22 March 2024

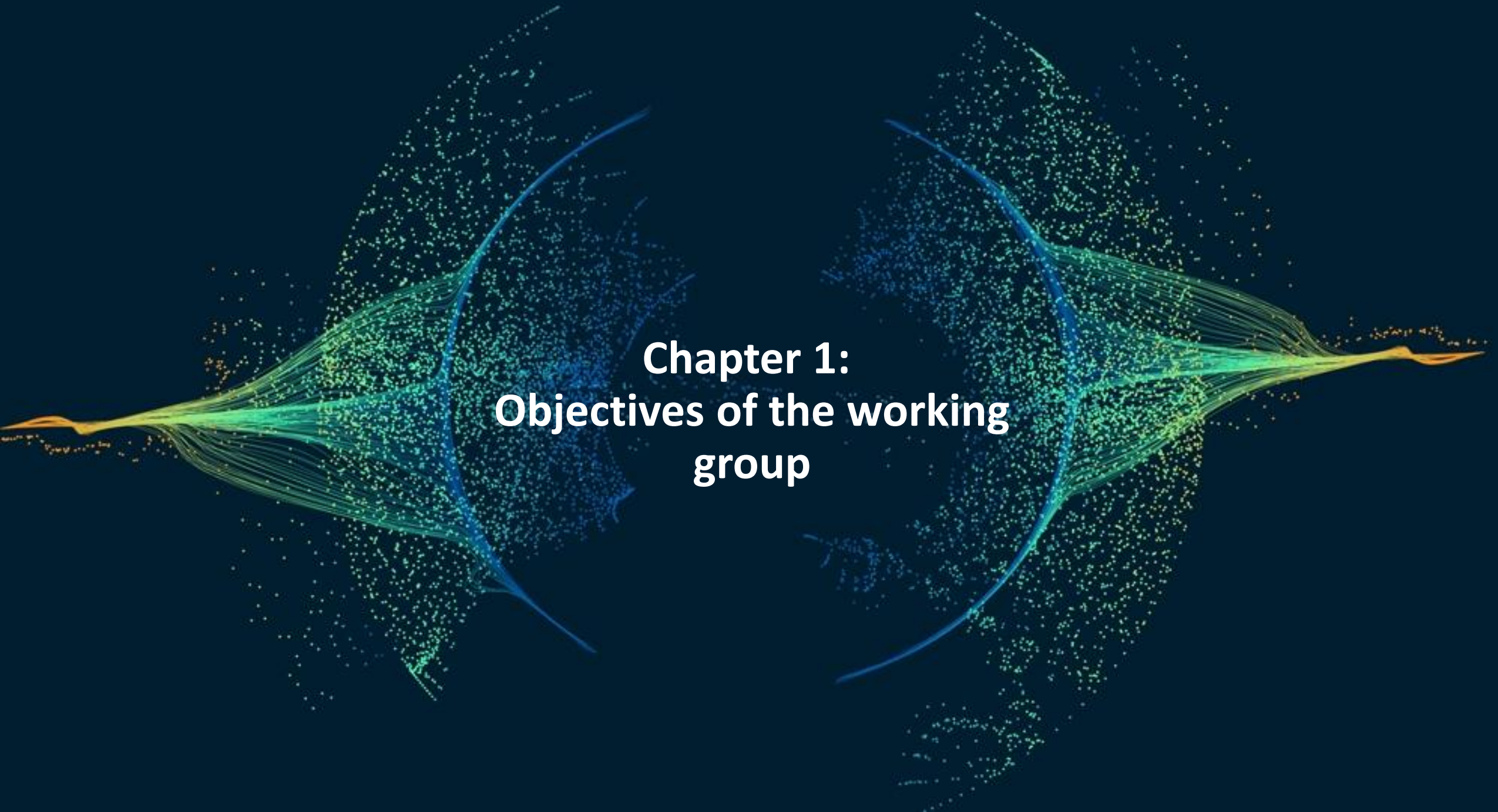
DG DIGIT

Development of SEMIC Registry

1st workshop – Adoption Requirements

DIGIT.B2 - Interoperability.

