DATA SPACE FOR
SMART AND SUSTAINABLE
CITIES AND COMMUNITIES

Technical blueprint

Clara Pezuela (FIWARE)

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Technical blueprint elements

Catalogue of Specifications

Reference Architecture Model

Cookbook

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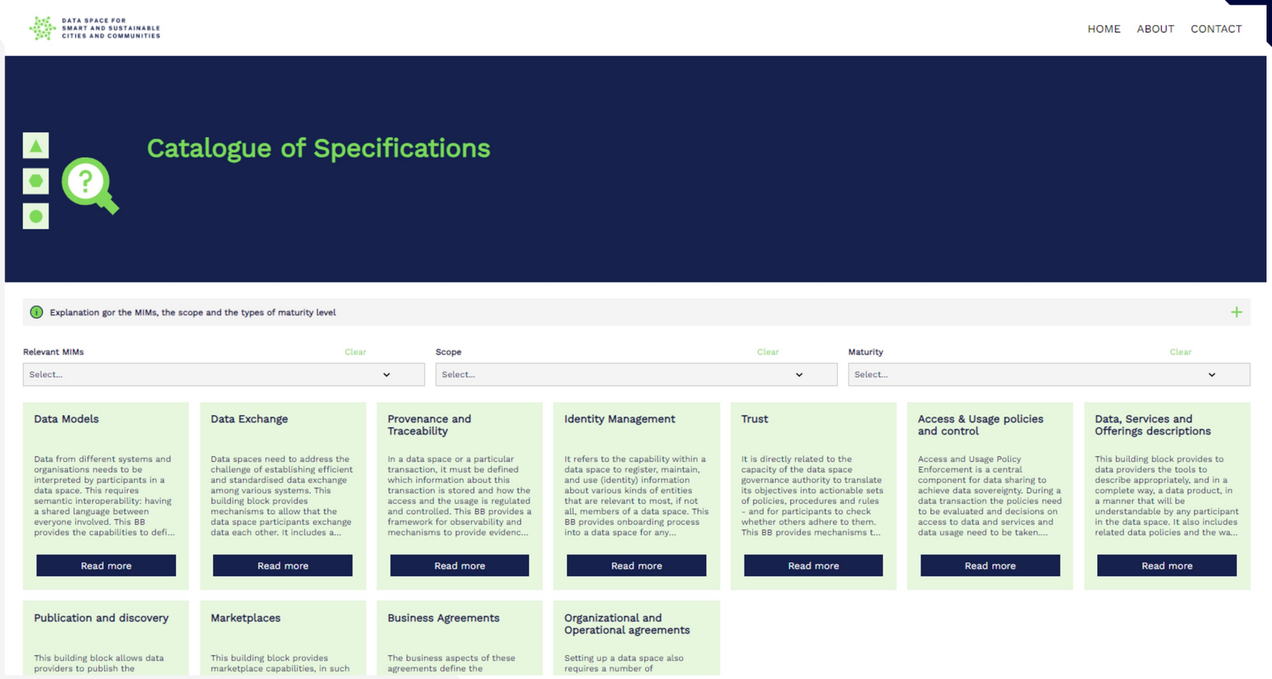
Catalogue of Specifications

- Leverage on DSSC Building Blocks taxonomy
- Aligned with Data Spaces Business Alliance (DSBA)
- Mapped to Minimal Interoperable Mechanisms (MIMs)
- Open for contributions, both standards and reference implementations

ONLINE RESOURCE



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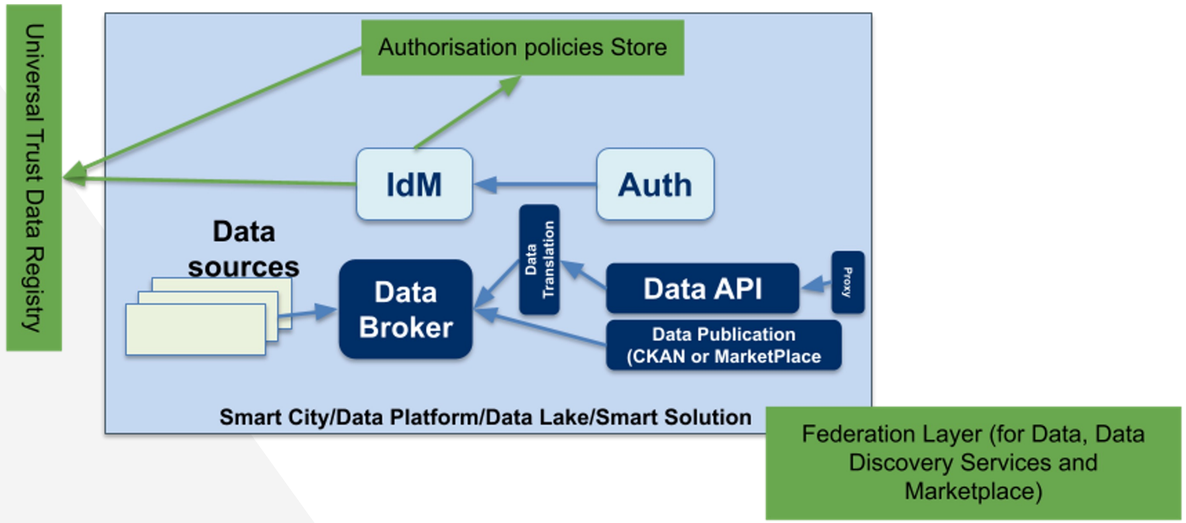
Reference Architecture (high level)

