

JCAD 2021



Prototype de plateforme contribuant à la Science Ouverte par la valorisation de données et de pratiques interdisciplinaires

<https://datanoos.univ-toulouse.fr/>

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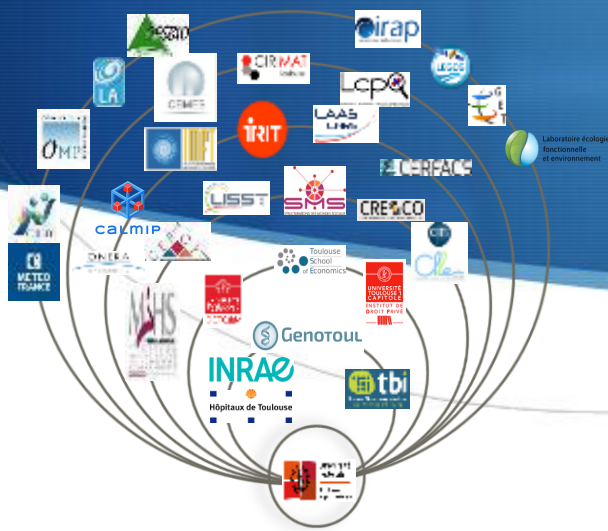
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2 : Géographie de l'Environnement, CNRS, Univ Toulouse - Jean Jaurès

3 : Université de Toulouse

4 : CNRS INEE

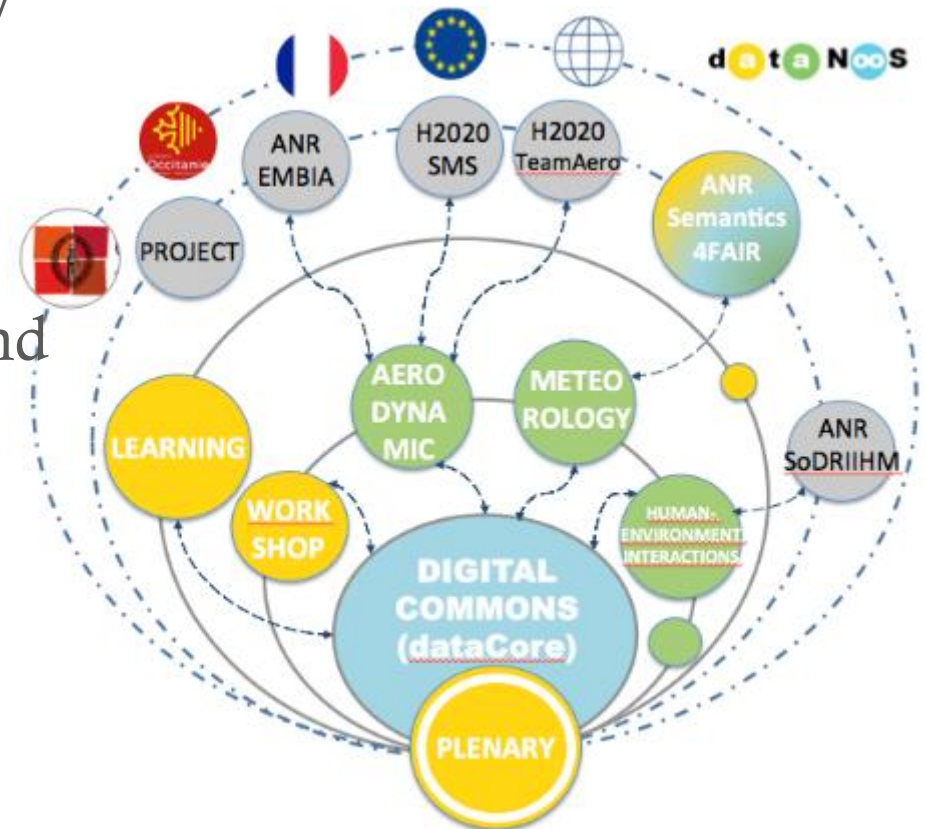


Towards Open Science

- ◆ Gather the academic community in Toulouse area
- ◆ Facilitate cross-disciplinary data sharing
- ◆ Promote scientific data exposition
- ◆ Identify needs and threats about open science
- ◆ Boost and impulse new research/projects

