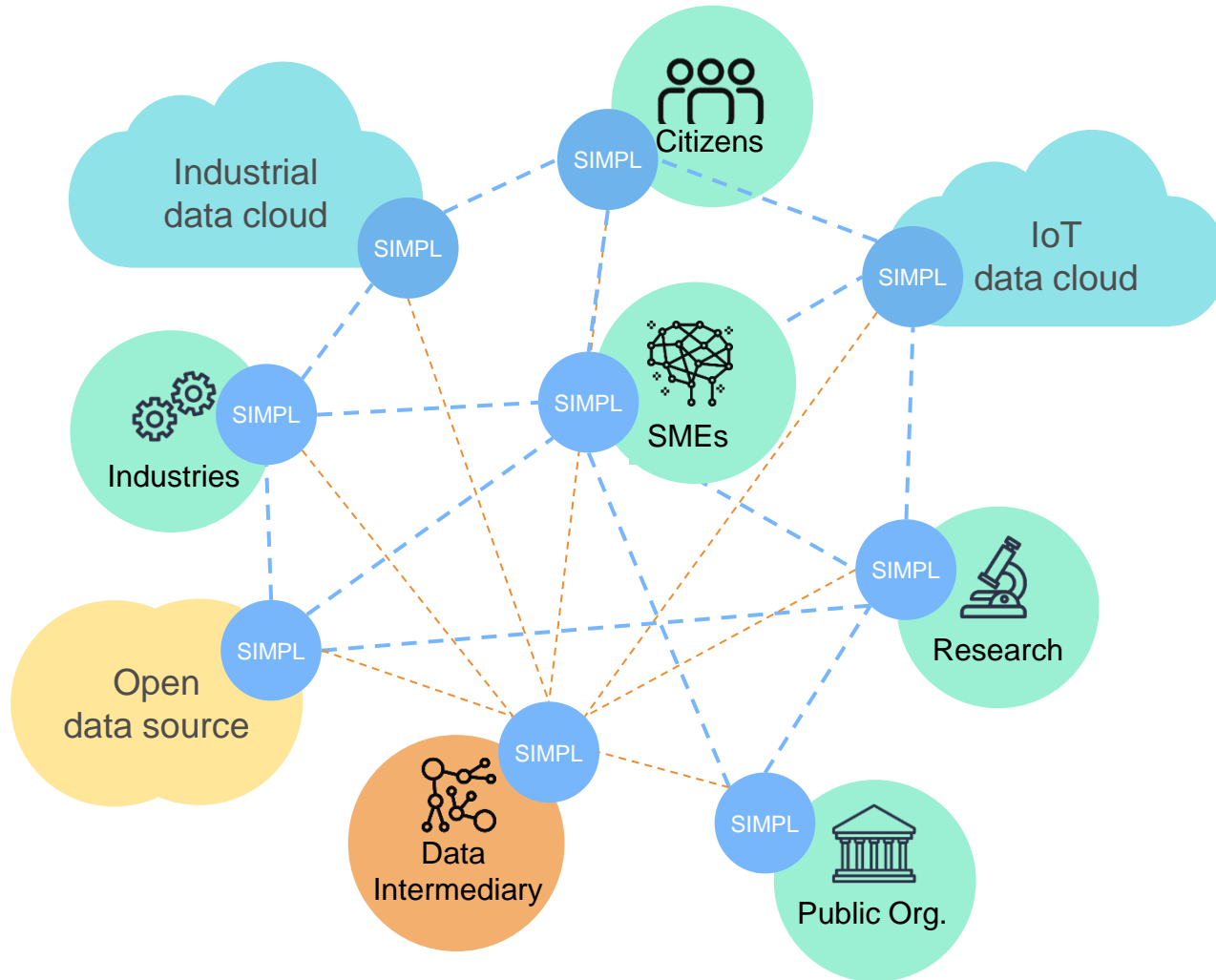# SIMPL

Vision & Engagement

Manuel Mateo Goyet
Acting Head of Unit – Cloud & Software
European Commission DG Connect E2

Simpl is the common software behind common data spaces

Industrial data cloud · SIMPL · SIMPL · **Citizens** · SIMPL · **IoT data cloud** · SIMPL · **Industries** · SIMPL · SIMPL · **SMEs** · **Open data source** · SIMPL · SIMPL · **Research** · **Data Intermediary** · SIMPL · SIMPL · **Public Org.**

- – – Data exchange
- ······ Metadata exchange

Common European Data Spaces are **a federated data ecosystem based on shared policies and rules.** The participants of data spaces are enabled to access data in a secure, transparent, trusted, easy and unified fashion.

Data holders remain in control of who can access and use their data, for which purpose and under which conditions.

European Commission

European Single Market for Data

Data legislation

Data Act	Data Governance Act	Open data directive	GDPR	…

Common European Data Spaces

Health	Industrial & Manufact.	Agriculture	Finance	Mobility	Green Deal	Energy	Public Admin.	Skills	EOSC	Tourism	Cultural heritage	Media	Language

High Value Datasets from public sector

European Data Innovation Board
- Facilitate the sharing of best practices
- Prioritisation of cross-sectoral interoperability standards

Data Spaces Support Centre
- Development of blueprint, glossary, etc.
- Support of data space projects

Technical infrastructure

Standards	Digital identity (eIDAS)	**Smart Middleware solutions (Simpl)**	High-Performance Computing	Testing and Experimentation Facilities