- Use case agnostic
- Extension of existing smart city/data platforms
- Evolution of brownfield/digital twin scenarios

ONLINE RESOURCE



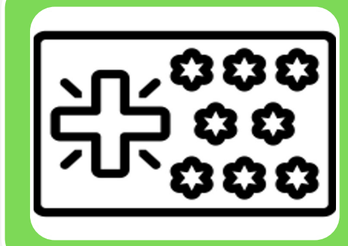
Components Description

Universal Trust Data Registry

- Unique credential per user
- Mechanism to identify trusted participant
- Relied on Verifiable Credential and Trusted Issuers

Authorization Policies Store

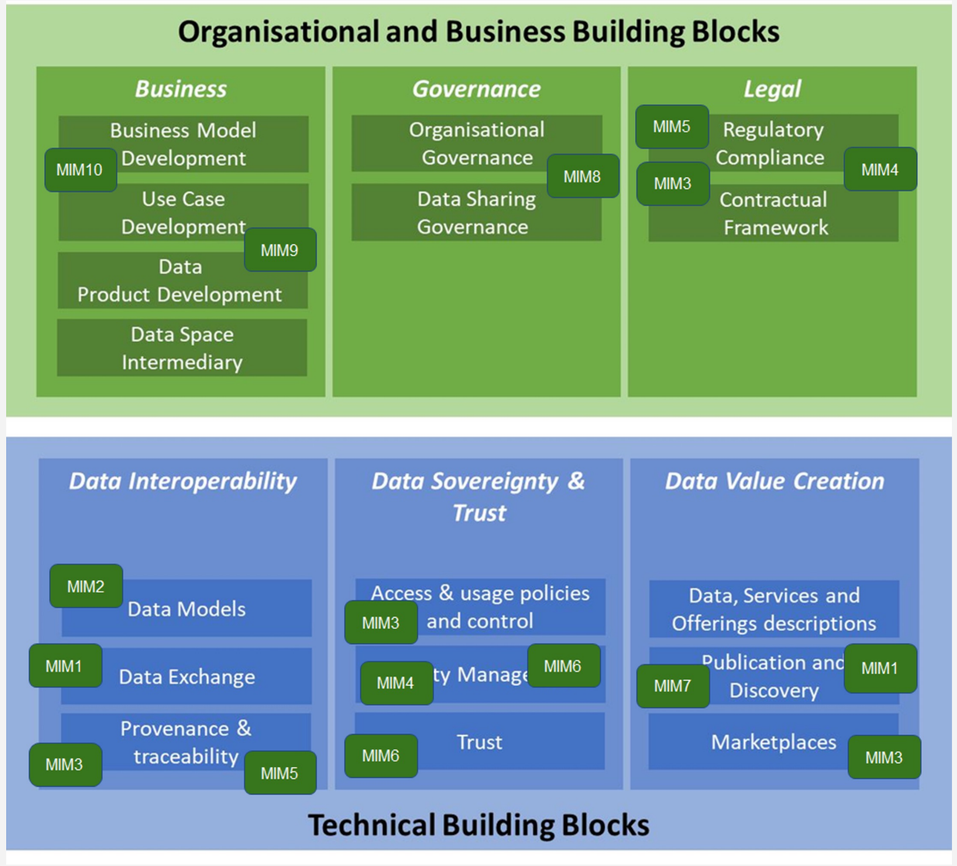
- Add-on to the Identity Management system of the data space participant
- Verifies the identity and access rights of the participant



Federation layer

- Services to access data in other data spaces: catalogue, Marketplace, metadata bróker…
- Optional and under definition

