



Unpacking Simpl: Installation Workshop

01 July 2025

Housekeeping Rules

 Participants' audio and video will be disabled.

 Questions? Please use the Q&A function.

 Want to say hi or report an issue? Let us know in the chat.

 This workshop will be recorded.



Goals of this Workshop

1 Showcase where to find the relevant installation documentation.

2 Perform a walkthrough of the deployment of the Simpl agents and the setup of a minimum viable data space using Simpl-Open.

3 Provide answers to any technical questions.



Agenda

- 14:00 – 14:05** Welcome and Housekeeping
- 14:05 – 14:15** Introduction to the Workshop and June Release
- 14:15 – 14:25** Overview of the Agents in Scope
- 14:25 – 15:10** Deployment of Three Simpl-Open Agents Using Helm Charts
- 15:10 – 15:25** 1st Q&A Session
- **15:35 – 16:35** Configuration of a Minimal Data Space
- 16:35 – 16:55** 2nd Q&A Session
- 16:55 – 17:00** Wrap Up & Closing



10' BREAK

Welcome

Introducing the speakers



Nicolas Auricchio
Lead Architect Simpl-Open,
Sovereign-X



Lukasz Kolasa
Simpl-Open Integration Engineer,
Sovereign-X



Richard Mrasek
Senior Cloud Solutions Engineer,
Sovereign-X

Introduction

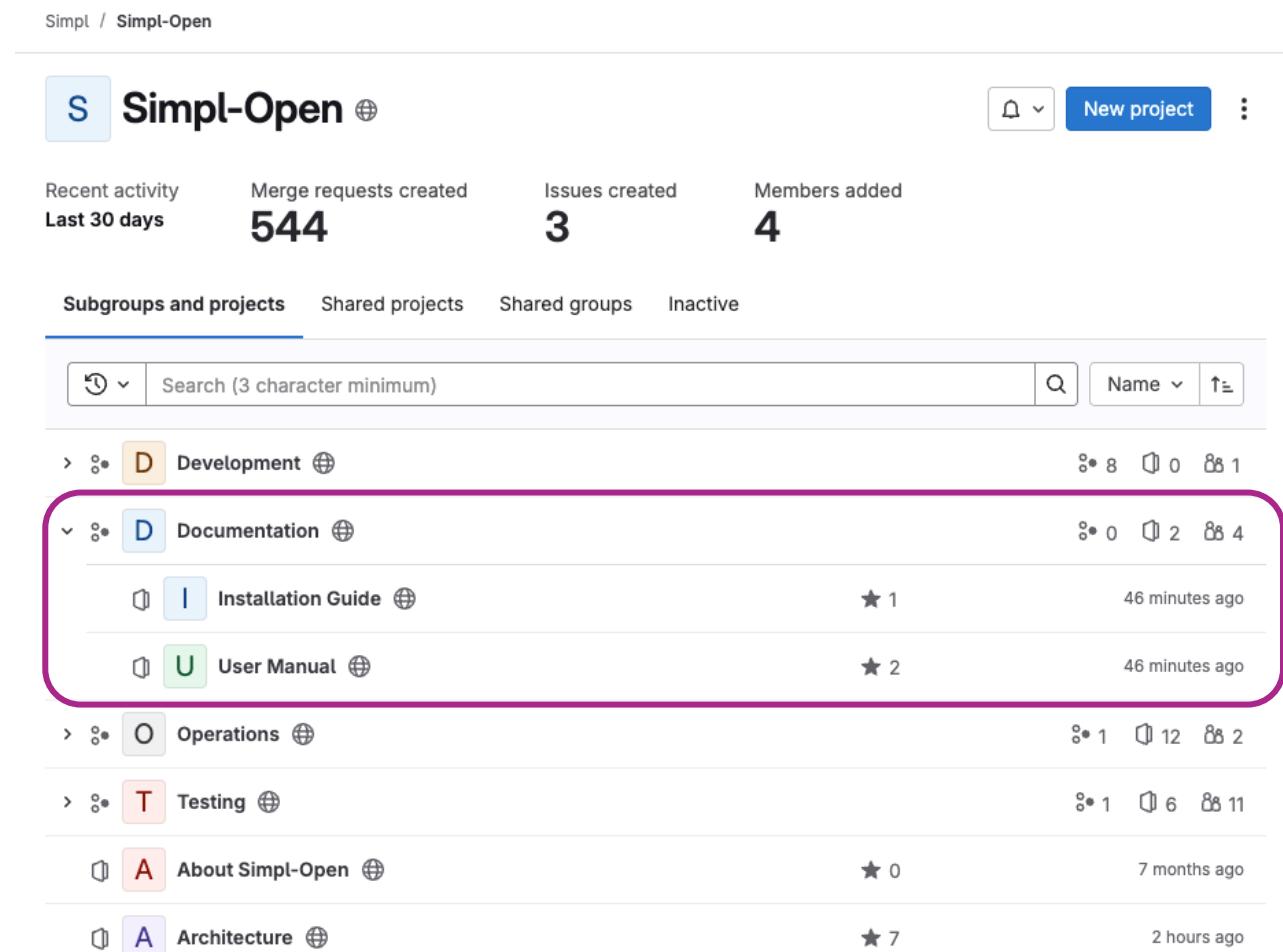
Introduction

Why are we here today ?

To deploy and use Simpl-Open, are available on code.europa.eu:

1. Installation Guide
2. User Manual

While we strive to make this documentation self-sufficient for anyone who wants to install and use Simpl-Open, we understand that the complexity of the middleware creates the need for a hands-on demo/execution of the procedure.



Simpl / Simpl-Open

Simpl-Open

Recent activity Merge requests created Issues created Members added

Last 30 days 544 3 4

Subgroups and projects Shared projects Shared groups Inactive

Search (3 character minimum)

Development

- Documentation**
- Installation Guide
- User Manual

Operations

Testing

About Simpl-Open

Architecture

Introduction

What is the impact of the latest releases ?

Today's demo will be based on Release 1.3.2 which was the latest at the time the demo got prepared.

Since then, Release 2.0.0 has been made available on 11th of June and Release 2.1.0 should be available in the course of July.

The new releases are primarily a stabilisation of Release 1.3.2, with the addition of a few functional and technical improvements (e.g. onboarding extension, credentials renewal/revocation, infrastructure decommissioning).

More details can be found on the [Simpl-Open Programme website](#).



Scan the **QR Code** to find details on the next Simpl-Open releases



NB: These changes do not impact the installation process of the agents.

