

The background of the slide is a photograph of a city skyline with several tall skyscrapers. The image is overlaid with a semi-transparent blue filter. A white graphic consisting of a large circle and a vertical line is positioned on the right side of the slide. The NTT Data logo is in the top left corner.

NTT data

Simpl Programme

February 2025

NTT DATA Corporation

AGENDA

NTT DATA

What is Simpl

Simpl Programme roadmap

Simpl-Open

Simpl-Live

Simpl-Labs



What is Simpl



What is Simpl?

open-source means built-in trust & security, flexibility to deploy, simplicity to customise

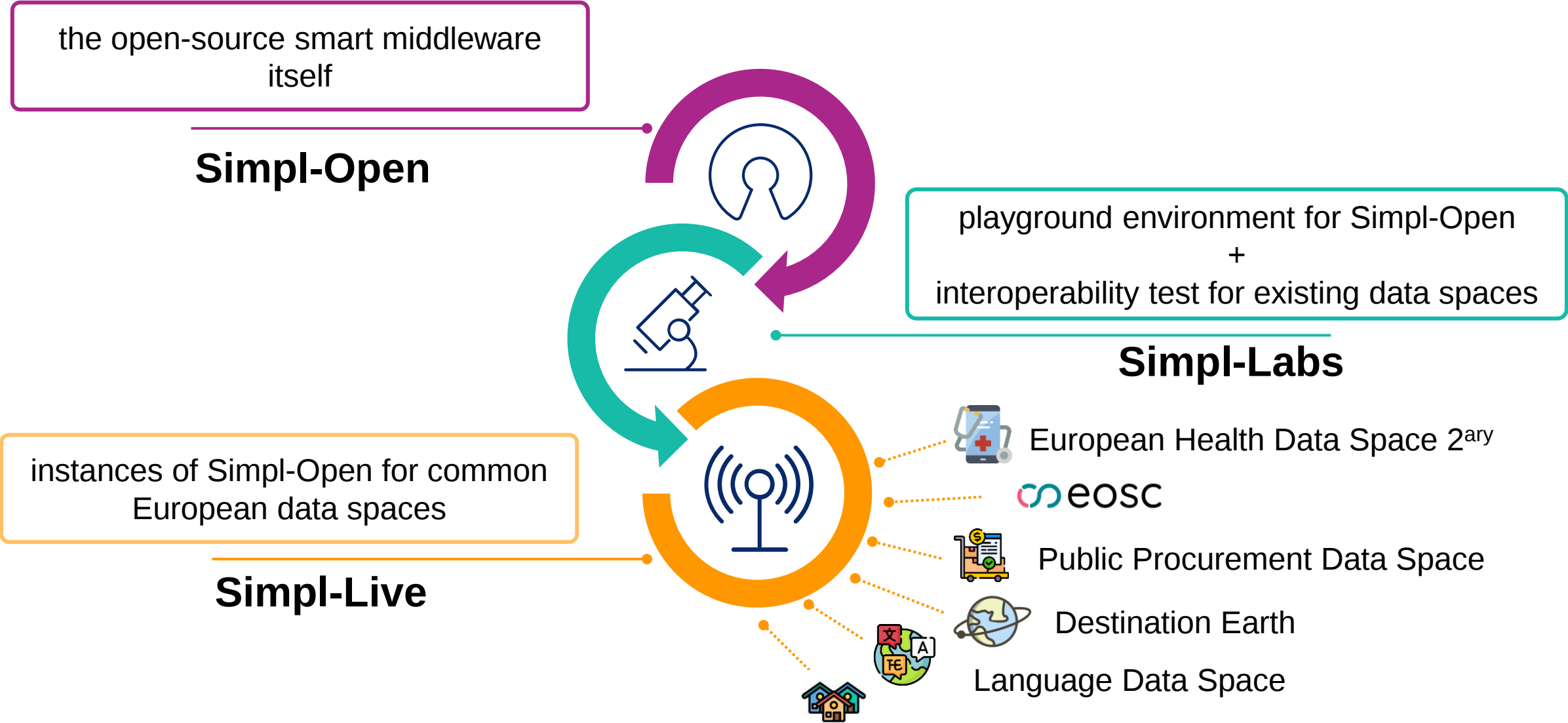
middleware are software suites that enable applications and databases to work seamlessly together and provide a flawless user experience

Simpl is the **open-source** smart **middleware** that enables **cloud-to-edge federations** and **all major data initiatives** funded by the European Commission

cloud-to-edge federations put together resources across cloud and edge computing environments as a cohesive system, creating a seamless integrated infrastructure that combines the strength of both cloud and edge computing.

all major data initiatives, in particular the development of **Common European Data Spaces** modular and interoperable way.