Simpl

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

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

Simpl is the open-source smart middleware platform 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.
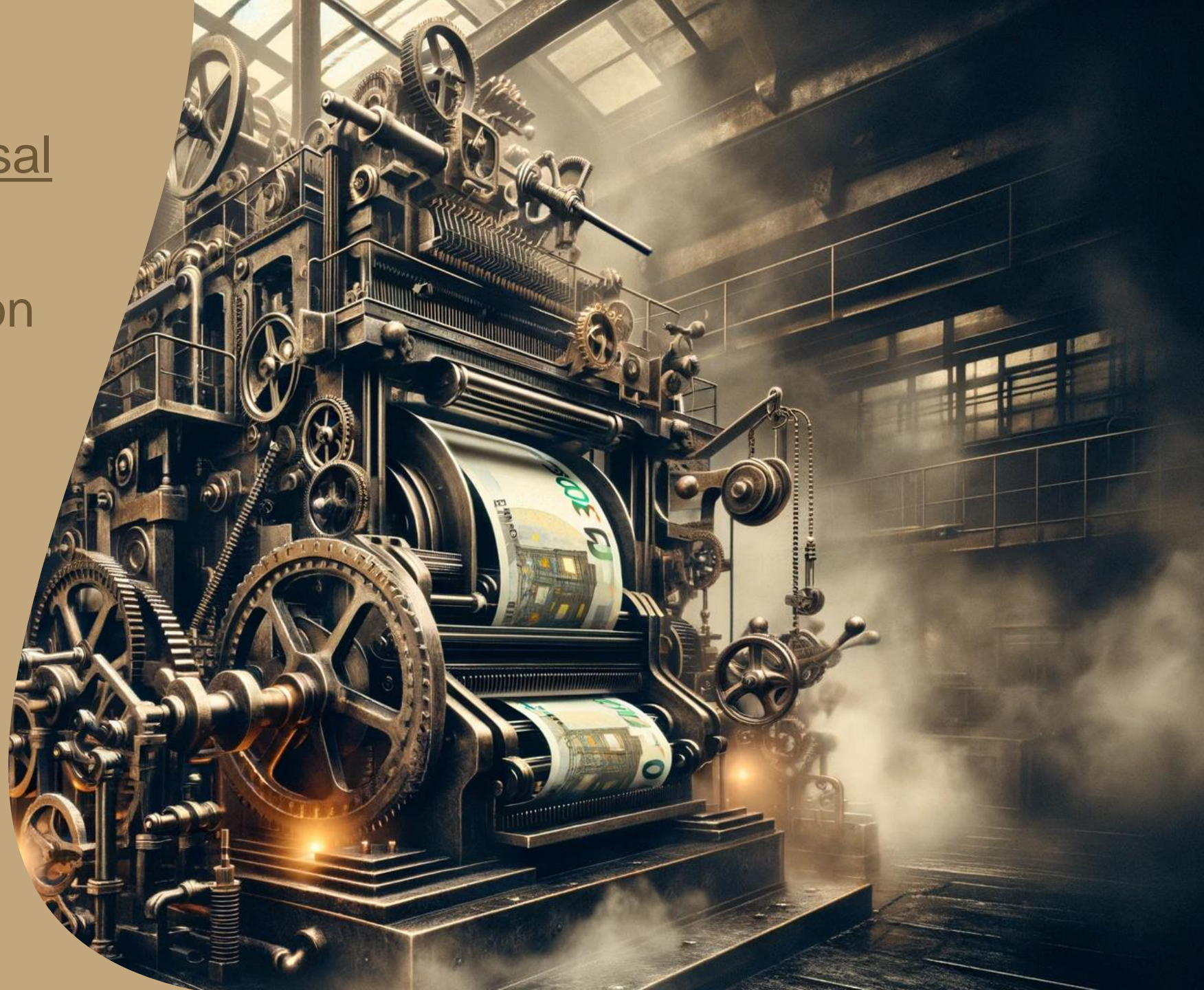
European Commission
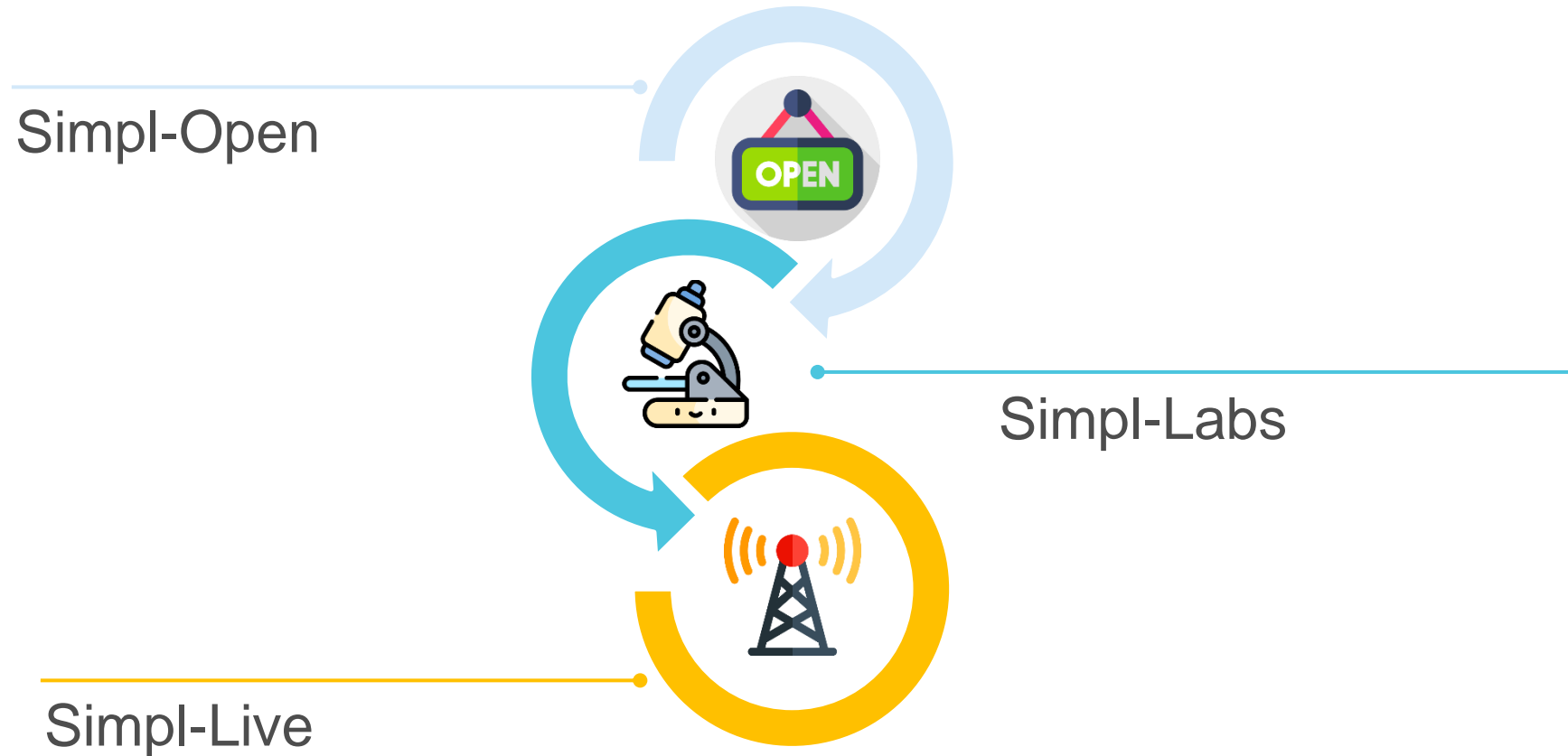
Simpl's value proposal
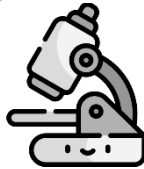
No wheel re-invention

