EOSC-Pillar

Coordination and Harmonisation of National & Thematic Initiatives to support EOSC

Finding and Accessing Data by Virtual Research Environments

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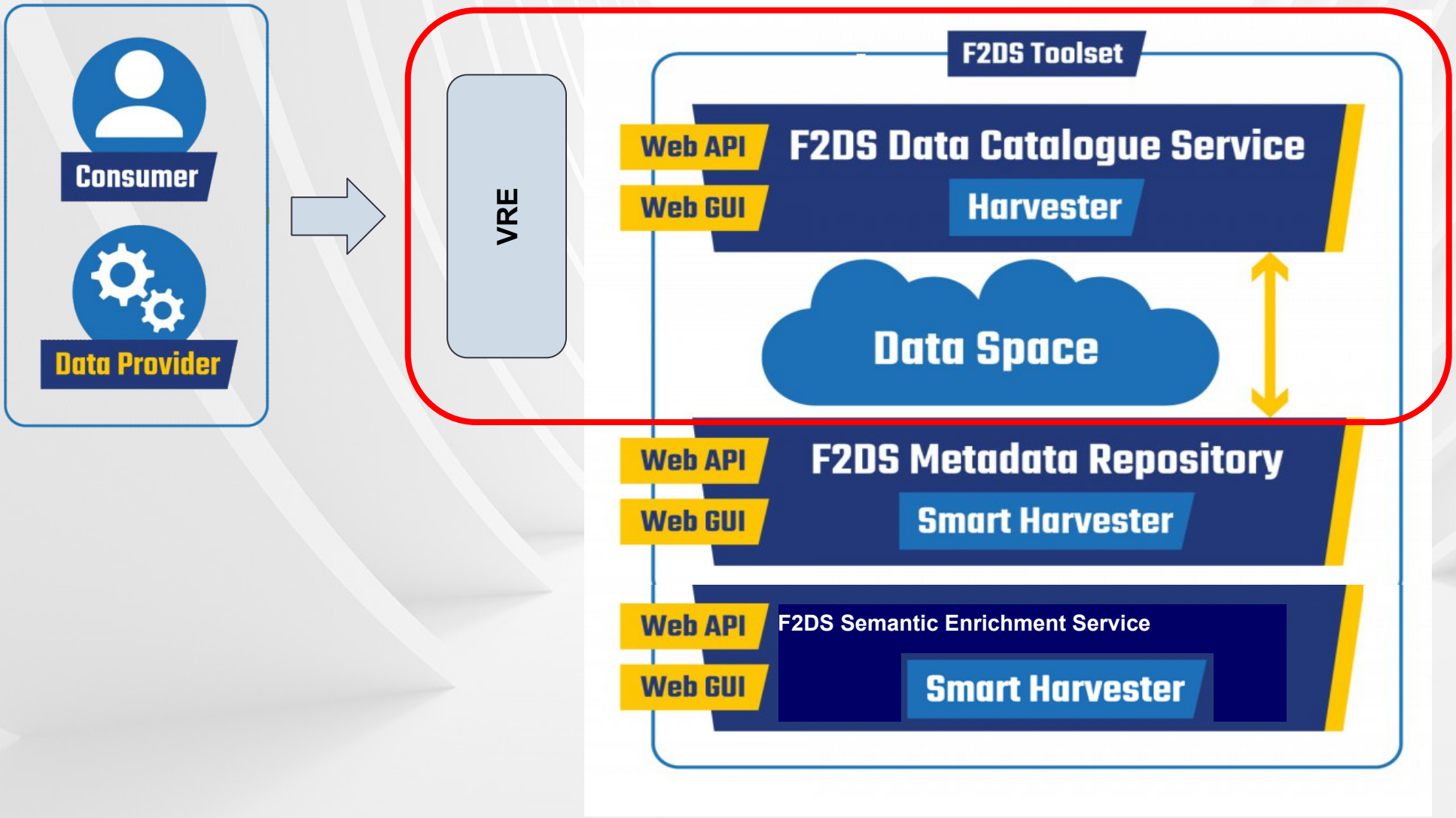
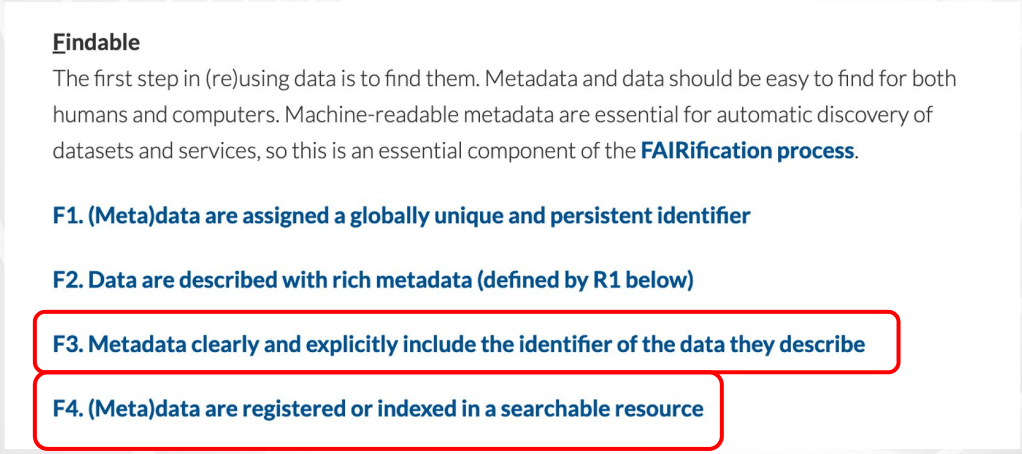
The Catalogue side of the story



