



Interoperability Platform & Method

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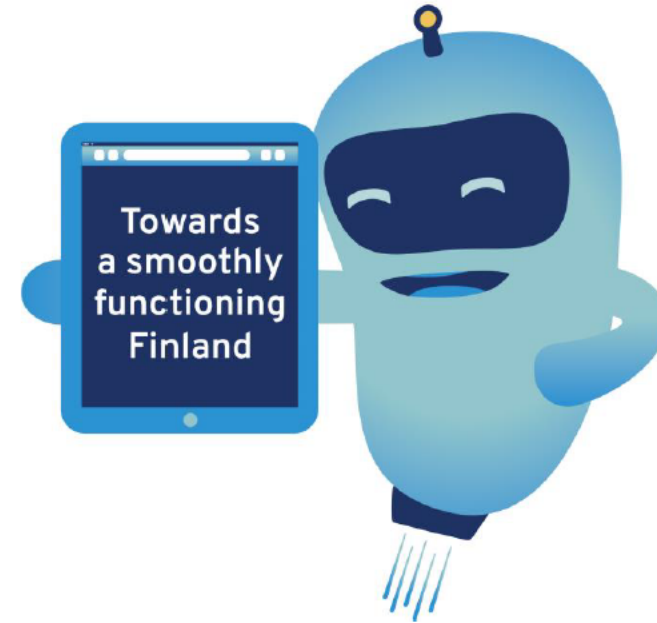


Background



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>



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



**DIGITAL AND POPULATION
DATA SERVICES AGENCY**

<https://wiki.dvv.fi/spaces/YTIJD/pages/34742731/Finnish+interoperability+platform+and+tools+-+introduction>

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>



National implementation: Built Environment



A new home for information on the built environment

Key information on the Finnish built environment is being brought together in a new national information system. Having a common system and shared operating practices will make information management clearer and simpler. Having higher quality information also contributes towards effective planning and decision-making for a sustainable living environment.



The information system is now being built

The built environment information system will be implemented through extensive cooperation. The reform will serve to carry forward Finland's digital vision.



DIGIVISION: FINLAND HAS A SUSTAINABLE, WELFARE-ENHANCING LIVING ENVIRONMENT FOUNDED ON WORLD-CLASS DATA

Data content of the system

The information submitted to the built environment information system will comply with jointly agreed technical requirements, meaning that it uses the standardised national data models.

The data is generated in the basic work of municipalities and regional councils and, as a rule, is submitted to the national information system via an interface in as automated a manner as possible.

The submission of the data has been possible since the beginning of 2024, and the relevant legislation specifies the transitional periods and deadlines for submission of different data.

Construction data that will be submitted to the system

- building permit
- demolition permit
- landscaping permit
- deviation decision
- building code (PDF-format in 2024, data-model format at a later date)

Transition period provides flexibility

The Construction Act will enter into force on 1 January 2025. Municipalities must submit their construction-related data to the information system no

Area use data


- local detailed plan
- local master plan
- regional plan
- urban land use plan (PDF-format in 2024, data-model format at a later date)
- building prohibition
- building restriction
- restriction on action
- area requiring planning

In the future, planning data will be produced in Finland using a nationally interoperable, spatial data-based planning data model and will be stored in the built environment information system. The digitalisation process will not change the roles of land use planning.

Transition period provides flexibility

The law requires municipalities and regional councils to submit new land use plans and other data on area use to the national built environment information system. The data can be submitted from 1 January 2024 onwards, and must be provided no later than 1 January 2029.