Interoperability

Save money

Save time

Simpl is made of three products

Simpl-Open

Simpl-Labs

Simpl-Live

Simpl-Open

Simpl-Open

= the open-source smart middleware itself
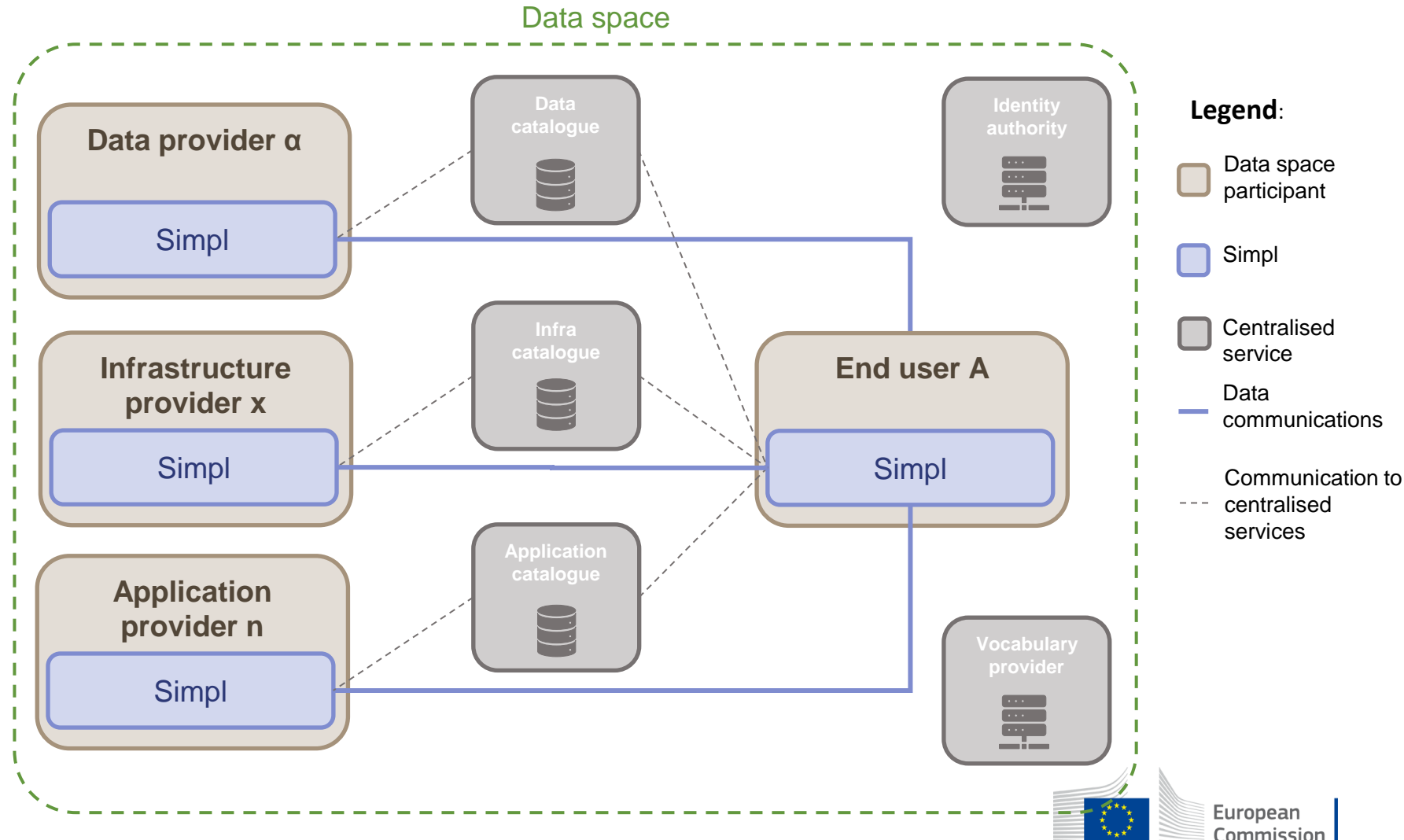
Simpl-Labs
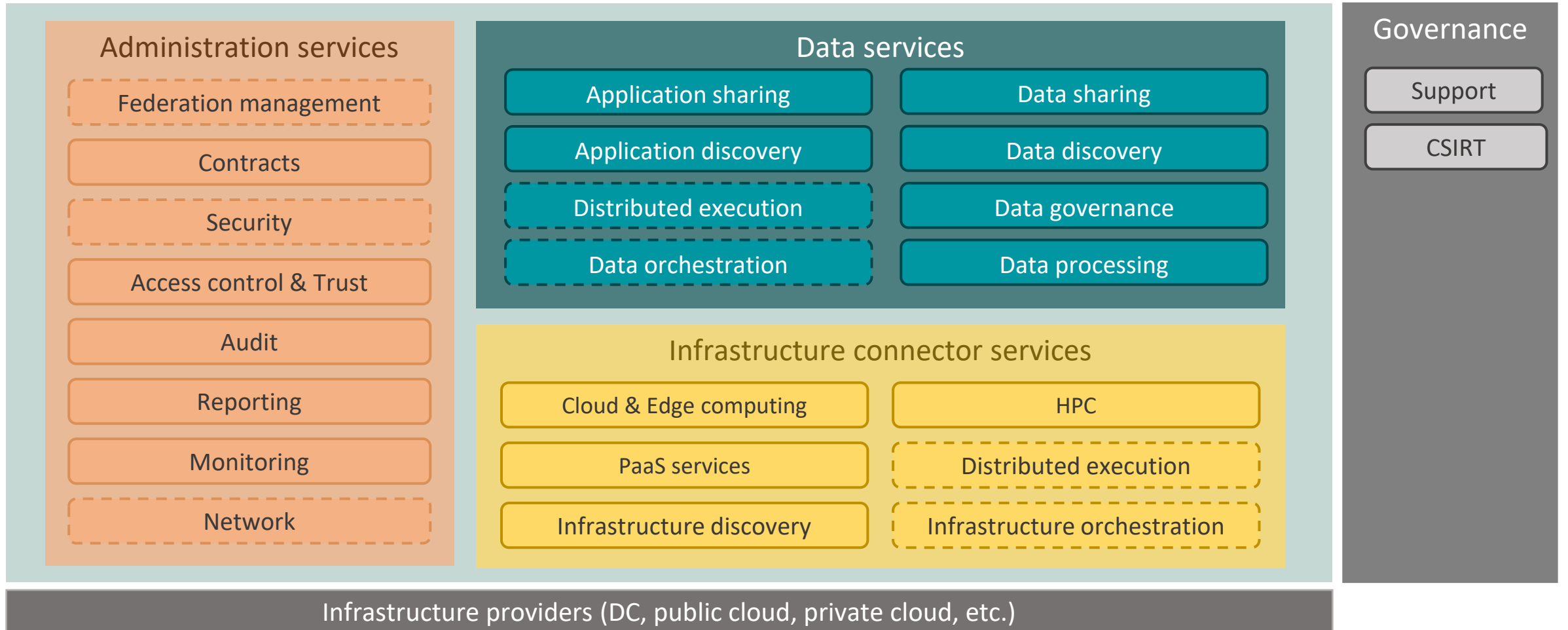
Simpl-Live

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Simpl is deployed throughout data spaces

With centralised and decentralised components

- Centralised services = services that provide capabilities through centralised system components.