Why do we need a catalogue?

* To make data spread across many sources seamlessly **FAIR**



Findable

The first step in (re)using data is to find them. Metadata and data should be easy to find for both humans and computers. Machine-readable metadata are essential for automatic discovery of datasets and services, so this is an essential component of the **FAIRification process**.

F1. (Meta)data are assigned a globally unique and persistent identifier

F2. Data are described with rich metadata (defined by R1 below)

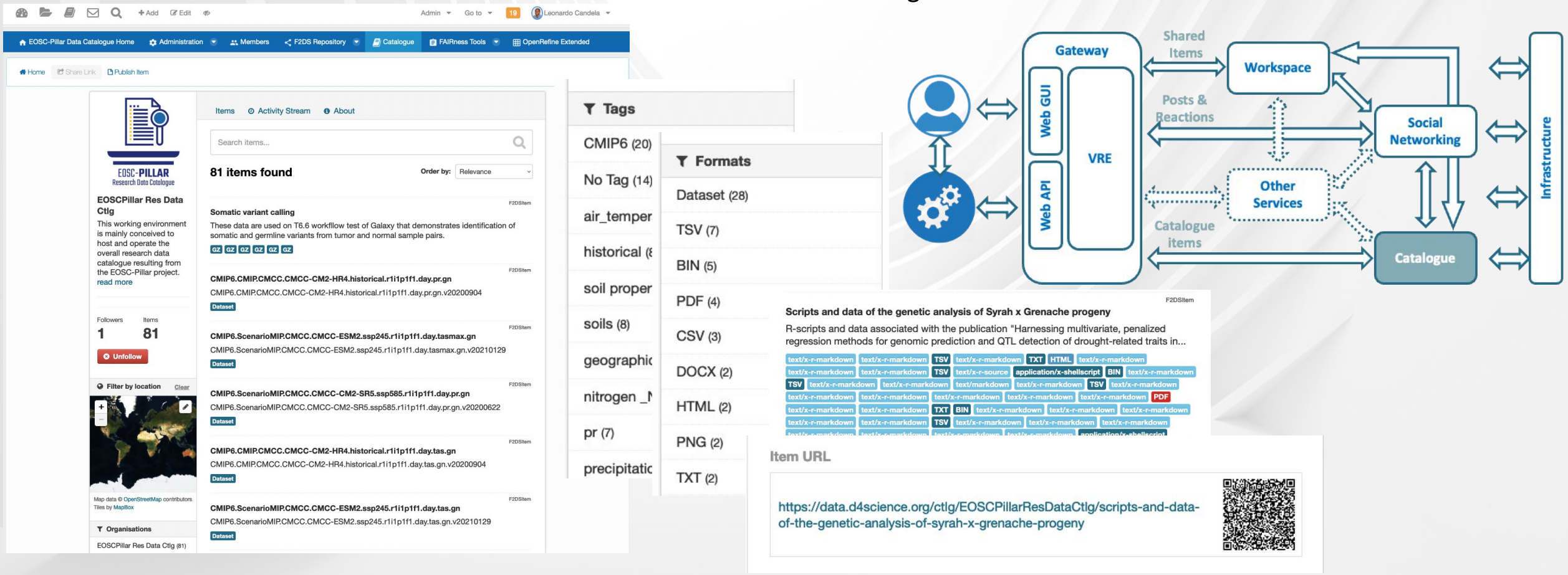
F3. Metadata clearly and explicitly include the identifier of the data they describe