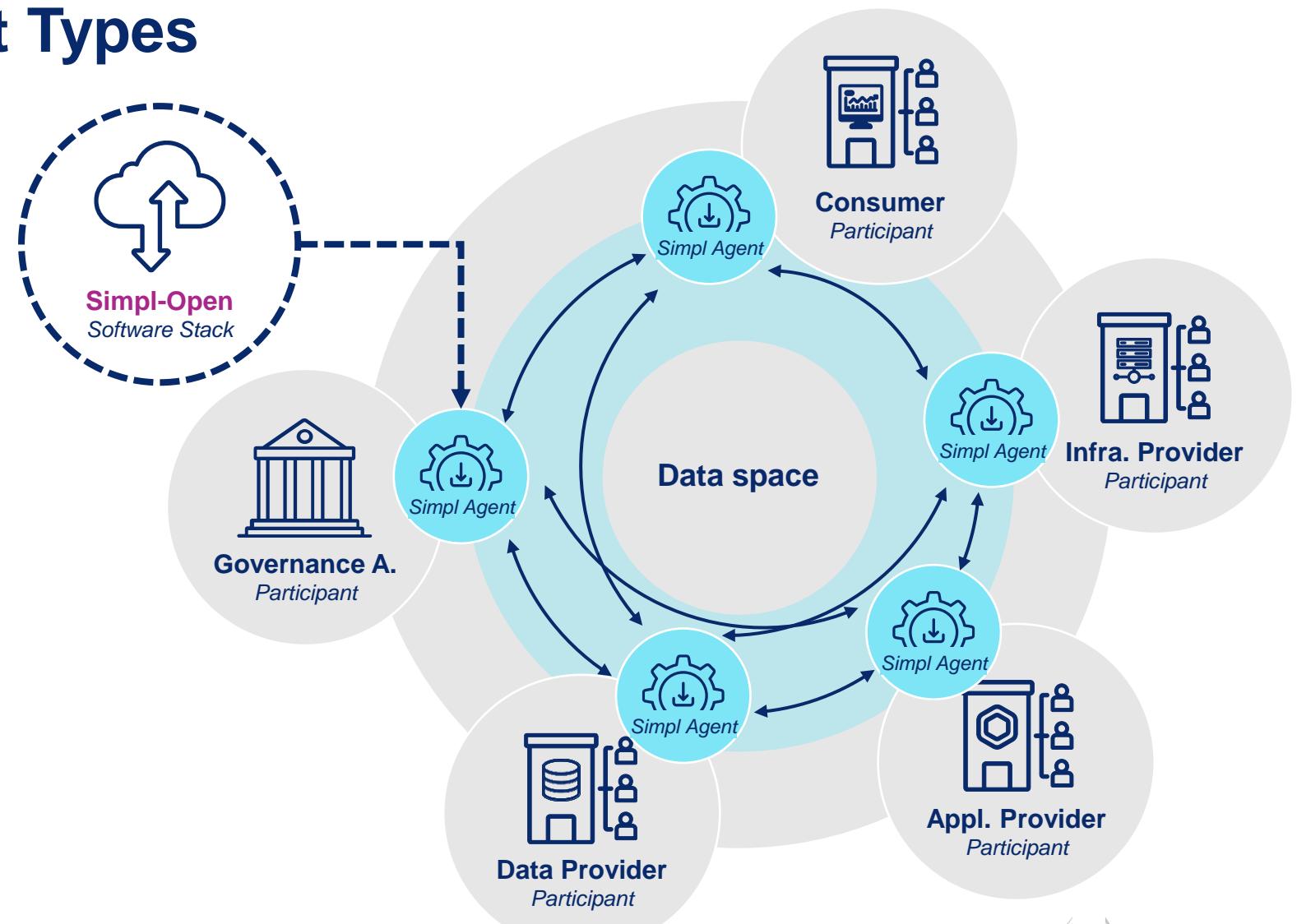
Overview of the Agents in Scope

Simpl-Open Participant Types

Overview of Types

Simpl-Open will support five different types of Participants:

1. **Governance Authority**
2. **Consumer**
3. **Data Provider**
4. **Infra. Provider**
5. **Appl. Provider**



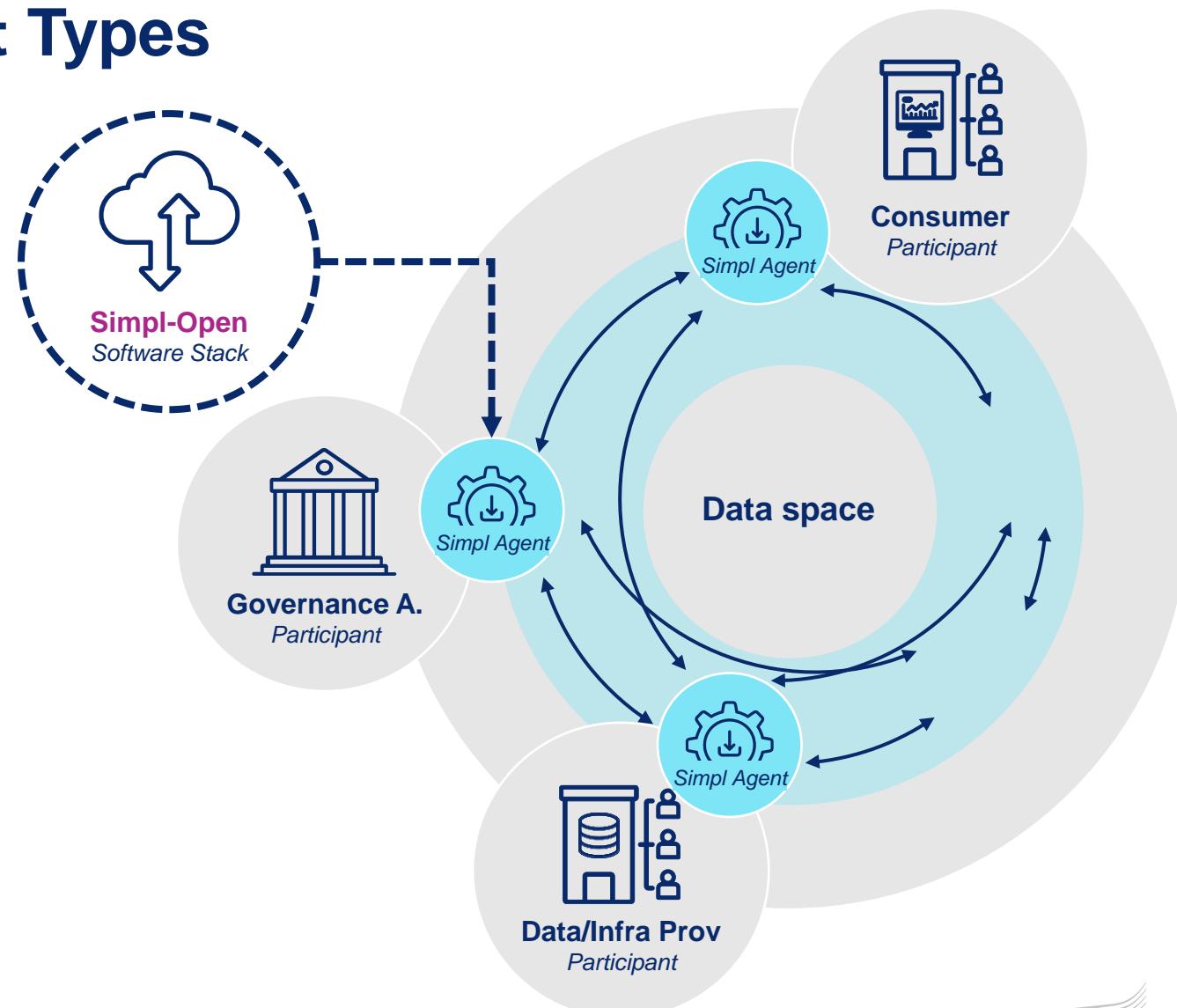
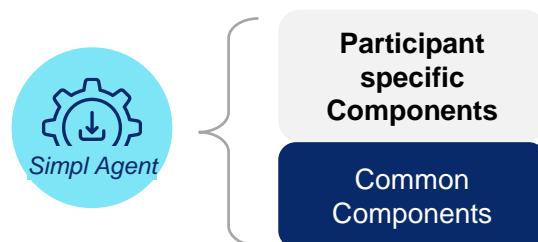
Simpl-Open Participant Types

Current Support

In the current release we have three different types of participants

1. **Governance Authority**
2. **Consumer**
3. **A combined data and Infra Provider**

Each agent consists of two parts, the components specific for the participant and the common components (e.g. message bus, logging) that are part of every agent.