Data content will expand later on

Tjänster Information om systemet Områdesanvändning Byggande Anvisningar och stöd Exempel 

Förstasidan → Anvisningar och stöd → Datamodeller

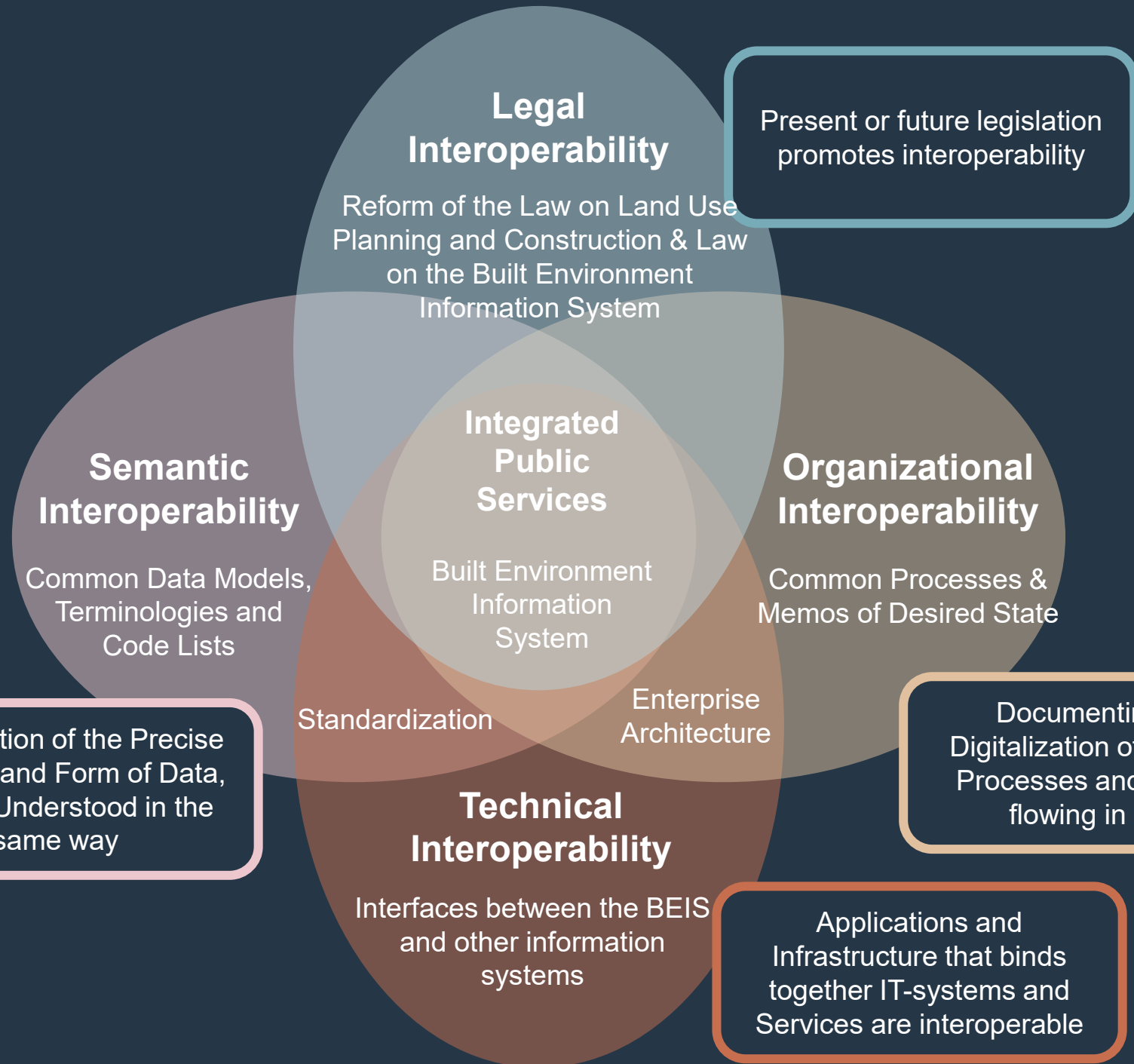
Datamodellerna för den byggda miljön

Datamodellerna för den byggda miljön styr byggandet av datasystemen och databaserna. Datamodellen är ett sätt att beskriva information och relationerna mellan information. Till systemet skickas information i enlighet med samma nationella datamodeller.

