Where the Rubber Meets the Road

The DSSC Toolbox

Michiel Stornebrink

Toolbox

Sonia Jiménez

Validation scheme

Mariano Blaya-Andreu

Announcement

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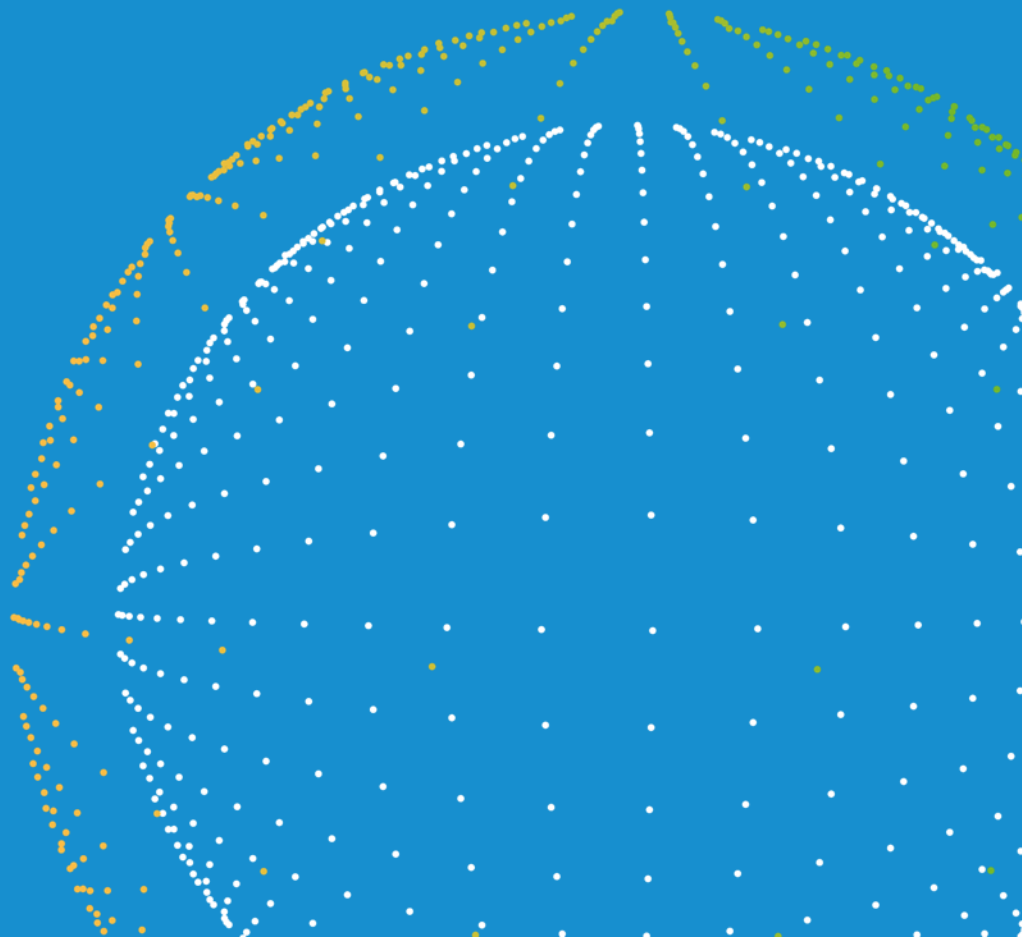
Toolbox

Michiel Stornebrink



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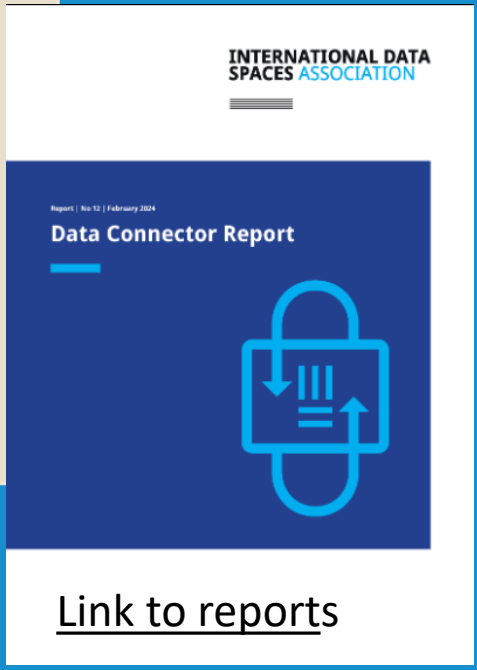
Example of technical implementations