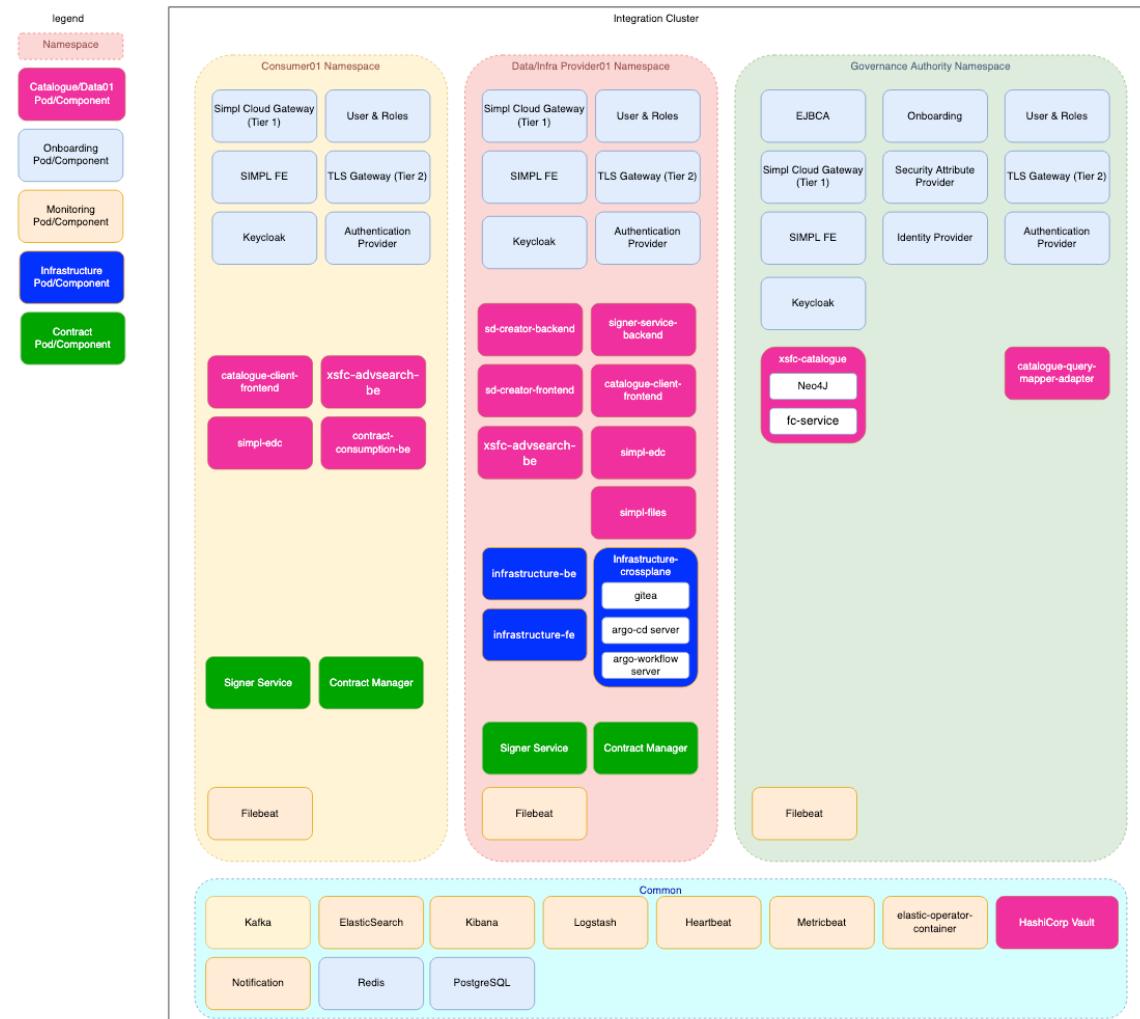
Simpl-Open Participant Types

Deployment View

If you want to install multiple agents in the same cluster (for instance to get a sandbox deployment or for testing purpose) it is enough to install the common components once per cluster.

The different agents are separated by namespace, as well as the common area in its own.

You can find the Integration Cluster visual [here](#).

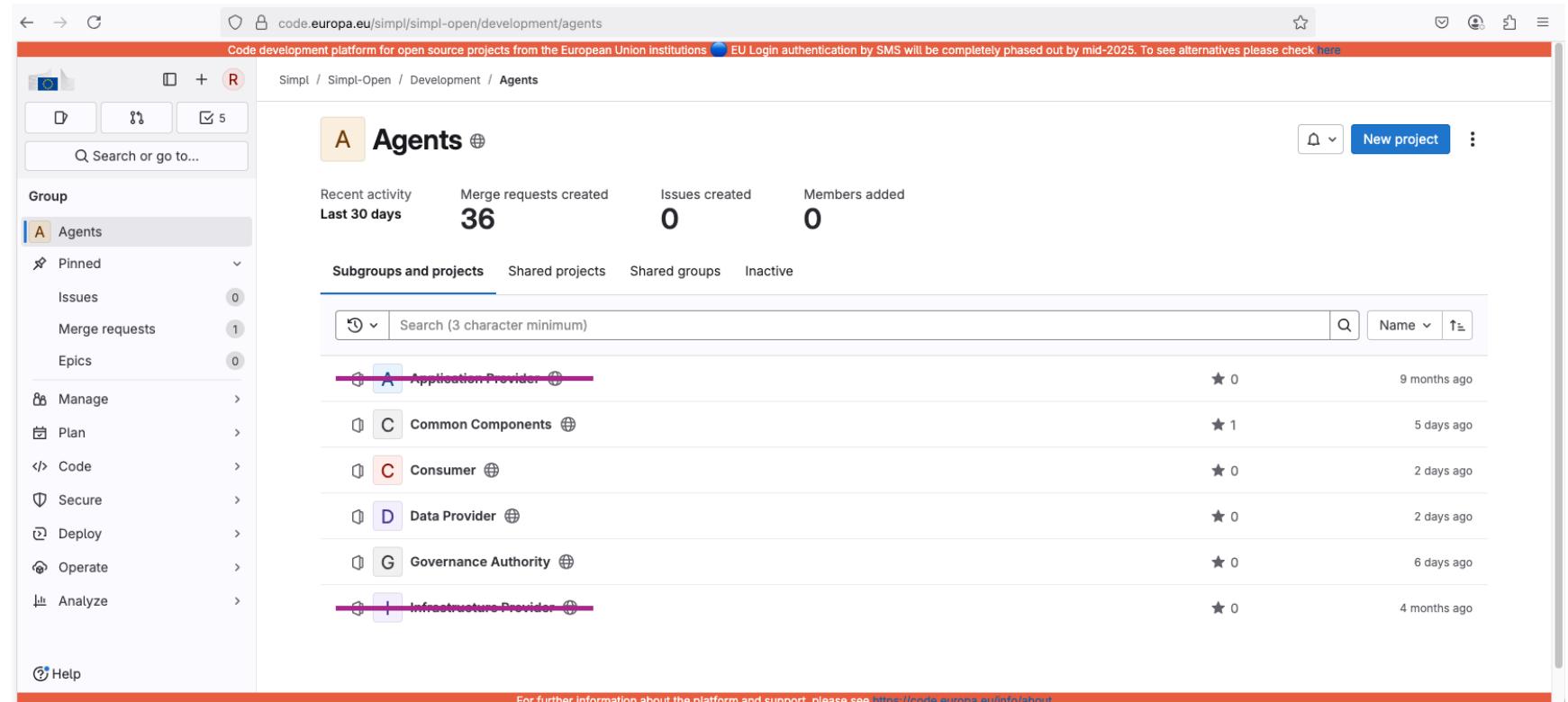


Simpl-Open Participant Types

Repository View

The helm charts for each namespace can be found on GitLab.

