

Simpl-Live x EOSC

From Feasibility Study to integration

EOSC Symposium



Agenda

1. About the Simpl Programme
2. EOSC Journey: from Feasibility Study to integration design
3. EOSC interoperability scenario with Simpl-Open
4. Q&A

European Commission



1. About the Simpl Programme

What is Simpl?

Simpl Essentials

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** in a modular and interoperable way

European Commission

Simpl is made of three products

Simpl Essentials

The open-source smart middleware itself

Simpl-Open



Playground environment for Simpl-Open
+
Interoperability test for existing data spaces

Simpl-Labs

Instances of Simpl-Open for common European data spaces

Simpl-Live

European Commission

Simpl-Open: key components and frameworks

How Simpl-Open integrates ecosystem technologies to support European data space infrastructure

Core frameworks used in Simpl-Open

Simpl as an integrator
Simpl-Open builds on open-source standards, reference architectures and components developed by European organisations.

It integrates these technologies so data spaces/initiatives can interoperate without barriers.

Gaia-X / XFSC frameworks

- Self descriptions
- Federated catalogue
- Credential management
- Gaia-X trust framework alignment

Data Space Protocol (DSP)

- Common protocol used by data spaces for negotiation and data exchange
- Ensures federation and cross ecosystem compatibility

Eclipse Data Connector (EDC)

- Core component for secure data exchange
- Implements the Data Space Protocol (DSP) for interoperability

Built on standards

- ODRL (W3C) for usage policies
- RDF (W3C) for linked data
- Planned: DCAT-AP for dataset cataloging

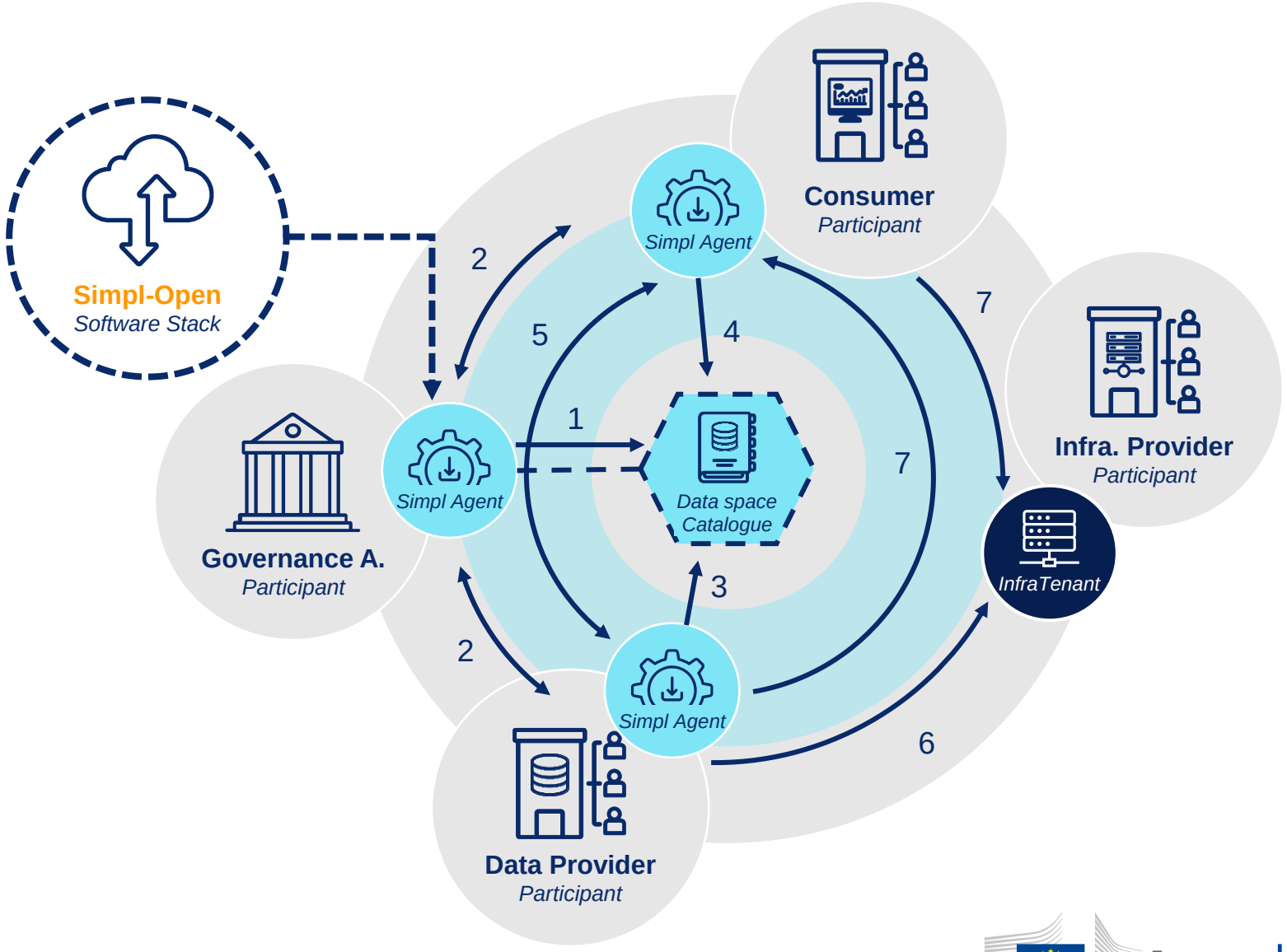
Relationship with the DSSC
The DSSC defines the Blueprint for European data spaces. Simpl turns this Blueprint into reality by building the technical infrastructure.