<https://ryhti.syke.fi/sv/ohjeet-ja-tuki-sv/datamodeller/>



European Interoperability Principles (EIF) in the Built Environment



Present or future legislation promotes interoperability

Information Management Act
(906/2019, 6 §)
"Each ministry shall, within its own mandate [- - -] maintain the general strategies to promote the interoperability of shared information pools and information systems. "

Preservation of the Precise Meaning and Form of Data, Data is Understood in the same way

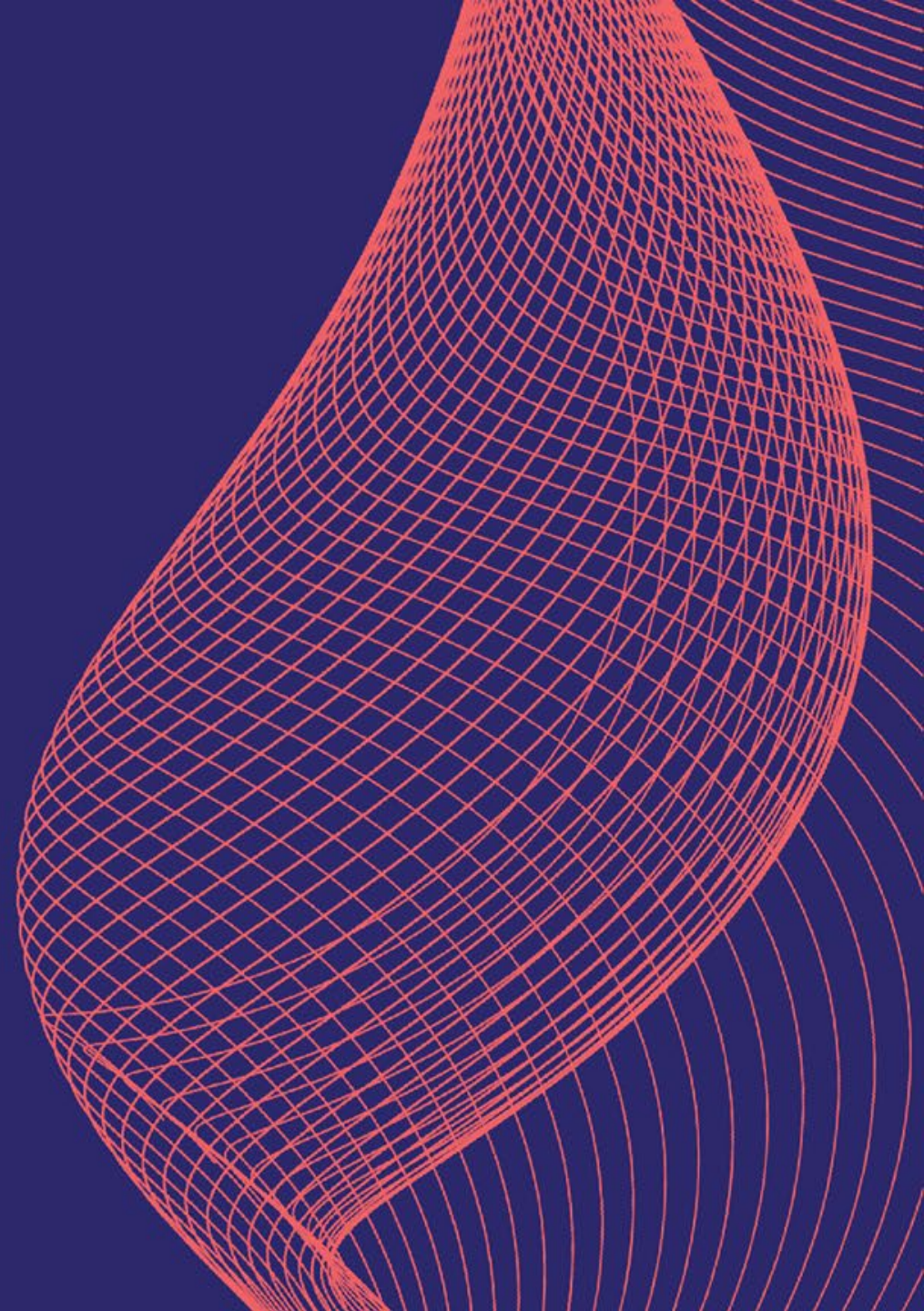
Documenting and Digitalization of Business Processes and the Data flowing in these