They also contain charts for the Application and Infrastructure Provider but these should not be installed for this release.



The screenshot shows the 'Agents' repository on the Simpl-Open project in the GitLab interface. The repository has 36 merge requests created in the last 30 days, 0 issues created, and 0 members added. The sidebar on the left shows pinned items, issues (0), merge requests (1), and epics (0). The main content area displays a list of subgroups and projects, each with a star rating and a timestamp. The subgroups listed are Application Provider, Common Components, Consumer, Data Provider, Governance Authority, and Infrastructure Provider.

Subgroup	Rating	Last Updated
Application Provider	★ 0	9 months ago
Common Components	★ 1	5 days ago
Consumer	★ 0	2 days ago
Data Provider	★ 0	2 days ago
Governance Authority	★ 0	6 days ago
Infrastructure Provider	★ 0	4 months ago

Installation of Agents

Demo

Agent Deployment Overview

Find below the step-by-step plan to set up Simpl-Open Agents

HOW do I set up the agents?

- ✓ **Step 1:** Set-Up Common Components
- ✓ **Step 2:** Set-Up the Data space Governance Authority
- ✓ **Step 3:** Set-Up a Provider Participant
- ✓ **Step 4:** Set-up a Data Consumer

WHAT do I need to set up the agents?

1. **Hardware Requirements**
2. **Software Pre-requisites**



Scan the QR Code to
consult the **Installation
Guide**



Scan the QR Code to
consult the full
Requirements Guide



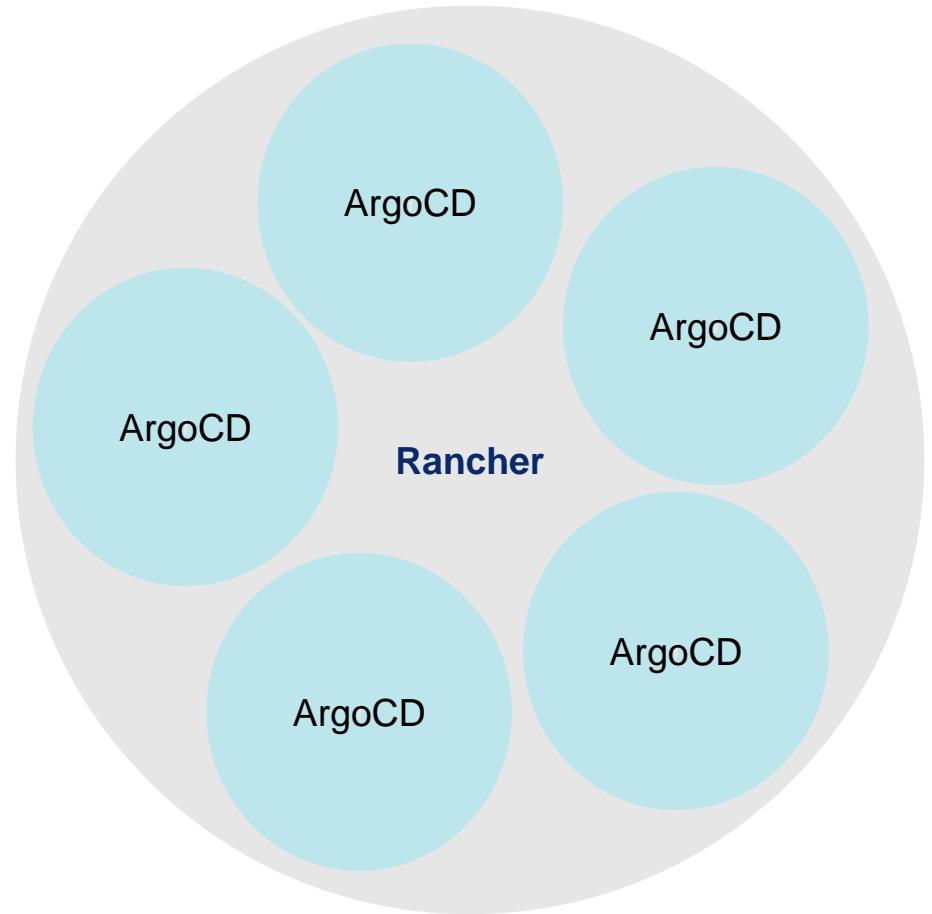
Installation of Agents

Rancher manages Kubernetes clusters and user access

1. Manage multiple Kubernetes clusters
2. Handle user access, security policies, and infrastructure
3. Provide a platform for DevOps teams to deploy workloads

Argo CD runs inside those clusters to manage application deployments

1. Automate application deployments using Git as the source of truth
2. Implement GitOps workflows with version control and rollback
3. Continuously sync app state between Git and Kubernetes



Installation of Agents

Rancher

Resources and configuration items

OVHcloud Managed Rancher Service

Ingresses

State	Name	Target
Active	argocd-ingress	https://argocd.testint.simpl-europe.eu/
Active	adapter-ingress	https://adapter.authority01.testint.simpl-europe.eu/

Installation of Agents

Rancher

Ability to manage and verify individual pods, verify their status and access logs

