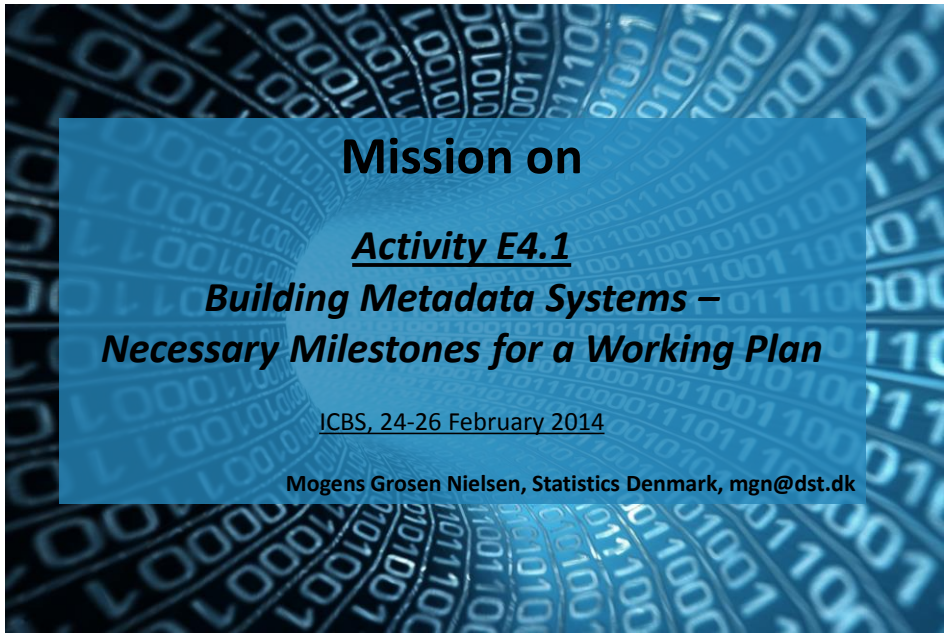


Mission on

Activity E4.1
Building Metadata Systems – Necessary Milestones for a Working Plan

ICBS, 24-26 February 2014

Mogens Grosen Nielsen, Statistics Denmark, mgn@dst.dk

DANMARKS STATISTIK

Agenda

1. Objectives of mission and methodology
2. Input from ICBS part 1
3. Metadata - introduction, definition and functions, principles and users
4. Standards
5. Towards a work plan for the development of a metadata system for ICBS

DANMARKS STATISTIK

1. Objectives of mission and methodology

DANMARKS STATISTIK

Objectives of the mission: Purpose and output (ToR)

Purpose of the activity

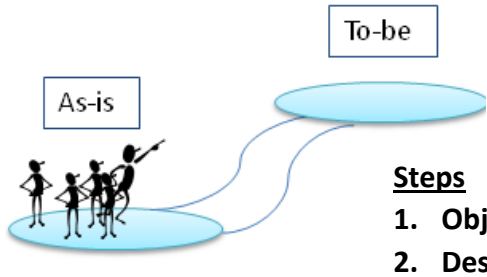
- *to introduce ICBS staff to the methodology of building a metadata system;*
- *together with the ICBS to define a work plan/milestones for a work plan for the development of a metadata system for ICBS.*

Output

- *Report with recommendations on how to organize the metadata work as part of the dissemination strategy of the ICBS.*

DANMARKS STATISTIK

Methodology: Business process management – from ”as-is” to ”to-be”