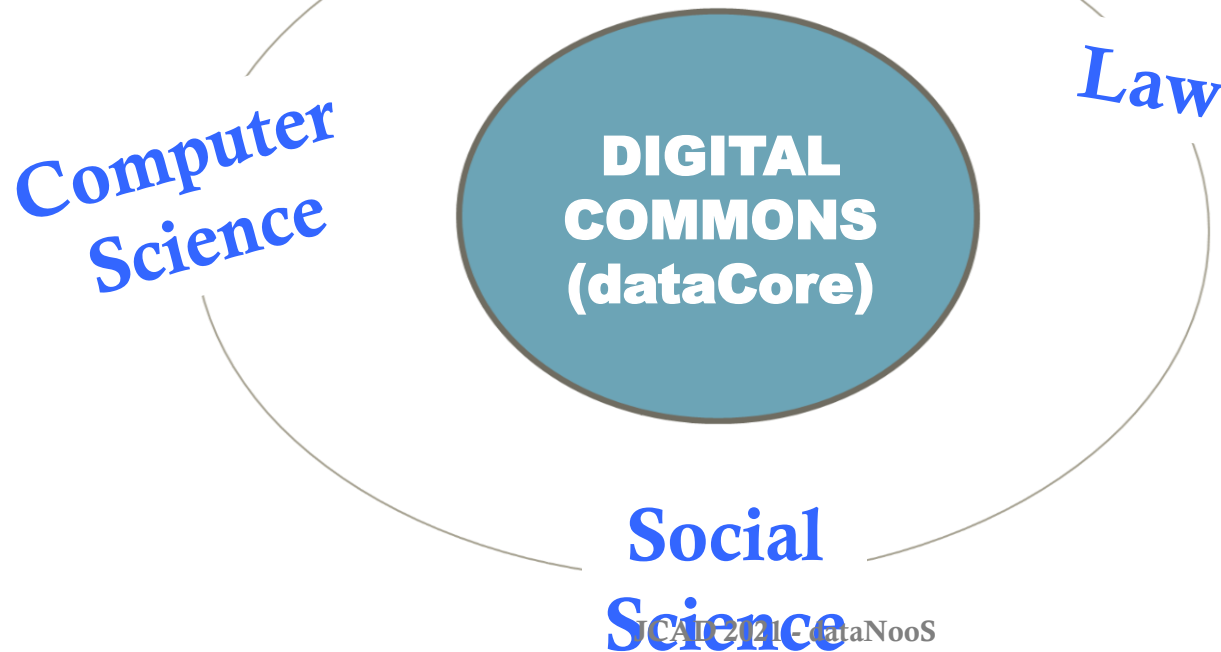
An academic agora

- 🟢 Interdisciplinary methodology
- 🟢 Collaborative approach (workshops, plenary)
- 🟢 Anchored to local, regional and national institutions
- 🟢 Attentive to European and international works



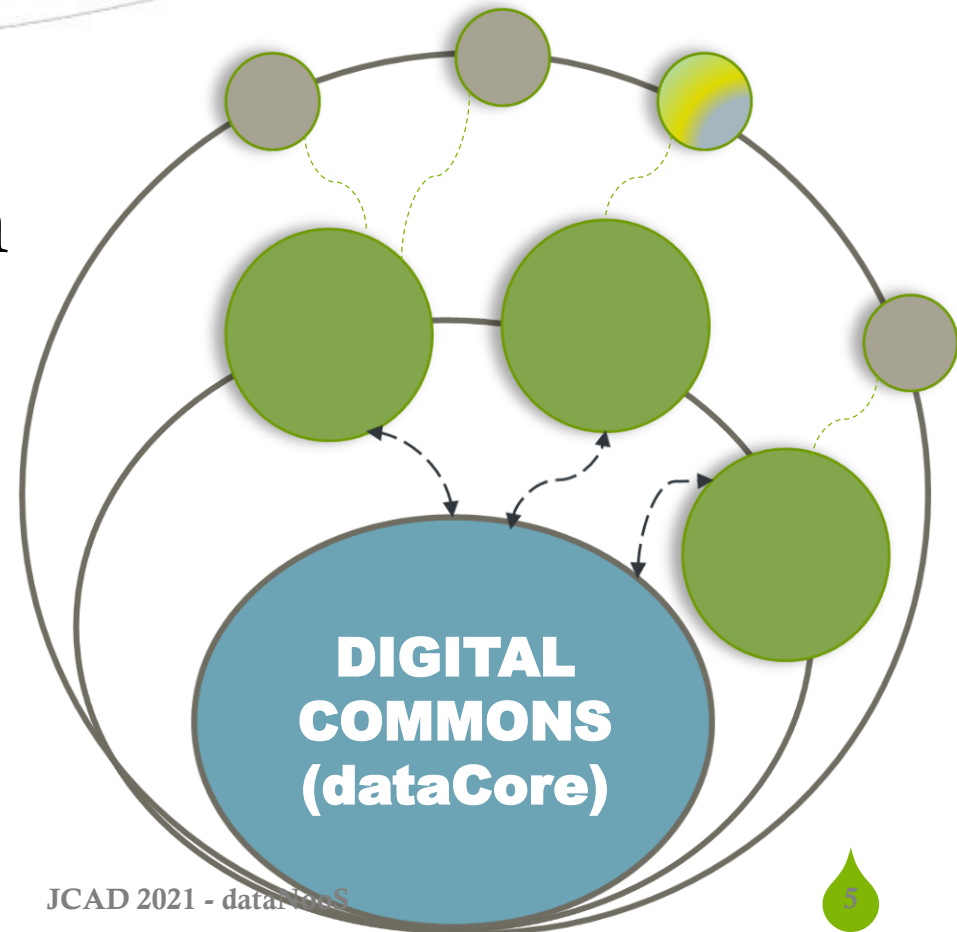
How to build digital commons?

