U	P	S.12.2	Quality documentation	P	S.15.3	Non-sampling error and A4. and non-response - rate for U and A5. Item non-response - rate for U	P	S.18.1	Coherence - cross domain
U	P	S.13.1	Quality assurance	P	S.16.1	Timeliness and T92. Time lag - final results for U	P	S.18.2	Coherence - internal
U	P	S.13.2	Quality assessment	P	S.16.1.1	T91. Time lag - first results	P	S.19	Cost and burden
U	P	S.14.1	User needs	P	S.16.1.2	T92. Time lag - final results	P	S.20.1	Data revision - policy
U	P	S.14.2	User satisfaction	P	S.18.2	Punctuality and T93. Punctuality - delivery and publication for U	P	S.20.2	Data revision - practice / A6. Data revision - average size for U
U	P	S.14.3	Completeness / R1. Data completeness - rate for U	P	S.24.2.1	T93. Punctuality - delivery and publication for P			
U	P	S.15.1	Overall accuracy	P	S.17	Comparability			
				P	S.17.1	Comparability - geographical			

## Quality declarations in Statistics Denmark

- We use SIMS as a starting point
- SIMS is a classification at an aggregate level
- You can chose which items you want to include
- We have not chosen all
- .....and we have supplied with some of our own
- We have chosen 7 headlines
- .....and several more detailed items from SIMS
- .....but we have actually not decided all items yet

## The dimensions of the quality declarations in Statistics Denmark

Summary	Further information	Attachments
Contact information		
Introduction Summary of statistics and purpose		
Quality assessment Conclusion of the quality assessment of the statistics. Measuring the weakest point		
Accuracy and reliability		
Timeliness and punctuality		
Accessibility and clarity		
Comparability		

## Examples of detailed information

- Contact information
  - Directorate
  - Contact persons name, telephone, e-mail etc.
- Introduction
  - Summary of statistics and purpose
  - Population / sampling frame
  - Variables and terms
  - Legal basis for collection
  - Time period
  - Revision policy
  - Non-response
  - Sample uncertainty
  - International comparability
  - Etc.

## Examples of detailed information (cont.)

- Quality assessment
  - Conclusion of the quality assessment of the statistics.
  - Measuring the weakest point
- Accuracy and reliability
  - Overall accuracy
  - Sampling error
- Timeliness and punctuality
  - Publication of preliminary figures, final figures
- Accessibility and clarity
  - Publications / news releases
  - Online databases
- Comparability
  - Comparability with other statistics
  - Comparability over time
  - Metadata

## Quality indicators

## Recommended quality indicators

- Data completeness – rate (S.14.3)
- Sampling errors – indicators (S.15.2)
- Unit non-response (S.15.3)
- Item non-response (S.15.3)
- Time-lag – final results (S.16.1)
- Punctuality – delivery and publication (S.16.2)
- Length of comparable time series (S.17.2)
- Data revision – average size (S.20.2)

- Data completeness – rate (S.14.3)
  - Qualitative information on completeness compared with relevant regulations/guidelines
- Sampling errors – indicators (S.15.2)
  - If probability sampling is used
  - Range of variation
  - If adjustments (for non-response, misclassification etc.) are made, this should be stated

- Unit non-response (S.15.3)
  - Including causes and measures for non-response on units
- Item non-response (S.15.3)
  - Including causes and measures for non-response on items
- Time-lag – final results (S.16.1)
  - Length of time between data availability and the event they describe
- Punctuality – delivery and publication (S.16.2)
  - Time lag between the actual delivery and the date when it should have been delivered

- Length of comparable time series (S. 17.2)
  - To which extent are data comparable over time
- Data revision – average size (S 20.2)
  - Information on the data-revision practice and the average size of revisions

## Response burden measurement

### Our data provider policy in brief

1. Statistics Denmark (SD) collects data according to the Law on Statistics Denmark and as point of departure reply is mandatory
2. SD puts special emphasis on being service-minded toward the reporting enterprises
3. SD treats all data on businesses and individuals confidentially
4. SD strives to make reporting as easy as possible
5. SD strives to collect as much data as possible through digital solutions

### Our data provider policy (2)

6. SD involves selected businesses in the development and test of all paper and electronic questionnaires
7. SD treats all businesses who are participating in a survey equally and applies a uniform and consistent reminder procedure
8. SD checks all reported data. If there are errors or missing data, the business is, in certain cases, contacted again
9. Businesses with less than 10 employees may report to max. 3 different statistics annually
10. SD continually works to reduce the number of businesses in samples while maintaining the quality of the statistics

### Response burden in SD - brief history

- Measurements started with baseline measure in 1996. A new baseline (according to SCM – Standard Cost Model) was made in 2004
- Focus on small businesses
- Spreading of the burden for small enterprises – max 3 surveys in a given year (i.e. 'negative coordination' of samples)
- Pre-announcement before first reporting (so that data gathering can be prepared)