- *Data, Infrastructure and application catalogues* provide the cataloging service for end users to discover shared services in the data space

- *Vocabulary providers* provide the definition of metadata representation, vocabularies, and ontologies

- *Identity authorities* manage the identities of the data space participants and provides proofs that other participants can use for authentication and authorization
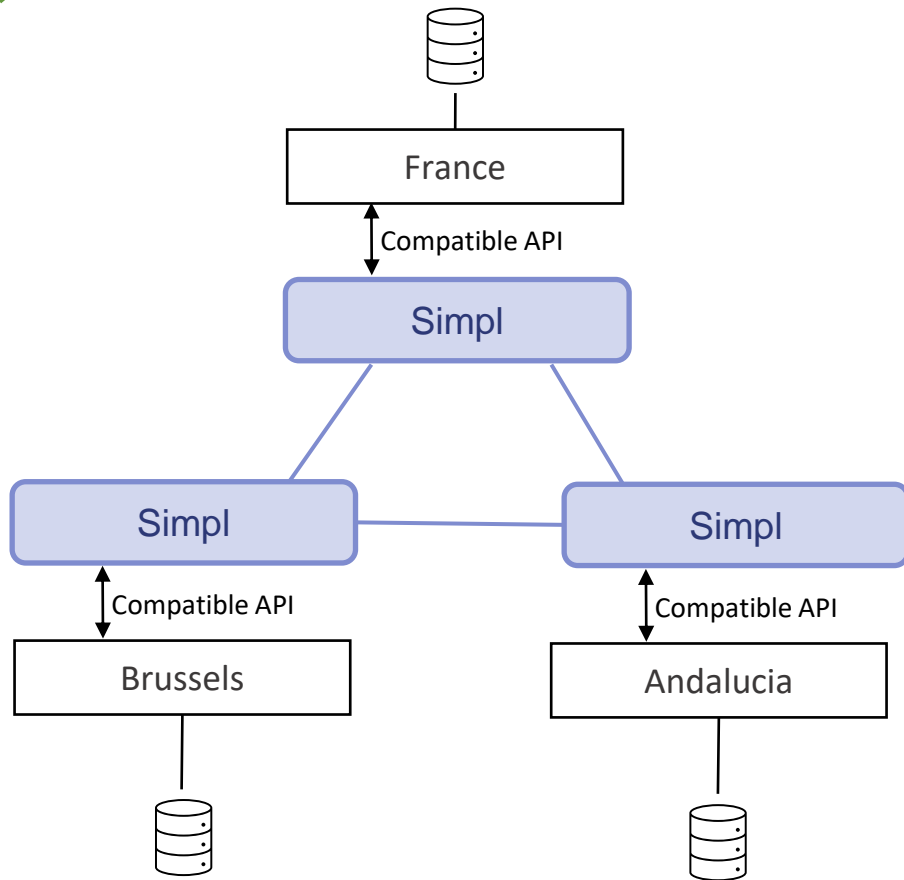

Data space

Data provider α — Simpl
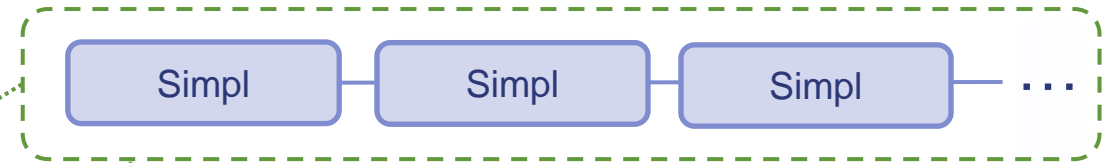
Data catalogue

Identity authority

Infrastructure provider x — Simpl

Infra catalogue

End user A — Simpl

Application provider n — Simpl

Application catalogue

Vocabulary provider

Legend:

- Data space participant
- Simpl
- Centralised service
- Data communications
- Communication to centralised services

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Simpl's conceptual architecture is stable

Administration services
- Federation management
- Contracts
- Security
- Access control & Trust
- Audit
- Reporting
- Monitoring
- Network

Data services
- Application sharing
- Application discovery
- Distributed execution
- Data orchestration
- Data sharing
- Data discovery
- Data governance
- Data processing

Governance
- Support
- CSIRT

Infrastructure connector services
- Cloud & Edge computing
- PaaS services
- Infrastructure discovery
- HPC
- Distributed execution
- Infrastructure orchestration

Infrastructure providers (DC, public cloud, private cloud, etc.)

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Simpl adjusts to different data spaces and facilitates interoperability
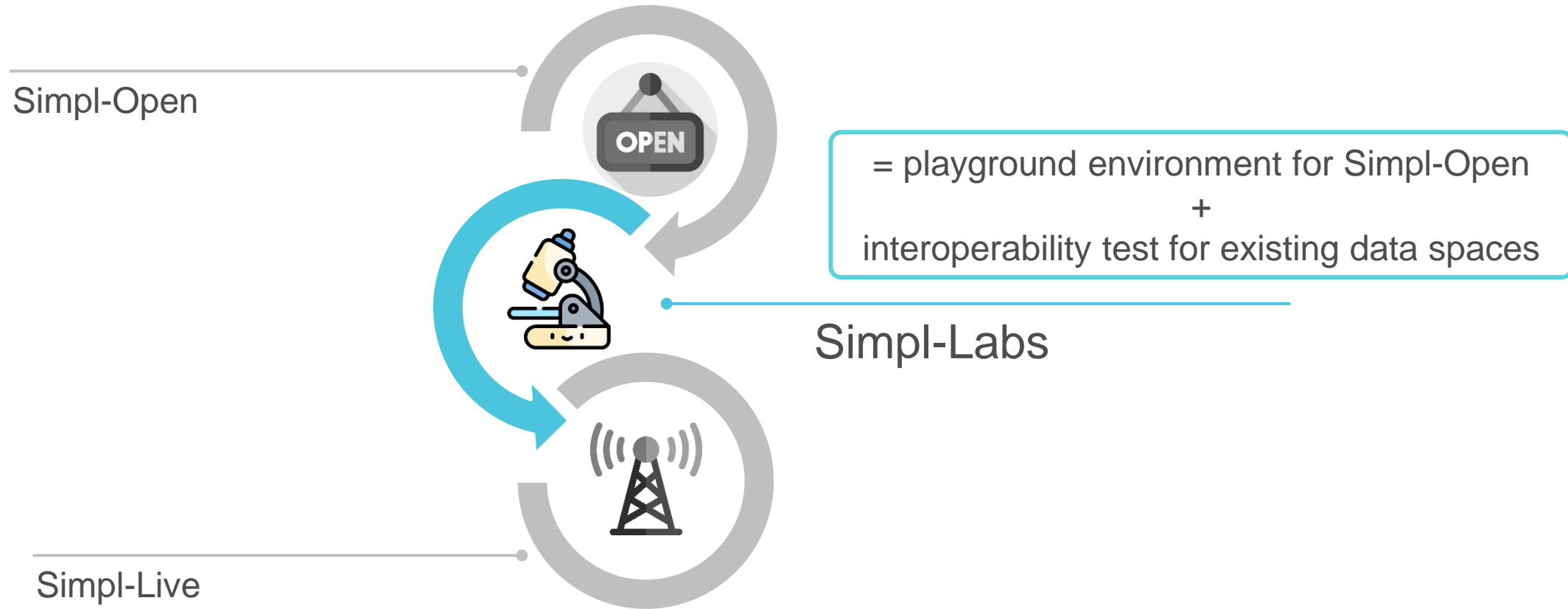
Zoom into 2024 Simpl-Open's development that will last until at least 2026