interoperable europe



Chapter 1:
Objectives of the working group

Agenda

01

Objectives of the workshop

- Introduction
- Recap kick-off meeting

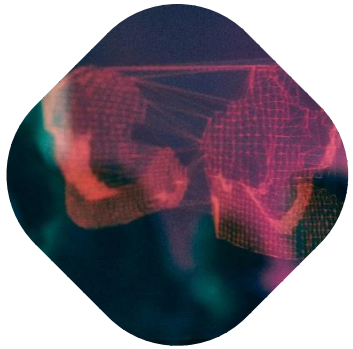
02

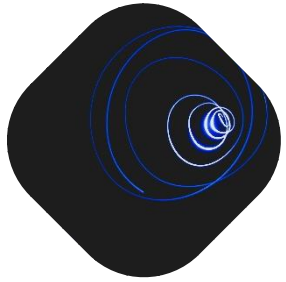
Potential users and examples

- User categories
- Use cases

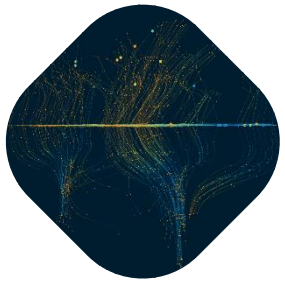
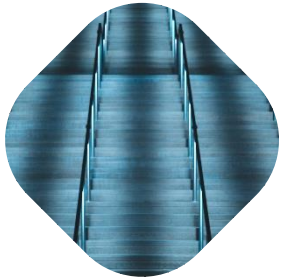
03

Summary and next steps



Recap kick-off meeting


Scope

The **EU wide registry** is a proposition which would facilitate the **discoverability** of models across Member States. The three long-term aspects to focus on are:

Governance to facilitate collaboration and common practices.

The consumer-oriented user experience when utilizing the registry.

Publishers' user experience when using the registry as a publisher.

Objective in the short term:

Lay the foundation for a future pilot project in Q3 and Q4 of 2024.

Need: commitment from this working group to contribute to this pilot

Registry vs. Repository

	Registry	Repository
Definition	An index of data models e.g. ontologies, taxonomies, glossaries, controlled vocabularies, etc sourced from the repository where they are stored.	A facility for storing and managing semantic data models including ontologies, taxonomies, glossaries and controlled vocabularies which hosts the actual content of the semantic data models.
Similarities	Both are central hubs for organizing and accessing semantic data models.	
Differences	Focuses on metadata of the semantic models	Hosts the semantic models, making these accessible and retrievable.