Simpl is made of three products

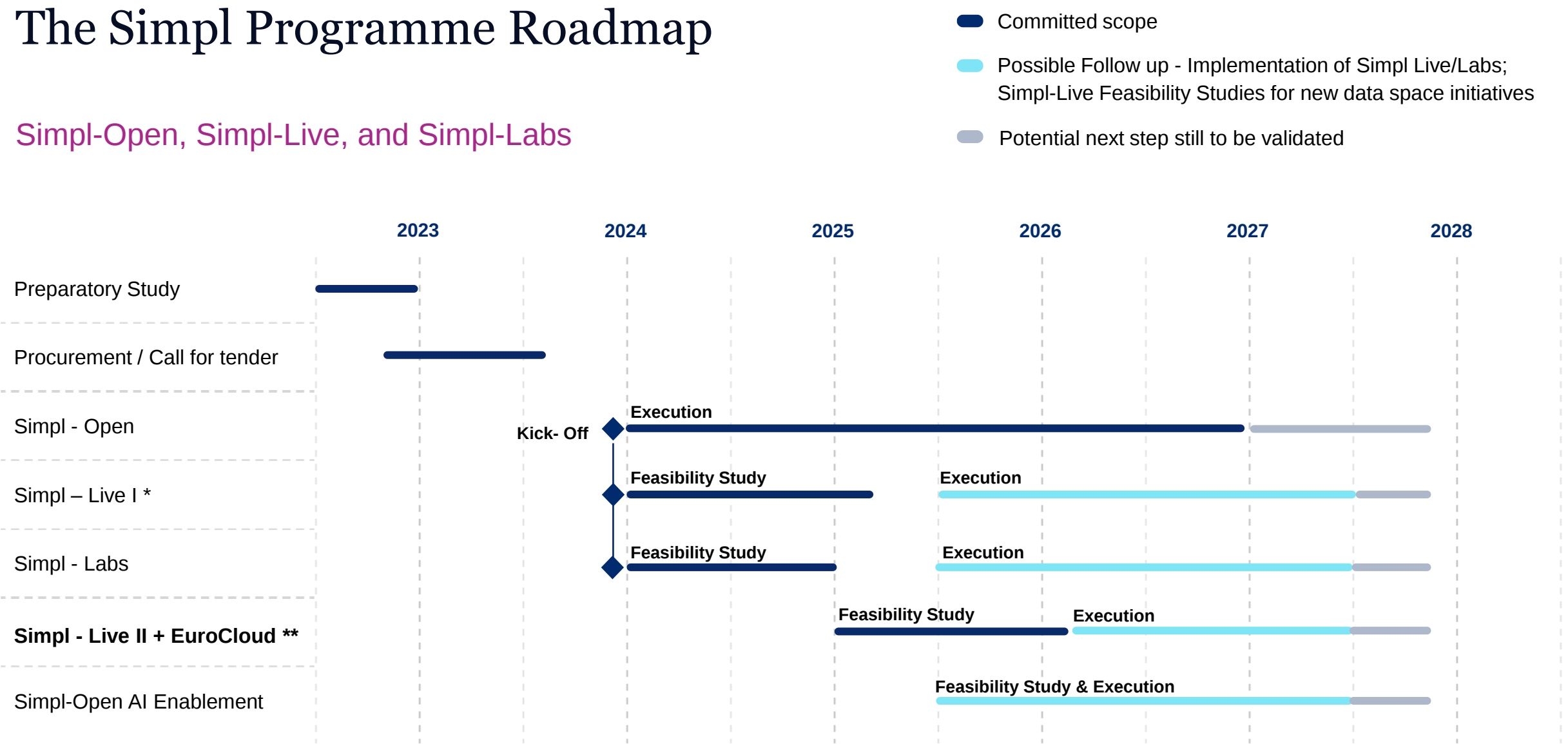


Simpl Programme roadmap



The Simpl Programme Roadmap

Simpl-Open, Simpl-Live, and Simpl-Labs



* Data spaces included: PPDS, EHDS2, LDS, EOSC, DestinE, SCDS ** Data spaces included: CEADS, GDDS, CEMDS, CEEDS

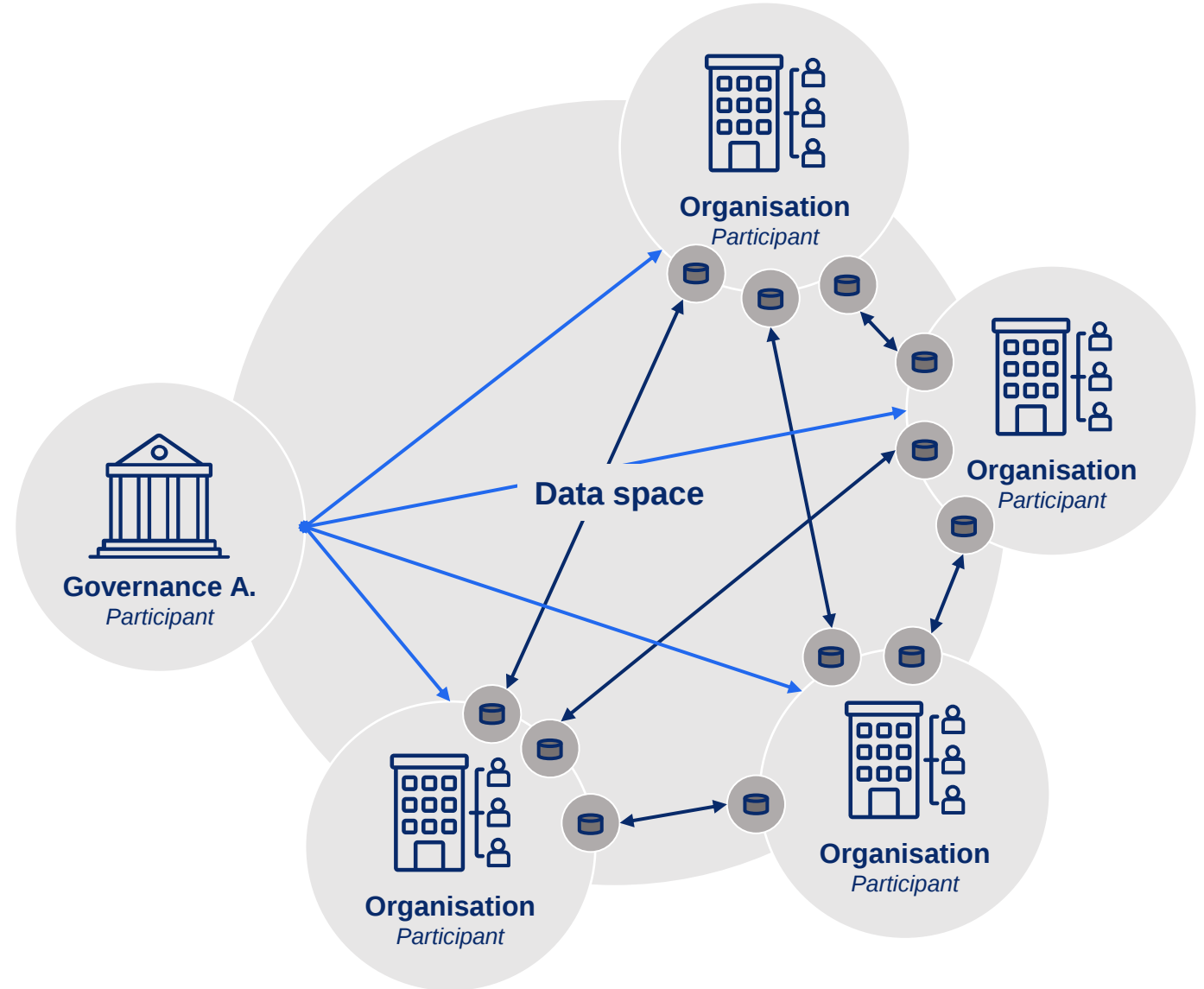
Simpl-Open



Data space fundamentals influencing Simpl-Open

The data space context

- Data spaces are data & service sharing ecosystems.
- Technology and contracts need to work hand in hand to enforce proper data sharing.
- Simpl-Open brings new features that allow a stronger technology-based enforcement.