Together, these frameworks form the foundation for trustworthy, scalable and standards-based data spaces/initiatives.

A bird-eye view on Simpl-Open functionalities

What you can do with Simpl-Open

1. Configure the catalogue with customizable schema and vocabulary.
2. Onboard participants in the data space.
3. Publish service offerings (data, infra or bundles) to the catalogue.
4. Discover service offerings with their details from the catalogue.
5. Establish a contract to consume the service.
6. Provision the resources (data, infra or bundles).
7. Receive the access information and consume the resource.



European Commission

Simpl-Live

Simpl-Live: Enabling Common European Data Spaces to use **Simpl-Open**

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

Data Spaces (Wave-1)

- Destination Earth (DestinE)
- Language Data Space (LDS)
- Public Procurement Data Space (PPDS)
- Smart Communities Data Space (SCDS)
- **European Open Science Cloud (EOSC)**
- European Health Data Space of Secondary Data (EHDS2)

Data Spaces (Wave-2)

- Common European Energy Data Space (CEEDS)
- European Mobility Data Space (EMDS)
- Common European Agriculture Data Space (CEADS)
- Green Deal Data Spaces (GDDS)
- European Public Sector Cloud Federation (EuropeCloud)

Each data initiative follows the **Simpl-Live journey** throughout two key phases:

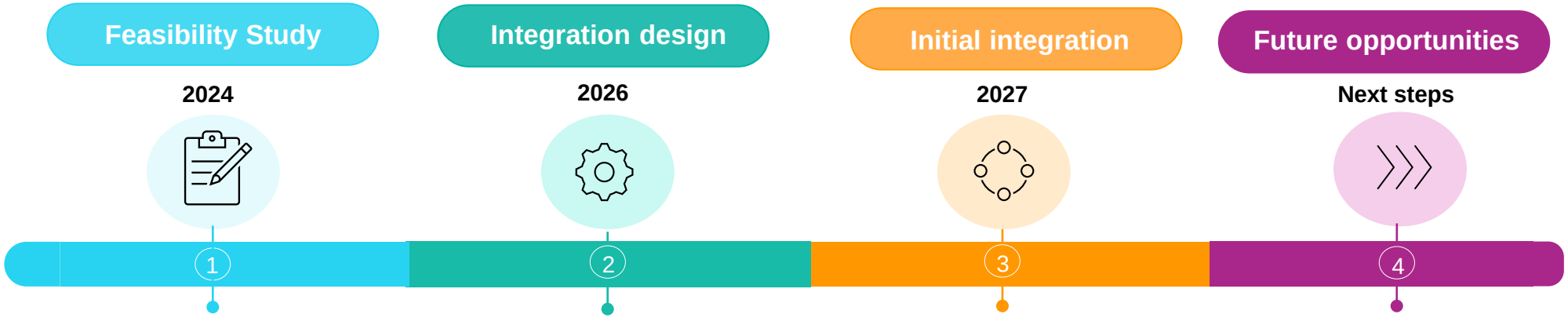


European Commission

2. EOSC Journey: from Feasibility Study to integration design

2. EOSC journey: from Feasibility study to integration design

A phased approach to exploring EOSC interoperability with Simpl-Open.



Outcome:

A proxy-based approach emerged as the lowest-disruption option for EOSC.

Key principle:

Maintain aligment with the EOSC EU Node architecture and existing capabilities.

Focus on:

- Cross data space federation
- Authentication and authorisation (AAI)
- Data sharing

Possible later extensions:

- Additional capabilities across EOSC nodes
- Combined workflows
- Federation with other common European data spaces enabled by Simpl-Open

C2 - Restricted use

European Commission

3. EOSC interoperability scenario with Simpl-Open

3. EOSC interoperability with DestinE, using Simpl-Open

Exploring data discoverability and exchange between DestinE and the EOSC EU Node through a proxy agent.

Key messages

Federate DestinE with the EOSC EU Node

Focus the implementation on the foreseen use case of data discoverability and exchange between both initiatives.

Enable cross data space discoverability

Allow relevant data and resources to be discovered across DestinE and the EOSC EU Node.

