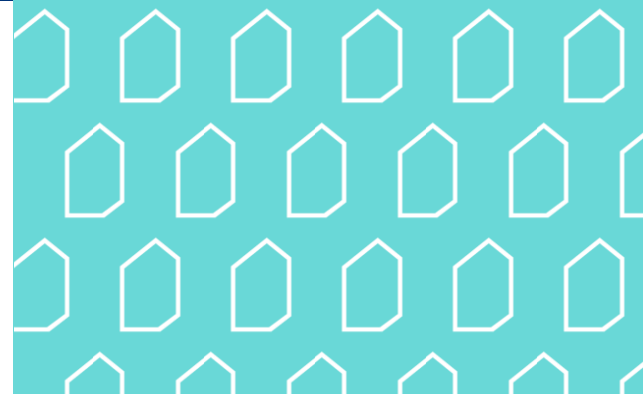


# Interoperability tools and method

Riitta Alkula, Leading Specialist



**DIGITAL AND  
POPULATION DATA  
SERVICES AGENCY**



# Digital and Population Data Services

## Agency's mission and impact objectives

### Mission (304/2019)

**To promote** the digitalisation of society,  
**ensure** the availability of data  
and **offer** services for customers' life events.

### Impact objectives in 2020

**Digital services** will increase the utilisation of the data and enhance the operation of public administration.

**Trust and legal protection** in society will improve.

Public administration services will be more customer-oriented and smoother for **citizens and companies** to use.



# Why interoperability: The Once-Only Principle

- Citizens and businesses often have to provide the same information multiple times when interacting with public administrations.
- In EU, the **Once-Only Principle (OOP)** will enable public entities to share citizen data with each other, so that people using any public services only have to **enter their information once**.
- The target is to **reduce administrative burdens** on citizens and businesses
- With the help of OOP, public administrations in Europe can **share data that people have already supplied**, in a transparent and secure way.



Source:  
<https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/Once+Only+Principle>



# So... how can we find the right piece of information in practice?

- How do we know the information is already there?
- How do we know that others have exactly that piece of information we need and are looking for?
- To ensure that we are dealing with the same information (content), we need additional information like:
  - Definitions
  - Metadata, i.e. information about information
  - Unique identifiers, preferably language-independent to be machine-readable

*“What's in a name? That which we call a rose  
By any other name would smell as sweet.”*

*William Shakespeare*



## What is your biggest challenge with regards to semantic agreements?

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Re-use and building on existing vocabularies



Different user groups



Governance



Sharing knowledge



Compliance



Tooling for span of control



*Screen capture from a poll conducted among the attendees of Semic 2020 Conference in 15 October 2020*



# Finnish government activities implementing EU directives on the reuse of information

## *The Joint Metadata and Information Management Key Project*

- National application and **implementation of the European Interoperability Framework (EIF)**
- A two-year project in 2016 – 2018, funded and steered by the Ministry of Finance
- The “once-only” principle applied to government information requests: using said information for various legitimate purposes
- The project had two focus areas:
  - the **Interoperability Method**, which is a management solution for the core and metadata in the public administration, and
  - the national metadata service called as the **Interoperability Platform**

## *Public Information Management Act (Informationshanteringslagen)*

- Ministry of Finance presented Act on Information Management in Public Administration. The law was passed by Parliament in 2019.
- The authorities shall implement electronic disclosure of regular and standard information between information systems via **technical interfaces**.
- The **description of the data structure** of such technical interface is determined and maintained by the authority that discloses the information.



# The Interoperability Platform and Method

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# Interoperability platform is the place to be!

Tool for maintaining (terminological) vocabularies and defining concepts.

<http://sanastot.suomi.fi>

**Terminologies**

Tool for maintaining and publishing code lists and reference data.

<http://koodistot.suomi.fi>

**Reference Data**

Platform for collaborate metadata management. Based on Linked Data principles and W3C technical standards and semantic technologies.

Formal linkages between metadata elements based on machine readable identifiers, URIs.

*Metadata as human and machine readable data web – turning in future into a smart data catalog.*

**Interoperability Platform**

Integrated set of tools; can be used separately or as a suite of tools

Tool for maintaining and publishing data vocabularies and data models.

A tool for shared data vocabulary libraries and application profiles for data semantics of application programming interfaces (API) and various other data resources.

**Data Vocabularies**

Tool for collecting comments and feedback from stakeholders.