Implementation	Component	Building Block(s)
• EDC connector • VTT DISL connector • Telekom DIH Connector • TSG connector • ….	• Participant Agent (aka Connector)	• Several covering the Data Space protocol functionalities



Link to reports

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Example of business and organisational implementations

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Implementation	Component*	Building Block(s)
• Sitra rulebook template #9 ‘Dataset Terms of Use’ • …	• Data Product Contract template	• Contractual Framework

- Components for business and organisational building blocks
  - need to be defined (Blueprint v1.5)

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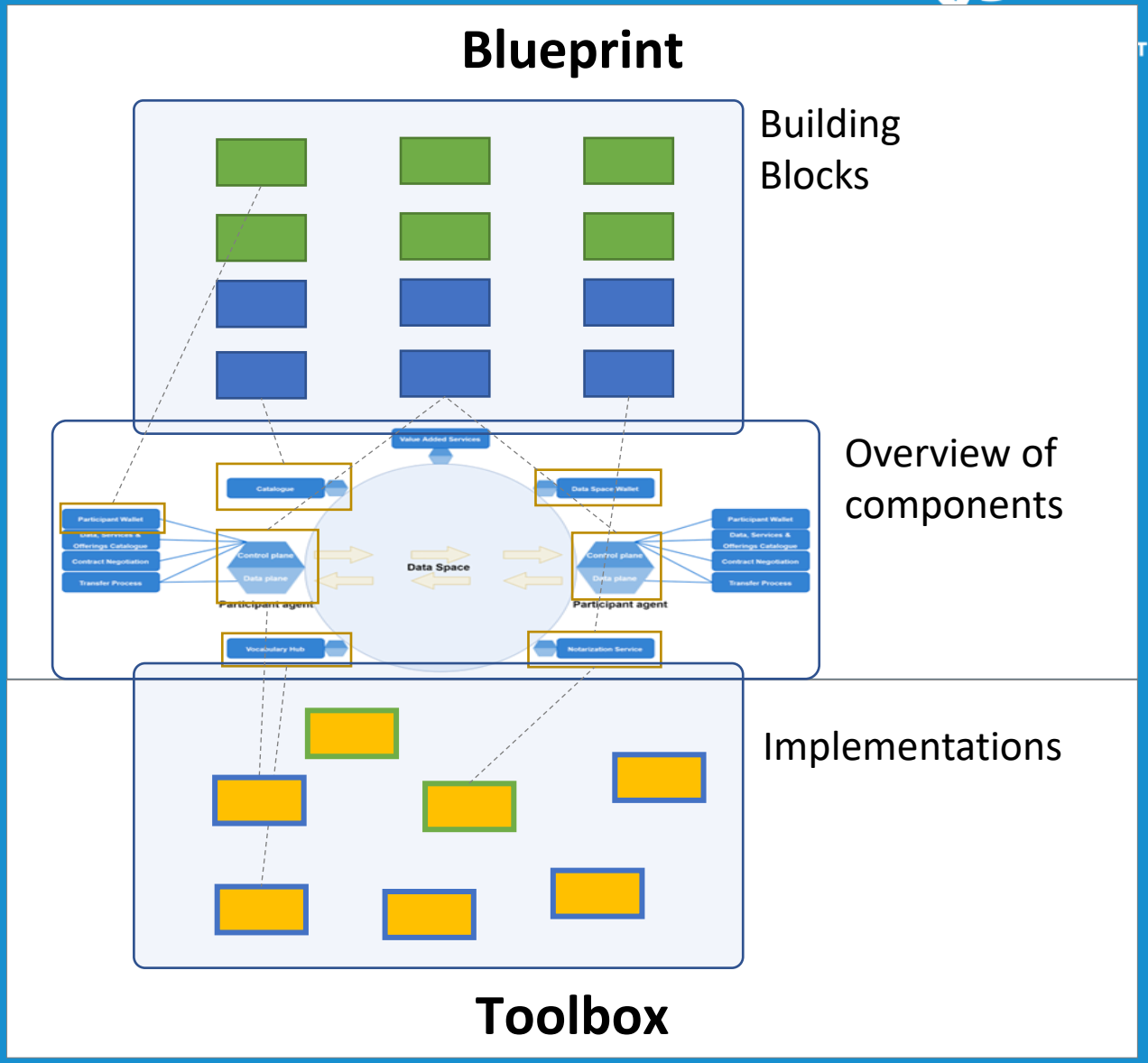
Relation with the Blueprint

