AGENCY FOR DIGITISATION
MINISTRY OF FINANCE

Agency for Data Supply and Efficiency

# Concepts

How to describe and harmonise them

Danish experiences


Anna Odgaard Ingram
aaing@digst.dk

Maya Borges
maybo@digst.dk

Dorthe Nordentoft
dokno@sdfe.dk

Jan Hjelmager
jnh@sdfe.dk

Heidi Vanparys
hevan@sdfe.dk

# Outline

1. What is the problem?
   - An example
2. Cross-authority coordination
   - The Danish approach
3. The international challenge
   - Alignments to the rescue?

# What is the problem?

An example

# Example: ”dataset”

| | |
|---|---|
| ISO/TC 211 | identifiable collection of data |
| ISO/TC 184 | logically meaningful grouping of data |
| Dublin Core | data encoded in a defined structure |
| DCAT | A collection of data, published or curated by a single agent, and available for access or download in one or more representations. |
| … | … |

Which definition to (re)use?

Do these definitions actually define the same concept? Or related concepts?

How to reuse?

# New definition?

**dataset**
collection of data that is regarded as a unit

Note x to entry: Typically, …

+ discussion paper

ISO/TC 211
Geographic information/Geomatics

See
https://github.com/opengeospatial/ogcapi-features/issues/312
https://github.com/w3c/dxwg/issues/1195
https://github.com/heidivanparys/discussion_paper_dataset/releases

# Observations from feedback

- traditions
- personal taste
- context (standalone glossary vs. embedded glossary)

# Cross-authority coordination

The Danish approach

# The Modelling Rules of the Federal Digital Architecture (FDA)

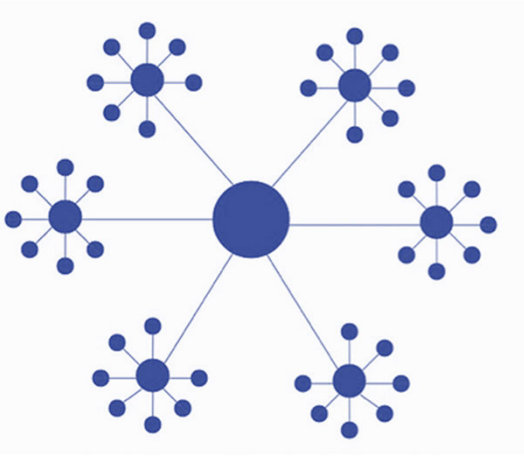
*A set of requirements for models shared in the Danish public sector…*