<http://kommentit.suomi.fi>

**Comments**

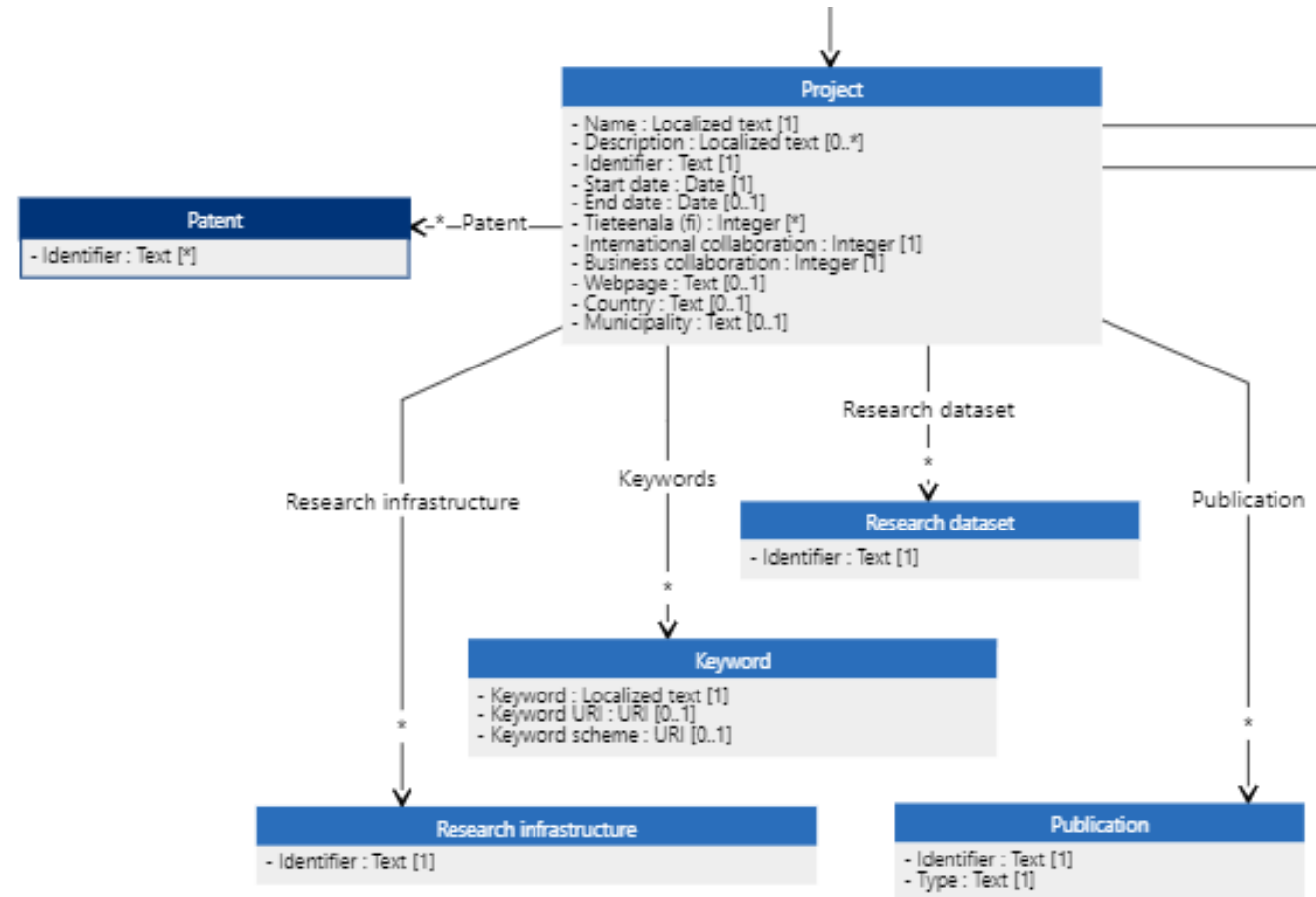
<http://tietomallit.suomi.fi>





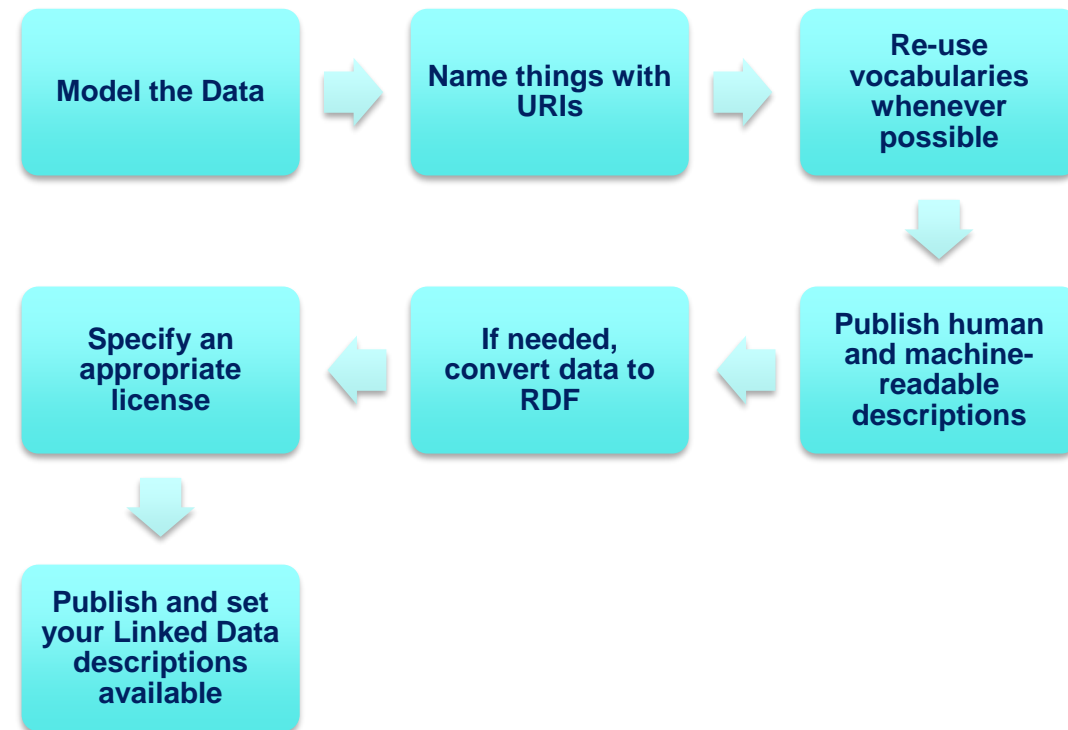
# Objectives of the Method and the Platform

- To provide a common set of tools, guidelines and principles for the Finnish public sector in one place
- Better visibility for content providers
- Efficient reuse of once created content
- When a concept is defined in the terminologies tool, it is provided with a unique identifier (URI)
- Machine readable and identifiable concepts can be referenced elsewhere
- For example, classes and properties created in data models can be based on existing concepts in terminologies
- So common concept definitions promote interoperability between information systems



# Interoperability Method Guidelines

- Practical users want clear guidelines for producing content on the Interoperability Platform
- The Interoperability Method presents the principles according to which the information and metadata are described in a consistent and harmonised way on the platform
- ***“Re-use when possible, mint when necessary”***