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Simpl-Labs

Simpl-Open

Simpl-Labs

= playground environment for Simpl-Open
+
interoperability test for existing data spaces
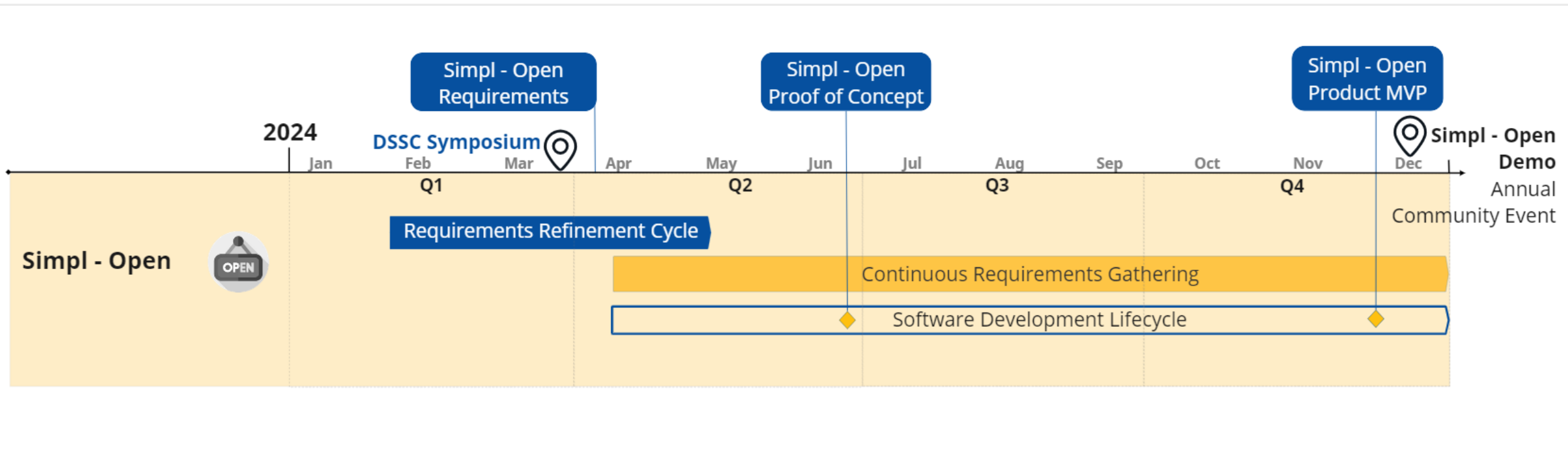
Simpl-Live

Simpl-Labs timeline 2024

DSSC Symposium

Simpl- Labs Demo
Annual Community Event

2024

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Q1			Q2			Q3			Q4	

Simpl - Labs

Feasibility Study ◆Proof of Concept

Reports
Feasibility study Results
Background material

European Commission

Simpl-Live

Simpl-Open

Simpl-Labs

= instances of Simpl-Open for common European data spaces

Simpl-Live

European Health Data Space 2^{ary}

eosc

Public Procurement Data Space

Destination Earth

Language Data Space

Smart Communities

European Commission

Simpl-Live timeline 2024

DSSC Symposium

Simpl - Live Demo
Annual Community Event

2024

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Q1			Q2			Q3			Q4		

Simpl - Live

◆ Intermediary Simpl-Live study reports

Feasibility Studies

Reports
Feasibility Study Results
Background material

European Commission
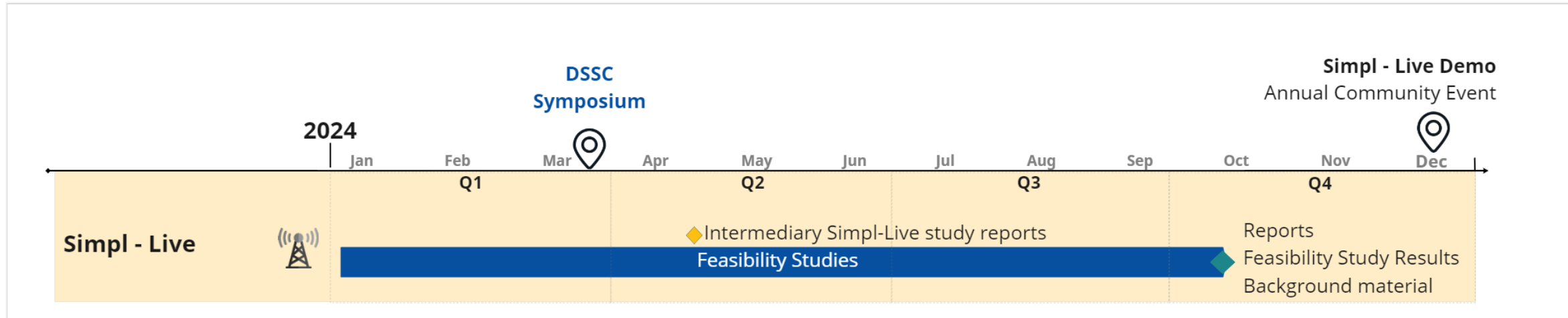
Contract awarded to

EVIDEN

aruba
CLOUD

Capgemini

ENGINEERING
THE DIGITAL TRANSFORMATION COMPANY

IONOS

T COSMOTE
GLOBAL SOLUTIONS

- - - - - - - - - - - - - - -

And

indra

What are we working on today?

Breaking news: Simpl-open requirements are online

Published requirements

L0   Business processes / Use cases*   11 out of 11

L1   High-level requirements   4 out of 41

L2   Detailed requirements   17 out of 279

L3   User stories   *753*

Architecture, open-source code, documentation

Numbers will change !!!