- Building blocks specify the dataspace functionalities
- Components specify how these materialize in the dataspace
- Toolbox lists implementations of these components



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Why we need a toolbox

Dataspace participant perspective

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To setup and participate in dataspaces you need solutions that are ready to use.

There are many dataspace solutions developed; we can't see the forest for the trees.

Anybody can claim to adhere to the DSSC guidance. How are you selecting a future proof option?

That is why the DSSC will provide and maintain a **curated catalogue of implementations.**

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Toolbox is a curated catalogue of implementations

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- Covers both technical and business & organisational capabilities as specified by the building blocks
- Both software and non-software solutions
- Both open source and proprietary implementations
- Open for any implementation that adheres to the DSSC Blueprint. This requires validation.

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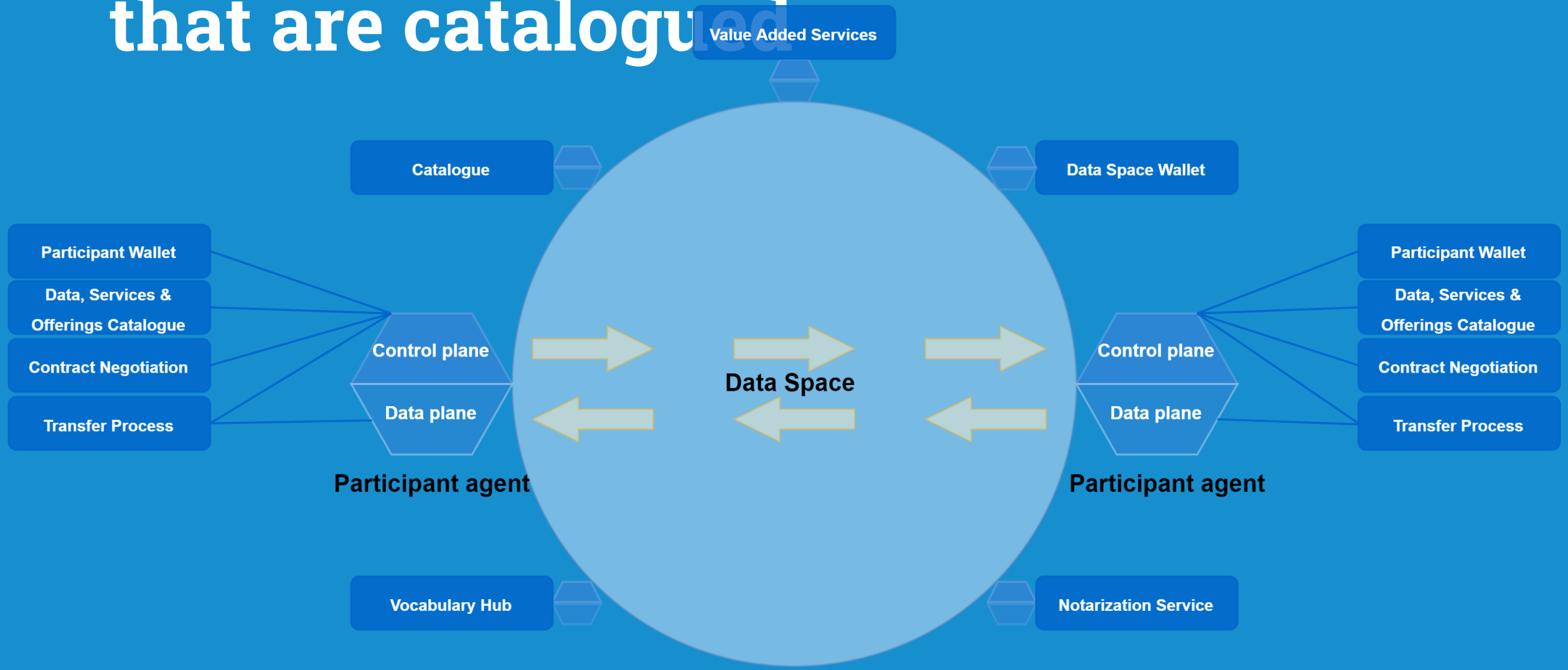
Phase 1: Technical components that are catalogued