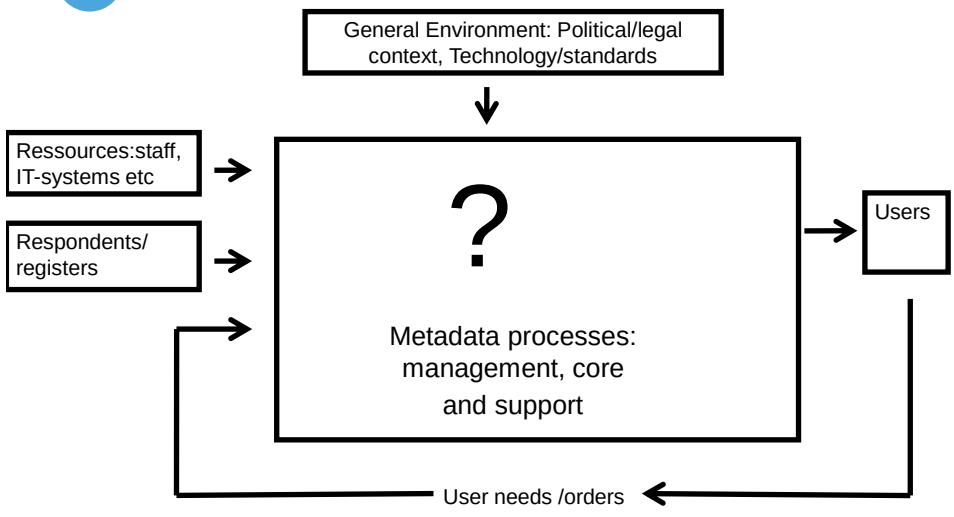
Steps

1. **Objectives for ‘to-be’**
2. **Describe/analyze existing processes**
3. **Decide on prioritization of changes**
4. **Implement changes**

- **Iterate on 1-4**

DANMARKS STATISTIK

Business proces perspective.



DANMARKS STATISTIK

Three main elements in the analysis

A: The situation today "as-is"

- ***Environment***
  - ***1: Government/ regulations etc***
  - ***2: Technology***
  - ***3: User needs***
  - ***4: Standards***
- ***Status / ongoing activities***
  - ***Strategic, business processes and technological***

B: Objectives / results "to-be"

General:

- ***?***
- ***?***

Functions:

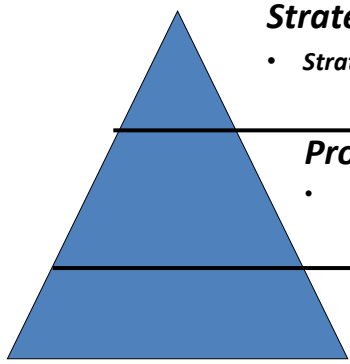
- *?*
- *?*

C: How to get from A to B

Issues and recommendations

DANMARKS STATISTIK

Issues at three levels



Strategic issues

- ***Strategy, short and long term objectives etc***

Process issues

- ***Management-, core and support processes (development and operation)***

Technical issues

- ***Standards, IT-architecture etc***

DANMARKS STATISTIK

2. Input from ICBS part 1

- Relation to other components – strategy, dissemination and website
- As-is: situation today
- To-be: objectives etc.

DANMARKS STATISTIK

3. Metadata - introduction, definition and functions

DANMARKS STATISTIK

"Metadata – an old invention"

- Library-catalogs invented 245 BC by Callimachus in Greece
- Today:
  1. New technology
  2. More content
  3. Same purpose: to help users and producers

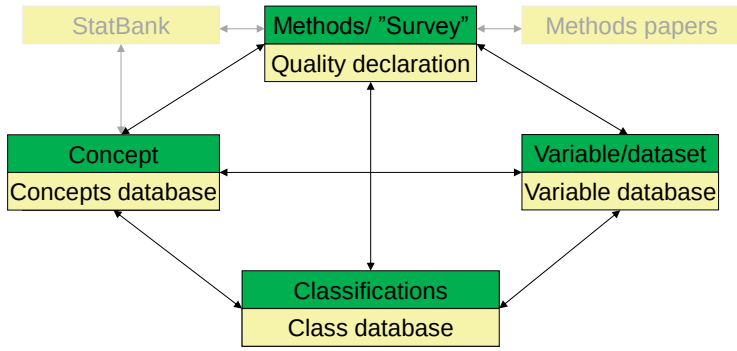
DANMARKS STATISTIK

Vision and focus at Stat DK

1. Statistical information must help users in the "turbulant information-sea"
2. Metadata must help the users in their knowledge processes.
3. Metadata must giver users precise information about our products
4. International standards must be used in order to ensure
   1. Common terminologi accross borders
   2. The production of statistics must be cost-effective

DANMARKS STATISTIK

Selected ”classical” metadata elements



DANMARKS STATISTIK

Metadata in relation to users

What kind of metadata?