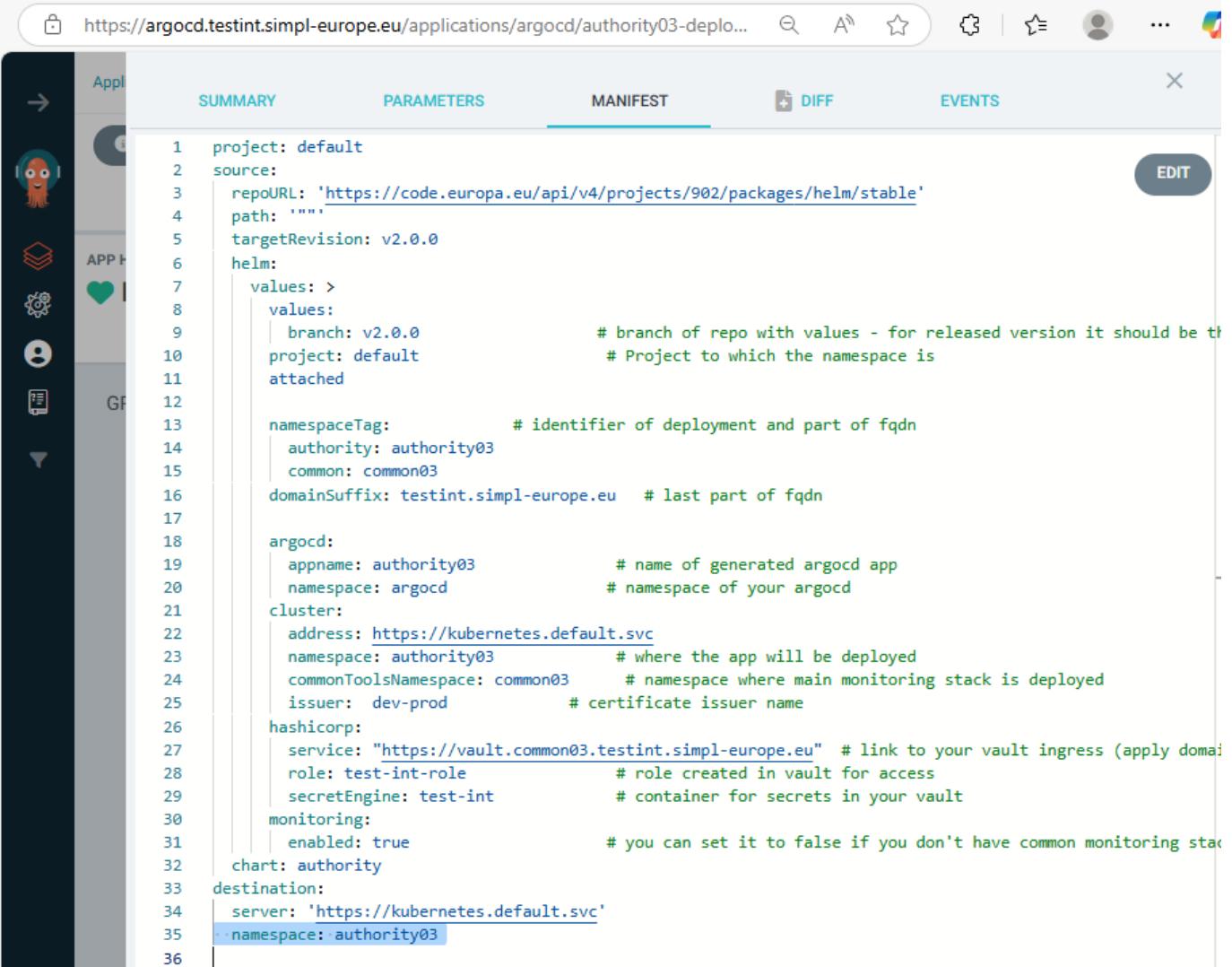
OVHcloud Managed Rancher Service

Pod	Status	Deployment	Age	Logs	Actions
heartbeat-beat-heartbeat	Active	0	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	
init-participant-job	Init	0	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	
keycloak	Active	0	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	
simpl-edc-deployment	Active	5	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	
simpl-fe-participant	Active	0	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	
simpl-fe-usersroles	Active	0	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	
simpl-stubs	Active	0	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	
tier1-gateway	Active	0	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	
tier2-gateway	Active	3	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	
users-roles	Active	2	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	
xfsc-advsearch-be	Active	0	3.1 days	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	

Installation of Agents

ArgoCD

Argo CD uses both manifest-based values and Helm values with defined parameterised templates for Kubernetes resources.

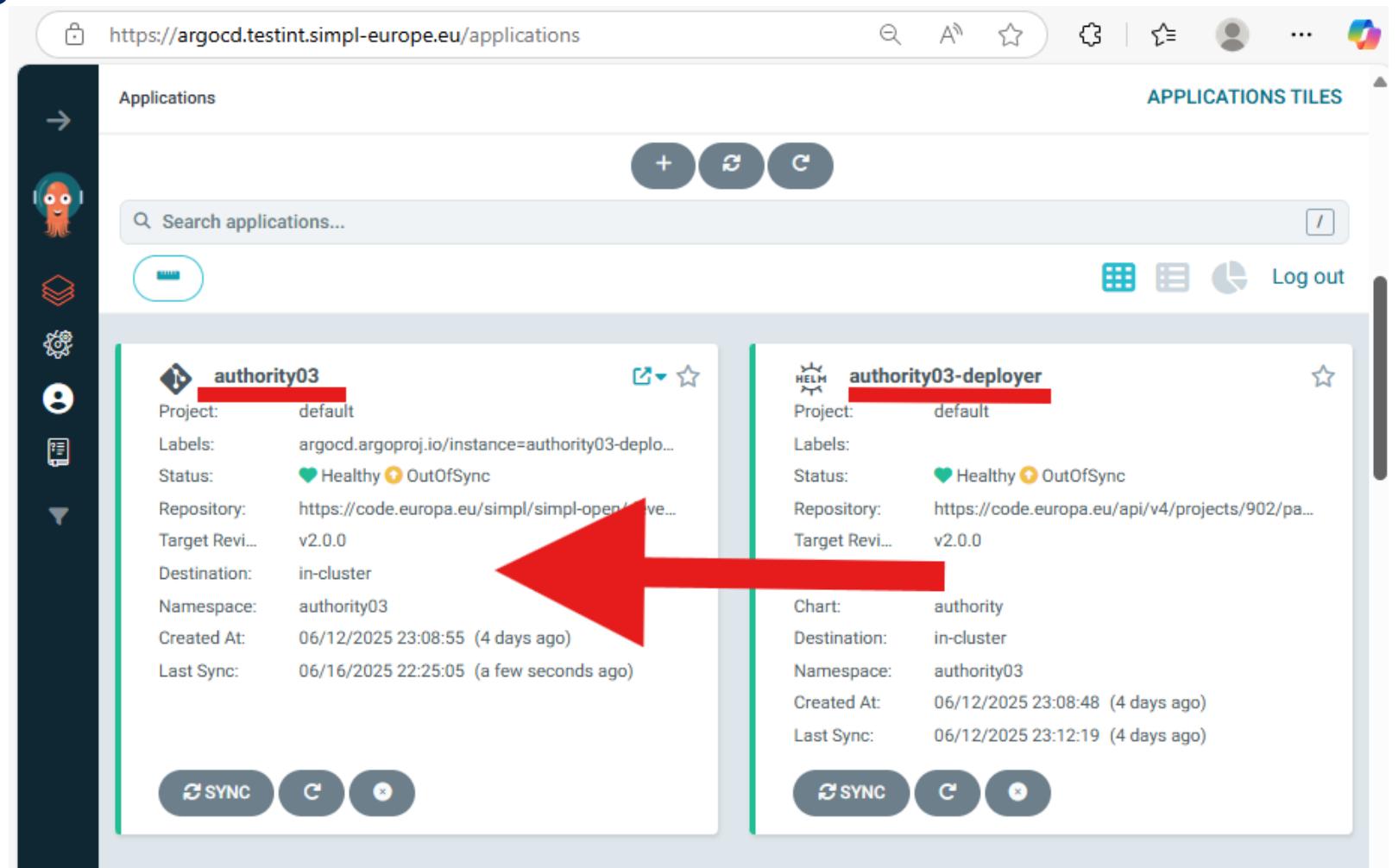


```
1 project: default
2 source:
3   repoURL: 'https://code.europa.eu/api/v4/projects/902/packages/helm/stable'
4   path: ''
5   targetRevision: v2.0.0
6 helm:
7   values: >
8     values:
9       branch: v2.0.0
10      project: default
11      attached
12
13      namespaceTag:           # identifier of deployment and part of fqdn
14      authority: authority03
15      common: common03
16      domainSuffix: testint.simpl-europe.eu  # last part of fqdn
17
18      argocd:
19        appname: authority03           # name of generated argocd app
20        namespace: argocd            # namespace of your argocd
21      cluster:
22        address: https://kubernetes.default.svc
23        namespace: authority03        # where the app will be deployed
24        commonToolsNamespace: common03 # namespace where main monitoring stack is deployed
25        issuer: dev-prod             # certificate issuer name
26      hashicorp:
27        service: "https://vault.common03.testint.simpl-europe.eu" # link to your vault ingress (apply domain
28        role: test-int-role          # role created in vault for access
29        secretEngine: test-int       # container for secrets in your vault
30      monitoring:
31        enabled: true              # you can set it to false if you don't have common monitoring stack
32      chart: authority
33      destination:
34        server: 'https://kubernetes.default.svc'
35        namespace: authority03
```