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Why you want to be in there

Solution provider perspective

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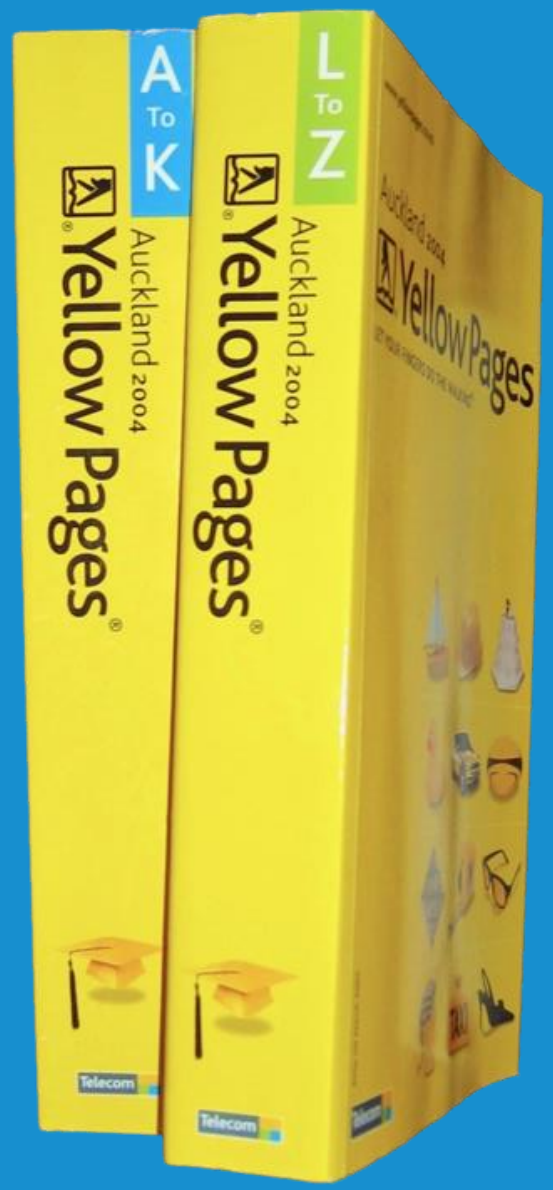
Like with yellow pages:

- Being listed in the Toolbox allows for improved findability by potential users
- Users can better position your solution because it is linked to shared understanding provided by the Blueprint



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Picture: The telescope at ESA's Optical Ground Station on Tenerife, Spain