Semantic interoperability at source

Styles to achieve Semantic Interoperability

At Source

Process: Autonomous co-desing semantic modelling

Output: Semantic models

Mediated

Process: Assisted semantic modelling

Output: specification or semantic models

Down Stream Aligment

Process: Individual semantic mapping of models

Output: a third artefact capturing mapping relations

Outcome and benefits of the registry

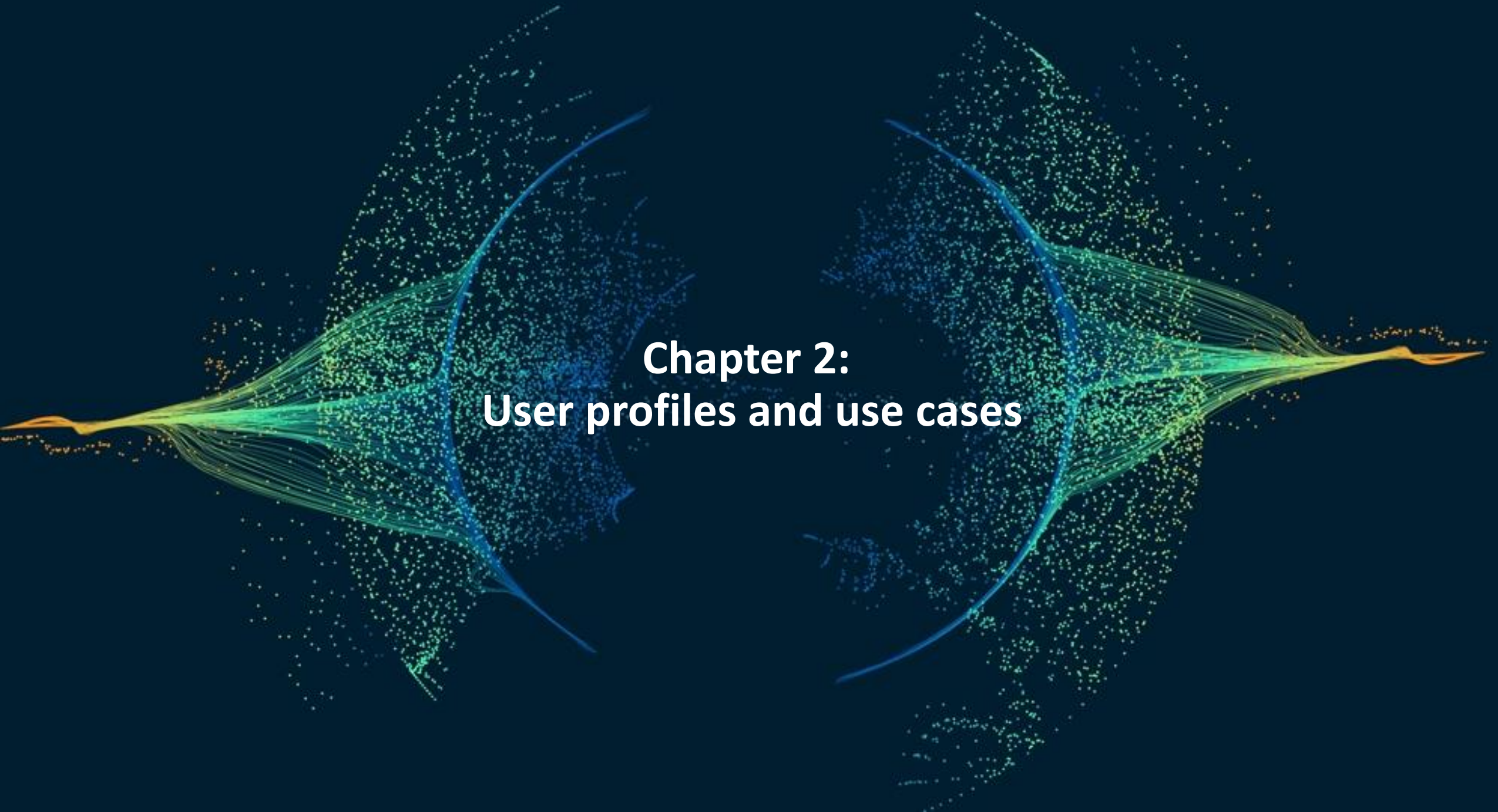
Adopting the registry to achieve Semantic interoperability at source:

- **Discoverability** and **accessibility**: provide search capabilities to find existing semantic models coming from national repositories.
- **Co-designing**: aid the co-design process either as it happens (synchronously e.g. Nordics) or by importing already published semantic models (asynchronously).
- **Harmonization**: Promoting semantic interoperability by consistenly sharing and adopting models that become reference de facto as seed in all semantic model design.

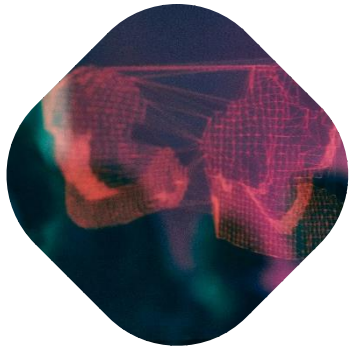
Questions

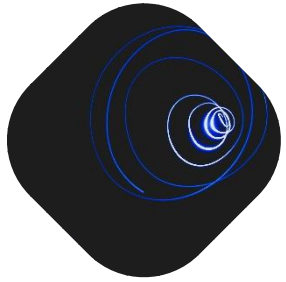
The link to the Mural can be found here.

"In the workflow of designing your semantic data models, where do you see the registry fitting in, for which output? "

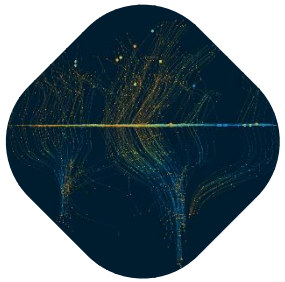
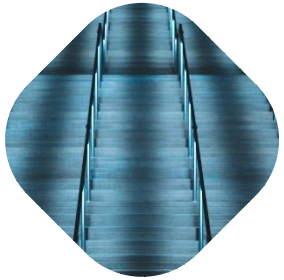


Chapter 2:
User profiles and use cases



User profiles


Categories

Considering the requirements and capabilities needed for the registry, each role should have access to specific functionalities and features tailored to their respective needs and responsibilities.