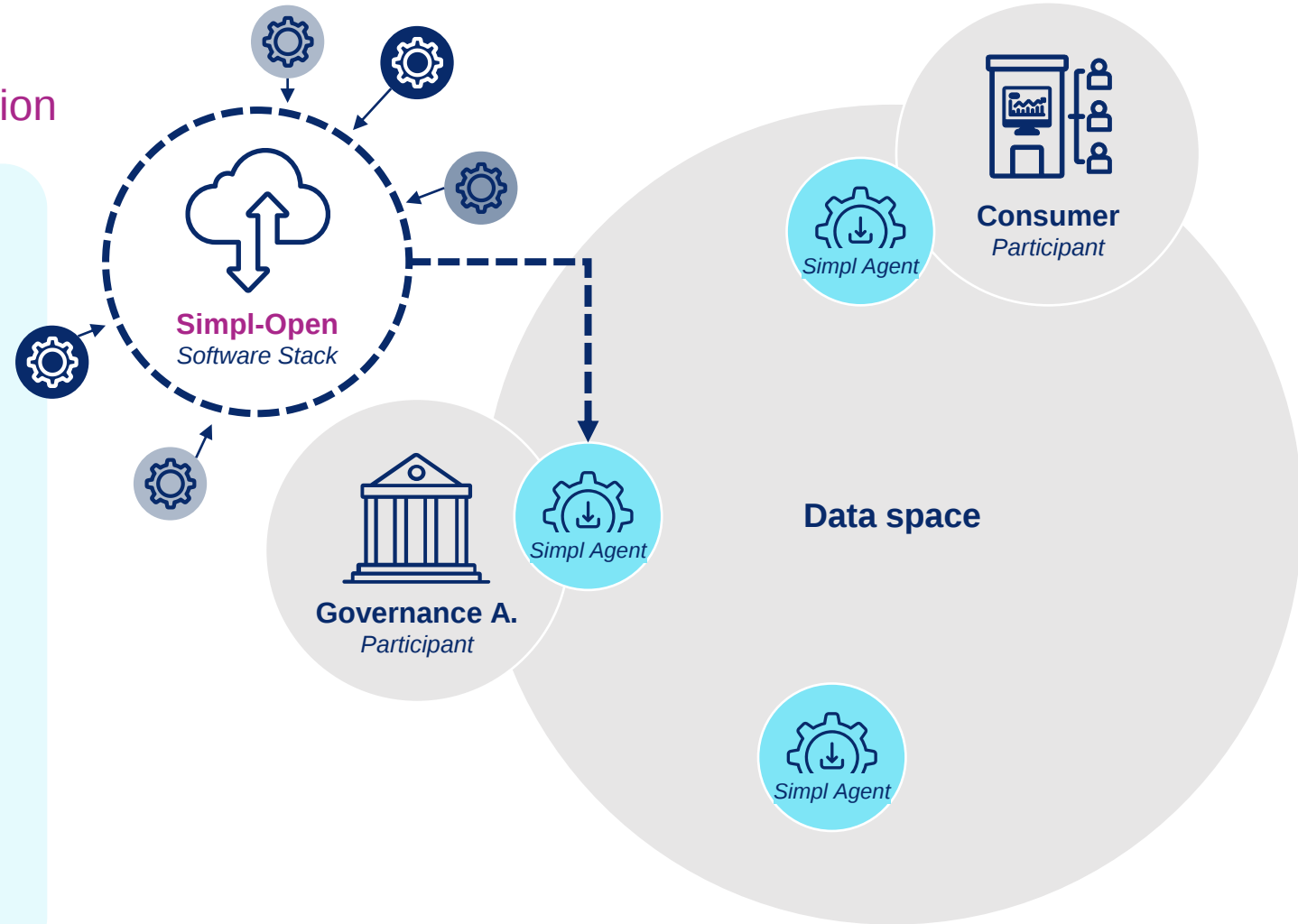
Simpl-Open covers the full landscape of a data space

Simpl-Open unique value proposition

Reuse, develop, integrate:

Simpl-Open:

- Identifies promising existing components.
- Develops from scratch missing components.
- Integrates to ease deployment and starting up a dataspace.



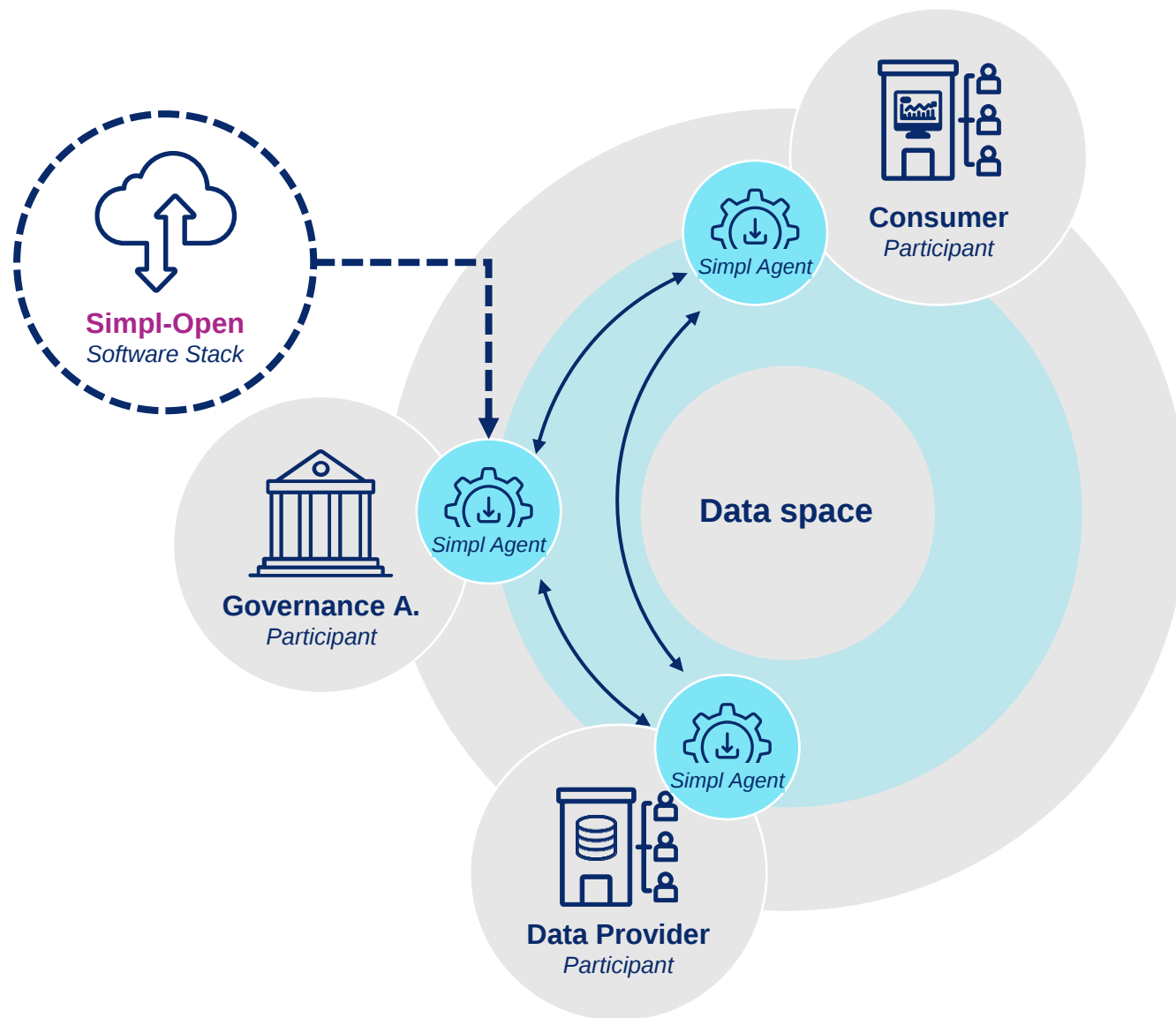
Simpl-Open covers the full landscape of a data space

Simpl-Open unique value proposition

Reuse, develop, integrate:

Engrained security:

The set-up of Simpl-Open secure communication is part of the onboarding of new participants.