F4. (Meta)data are registered or indexed in a searchable resource

* To easily develop **focused views / collections** for **communities of practices**
  * by **existing contents** & by facilitating the publishing of **new contents**

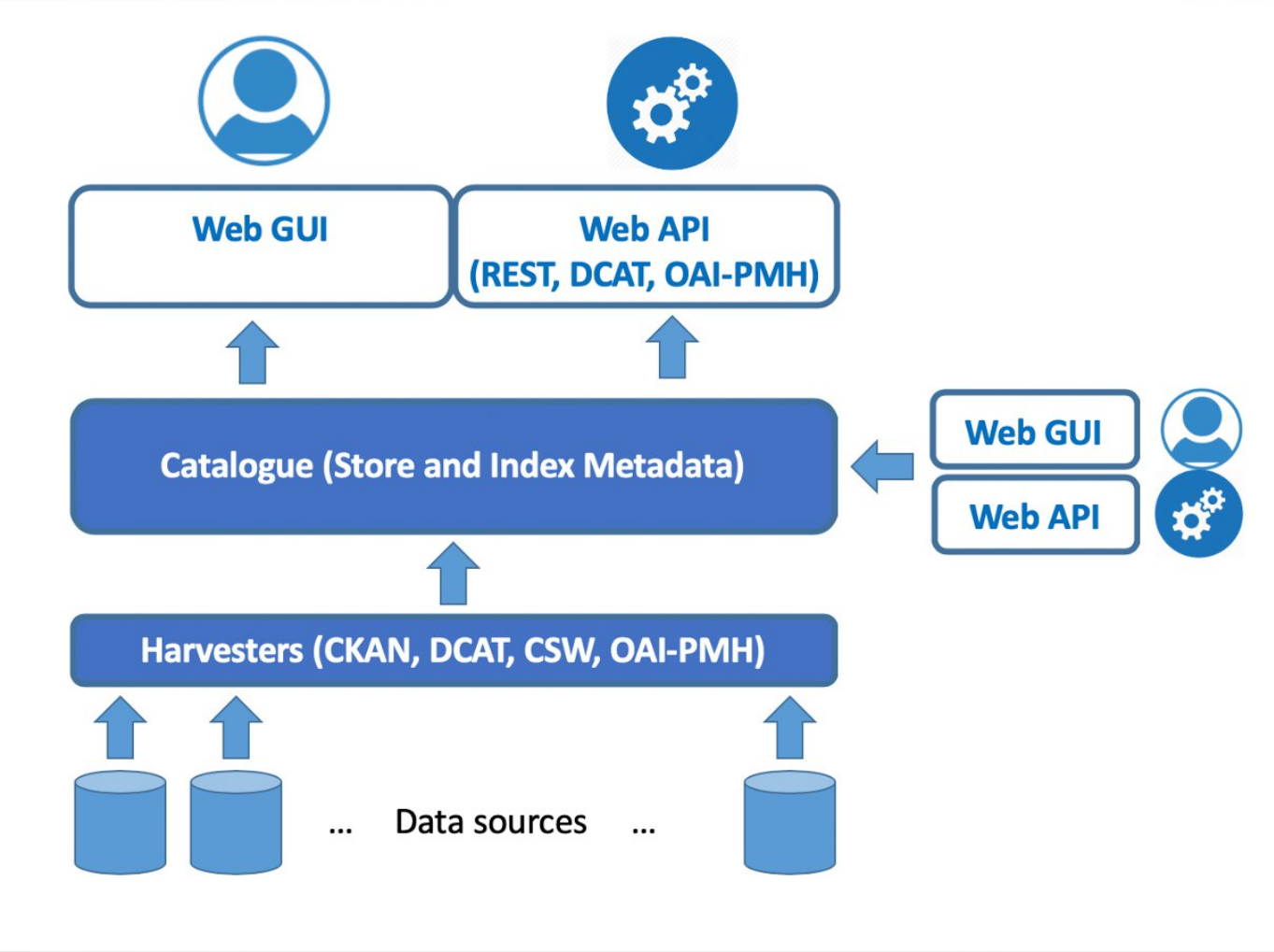
Not just a catalogue: A VRE with a Catalogue