Applications and Infrastructure that binds together IT-systems and Services are interoperable

SA D Reliability and Data Quality - Deliverables and (Nordic) added value

NSG&B Final Programme Meeting
Iceland 22-23 May 2024

Deliverables from SA D



Overall achievements

- Basic Information about businesses, including HVD - NACE codes (Activity of the business description) and Tax information
- Signatory rights
- API requirements, API specifications
- PoC on EU Company Certificate
- Nordic Government API and implementation in four Nordic countries
- API integration between the Nordic countries

Stakeholders affected

- ERPs, System Providers, Service Providers offering value added services etc.
- SMEs
- Authorities working with semantics related to different EU initiatives or reusing the API spec.

The work will continue.....

Terminology
Ontology
Vocabulary
Concept Model?

Core Vocabulary
Reference Data Model
Ontology
Vocabulary
Logical Data Model
Taxonomy?

Application Profile
Information Exchange Model
Logical/Physical Data Model

UBL 2.4
UN/CEFACT BSP

ISA2core - EU Core
Vocabularies
implementation

OWL

Nordic Core Business
Terminology

Nordic Core Business
Vocabulary

"Nordic API data
model"

"Signatory Rights"

EU Company
Certificate

Ultimate Beneficial
Ownership

Power of Attorney

...and others...

SHACL

Data Product Schema
Information Exchange Schema
Physical Data Model?

Export formats

OpenAPI
JSON
JSON-LD
RDF
Turtle

"SKOS+"

Terms

Concepts

Relationships

OWL

Classes

Attributes

Associations

[Code Lists]

Data Quality and
Semantics



legal form

CONCEPT · NORDIC CORE BUSINESS TERMINOLOGY · **Draft**

URI

<https://iri.suomi.fi/terminology/nbvoc/concept-16>

Terms

FI	oikeudellinen muoto	Preferred term, Draft
EN	legal form	Preferred term, Draft
DA	juridisk selskabsform	Preferred term, Draft
NB-NO	organisasjonsform	Preferred term, Draft
SV-FI	juridisk form	Preferred term, Draft
SV-SE	juridisk form	Preferred term, Draft

Definition

EN a legal structure according to national legislation

Note

EN Reason for a definition that is different from the EU Core Business Vocabulary:
EU Core Business Vocabulary is using "Legal form type" = The classification of the Legal Entity as a member of a particular group in the context of legal registration.
1. We are defining the concept legal form

Organization

Finnish Tax Administration

Created at

28/01/2022, 15.33

Relationship information

Related concept

[> agent](#)

Member of collection

[> NSG&B 2024 version](#)

**Nordic Core Business
Terminology**

Nordic Core Business Vocabulary

CORE DATA MODEL · NCBV · WORKING VERSION · Draft

Nordic Core Business Vocabulary

← TO ASSOCIATIONS LIST Actions ⋮

SEARCH

DETAILS

LINKS

CLASSES

ATTRIBUTES

ASSOCIATIONS

DOCUMENTATION

Legal Form
Draft

Association's identifier ⓘ
ncbv:legalForm_

URI
https://iri.suomi.fi/model/ncbv/legalForm_
[Copy to clipboard](#)