Simpl-Open covers the full landscape of a data space

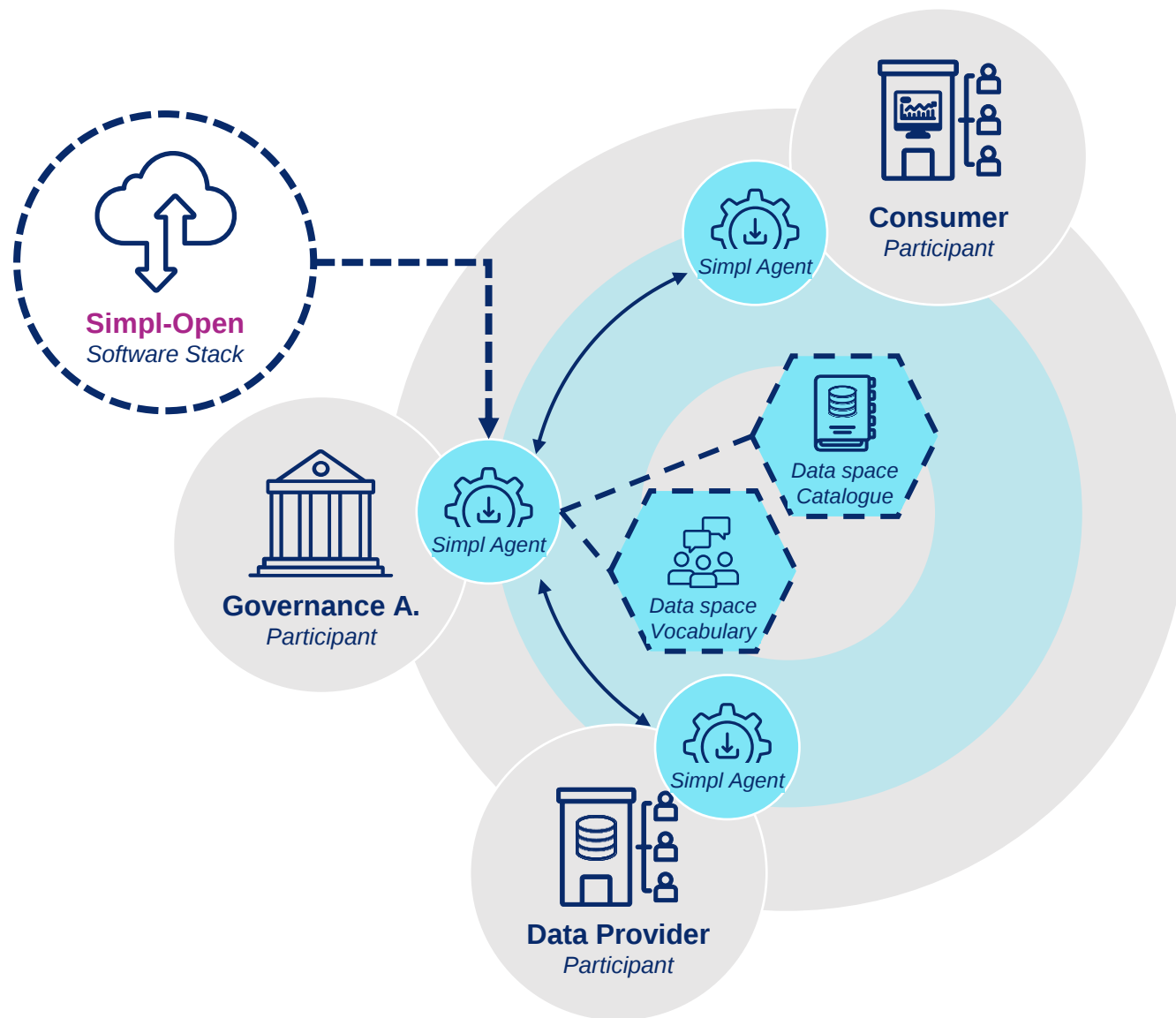
Simpl-Open unique value proposition

Reuse, develop, integrate:

Engrained security:

Flexibility through configuration:

Each data space can configure numerous elements, such as the rules for onboarding, the definition of identity attributes, the metadata required for publishing datasets/services, etc.



Simpl-Open covers the full landscape of a data space

Simpl-Open unique value proposition

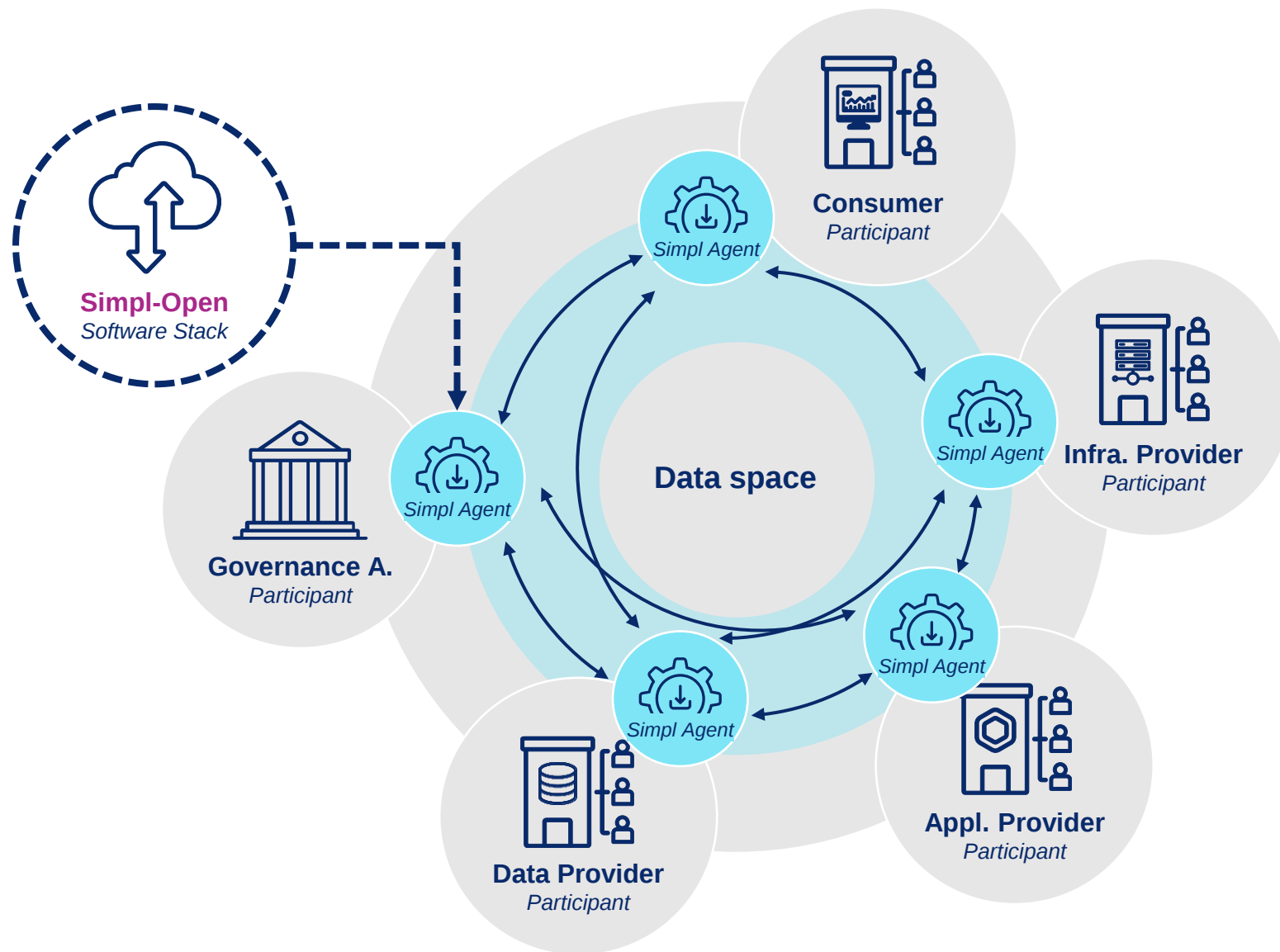
Reuse, develop, integrate:

Engrained security:

Flexibility through configuration:

Inclusion of new types of providers:

Simpl-Open also considers Infrastructure and Application providers, enabling providers to bundle infrastructure, application and datasets as they see the need.