1. To create a multidisciplinary experts group (dataCore) to deal with issuers about commons



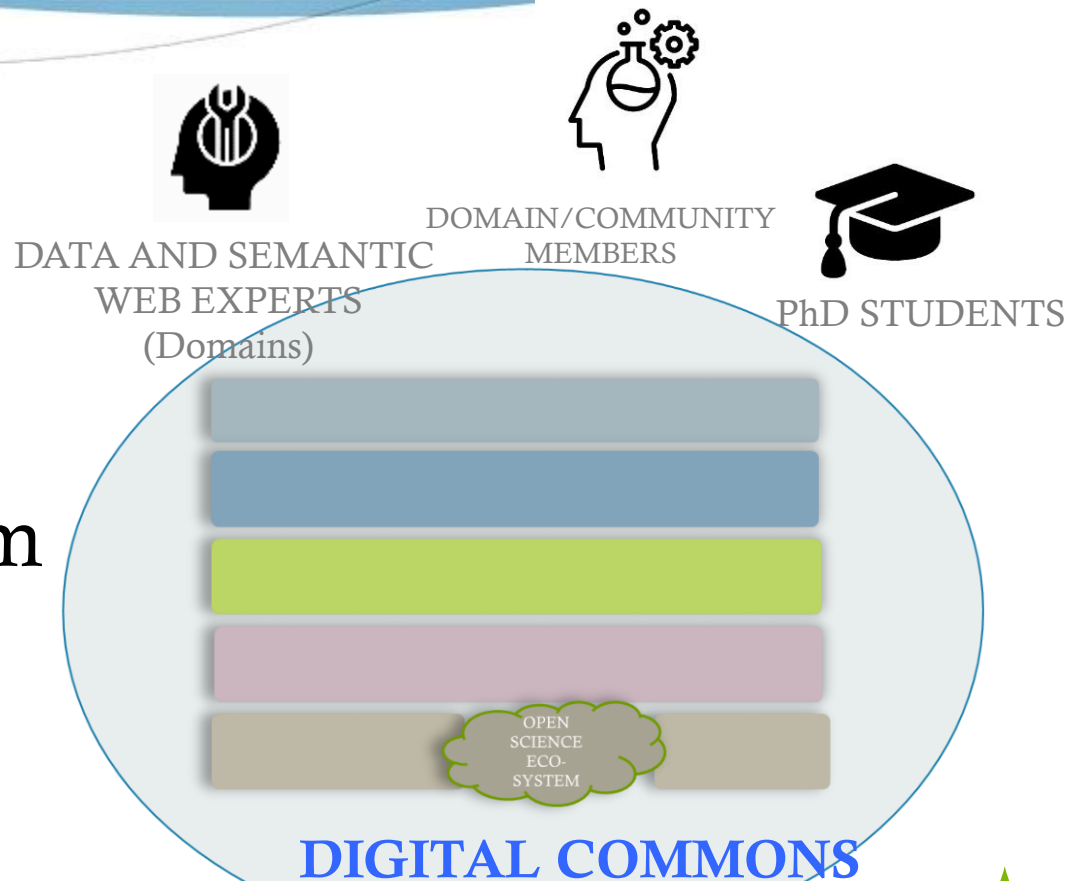
How to build digital commons?

2. To collect feedback/issues from researchers through **use-cases** (linked to projects) and in regard with the data life cycle



How to build digital commons?