Installation of Agents

ArgoCD

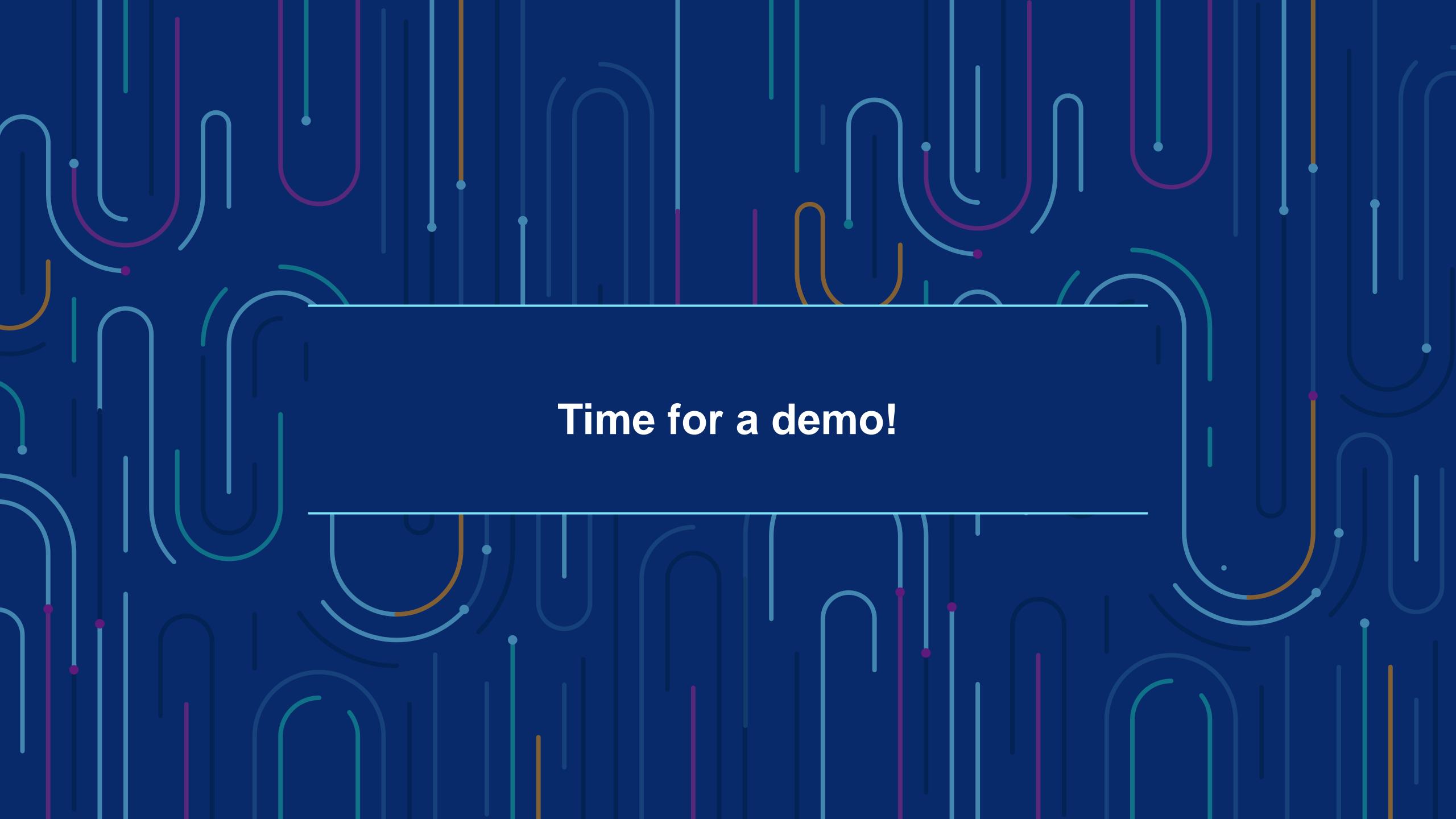
Automatic namespace deployment



The screenshot shows the ArgoCD web interface at the URL <https://argocd.testint.simpl-europe.eu/applications>. The interface has a dark sidebar on the left with icons for dashboard, applications, users, and settings. The main area is titled 'Applications' and contains two application cards:

- authority03**
 - Project: default
 - Labels: argocd.argoproj.io/instance=authority03-deployer
 - Status: Healthy OutOfSync
 - Repository: <https://code.europa.eu/simpl/simpl-open/>
 - Target Revi...: v2.0.0
 - Destination: in-cluster
 - Namespace: authority03
 - Created At: 06/12/2025 23:08:55 (4 days ago)
 - Last Sync: 06/16/2025 22:25:05 (a few seconds ago)
- authority03-deployer**
 - Project: default
 - Labels:
 - Status: Healthy OutOfSync
 - Repository: <https://code.europa.eu/api/v4/projects/902/pa...>
 - Target Revi...: v2.0.0
 - Chart: authority
 - Destination: in-cluster
 - Namespace: authority03
 - Created At: 06/12/2025 23:08:48 (4 days ago)
 - Last Sync: 06/12/2025 23:12:19 (4 days ago)

A large red arrow points from the 'authority03' card to the 'authority03-deployer' card, indicating a dependency or relationship between them.



Time for a demo!

Q&A



Time for a break

See you back at 15:36!