Simpl-Open covers the full landscape of a data space

Simpl-Open unique value proposition

Reuse, develop, integrate:

Engrained security:

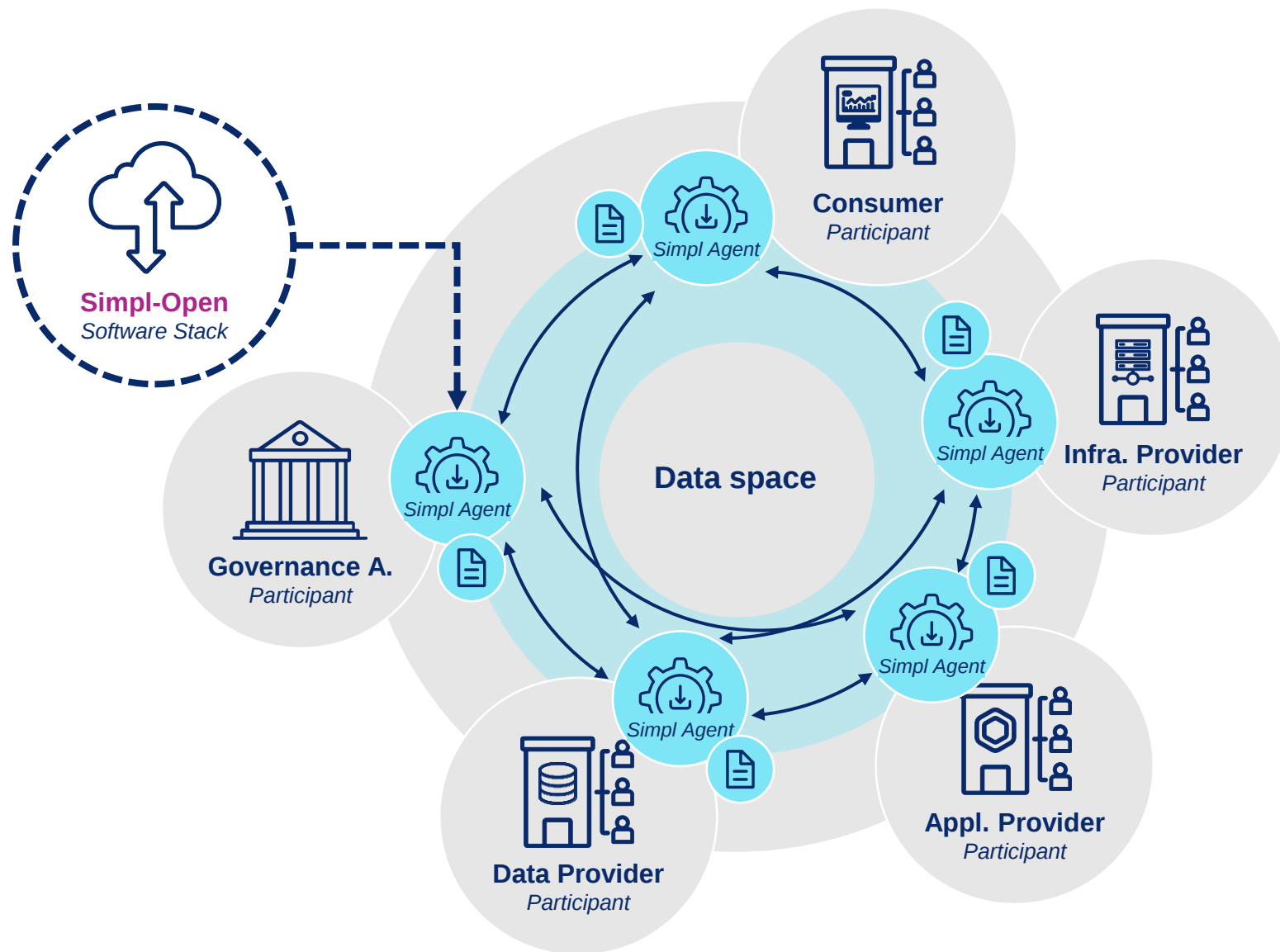
Flexibility through configuration:

Inclusion of new types of providers:

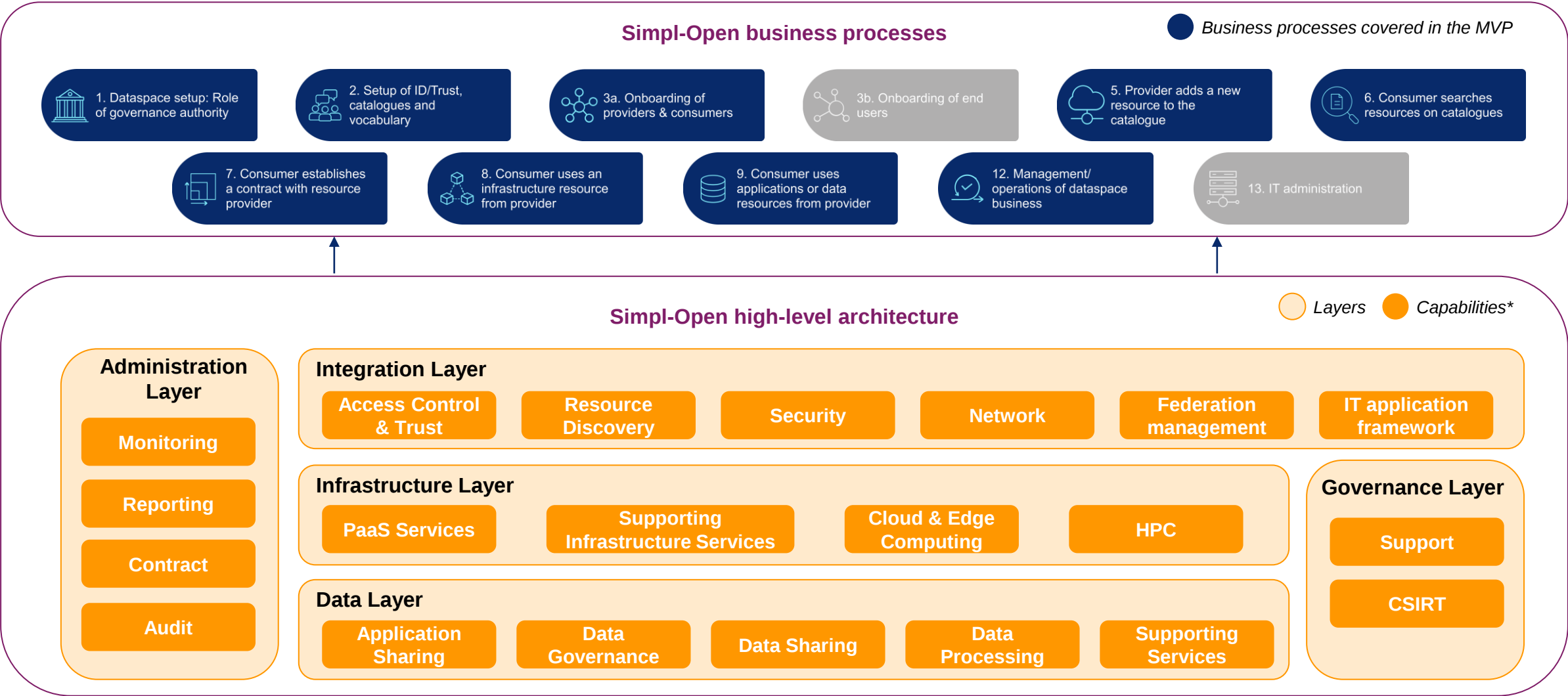
Improved data sovereignty:

Simpl-Open provides the possibility to define access policies, usage policies and contracts.