3. Capitalize by prototyping an end-user platform



Some Use Cases

FAIR Meteorological data

- . Meteorology, AI, biology
- . ANR Semantics4FAIR project

SEMANTICS 4 FAIR

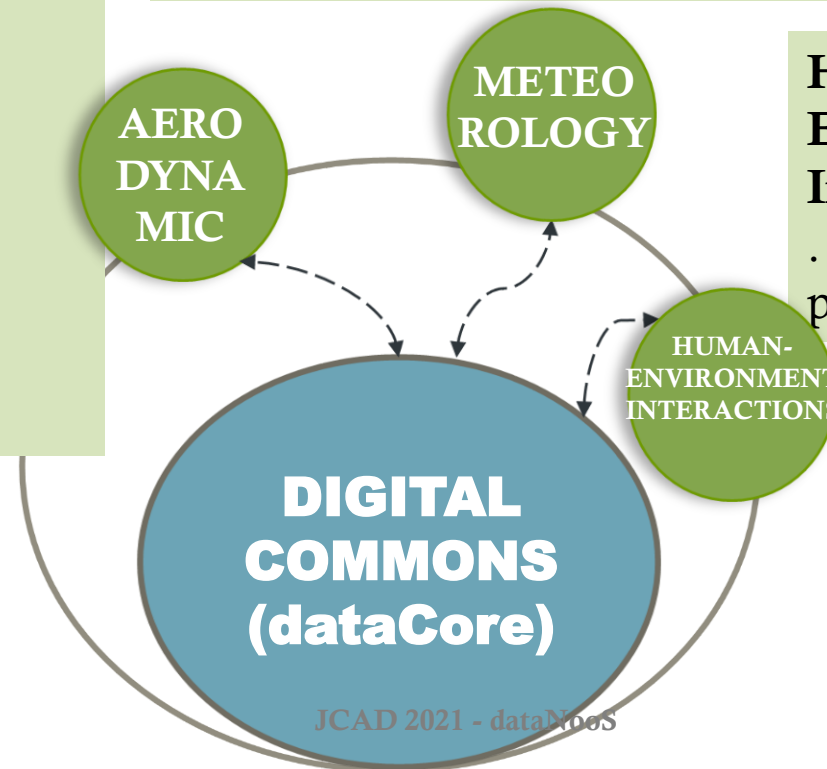


Enhanced & intelligent aerodynamic data modeling

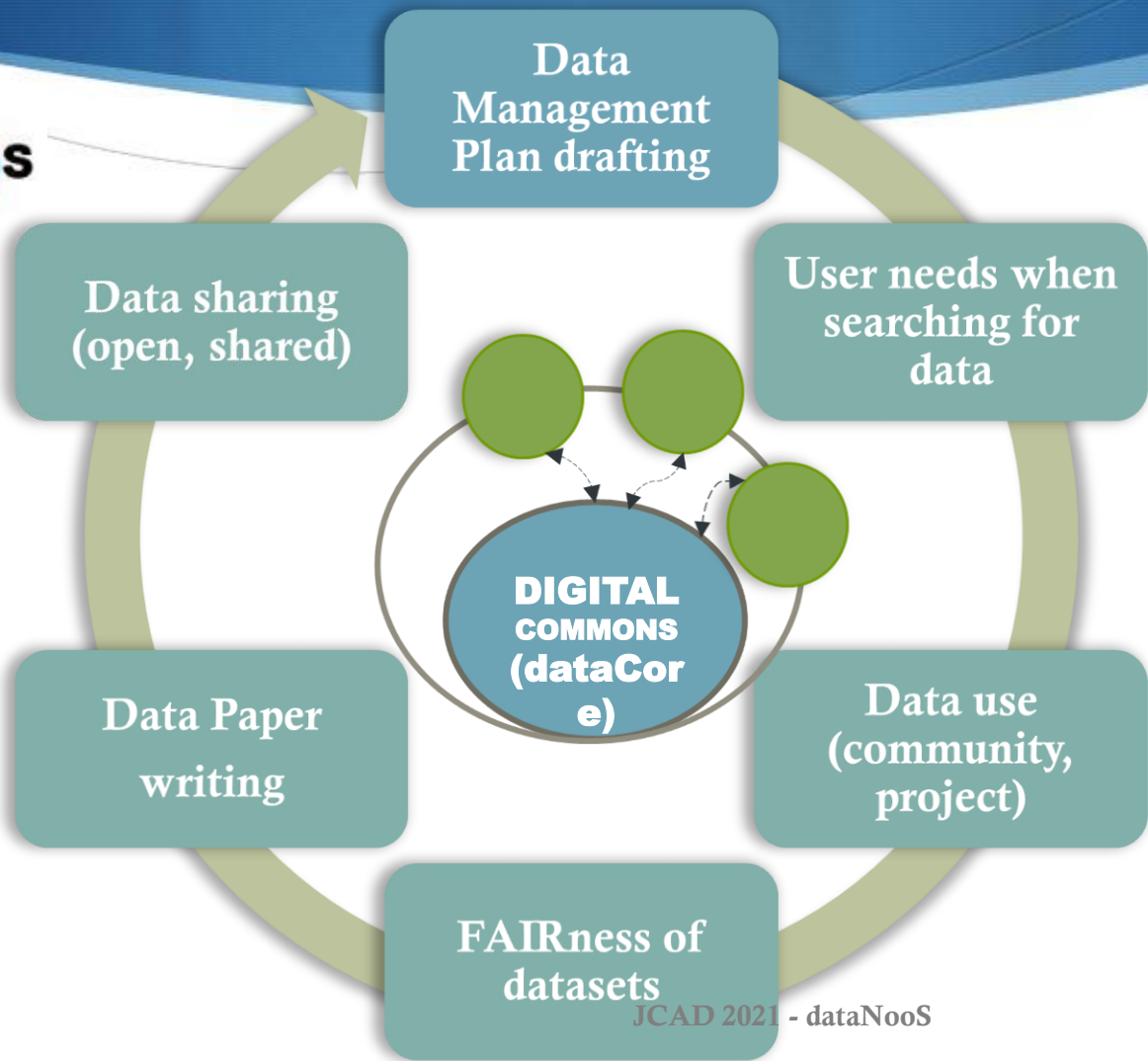
- . Hydrodynamics, computer science, law, environment, material sciences.
- . H2020 projects (SMS, TeamAero) + ANR EMBIA project

Human-Environment Interactions

- . ANR So-DRIIHM project



Some issues in the data life cycle



A platform for dataset management



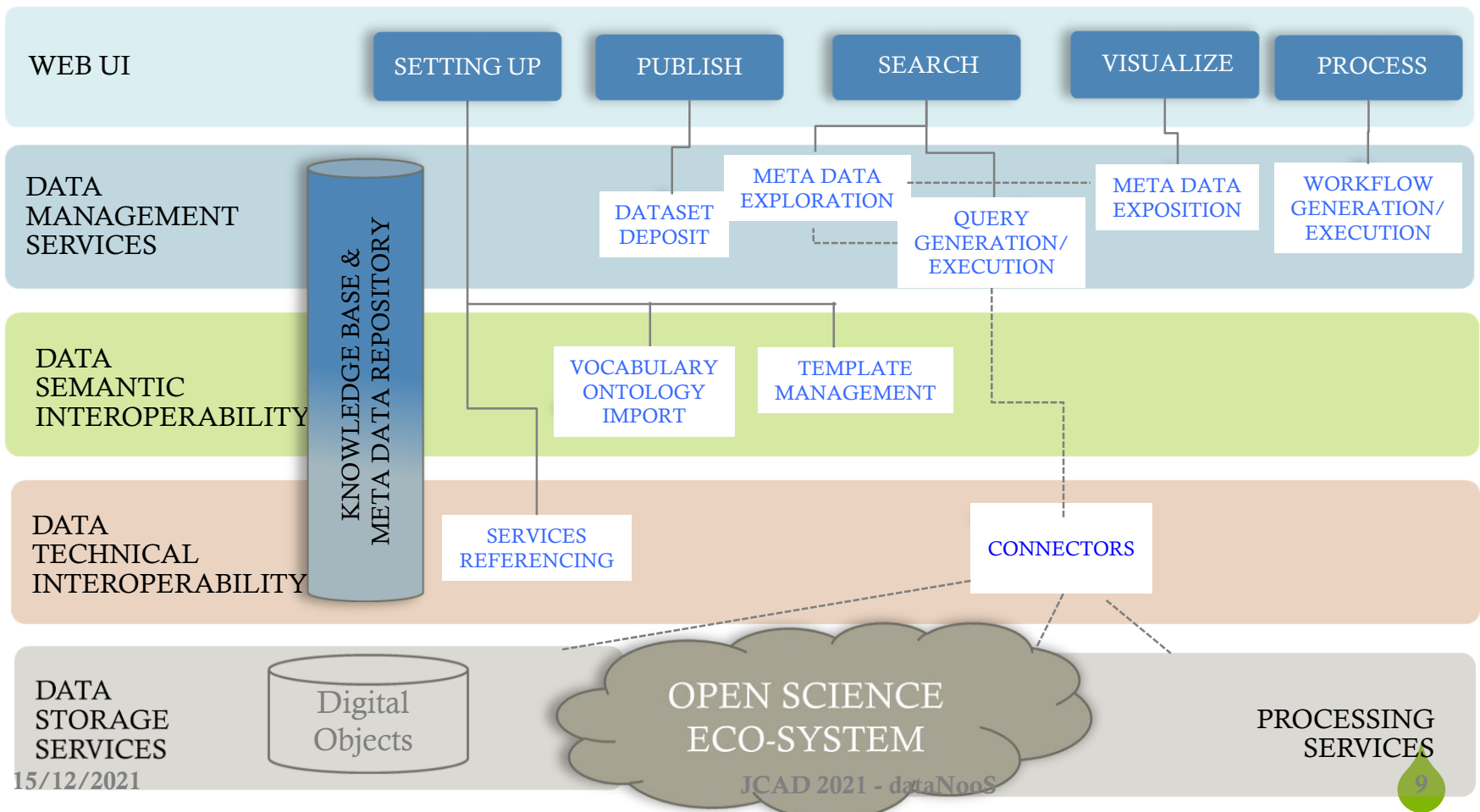
DATA AND SEMANTIC WEB EXPERTS
(Domains)