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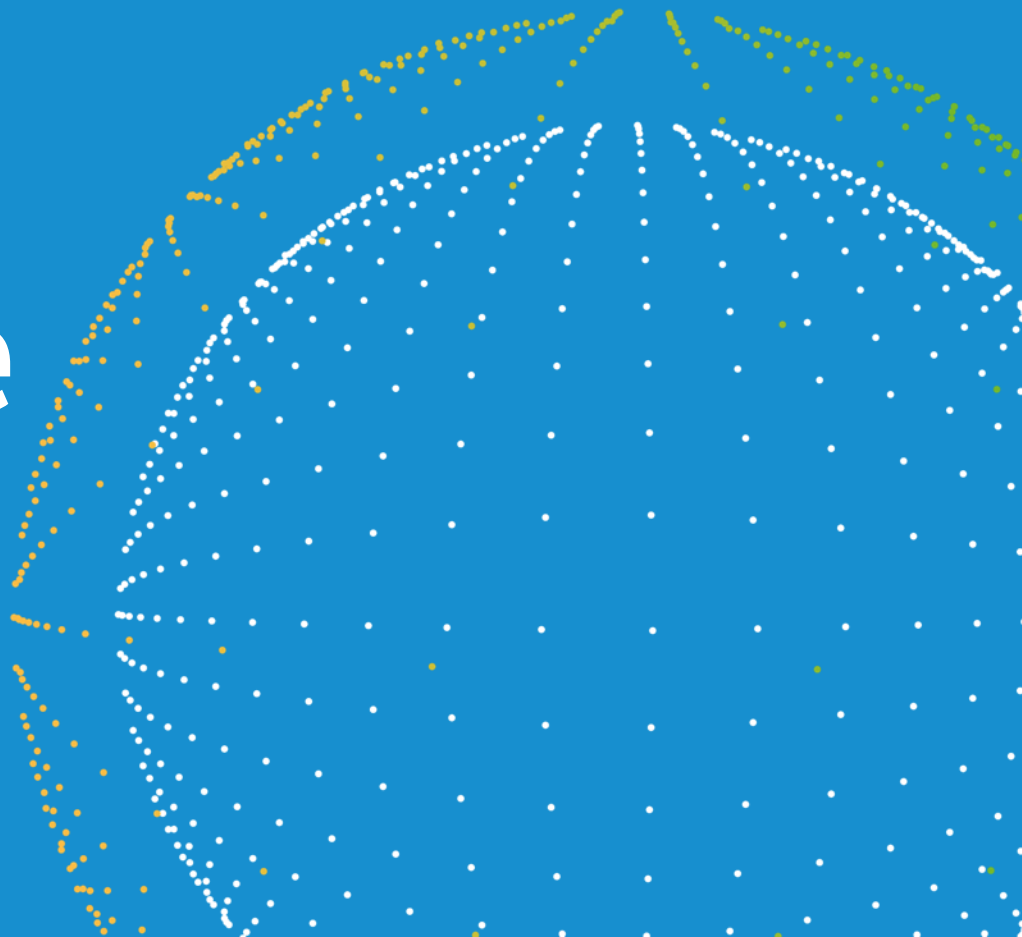
Validation Scheme

Sonia Jiménez



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Validation scheme for BB implementations

- DSSC will deliver a validation and approval framework for building block implementations.
- Carried out through automated self-assessments.
- Alignment with building block specifications in the Blueprint

Building block implementations that successfully complete the self-assessment will be showcased in the Toolbox

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Benefits of validation scheme

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Solution providers

- Assess technical components against blueprint specifications.
- Showcase in the Toolbox.

Data spaces authorities

- Assess alignment of Data Space to organizational and business building blocks.

Data spaces participants

- Find validated components in Toolbox

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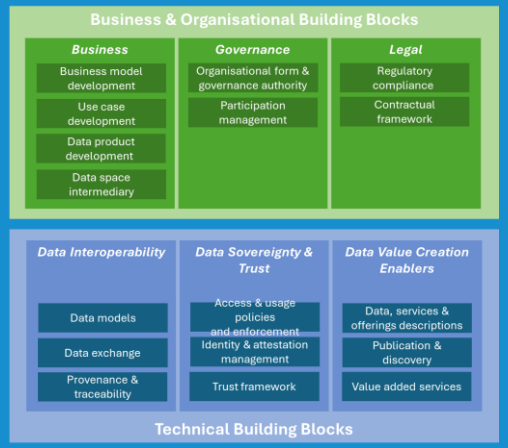
Process