Simpl-Open also enables custom data sharing alternatives.



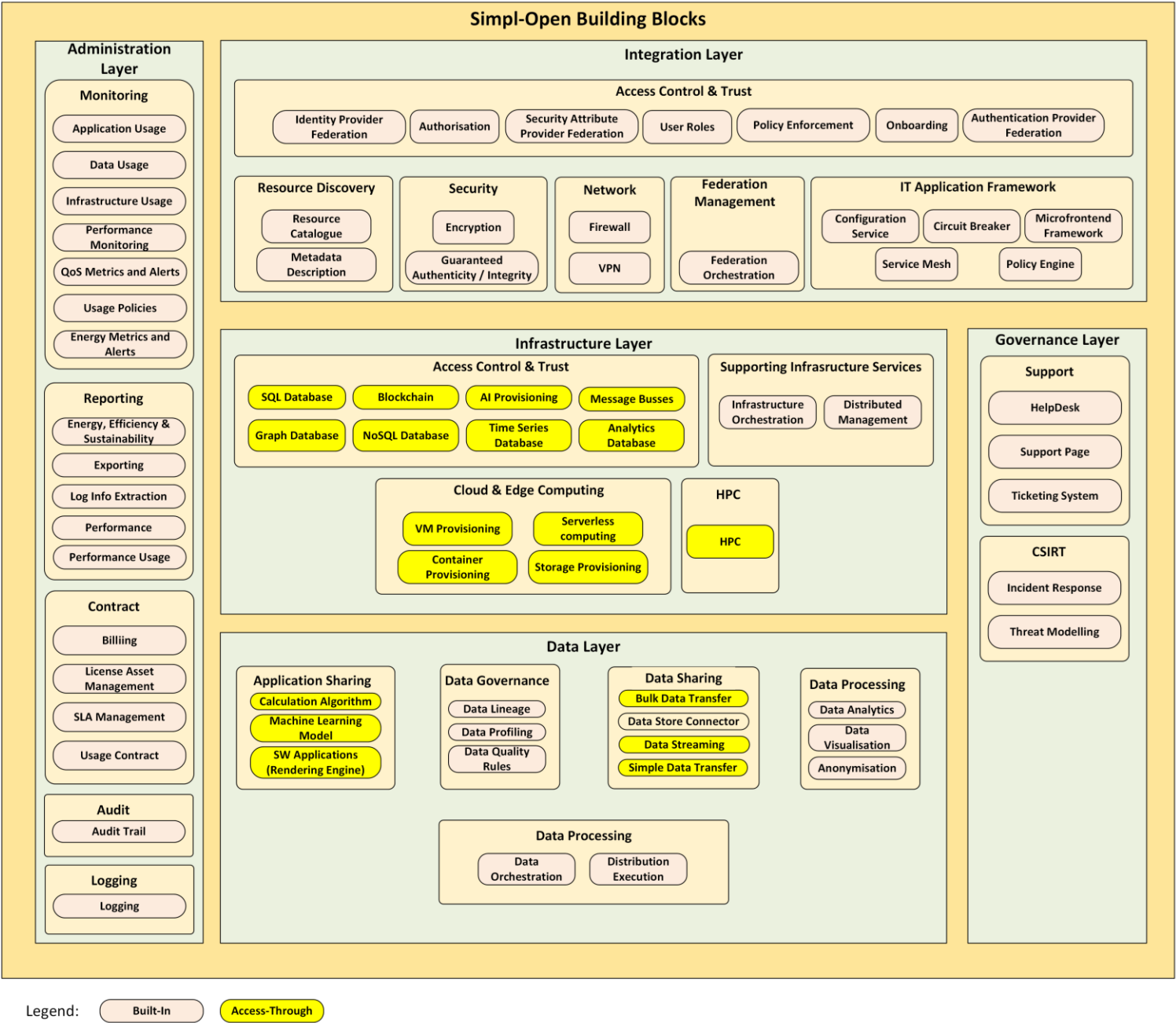
Simpl-Open state-of-play



*Each capability is realised by a set of building blocks and components

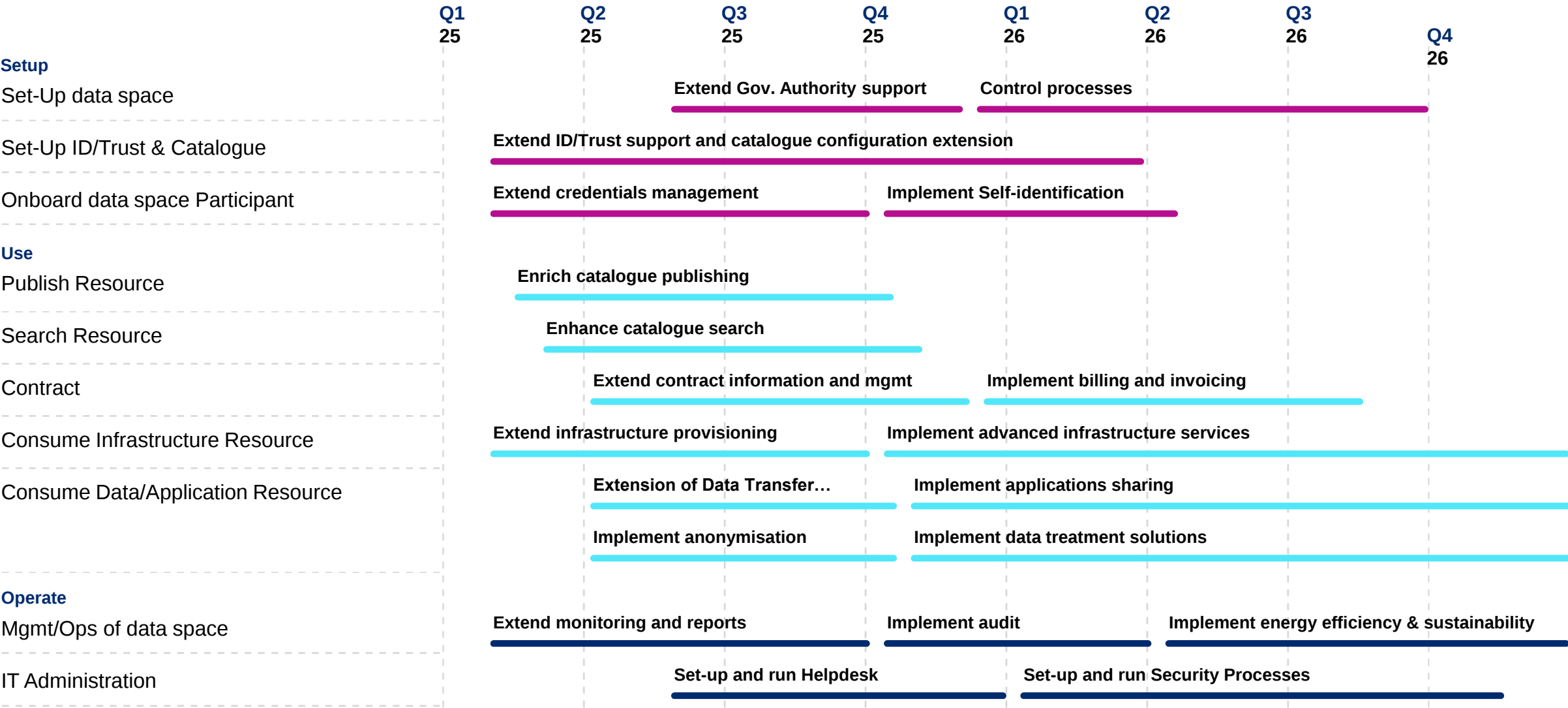
Simpl-Open High-level Architecture

- Architecture published in January 2025
- Important update for 2025 roadmap and key discussions at the annual event