*Definitions:
- **Business process:** Business Process (BP) is the end-to-end process that involves actions outside of the Simpl platform, encompassing interactions and transactions that extend beyond the platform's internal flows, E.g. manual approvals & reviews, contract signatures, etc.
- **Use case:** Use cases refer to the specific processes and scenarios within the Simpl platform, detailing how users interact within the system, the functionalities they employ, and the internal workflows designed to meet their needs

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Simpl-open requirements – An example
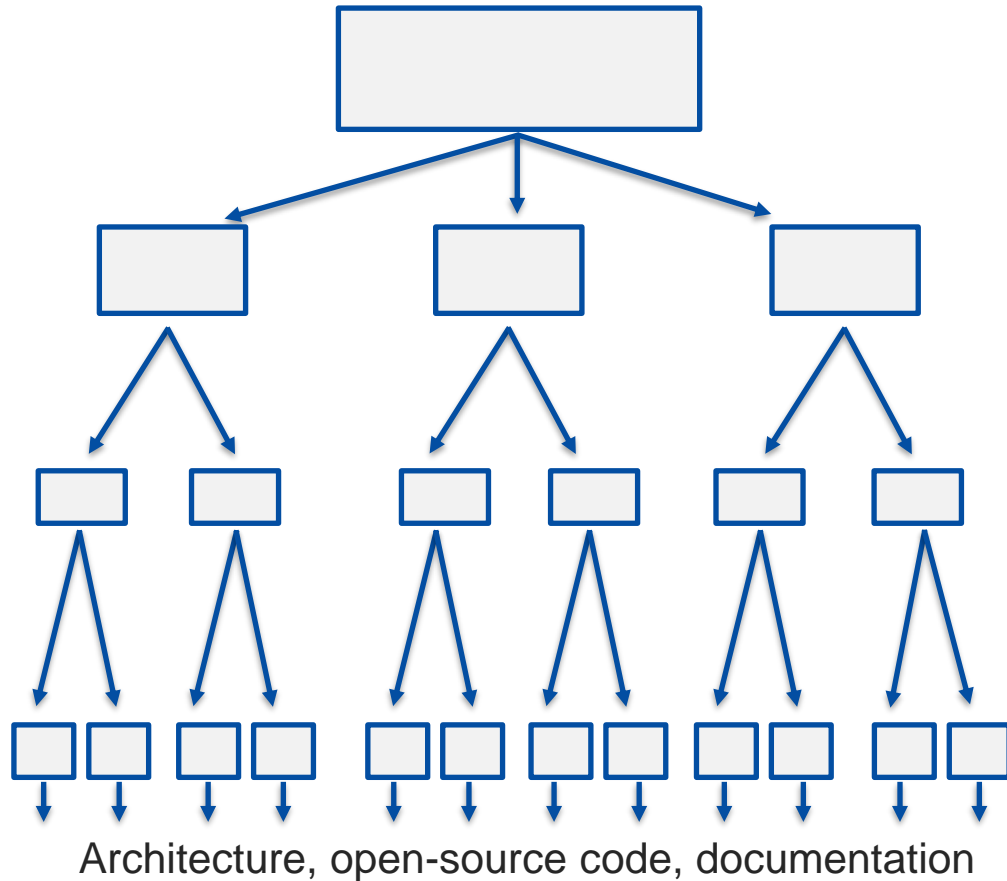
L0   Onboarding of a new data space participant

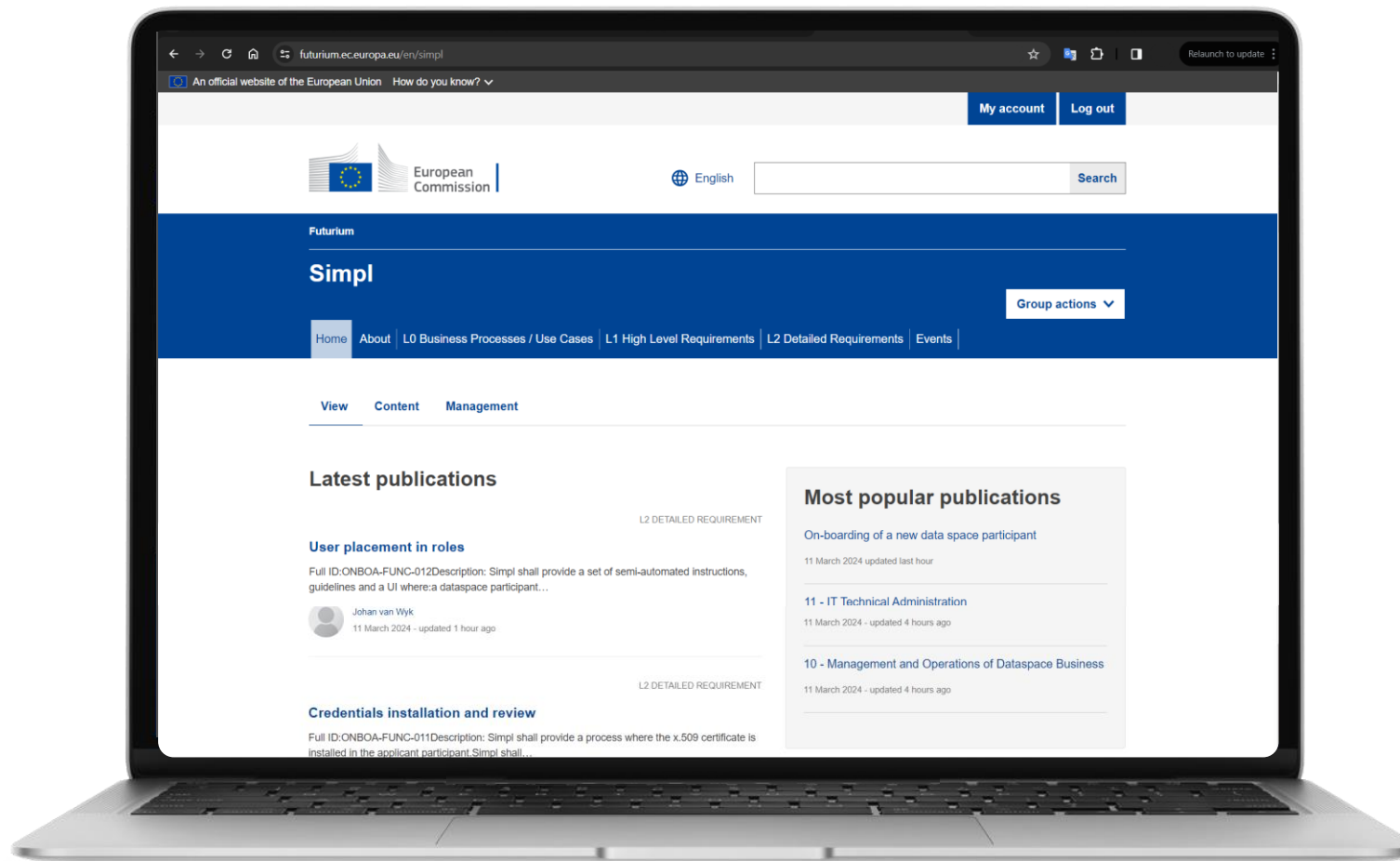**L1**   Simpl shall process onboarding requests of a new data space participant