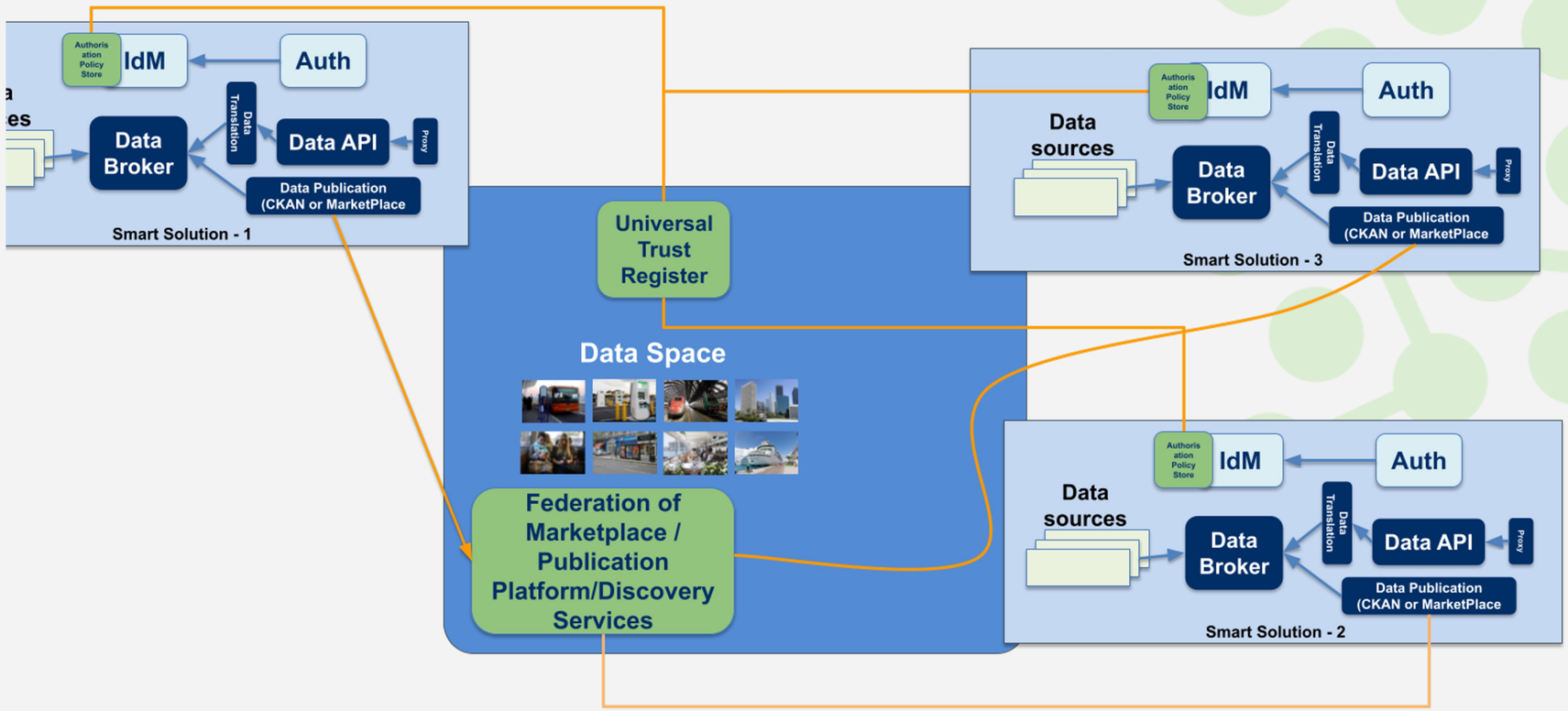
Mapping data spaces building blocks with MIMs



MIM	Description
MIM1	Context Information Management
MIM2	Shared Data Models
MIM3	Ecosystem Transactions Management
MIM4	Personal Data Management
MIM5	Fair Artificial Intelligence
MIM6	Security management
MIM7	Geospatial information management
MIM8	Ecosystem indicator management
MIM9	Data Analytics Management
MIM10	Resource Impact Assessment

DS4SSCC Building Blocks are the “mechanisms” for implementing the MIMs

Architectural evolution: from data platforms to data spaces



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Customization of architecture (use cases)

Selected use cases (all brownfield)	Customization process
Helsinki	Scenario description
Valencia	Data Cooperation Canvas
Flanders	System architecture
Amsterdam	Implementation plan

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CookBook

Five basic steps to follow and pointers to material

From four customized use cases

For each type of scenario: greenfield, brownfield, digital twin

Typical questions you may wonder

TRAINING VIDEO

What is next?

At the deployment project

Expand!

Enhance!

Put in practice!

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