*Version 2 approved in 2019 by the Steering Group for Data and Architecture*

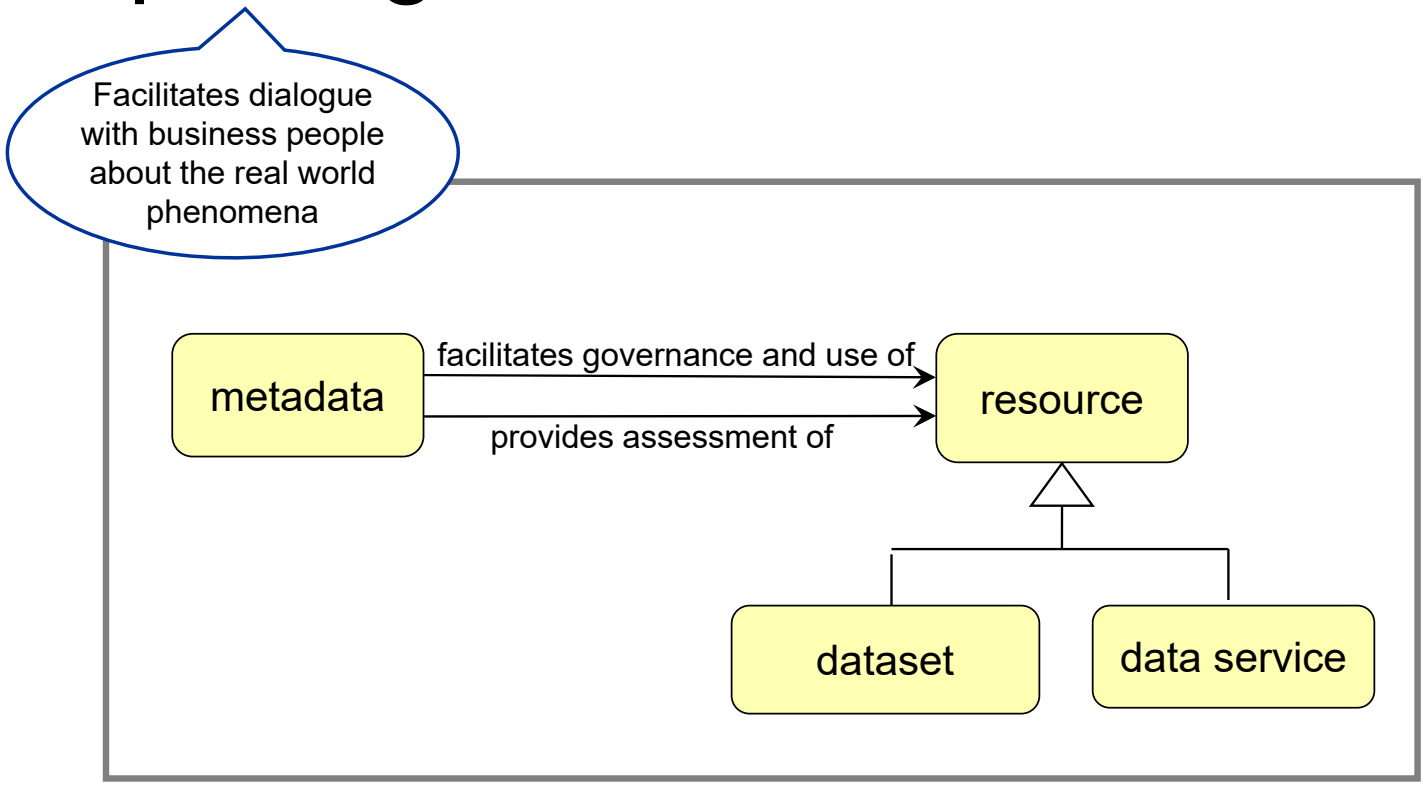
*…based on 3 key principles..*

- Model domain-oriented
- Share and reuse model elements
- Apply the common metamodel

*…facilitating interoperability **in** domains and **between** domains…*



# Concept diagram



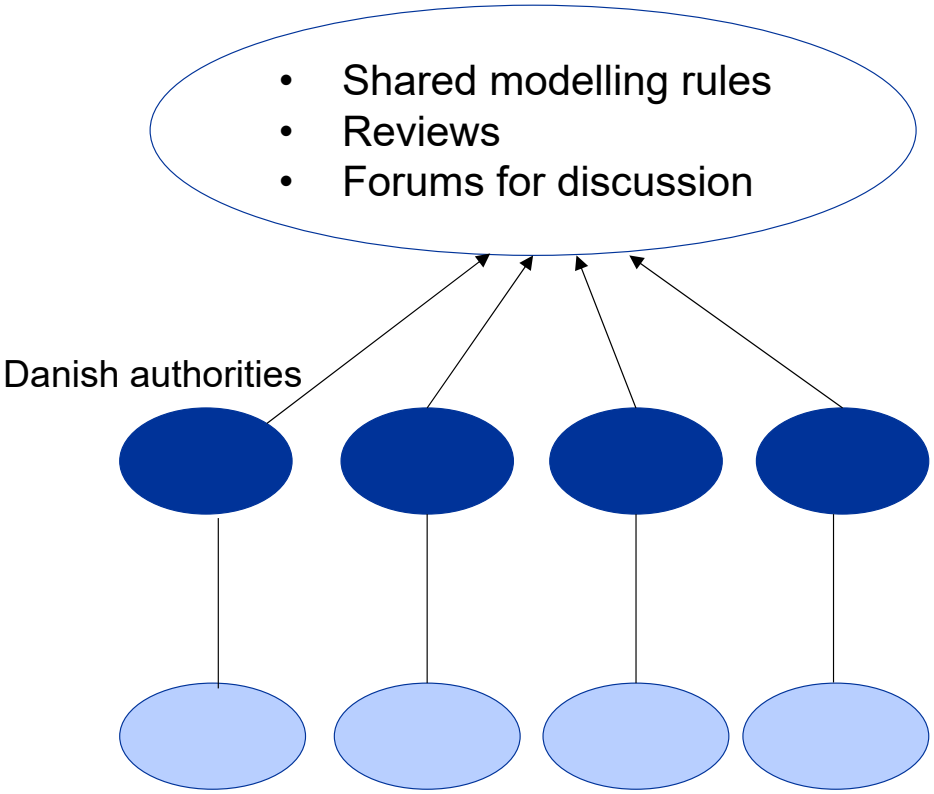
# 28 rules covering aspects such as

- **Graphical modelling notation**
- **Development and approval status**
- **Ownership and provenance**
- **Naming conventions**
- **Linking concept and logical models**
  - Rule: *Document the link between concept models and logical models*
- **Sharing and reusing**
  - Rule: *Only define new model elements when it is necessary*
- **Definitions that support reuse**
  - Rule: *Compose definitions or descriptions of the model elements*
  - Rule: *Compose structured definitions in a standardized way*
  - Rule: *Compose application-independent definitions*