A VRE is an **innovative**, **web-based**, **community-oriented**, **comprehensive**, **flexible**, and **secure working environments** conceived to serve the needs of "**modern**" **science** delivered **as-a-Service** and catering for **co-creation***

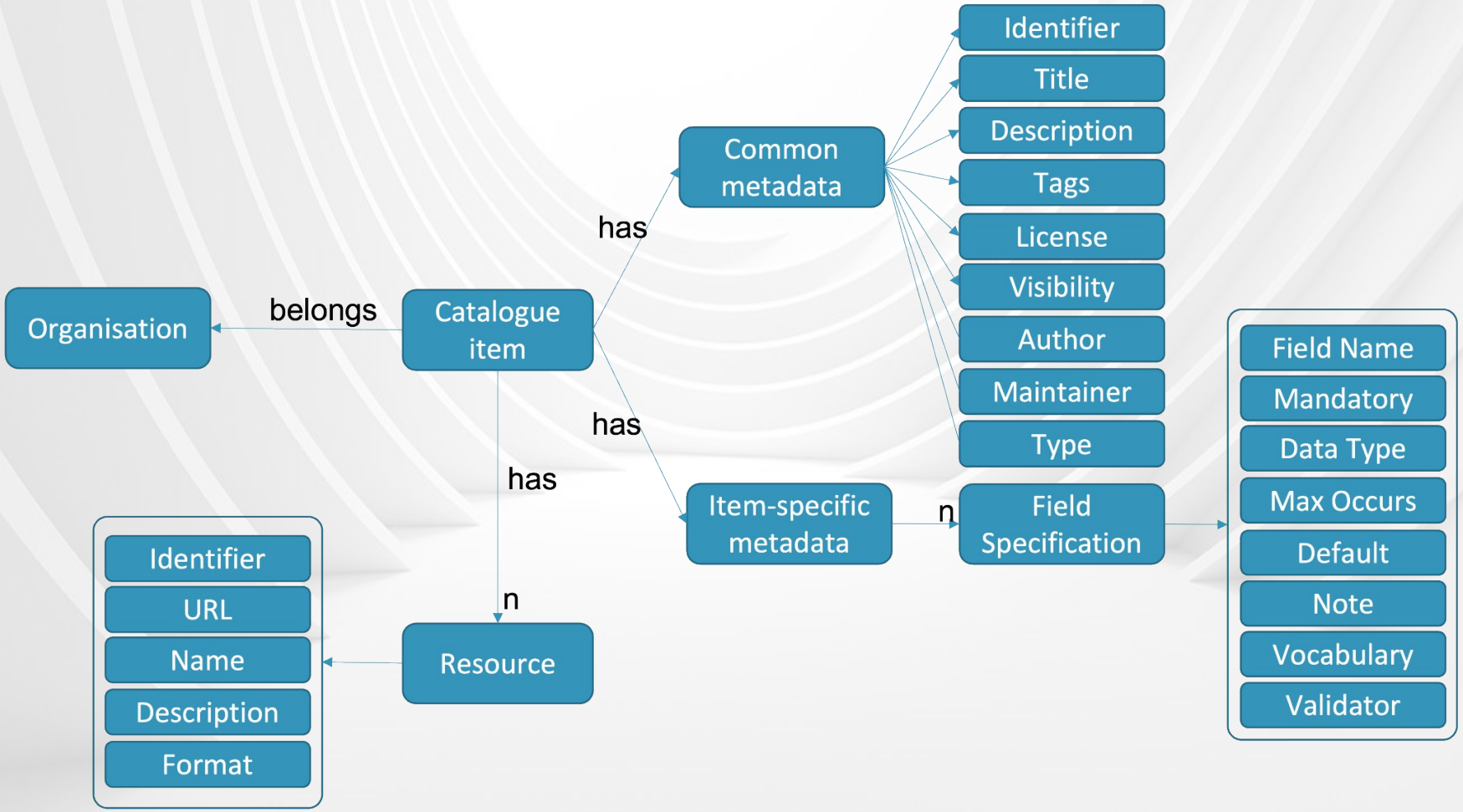


* M. Assante et al (2019) Enacting Open Science by D4Science Future Generation Computer Systems 10.1016/j.future.2019.05.063
M. Assante et al (2022) Virtual Research Environments co-creation: the D4Science experience Concurrency Computat Pract Exper 10.1002/cpe.6925