L2   Simpl shall provide UI interface for applicant data space participants to submit onboarding documentation

L3   *"As an applicant data space participant, I want to upload the specific documentation to initialise the onboarding procedure"*

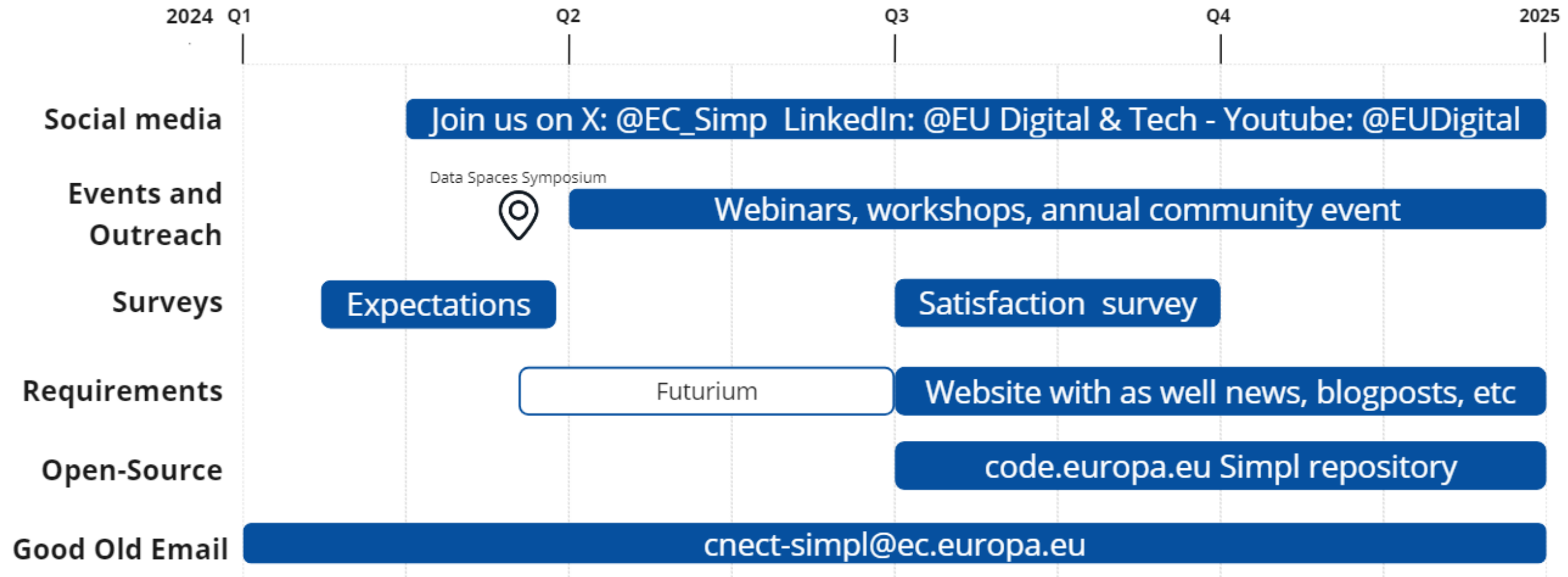Architecture, open-source code, documentation

European Commission

1. Setup of Dataspace: Role of Governance Authority
2. Setup of Catalogues and Vocabulary
3. Onboarding of a new Dataspace Participant: Providers of data, application, infrastructure
4. Onboarding of a new Dataspace Participant: Data Consumers
5. A provider adds and updates a new Resource of data, application or infrastructure on the Dataspace's Catalogue
6. Data Consumers search Resources on Dataspace's Catalogues
7. Data Consumers establish a contract with the Provider for selected Catalogue Items
8. Data Consumers use a Resource from the Provider of data, application, infrastructure
9. Data Consumers decommission the Resource from the Provider of data, application, infrastructure
10. Management and Operations of Dataspace Business including catalogues, vocabulary and clean up
11. IT Technical Administration

Breaking news: Simpl-open requirements are online

https://futurium.ec.europa.eu/en/simpl

Engage with us

A timeline from 2024 to 2025 (Q1–Q4) showing engagement channels:

- **Social media** — Join us on X: @EC_Simp LinkedIn: @EU Digital & Tech - Youtube: @EUDigital
- **Events and Outreach** — Data Spaces Symposium; Webinars, workshops, annual community event
- **Surveys** — Expectations; Satisfaction survey
- **Requirements** — Futurium; Website with as well news, blogposts, etc
- **Open-Source** — code.europa.eu Simpl repository
- **Good Old Email** — cnect-simpl@ec.europa.eu

European Commission

Engage with us

Read more about Simpl, fill in our survey and follow us on social media!

European Commission
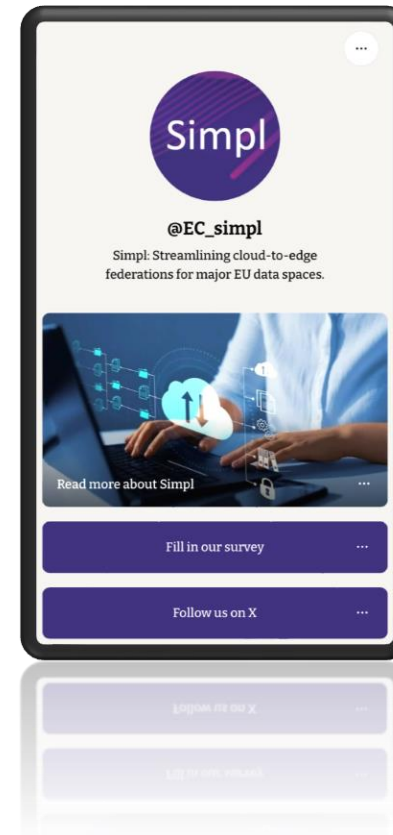
The Programme beyond 2024