### Response burden in SD - brief history (cont.)

- Division for centralised data reception since 2006  
<http://www.dst.dk/en/OmDS/organisation.aspx>
- Common comprehensive data provider policy since 2007
- 'Data provider friendliness' reflected in SD's vision
- Internal Data Provider Committee for about 10 years
- External Respondent Committee since 2010

## Response burden in SD- brief history (cont.)

- 30 pct. reduction from 2001-2010 – the objective was 25 pct. Reductions since baseline in 1996 is 43 pct.
- Annual action plans
- Burden approximately 13,6 million Euros in 2012 ~ ½ pct. of total administrative burden in Denmark

## Response burden in SD - brief history (cont.)

- Focus is now on digitalisation and perceived burden
  - On-line reporting forms: Common look and feel, user tests, continuously improved, pre-fill, integrated guidance, soft validations
  - Mandatory digital reporting and system-to-system solutions, XBRL
  - Use of single digital reporting platform ([www.virk.dk](http://www.virk.dk)); <http://www.dst.dk/da/Indberet.aspx>
  - Information site: <http://www.dst.dk/da/Indberet/oplysningssider/intrastat.aspx>
  - Feedback of results to reporting enterprises
  - Automatic error correction

## Top ten most burdensome surveys in DK

Survey / statistical domain	Mill. EUR	Pct.
Intrastat (Foreign Trade in Goods – import and export)	7.374,7	54,1
Statistics on earnings	0.848,2	6,2
Research, development and innovation (private sector)	0.785,0	5,8
Account Statistics (SBS)	0.646,9	4,7
External trade in services	0.628,5	4,6
Industrial commodities statistics	0.479,2	3,5
Industrial produktion and new orders	0.414,2	3,0
Raw materials and industrial services statistics	0.277,8	2,0
Job vacancies	0.223,5	1,6
Retail trade index	0.177,9	1,3
Other	1.771,2	13,0
TOTAL	13.627,2	100,0

## SCM cost parameters

- Price** Tariff plus overhead (we use statistics on salaries)
- Time** Amount of time it takes to complete the admin activities (read guidance, gather info, fill in and send questionnaire)
- Quantity** Number of businesses affected (population) and frequency

Basic SCM formula:

$$\text{Costs per activity} = \text{Price} \times \text{Time} \times \text{Quantity (population} \times \text{frequency)}$$

## Key assumption

“The normally efficient business”

Because we need a good average for the ‘time’ cost parameter

## Perceived burden - discussion

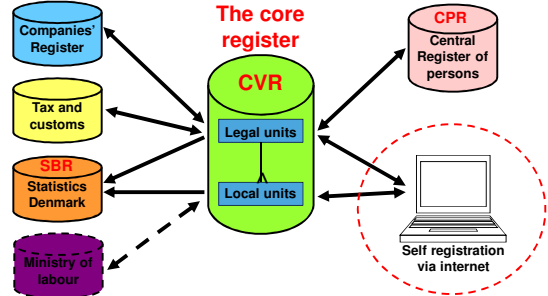
- Can we get a valid measure on irritation?
- Can we improve the reporting solutions, in order to reduce the perceived burden?
- What are the expectations in the enterprises?
- Arguments:
  - It should be an internal goal, to reveal concrete ideas and initiatives to reduce the perceived burdens
  - The ideas must be relevant for the enterprises, and should be implemented in the reporting solutions and in reporting materials
- So: Only measure areas, which we can influence and where we can actually make changes

## Basic registers in Denmark

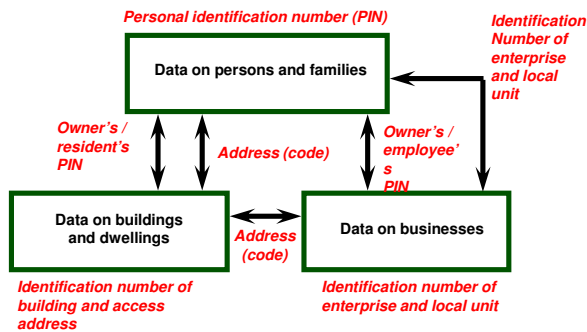
## The Danish Business Register set-up

Primary providers:

Secondary providers:



## Use of common identification numbers



## Important registers in Denmark

- Central Register of Persons (CPR)
- Central Business Register (mandatory usage) (CVR)
- Central Register of Buildings and Dwellings (BBR)
- Central Register of Addresses
  - Code: Municipality\_code, road\_code, house\_no etc.
- Central Register of Motor Vehicles (CRM)
- Tax: e-Income, VAT, accounts, imports/exports
- Danish Integrated Agricultural Control System



Mandatory to register and update information !