Concept

legal form ⤴

a legal structure according to national legislation

Concept
legal form ↗

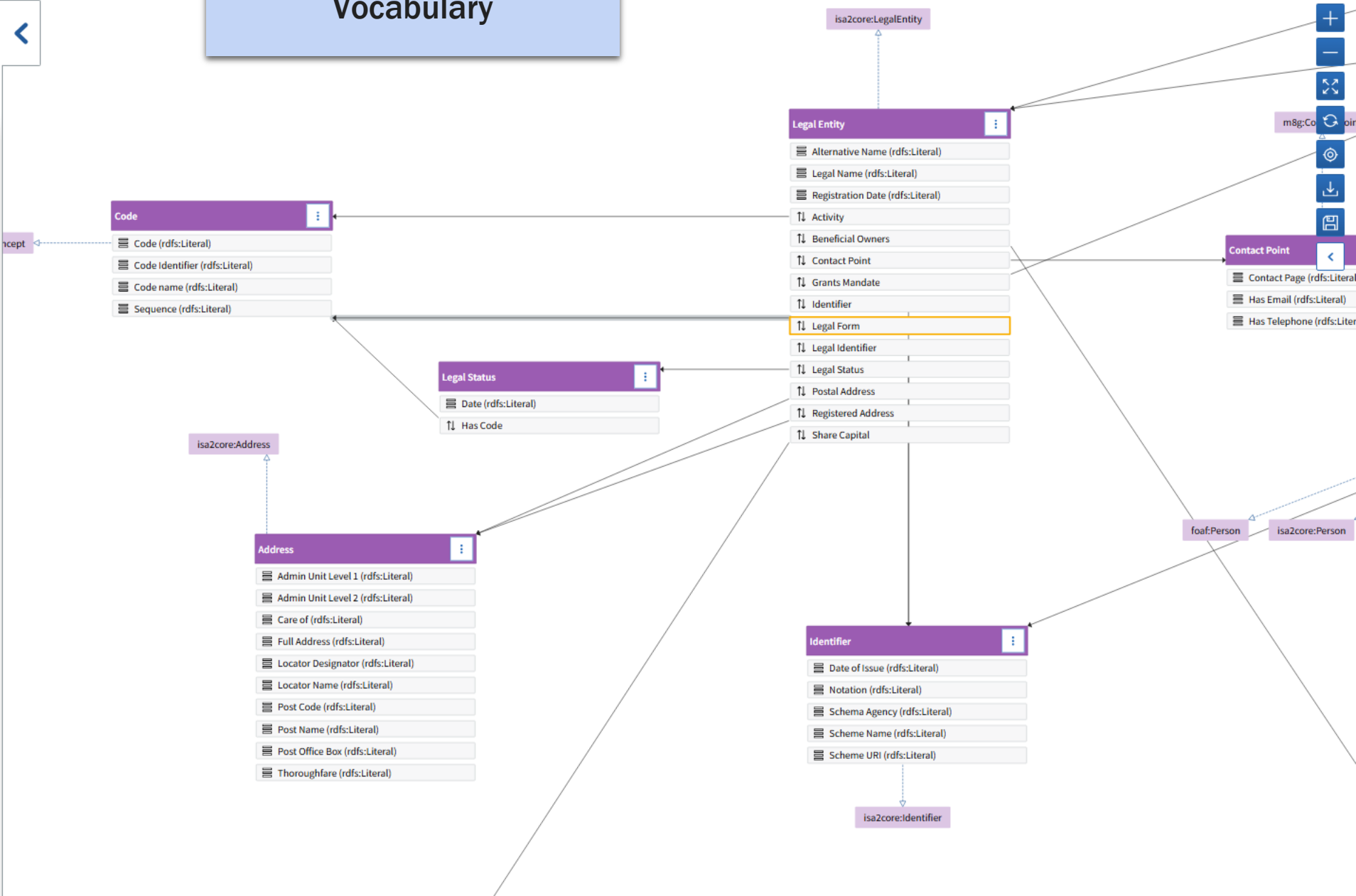
Concept status
Draft

Terminology
[Nordic Core Business Terminology](#) ↗

Associations source ⓘ
No source class

Associations target ⓘ
Code (ncbv:CodeClass) ↗

Upper associations ⓘ



[Code Lists]

FRONT PAGE > REGISTRY:VEROTUSREKISTERI (FI) > CODE LIST:NORDIC LEGAL FORMS

Nordic Legal Forms

en

Export

Choose action

Draft Registry: Verotusrekisteri (fi) Information domain: Private finance and funding Organization: Finnish Tax Administration