Public administration worker

They can formulate model requirements in the form of short paragraphs, or competency questions. They are able to perform model search, selection and pass this information to the Model Engineers

Model engineer

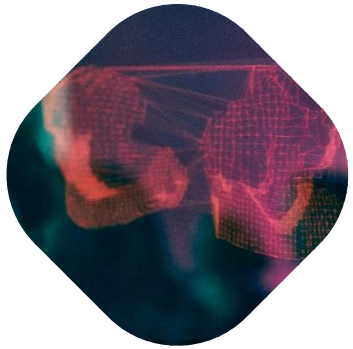
Process the requirement generated by the administrator worker, iteratively transform the requirements into conceptual models, find models that contains that information and carry the same intended semantics.

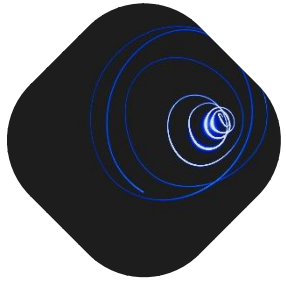
Software developer

Can streamline the publication of a new model from and to the registry, with the use of dedicated API or web services made available.

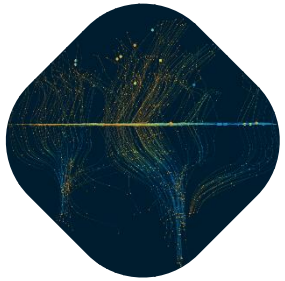
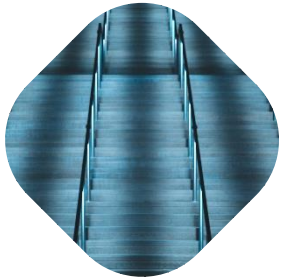
Casual browser

Without any pre-existing knowledge about specific topics, this user is able to complete a search, analyse the result, make a model selection, follow link and share the model



Use cases


Use cases: context

Actor X

Member State

Actor Y

Member State

Actor Z

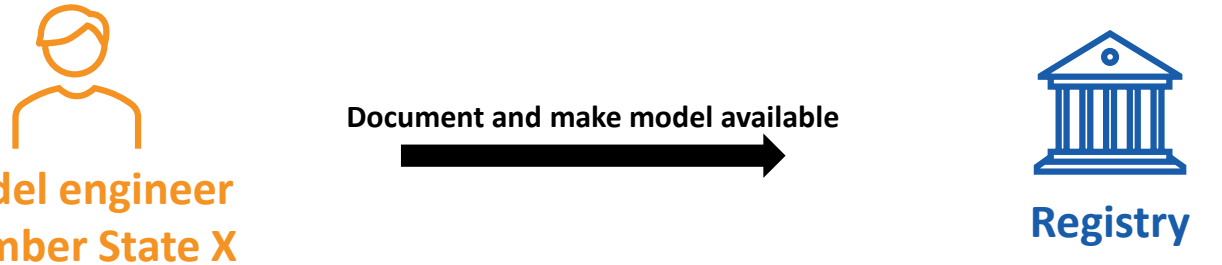
Member State

Registry

Use case 1: publication

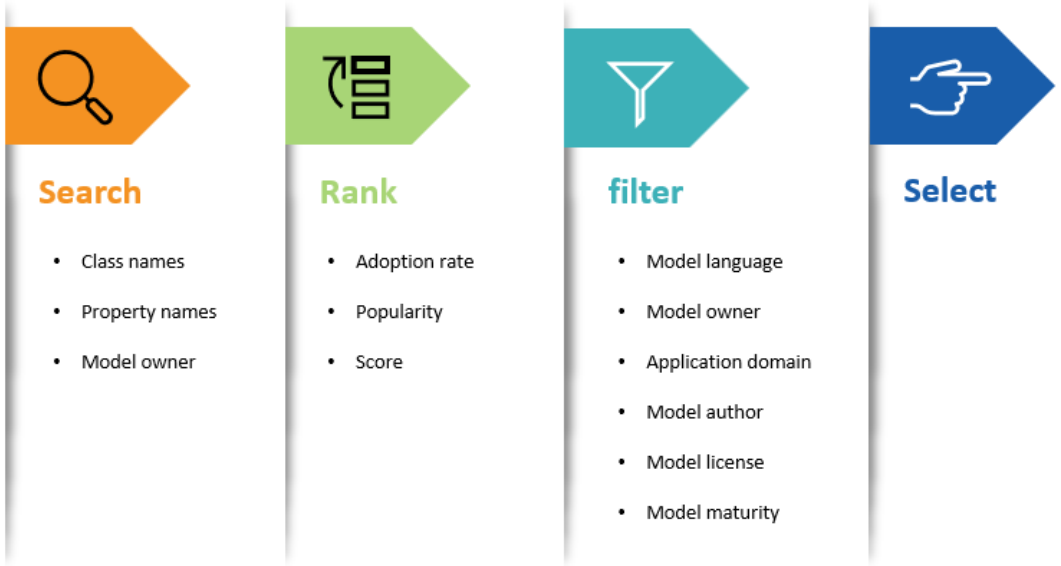
Member State X wants to make a certain model available on the EU-wide **registry** and must therefore properly decorate the model and publish metadata in a format that is processable by the **registry**.