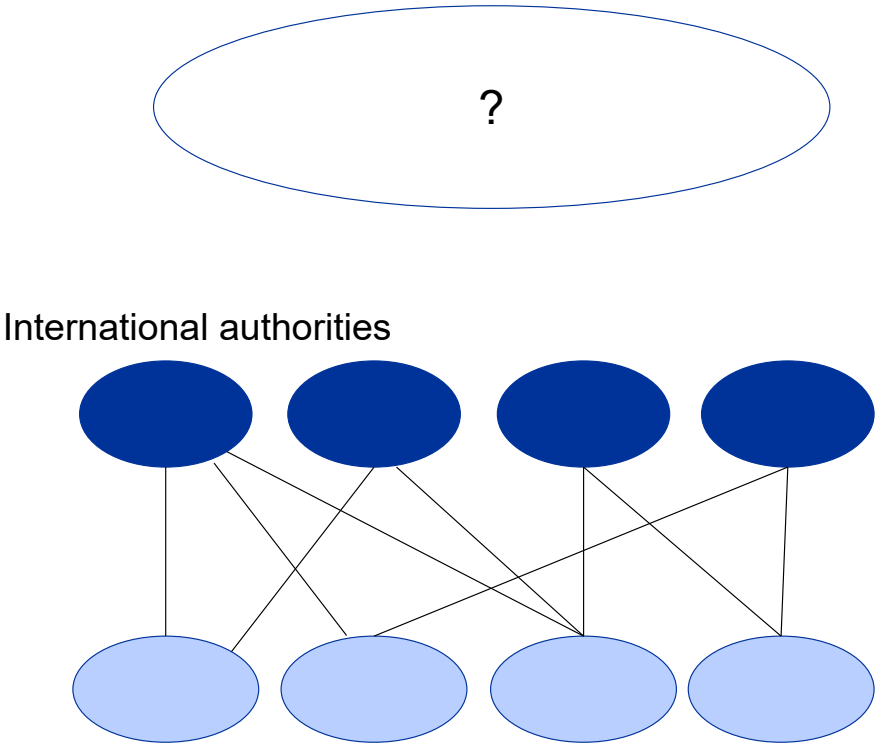
# Observations

- dissemination: relations, examples and notes matter
- comprehensive overview in text/table format is appreciated
- different levels of maturity
- modelling/terminology skills are not always in-house

## Danish national situation




## International situation



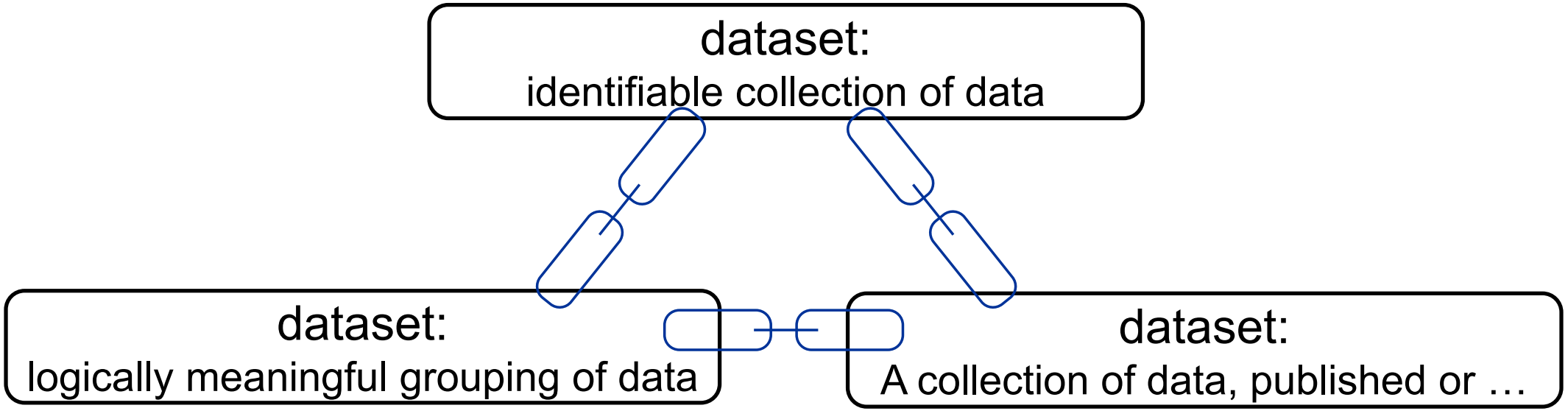
# The international challenge

Aligments to the rescue?

# Level of ambition

- harmonisation of terms & definitions
- mutual alignment of concepts
- one-way alignment of concepts
- ad-hoc alignment of concepts
- undocumented relations between concepts

# Alignment


dataset:
identifiable collection of data
dataset:
logically meaningful grouping of data
dataset:
A collection of data, published or …

# Rules of play?

1. What could a process for mutual alignment of concepts look like?
2. When is mutual alignment needed? When is one-way alignment sufficient/more appropriate?
3. Is a set of links part of the original glossary / thesaurus / terminology / concept model or an artefact in itself?
4. How to document the relation, especially if it is not ”is same as”?
5. …