The Simpl-Open Roadmap

Setup Use Operate



Simpl-Live



What is Simpl-Live

Simpl-Live focuses on instances of Simpl-Open for data spaces

Simpl-Live

- **distinct instances** of Simpl-Open software stack
- deployed for **specific sectoral data spaces/** initiatives
- European Commission plays an **active role** in their management.



Overview of Simpl-Live Feasibility Studies 2024

The assessment of the feasibility of Simpl-Open deployment has been conducted with six initiatives



Public Procurement Data Space (PPDS)

Unites European public procurement data.



European Health Data Space of Secondary Data (EHDS2)

Enables secondary use of health data for research and policy.



Language Data Space (LDS)

Platform for multilingual language data sharing and reuse.



European Open Science Cloud (EOSC)

Seamless research data storage, management, and analysis across borders.



Destination Earth (DestinE)

"Digital Earth" model to monitor&predict interaction between nature and human activities.



Smart Communities Data Space (SCDS)

Trustworthy AI and interoperability for cross-sectoral government services.

Overview of Simpl-Live Feasibility Studies 2025

The assessment of the feasibility of Simpl-Open deployment will be continued with five selected initiatives



Energy Data Space

Supports innovative energy services aligned with sustainability goals, promoting sector integration



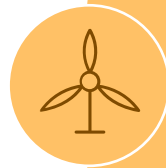
Agriculture Data Space

Optimizes natural resource use and stimulates data-driven innovations in agriculture by facilitating data sharing



European Mobility Data Space

Enhances efficiency, safety and sustainability by data access, pooling, and sharing in transport



Green Deal Data Space

Enables access to environmental and climate data for a sustainable Europe by creating a data ecosystem

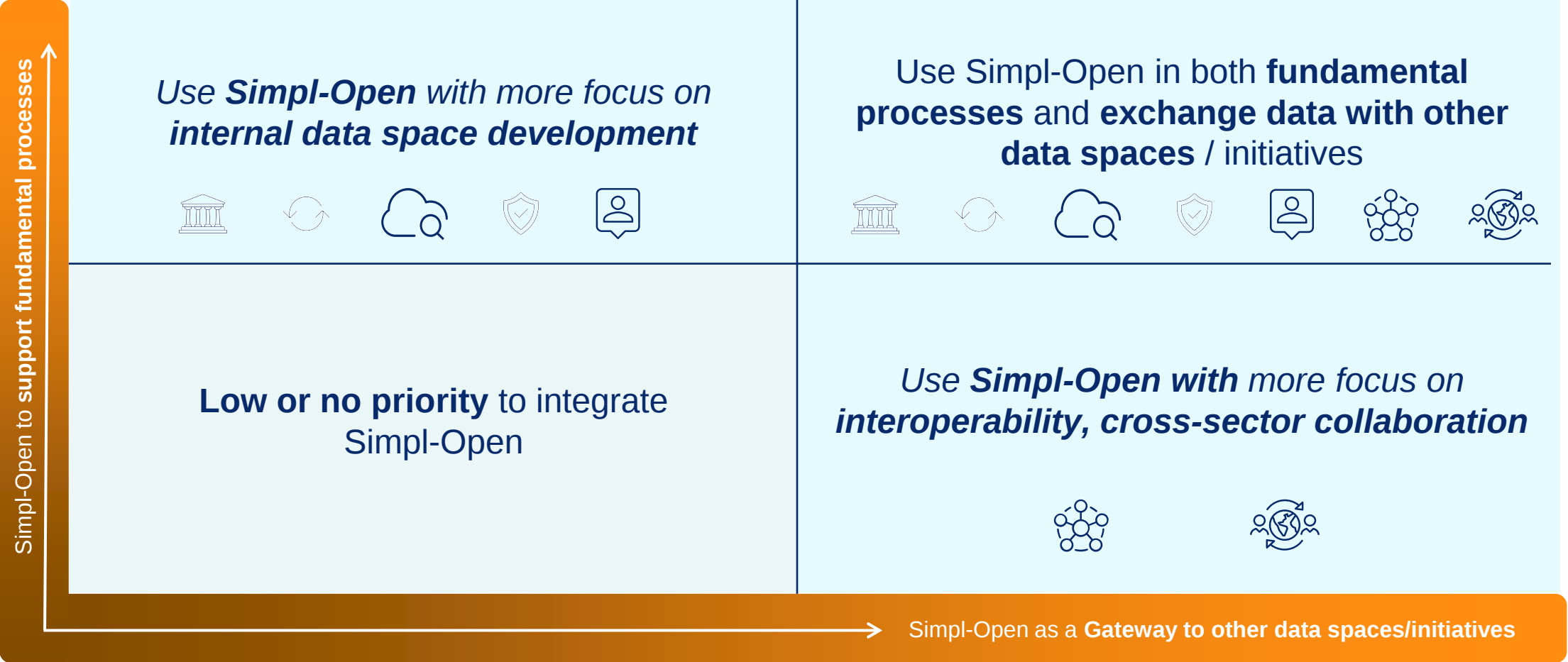


EuroCloud initiative

European Commission initiative to foster a true federation of EU public sector cloud and edge infrastructures, services and data to enable resource sharing amongst participating EU public sector organisations.