”How do you expect to content of your national repository to the registry?"



Use case 2: discovery

Member State Y wants to customise a semantic model for their public healthcare domain and would start by the model uploaded on the **registry** by **Member State X**. **Member State Y** searches for this model based on certain criteria.



"Which features should be prioritised? Which features are missing?

Use case 3: accessibility

After filtering on certain criteria, the public administrator from **Member State Y** finds the model it wants to use and is able to download it. After the model engineer from **Member State Y** is done with adapting the model to its own requirements, the public administrator can make their model available to the **registry**.

"In what ways would you like to be able to access the models from the registry?"

Use case 4: collaboration

Member State Z proposes the co-design of a model for another, related topic together with **Member State X** and **Member State Y**. After gathering related information from the **registry**, **Member State Z** would make the model public on the **registry** in the designated community.

"How do you expect to use the registry for co-designing?"

Use case 5: integration

A governmental body within **Member State Z** wants to create systematic access to the **registry** to get easy access to certain models. For this, a software developer from **Member State Z** creates an integration to the **registry**.

Exposing information

There are 2 ways of exposing information:

- Upstream (from Public Administrations to the registry)
- Downstream (from the registry to Public Administrations)

National repository

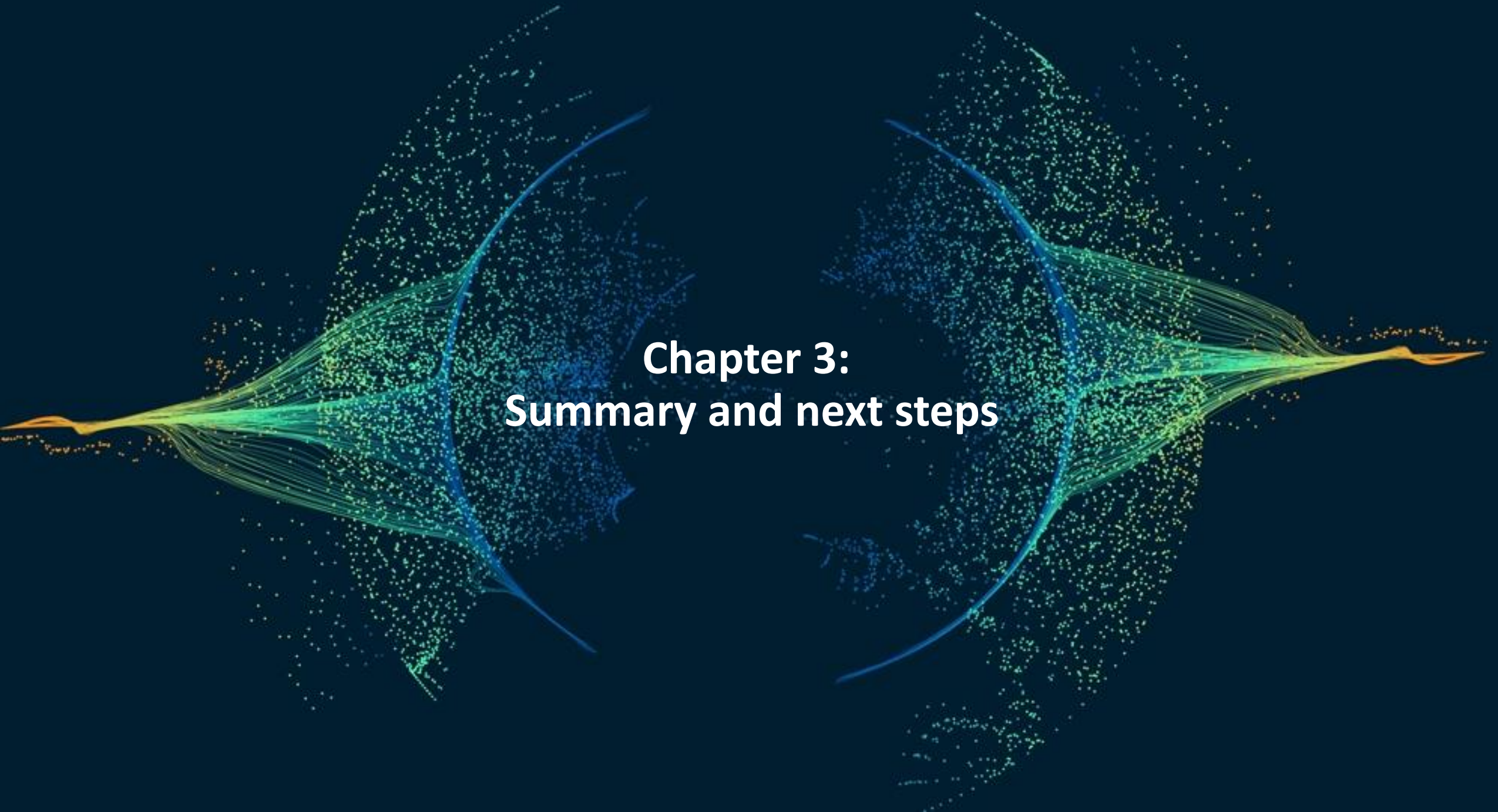
To create a connection between a Member State's repository and the EU wide registry and to be able to publish on the registry, a repository by this Member State should exist