Setup of Agents

Demo

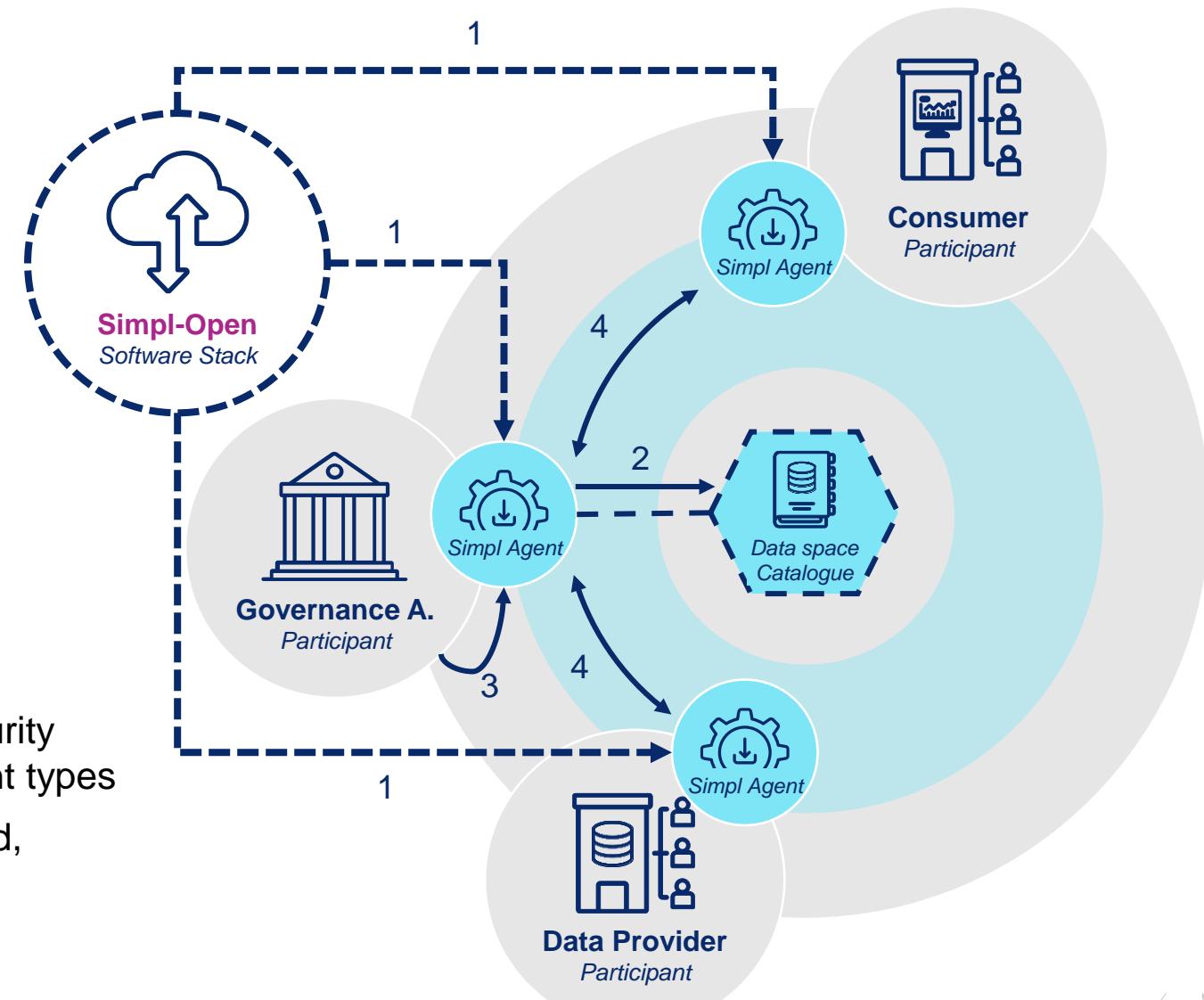
1. Setup of the demo

Next Steps

1. The previous installation will give you an empty Data Space. To actual use it you need to do several setup steps. Those cannot be done during the deployment because they are specific to the data space

Set Up Steps

2. Governance Authority configure the catalogue by loading the schema and vocabulary.
3. Governance Authority defines the security attributes and associates them to agent types
4. Consumer and Provider are onboarded, received their security credentials and configured their agent with it.



2. Import of Schema and Vocabulary

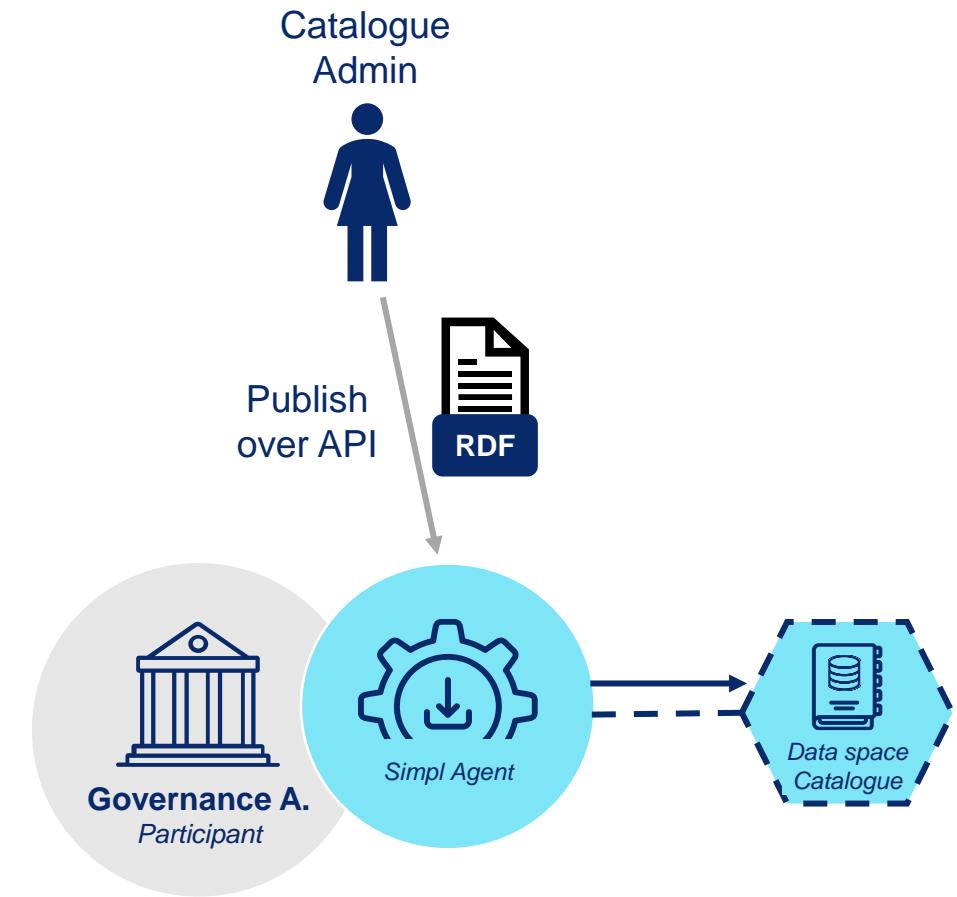
Defining and Association

The schema and vocabulary defines the content of the self-description metadata used by the provider to describe their offering.

Which properties are required depend on the data space as well as if those properties are mandatory or recommended.

These are described using semantic RDF documents and need to be published to the catalogue for verification purpose.

Currently this is done over API but we are currently in the phase of designing an UI frontend for the publication and management in the next releases.



3. Security Attributes

Defining and Association

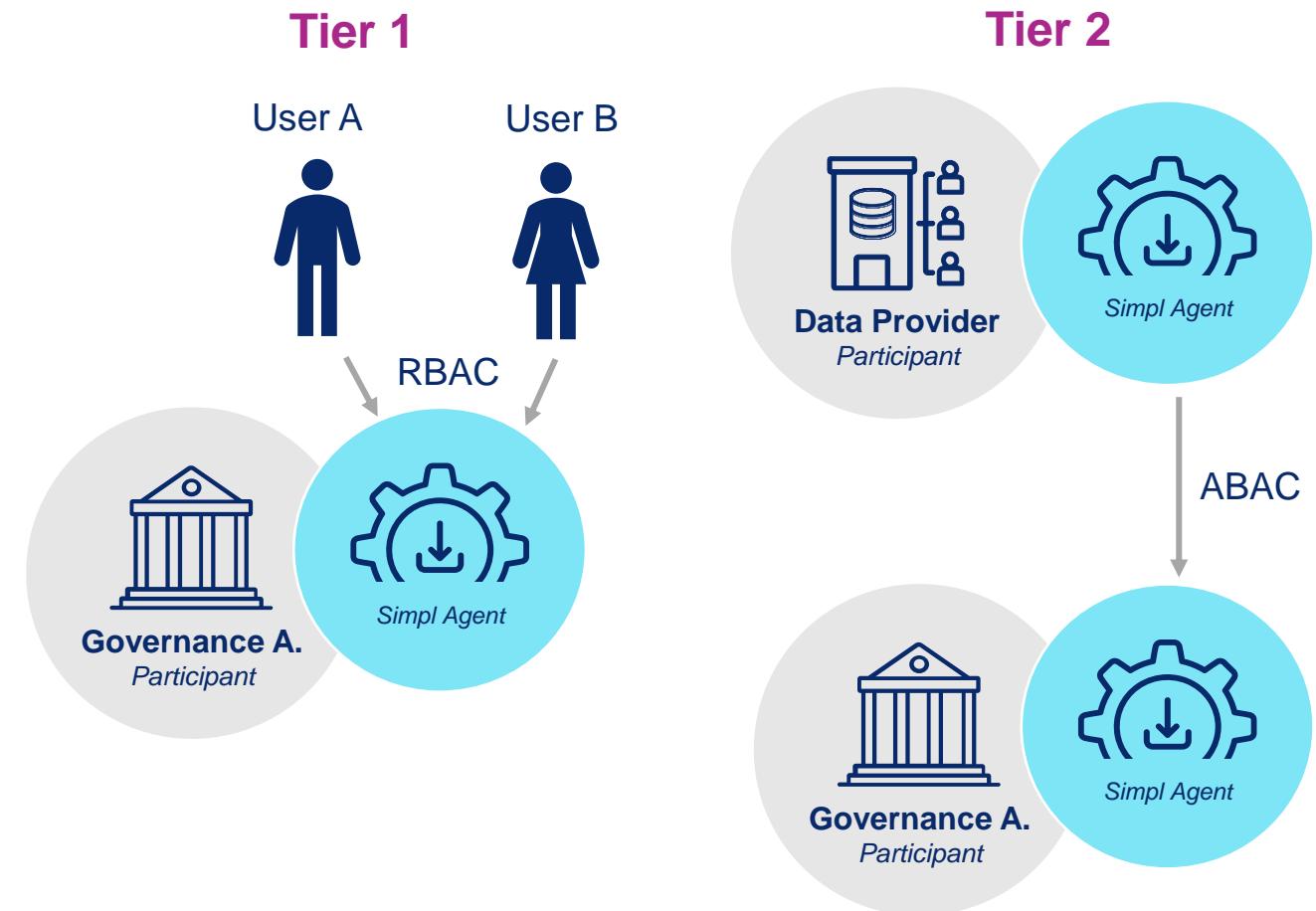
Simpl-Open uses a two-tier authentication approach