CODES

INFORMATION

Search for code

199 codes

NO_AAFY - Ikke næringsdrivende virksomhet Draft

NO_ADOS - Administrativ enhet -offentlig sektor Draft

NO_ANNA - Annen juridisk person Draft

NO_ANS - Ansvarlig selskap med solidarisk ansvar Draft

NO_AS - Aksjeselskap Draft

NO_ASA - Allmennaksjeselskap Draft

NO_BA - Selskap med begrenset ansvar Draft

NO_BBL - Boligbyggelag Draft

NO_BEDR - Bedrift Draft

NO_BO - Andre bo Draft

NO_BRL - Borettslag Draft

Data Spaces

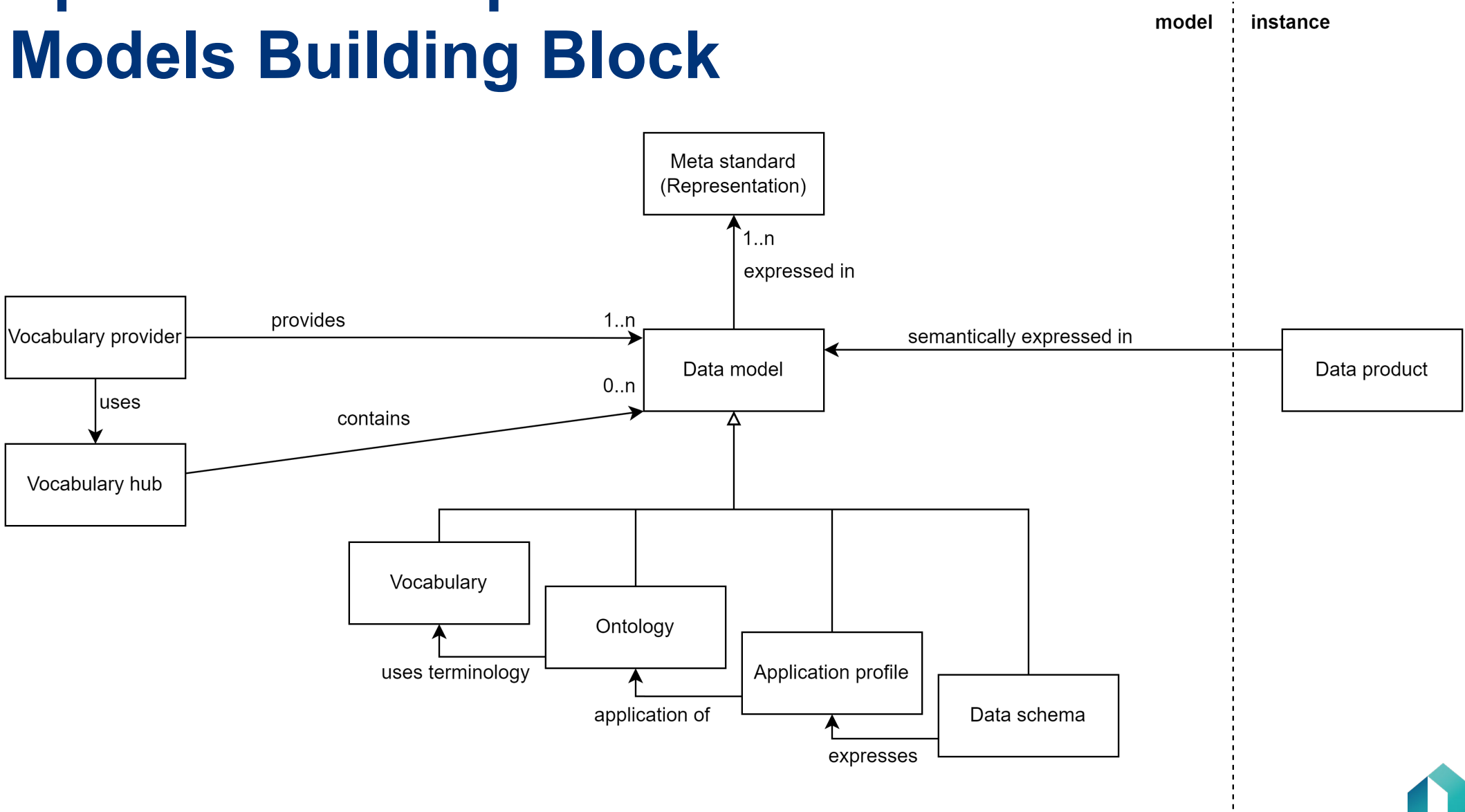


Data Spaces Blueprint v. 1.0

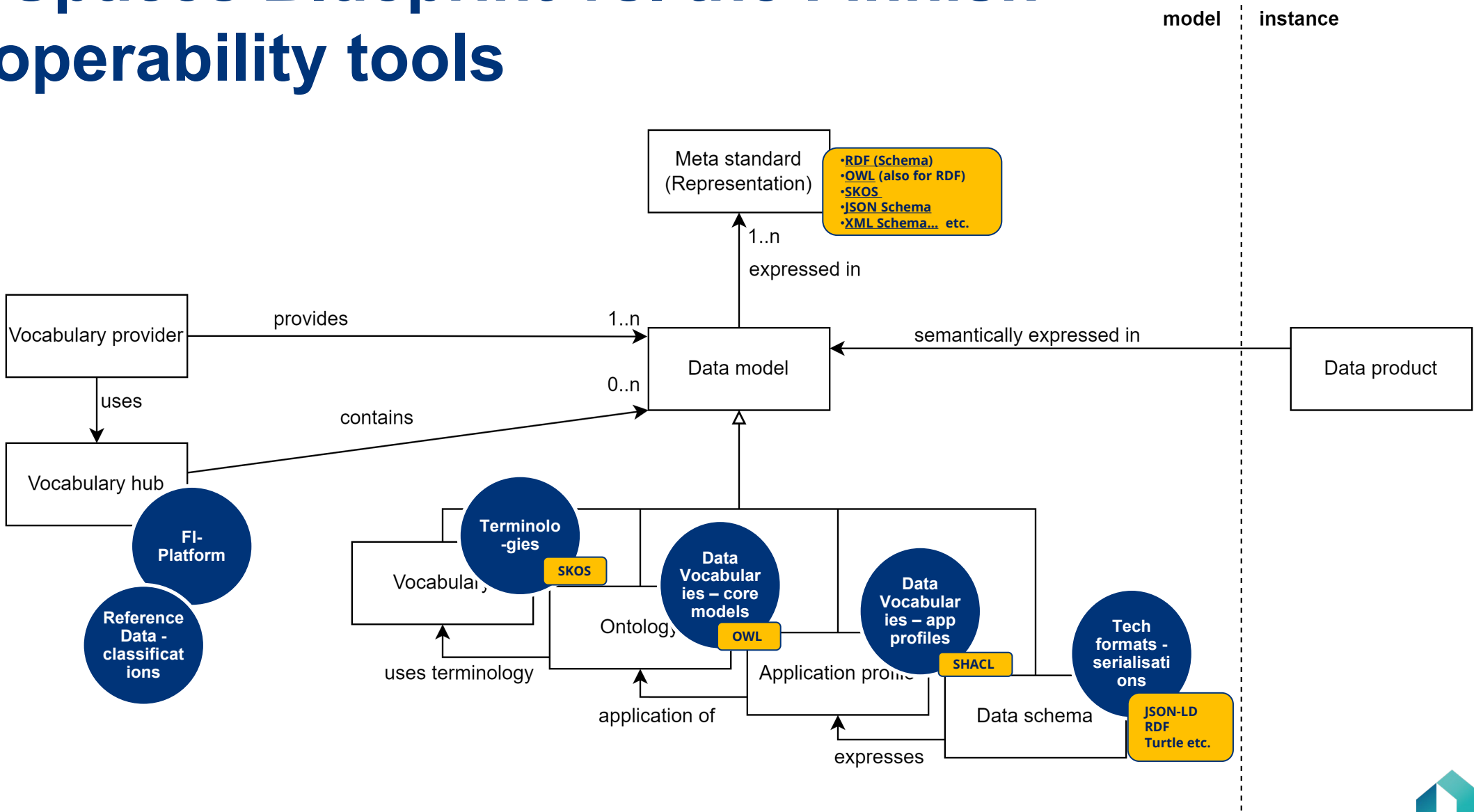
- The Blueprint is a consistent and comprehensive set of guidelines to support the development cycle of **data spaces**. It includes the **conceptual model of a data space**, **data space building blocks**, and recommended standards and specifications.
- A data space is a distributed system defined by a **governance framework**. It facilitates secure and trustworthy **data transactions** between **participants**, emphasising trust and **data sovereignty**. A data space supports one or more **use cases**.
- More information:
<https://dssc.eu/space/BVE/357073006/Data+Spaces+Blueprint+v1.0>