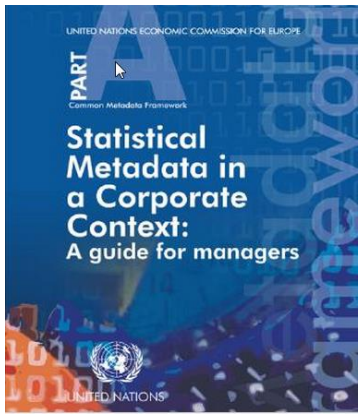
- Quality report (methodology, relevance, accuracy, comparability etc)
- Other metadata (concepts, variables and classifications)

How: processes and databases

- Processes to handle feedback and knowledge in relation to users (GSBPM)
- Databases with searchable integrated metadata directed towards user-groups

DANMARKS STATISTIK

Definition of Metadata and Statistical Metadata System (SMS)



Statistical Metadata: **"data about statistical data comprising data and other documentation that describe objects in a formalised way"**

Statistical Metadata System (SMS) **"A data processing system that uses, stores and produces statistical metadata". The term system refers to the people, processes and technology involved in managing statistical metadata.**

Core principles

1. **Reuse:** Reuse metadata where possible for statistical integration as well as efficiency reasons
2. **Statistical business process model**: Manage metadata with a focus on the overall statistical business process model (GSBPM)
3. **Active metadata**: Make metadata active to the greatest extent possible. Active metadata are metadata that drive other processes and actions. Treating metadata this way will ensure they are accurate and up-to-date.

SMS functions 1-5

1. **Planning, designing, implementing and evaluating statistical production processes.**
2. **Managing, unifying and standardizing workflows and processes.**
3. **Documenting data collection, storage, evaluation and dissemination.**
4. **Managing methodological activities, standardizing and documenting concept definitions and classifications.**
5. **Managing communication with end-users of statistical outputs and gathering of user feedback.**

SMS functions 6-10

6. Improving the quality of statistical data and transparency of methodologies.

7. Managing statistical data sources and cooperation with respondents.

8. Improving discovery and exchange of data between the statistical organization and its users.

9. Improving integration of statistical information systems with other national information systems.

10. Disseminating statistical information to end users – including assistance for post-processing of statistical data

SMS functions 11-15

11. Improving integration between national and international organizations, including harmonization of content

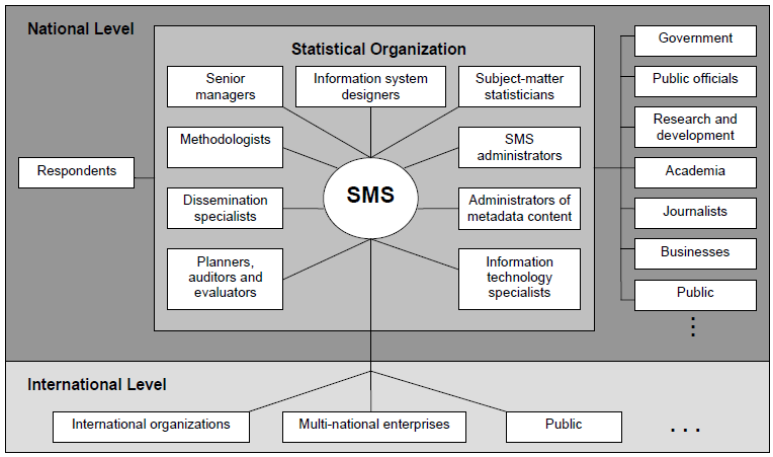
12. Knowledge base on the processes of statistical information systems, to share knowledge among staff

13. Improving administration of statistical information systems

14. Facilitating the evaluation of costs and revenues for the statistical organization

15. Unifying statistical terminology as a vehicle for better communication and understanding between managers, designers, subject-matter statisticians, methodologists, respondents and users of statistical information systems.

Metadata users




The End!