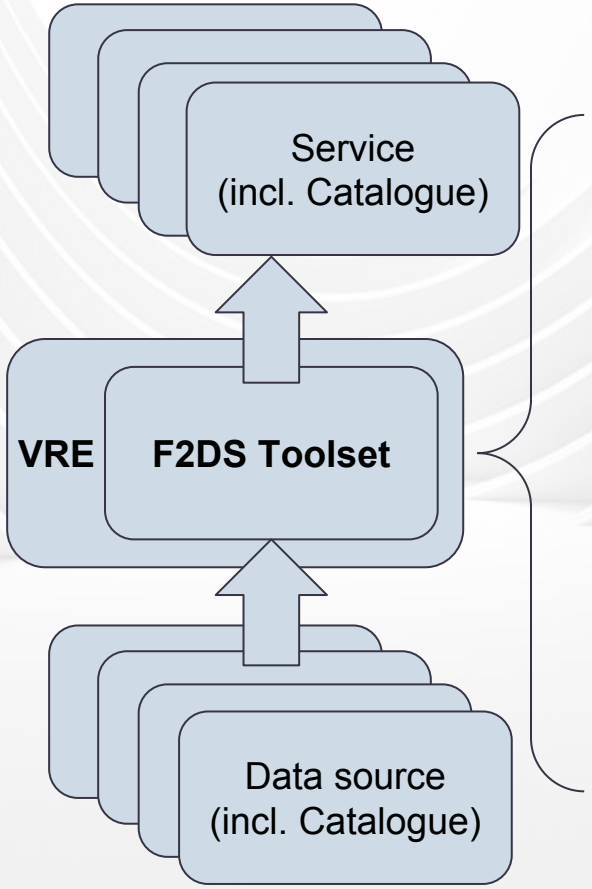
Catalogue Service Architecture



The metadata model of the Catalogue



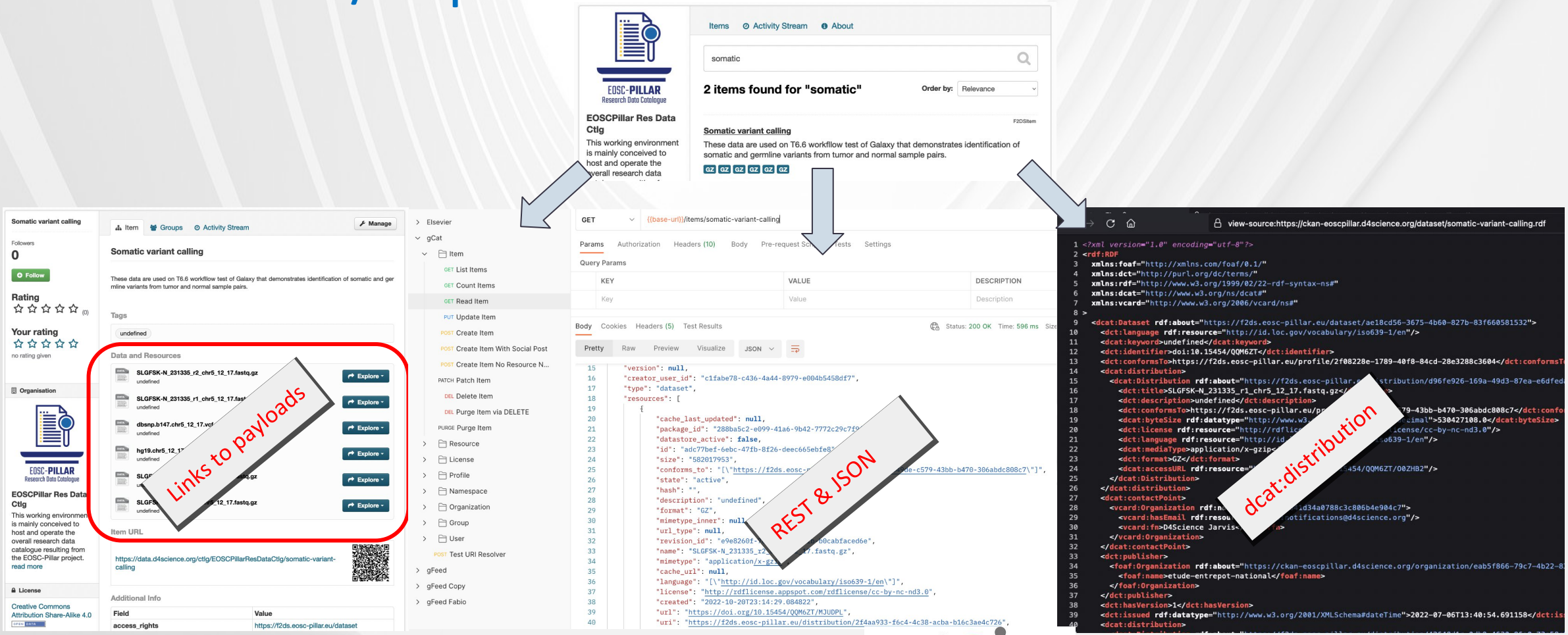
… enacting an ecosystem of catalogues



Every catalogue has a "**designated community**" and is a "**decision point**" for:

- content to collect
  - standard and ad-hoc harvesters
  - mappings
- "new" content to publish
  - publishing policy
- metadata characterising items
  - profiles and controlled vocabularies
- protocols and standards to use to expose its contents

Data Access / Exploitation Patterns



Data Discovery and Consumption Offering Wrap-up

* data discovery and consumption needs are **very heterogeneous**
* global solutions have limitations
* cater for **communities of practice**

* **EOSC-Pillar F2DS toolset** fits with this by bringing data close to diverse users and usage needs

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Thank you!

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