Data Spaces: Conceptual model of the Data Models Building Block



Data Spaces Blueprint vs. the Finnish Interoperability tools



EUDI Wallets for Individuals and Businesses

EWC and WE BUILD LSPs



EWC KYC -pilot Germany-Finland & others

Mikael af Hällström

**Finnish Tax Administration
EWC**

Semantically Interoperable
Common Data Models for
"KYC documents" on the IoP

EU Core Voc & others
RDF/OWL

LPID EU CC Ben Own Fin Stmt
SHACL Shapes

"Credential Generator" JSON-LD

Common Credential Schemas
SD-JWT-VCDM / SD-JWT / JWT

Relying Party

Mini-Pankki

Relying Party

Test-Landesbank

Holder

Hosharaff et al.
MiniSuomi
Company Wallet

Holder

Test-Firma
Spherity
Enterprise Identity
Wallet

Issuer

Mini-PRH

Issuer

Test-Bundesanzeiger

presents

presents

presents

presents

issues

issues



WP 5: Forums

WP lead: Bolagsverket, SE

Ecosystems Forum (including domain specific) Forum
lead: Izertis ES

Member States Advisory Forum
Forum lead: BMDV DE

WP2: Wallet for Business
WP lead: ICTU, NL

Domain Business
WP Co-lead: Archipels, FR

BU1
lead:
Bundesanzei
ger, DE

BU2
lead:
Bolagsverket
SE

BU3
lead: Tax
Administration
NL

BU4
lead:
Registradores
ES

BU5
lead:
SUNET
SE

BU6
lead:
ICTU
NL

Domain Supply chain
WP Co-lead: UPRC, GR

SC1
lead:
INGROUPE
FR

SC2
lead:
ILVO, BE

SC5
lead:
Open
Peppol, BE

WP3: Wallet for Payments
WP lead: ICTU, NL

Domain Payments
WP Co-lead: VISA

PA1
lead: Min of
Digitalisation,
GR

PA2
lead:
Dutch Payment
Association
NL

PA3
lead:
Bundesanzei
ger, DE

PA4
lead: State
Treasury
FI

WP6: Communication & Dissemination

WP Lead: KVK, NL

WP 4: General capabilities
WP Lead: DIGG, SE

Architecture group (including security)
Group lead: DIGG SE

Semantics Group
Group lead: Finnish Tax Agency FI

Trust registry infrastructure
Group lead: Dep. for Digital Transformation IT

QTSP (incl. signatures)
Group lead: Cleverbase NL

PID + LPID providers
Group lead: Infogreffe FR

Wallet providers
Group lead: GRNET GR

Testing group
Group lead: Signicat NO

Norwegian participants:

- BankID BankAxept AS
- Direktoratet for forvaltning og økonomistyring
- Signicat AS
- The Brønnøysund Register Centre //(BRC)
- The Norwegian Digitalisation Agency (Digdir)





VERO SKATT