Simpl Programme

	2023	2024	2025	2026	2027	2028

Preparatory Study

Procurement / Call for tender

Simpl - Open — Kick-OFF — Execution

Simpl - Live — Feasibility Study — Execution
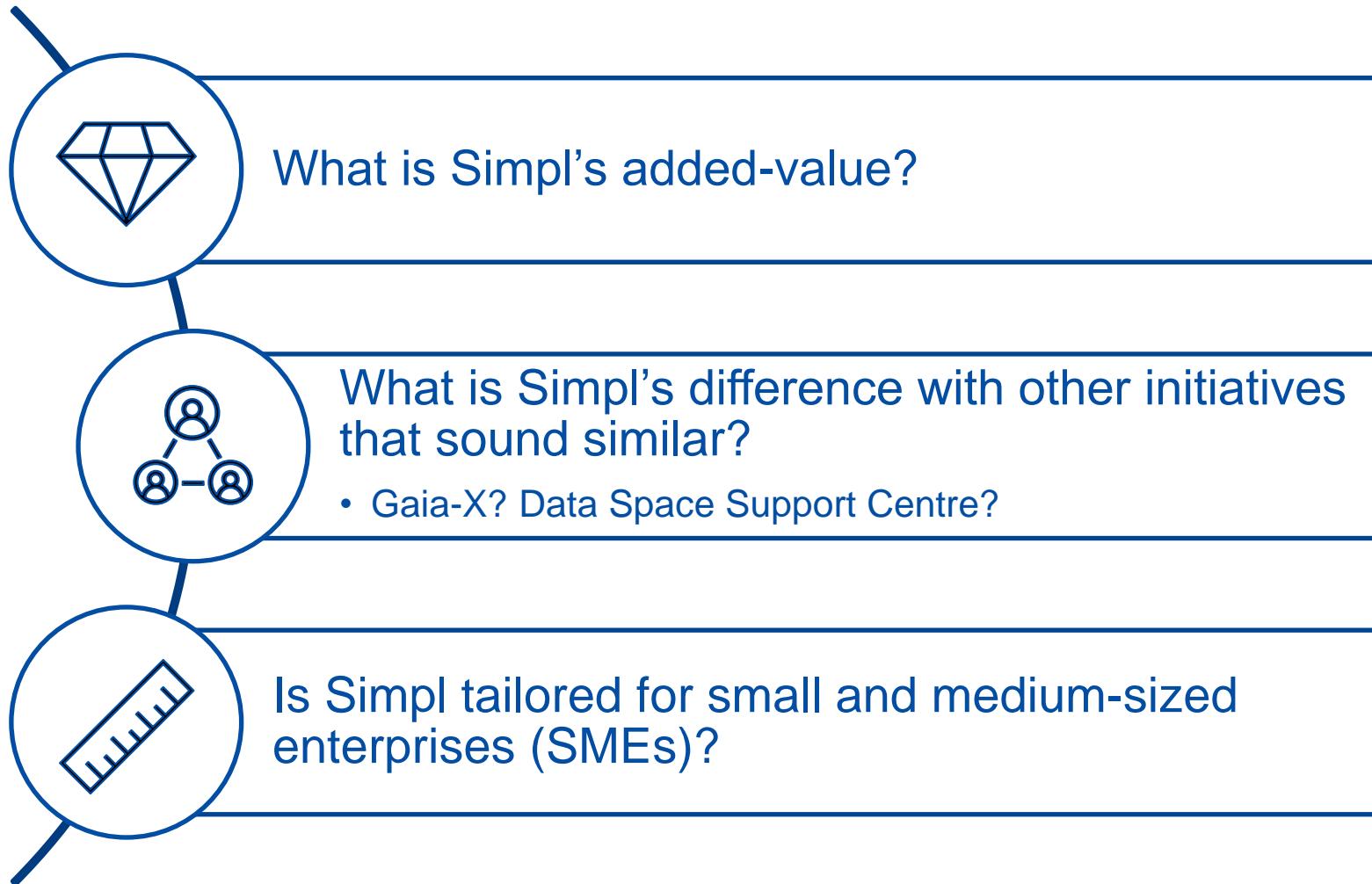
Simpl - Labs — Feasibility Study — Execution

New batch of studies
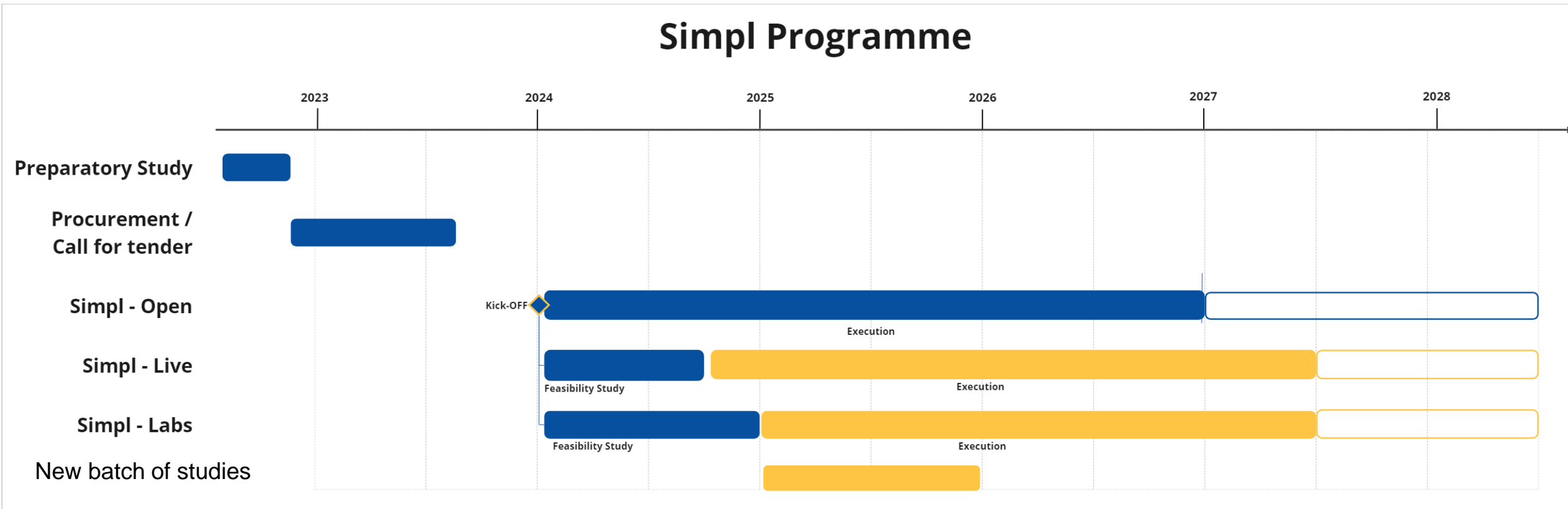
Funds for blue part: ~48m€ from Digital Programme 2021-22

Budget for yellow part: 41m€ from Digital Programme 2023-24

European Commission

Initial input from interviewed stakeholders

What is Simpl's added-value?

What is Simpl's difference with other initiatives that sound similar?

- Gaia-X? Data Space Support Centre?

Is Simpl tailored for small and medium-sized enterprises (SMEs)?

European Commission

Thank you

Simpl Programme 2024 – In details

Simpl Programme 2024 – In short