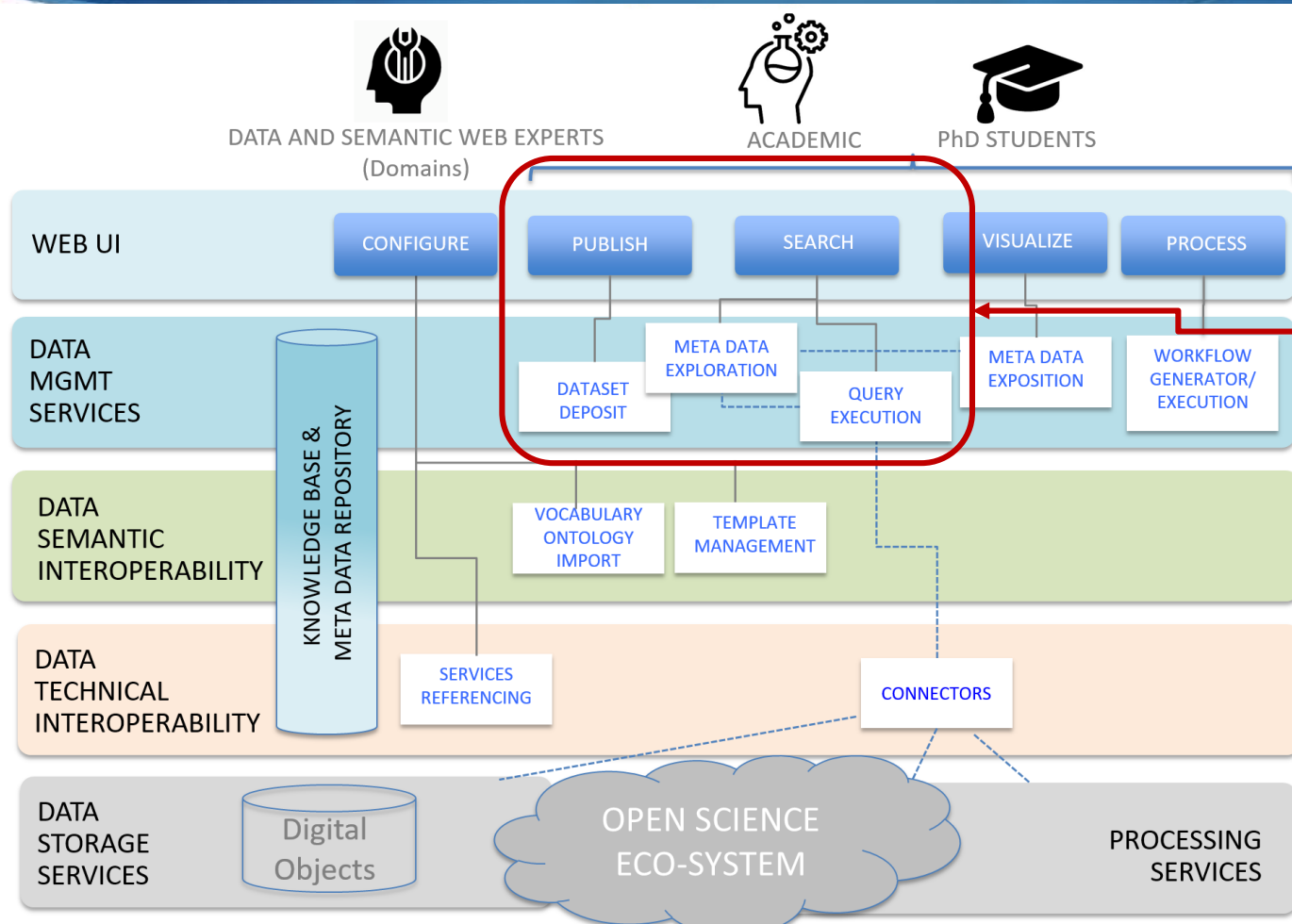
DOMAIN/COMMUNITY MEMBERS



PHD STUDENTS



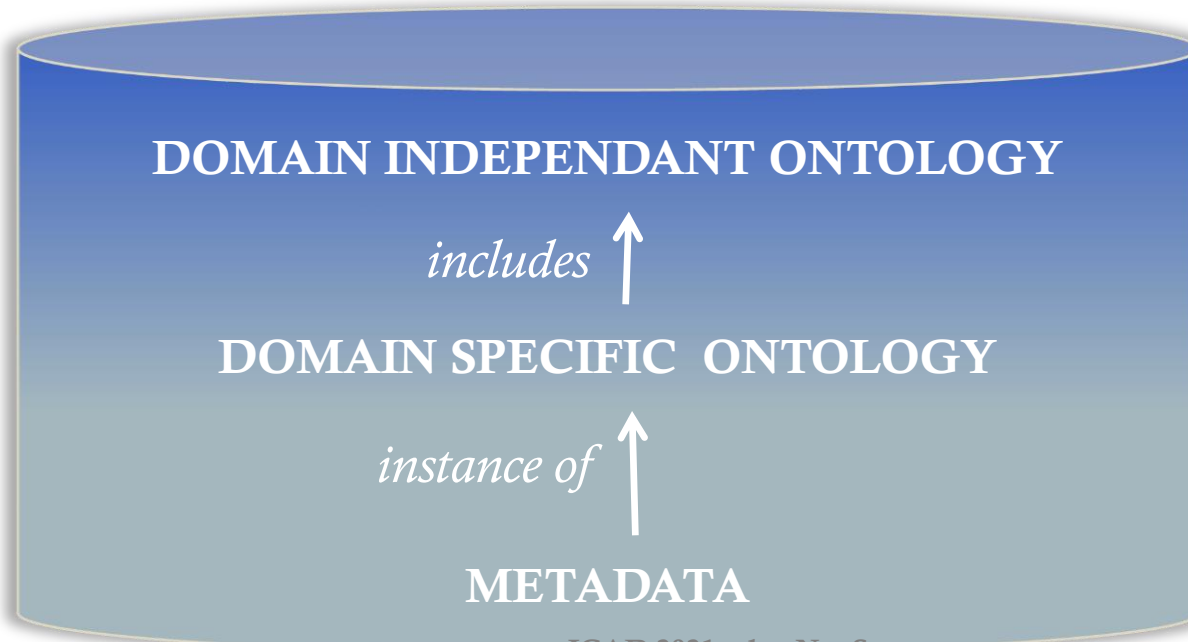
A platform for dataset management



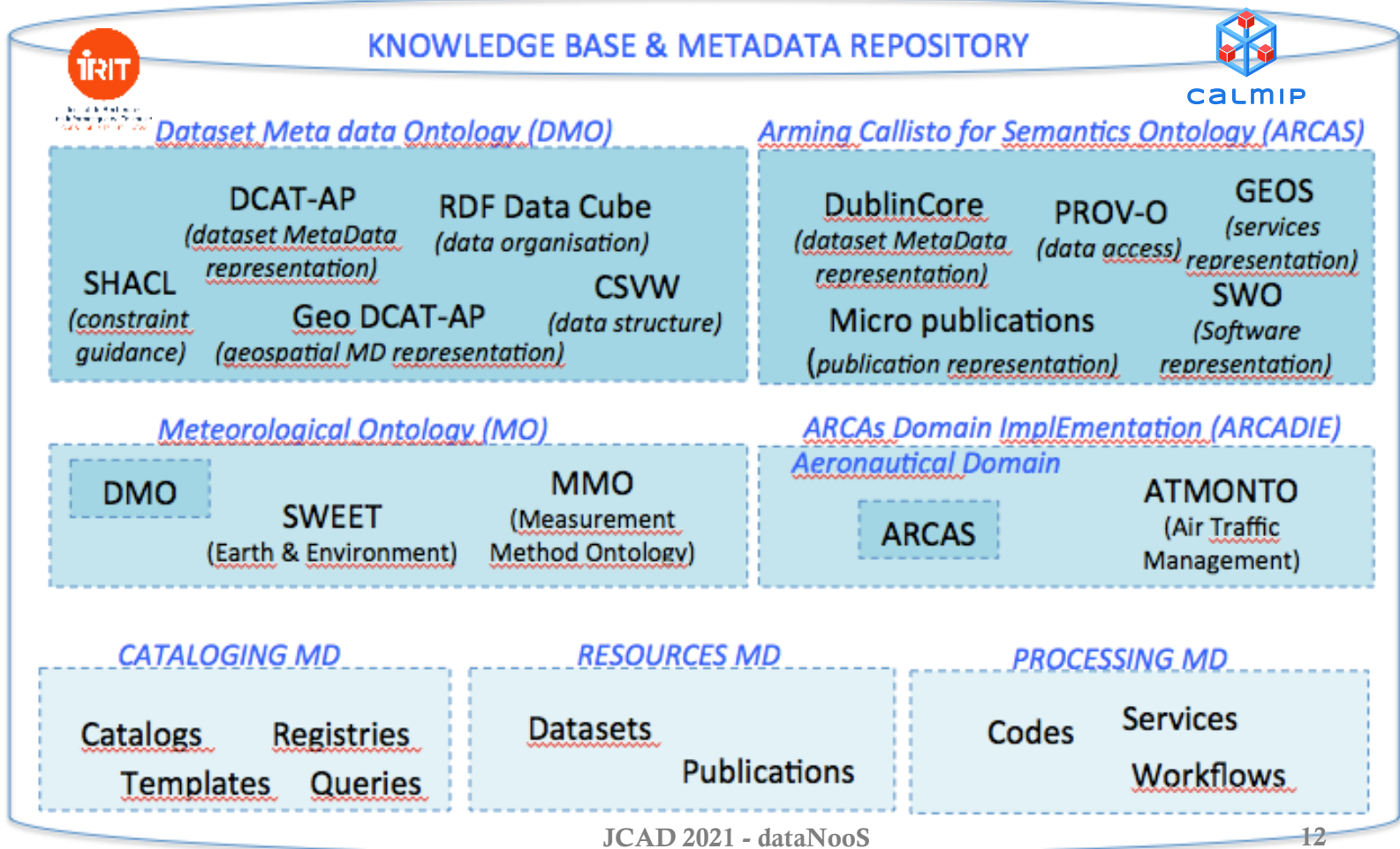
MetaData Management modules

Ontology based approach for FAIR digital objects

We use ontologies for building a knowledge base and metadata repository for FAIR digital objects