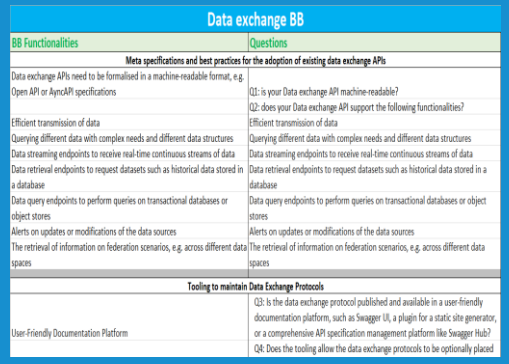
Applicant

DSSC

Preparation → Validation & Submission → Publication → Maintenance



Data Spaces Blueprint



Data exchange BB	
BB Functionalities	Questions
Meta specifications and best practices for the adoption of existing data exchange APIs	
Data exchange APIs need to be formalised in a machine-readable format, e.g. Open API or AyncAPI specifications	Q1: is your Data exchange API machine-readable? Q2: does your Data exchange API support the following functionalities?
Efficient transmission of data	Efficient transmission of data
Querying different data with complex needs and different data structures	Querying different data with complex needs and different data structures
Data streaming endpoints to receive real-time continuous streams of data	Data streaming endpoints to receive real-time continuous streams of data
Data retrieval endpoints to request datasets such as historical data stored in a database	Data retrieval endpoints to request datasets such as historical data stored in a database
Data query endpoints to perform queries on transactional databases or object stores	Data query endpoints to perform queries on transactional databases or object stores
Alerts on updates or modifications of the data sources	Alerts on updates or modifications of the data sources
The retrieval of information on federation scenarios, e.g. across different data spaces	The retrieval of information on federation scenarios, e.g. across different data spaces
Tooling to maintain Data Exchange Protocols	
User-Friendly Documentation Platform	Q3: Is the data exchange protocol published and available in a user-friendly documentation platform, such as Swagger UI, a plugin for a static site generator, or a comprehensive API specification management platform like Swagger Hub? Q4: Does the tooling allow the data exchange protocols to be optionally placed

Self-assessment in Jira

Toolbox

Versioning

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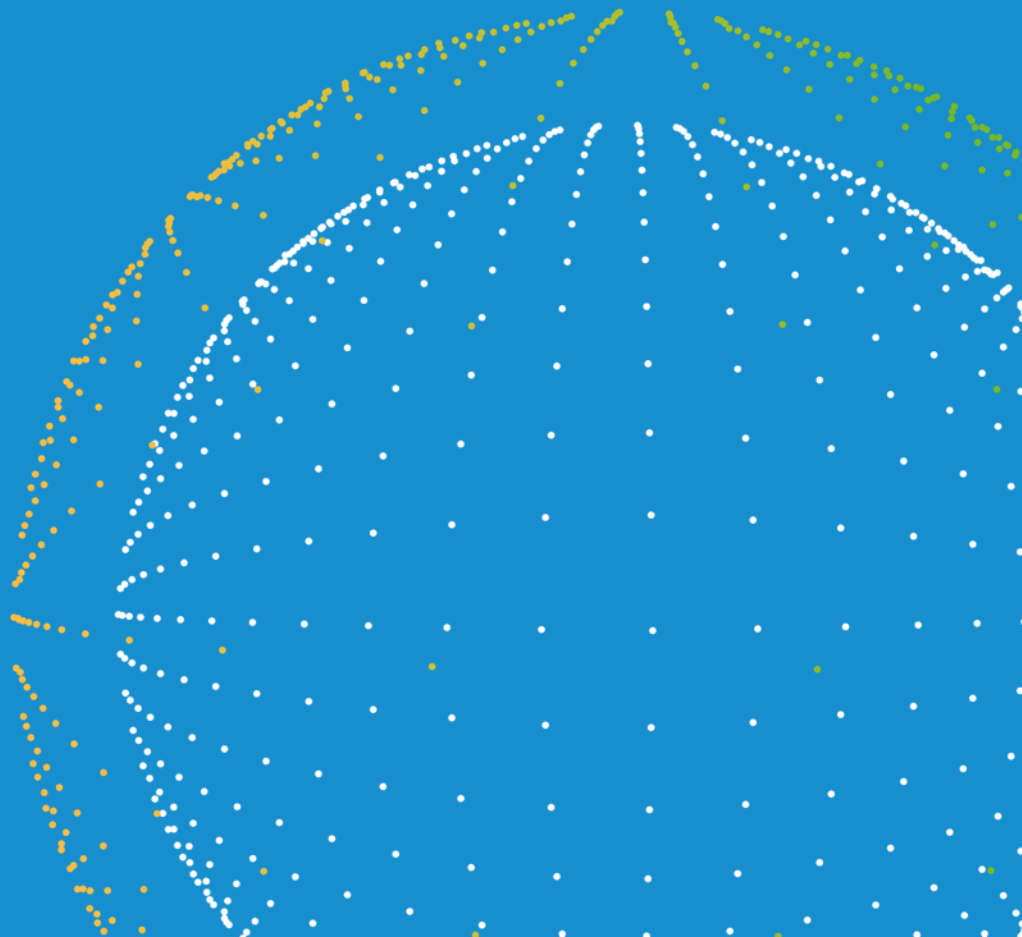