"Which way of exposing information would you prefer? If you already have experience with at least one type of integration, why would this be suitable for the registry?"

Software developer Member State Z

Create integration

Registry



Chapter 3:
Summary and next steps

Roadmap until June 2024

Meetings	Description
Kick-off meeting	• Explanation of the **roadmap** during the trajectory • How the meetings explained in the roadmap will be executed
First workshop – March 2024	• User profiles and use cases for a future registry • Determining the requirements for the **adoption** • Registry versus repositories
Second workshop – May 2024	• **Validation** of **technical requirements** • **Recommendations** for **implementations** (i.e. which existing technology, etc)
Closing meeting – June 2024	• **Summary** of the outcome of the working groups • Discussing potential **next steps**
Results	• Validated proposal and working group to conduct a **future pilot** (Q3-Q4 2024)

Next workshop

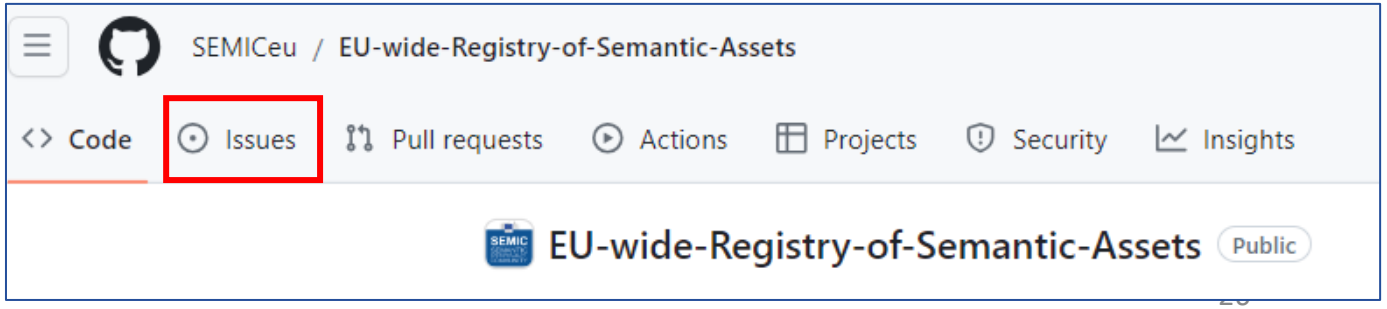
Which technical requirements are to be discussed in the next workshop?

- Architecture and infrastructure; existing initiatives to build upon
- Data models and metadata
- APIs and endpoints
- User interface and user experience

Feedback

GitHub

- Overview of materials and proposition documents
- Feedback mechanism: 'GitHub issues' to submit feedback
- Open discussion by the working group

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