- The method is based on common linked data “cookbooks” and best practices for producing linked data



# More information

- Information in English:  
<https://wiki.dvv.fi/display/YTIJD/Finnish+interoperability+project%2C+platform+and+tools>
- The tools:
  - <https://sanastot.suomi.fi/> (the Terminologies Tool)
  - <https://koodistot.suomi.fi/> (the Reference Data Tool)
  - <https://tietomallit.suomi.fi/> (the Data Vocabularies Tool)
  - <https://kommentit.suomi.fi/> (the Comment Round Tool)
- Presentation videos: <https://youtu.be/eeonlC5mPeM> (in English),  
<https://youtu.be/ERLe8kFmbx0> (in Finnish), [https://youtu.be/3x\\_rylnrpnM](https://youtu.be/3x_rylnrpnM) (in Swedish)
- Act on Information Management in Public Administration:
  - <https://www.finlex.fi/fi/laki/kaannokset/2019/en20190906.pdf> (in English)
  - <https://www.finlex.fi/sv/laki/ajantasa/2019/20190906> (in Swedish)
  - <https://www.finlex.fi/fi/laki/ajantasa/2019/20190906> (in Finnish)
- Core Vocabularies:
  - <https://joinup.ec.europa.eu/collection/semantic-interoperability-community-semic/core-vocabularies>





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[dvv.fi](https://dvv.fi)