Tier 1: For the end user communicating with the agent Simpl-Open uses a role-based access control (RBAC). So, each user has a set of roles that allow him to do different activities inside the Agent.

Tier 2: For communication of an agent to another agent we use attribute-based access control (ABAC).

The roles of Tier1 are only valid inside the context of one agent thus local. For the communication in the data space itself only the attributes are used.

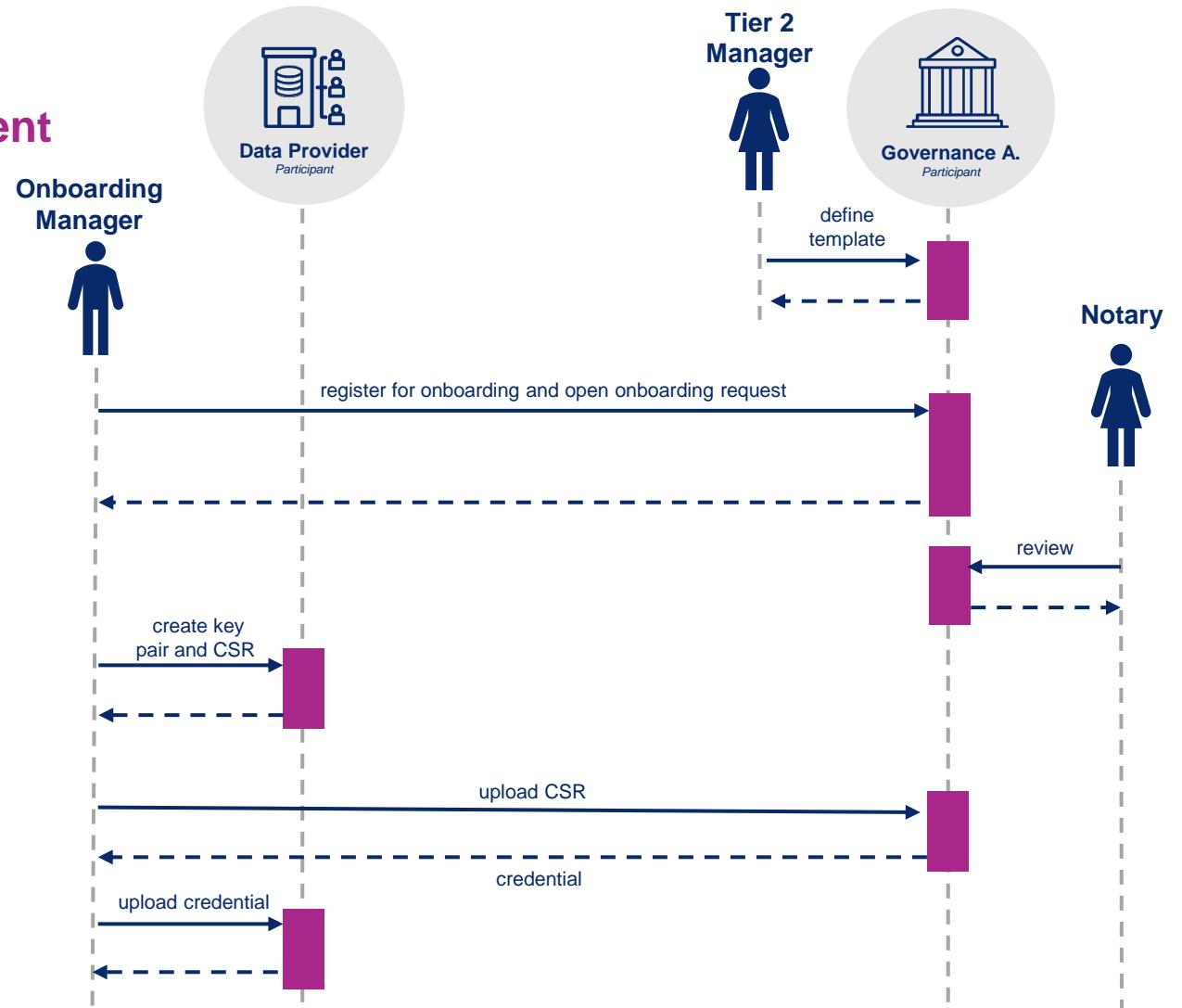
The Governance Authority defines which attributes exists and associates them to the other agents like Consumer or Provider



4. Onboarding of Participants

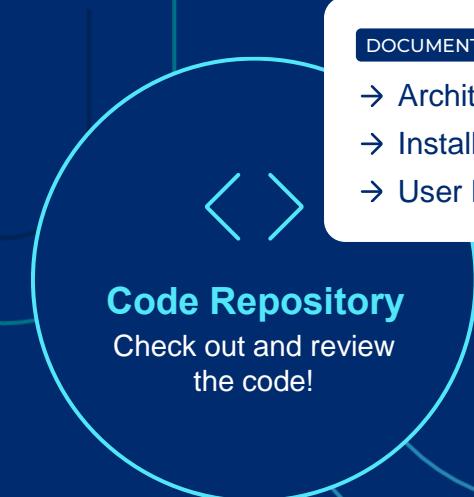
Onboarding Request and Credential Management

- ✓ We have installed all the agents, but this does not mean that they are ready to be used in the data space.
- ✓ Each Consumer and Provider needs to be onboarded to the data space before he can use the services.
- ✓ This involves a manual review process of a Notary of the Governance Authority thus it cannot be automated.



Q&A

Get involved and participate!



DOCUMENTATION UPDATES
→ Architecture
→ Installation Guide
→ User Manual



Scan me for more information about Simpl





We appreciate your feedback!



*Scan the QR code to
provide your input on the
on the workshop*





Thank you!