Focus on the Knowledge Base and Metadata Repository



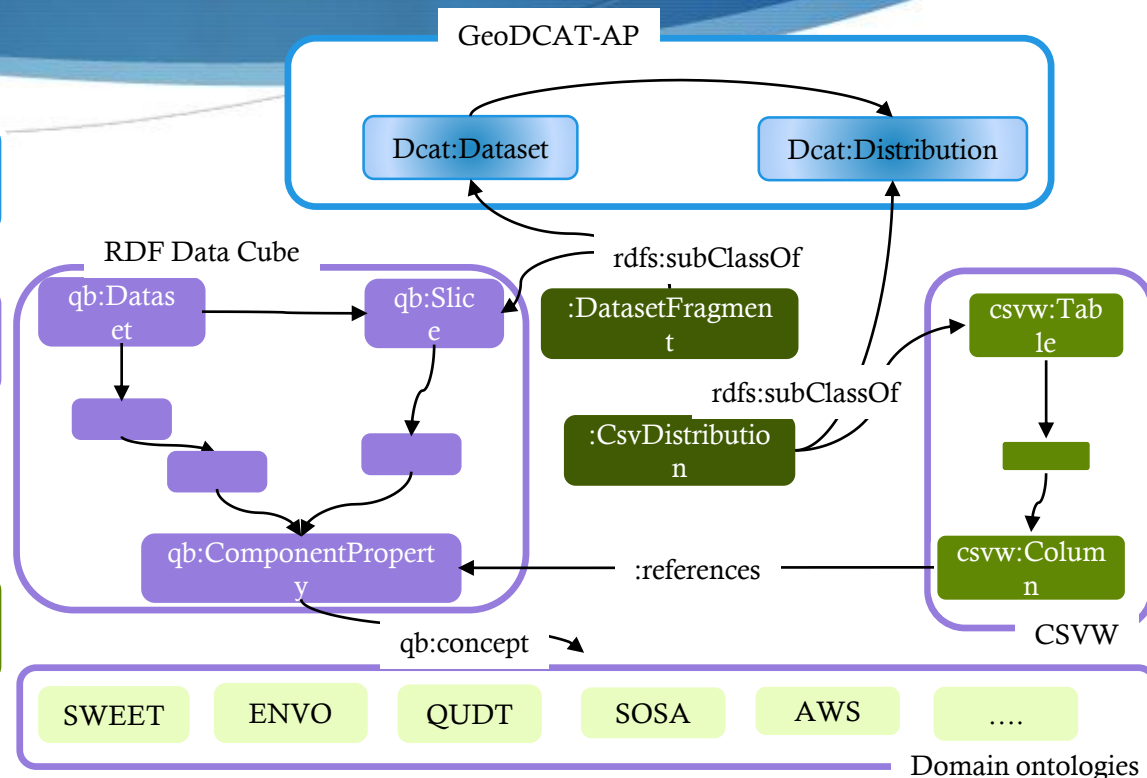
Dataset MetaData Ontology (DMO) : An ontology for metadata representation