Support controlled cross data space data exchange

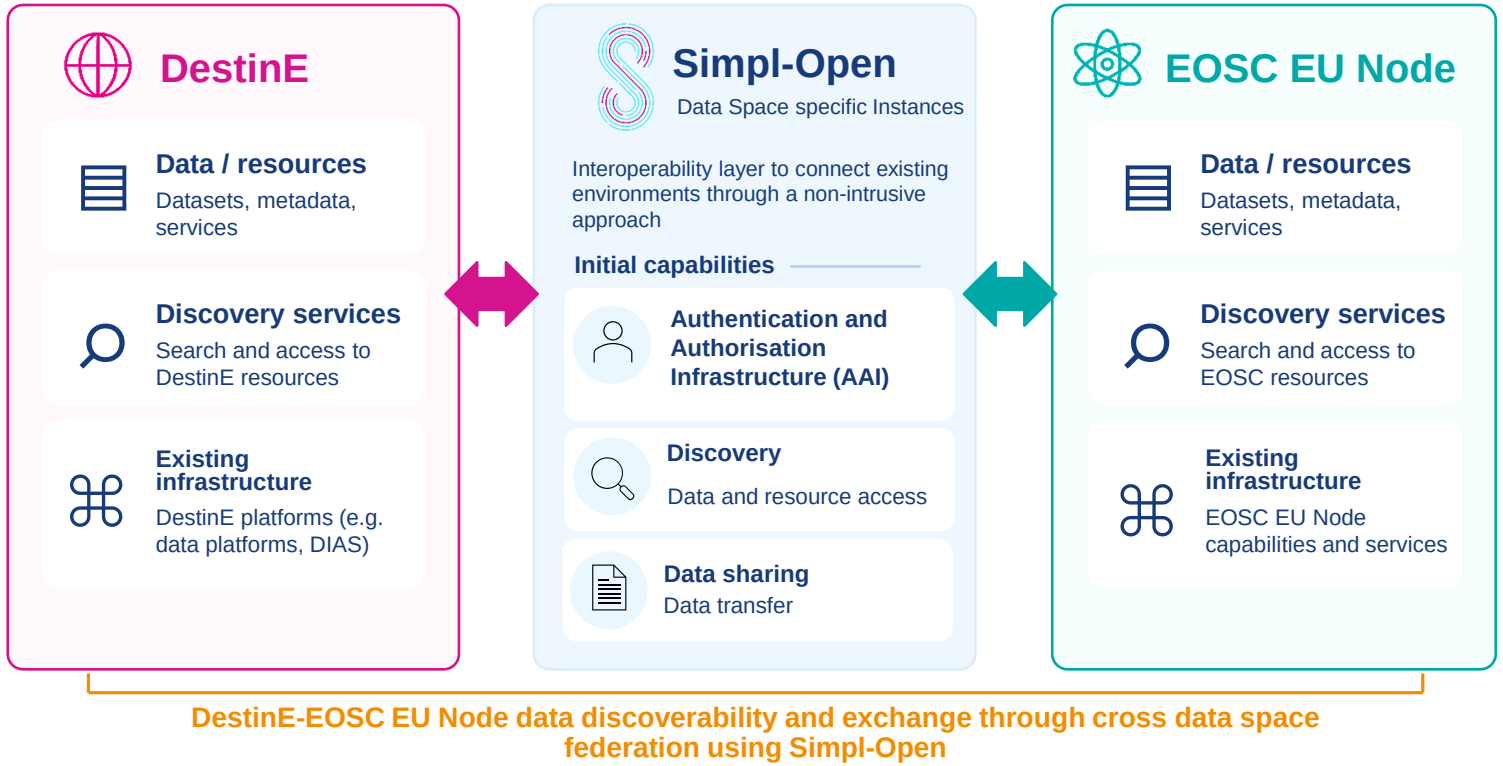
Use Simpl-Open capabilities, including AAI and file transfer, to enable secure and controlled data exchange.

Preserve the sovereignty of each data initiative

Implement Simpl-Open enabled governance mechanisms while maintaining existing systems untouched.

Data Space Specific Instances

Integration by connection, not replacement.



Expected benefits

1. Improved data discoverability
2. Controlled and secure data exchange
3. Interoperability without replacement

European Commission

4. Q&A

Forum

Keep a look out for Simpl's forum launch! Coming soon!

SAVE THE DATE

3rd Simpl Annual Community Event

10 December 2026

Hybrid, Brussels

Registration open!

Events

Stay tuned for upcoming Simpl events

SAVE THE DATE

Simpl Hackathon

9 December 2026

Brussels

Registration open!

Webinars & Workshops

Join technical and business sessions, online and in person.

Code Repository

Check out and review the code!

Social Media

Join and engage with our growing community!

Website

Visit our website for Simpl documentation, requirements and latest news.

Simpl Newsletter

Subscribe to stay up-to-date with SImpl

Scan me for more information about Simpl

Thank you

© European Union 2026

Unless otherwise noted the reuse of this presentation is authorised under the CC BY 4.0 license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

C2 - Restricted use