Different ways to use Simpl-Open for integration scenarios

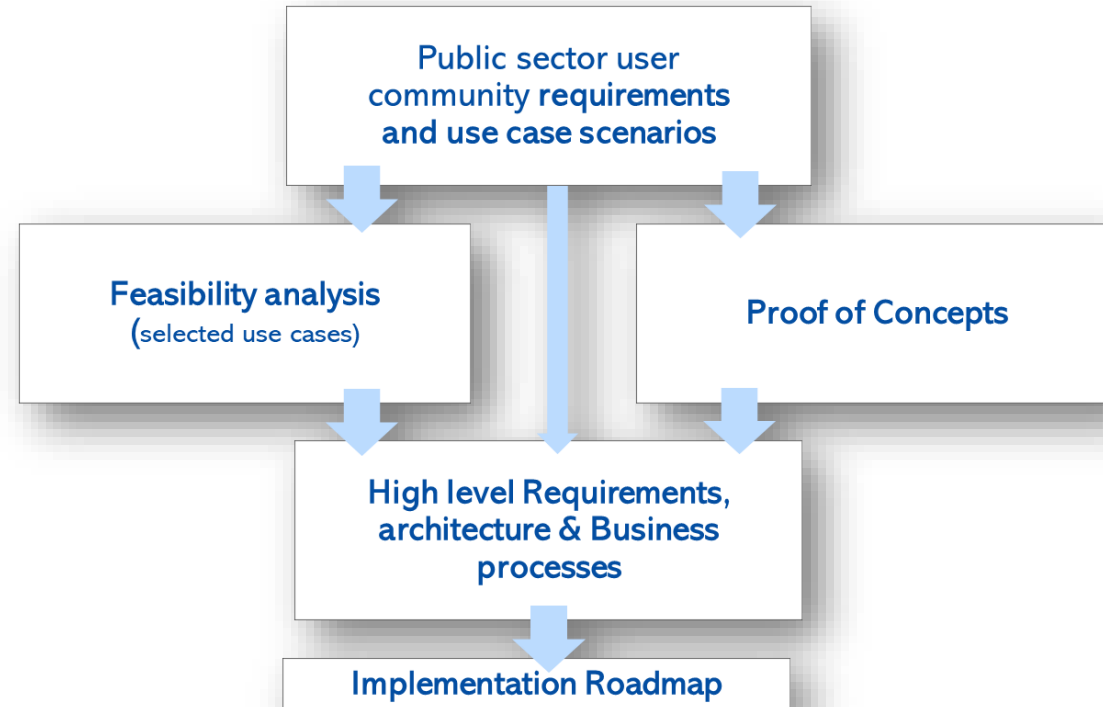
The integration scenario depends on the data space initiative priorities, objectives and state of development



Simpl Eurocloud Study



Conduct a **feasibility analysis** for the use of **Simpl-Open** to implement the **EuroCloud** initiative, including the **development of three proofs of concepts** with **European public sector institutions**.



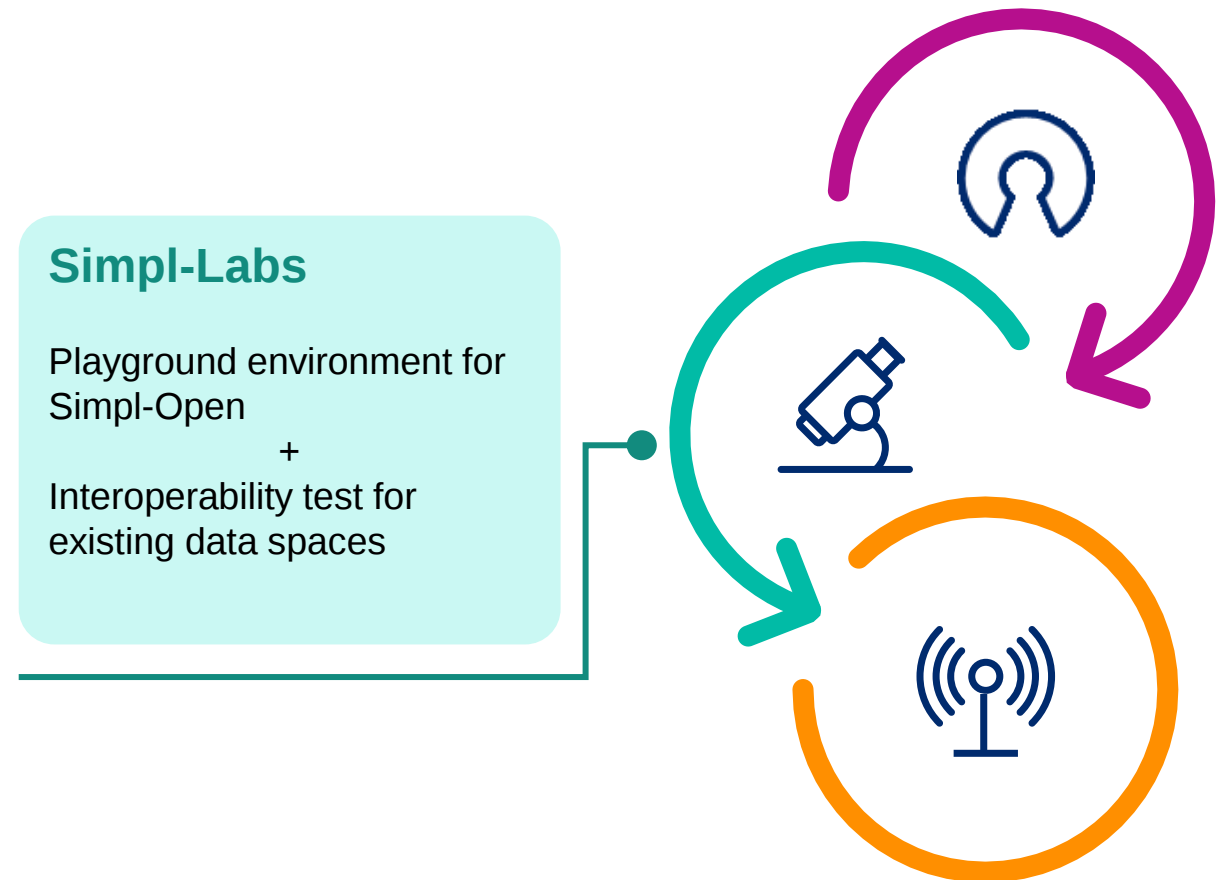
Simpl-Labs



What is Simpl-Labs?

Simpl-Labs is a product designed **to test and experiment with Simpl-Open** and is aimed at both public and private data spaces.

The platform facilitates the **exploration and adoption**, while also enhancing **compatibility and interoperability** across different projects and initiatives.



What is Simpl-Labs?

PoC

← Go back

Cultural Heritage Data Space for Example preview

Data Space architecture Information

Nodes, categories, components

Governance Authority

- IAA Local
- Logging
- Consent
- Monitoring
- Reporting
- Contract
- Discovery
- IDP
- Vocabulary
- Registry
- Support

Discovery

Vocabulary

Reporting

Consent

IAA Local

Logging

Contract

Monitoring

Discovery

IDP

Vocabulary

Registry

Support

Governance Authority

Discovery

Vocabulary

Reporting

Consent

IAA Local

Logging

Contract

Monitoring

Discovery

IDP

Vocabulary

Registry

Support

PoC

Proof of Concept

← Go back

Annuale Event Data Space RUNNING

Data Space architecture Information Console / Logs

Nodes, categories, components

Annuale Event Data Space / Data Provider 2 / SD Tooling

Component name	Author	
Front-end Component	Simet Open	→ More info
Back-end Component	Simet Open	→ More info

Access console / logs

Access component UI

PoC

← Go back

Minimum Viable Data Space / Data Provider / SD Tooling

Data Space tree view

Nodes, categories, components

Current consumption Historical consumption

Node	Category	Component	CPU (used/allocated)	Memory (used/allocated)	Storage (used/allocated)	Details
Data Provider	SD Tooling	Back-end Component	0.0 / 0.02 cores (0%)	0.0 / 0.3 GB (0%)	0.2 / 1.0 GB (20%)	→
Data Provider	SD Tooling	Front-end Component	0.0 / 0.02 cores (0%)	0.01 / 0.3 GB (3.3%)	0.3 / 1.0 GB (30%)	→

Items per page: 5 1 - 2 of 2

PoC

Proof of Concept

How does Simpl-Labs support different data spaces?



NTT Data