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As an implementer, what can I do now

Get familiar to the Blueprint 1.0

… in particular to the Building Blocks

… and the Components

… and see how your implementation matches the specifications

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Steps towards Toolbox v1

Stay tuned

Blogpost

Newsletter

Insight webinar

End of April: ready for submissions

Launch of the Toolbox by autumn

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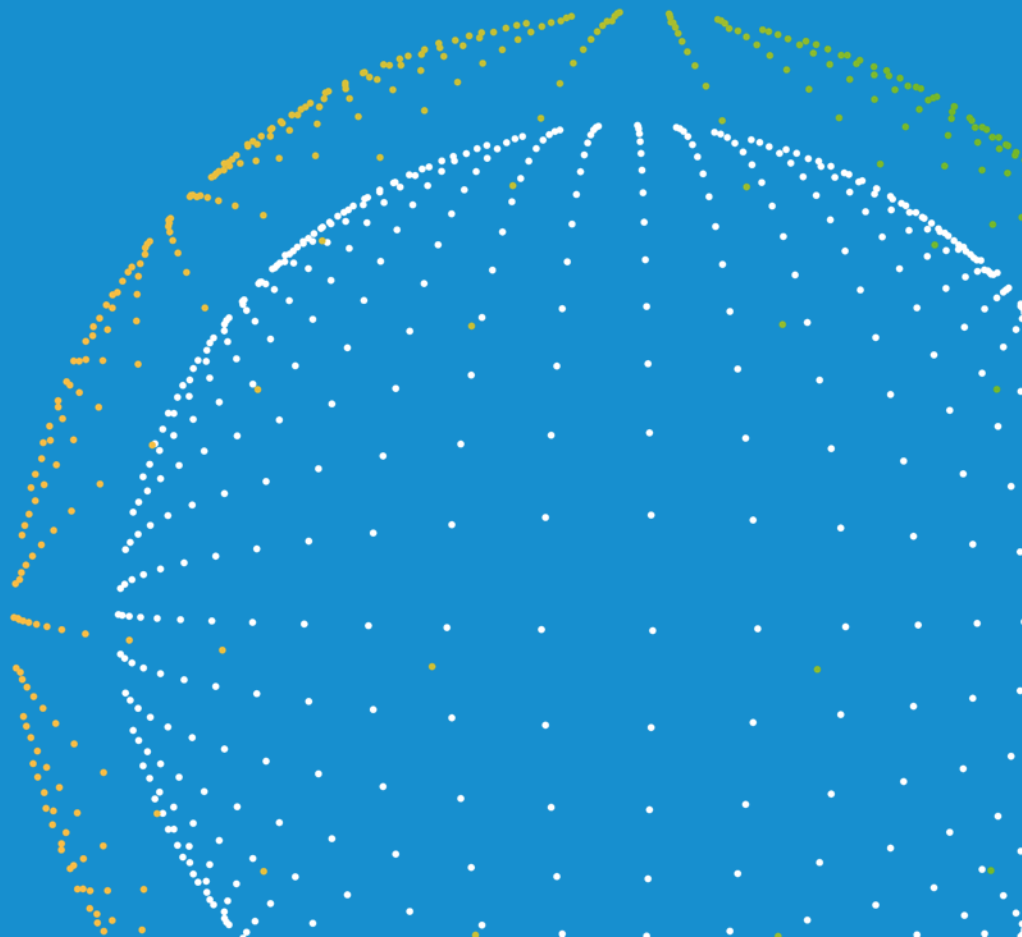
Thanks!



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