I. Represent general metadata of meteorological datasets

II. Represent the content of meteorological datasets without transforming data into RDF

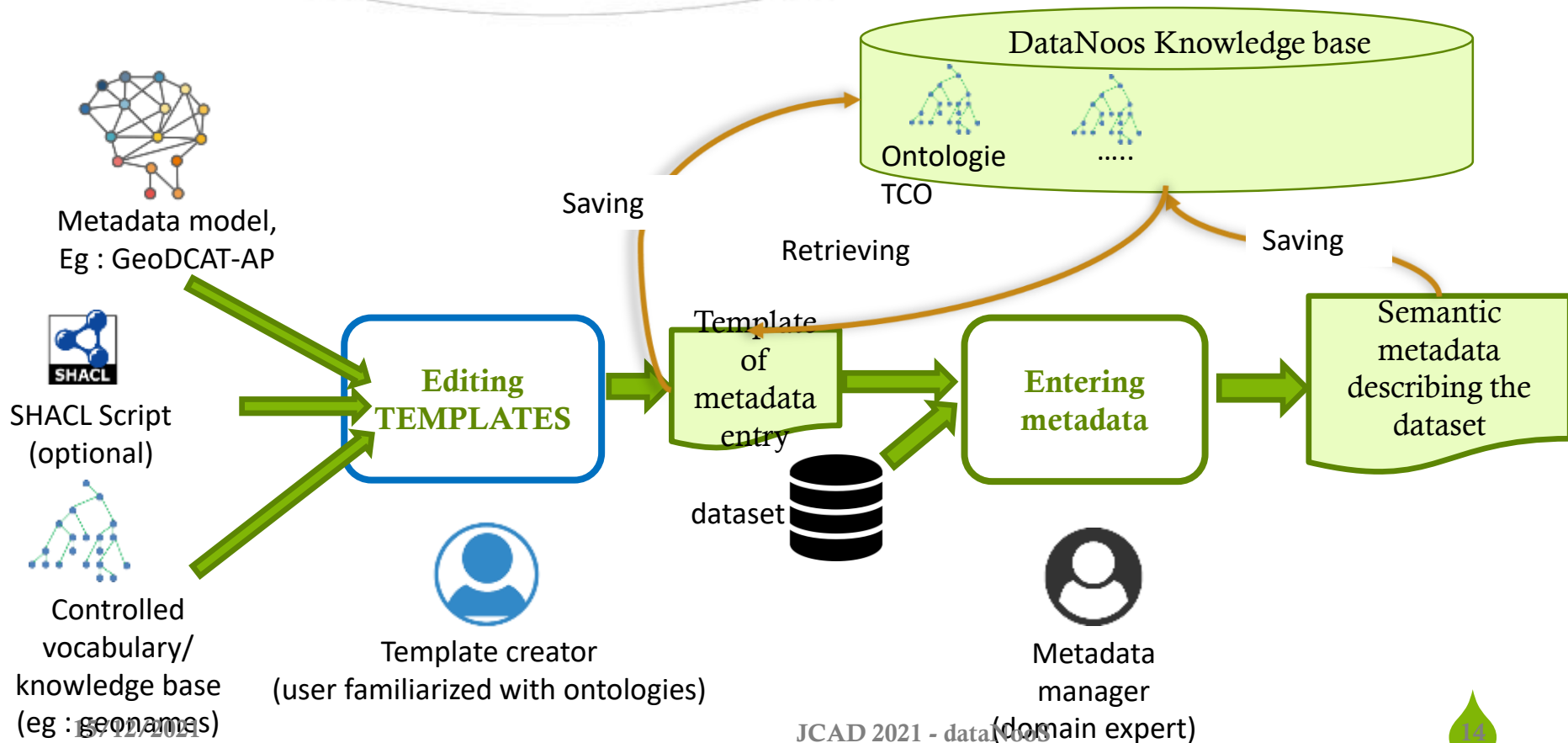
- Represent data schema and coded values
- Represent semantic entities included in datasets and providing definitions for these entities for non meteorologist users

III. Represent the schema of dataset distributions



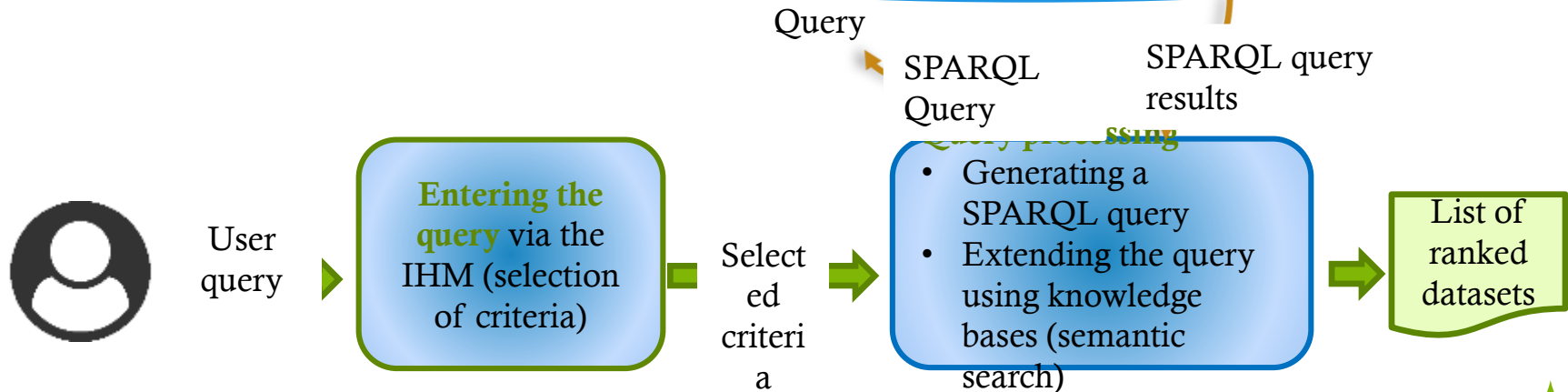
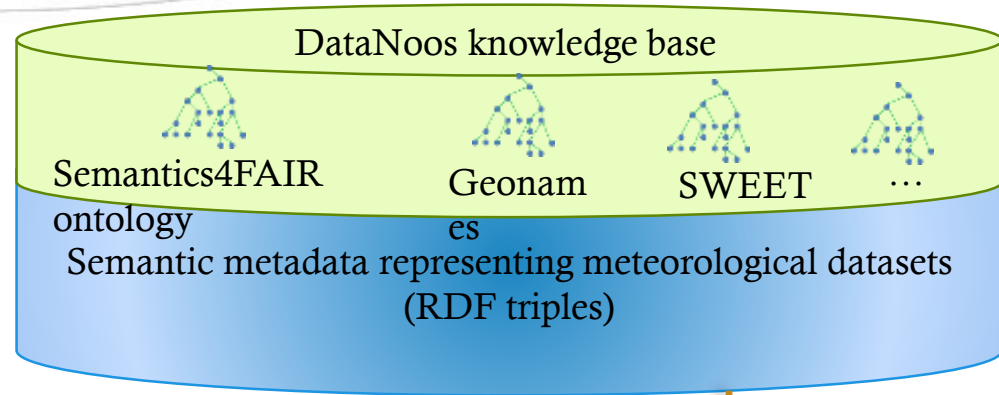
How to describe datasets using the metadata ontology?

A generic framework for ontology-based dataset description



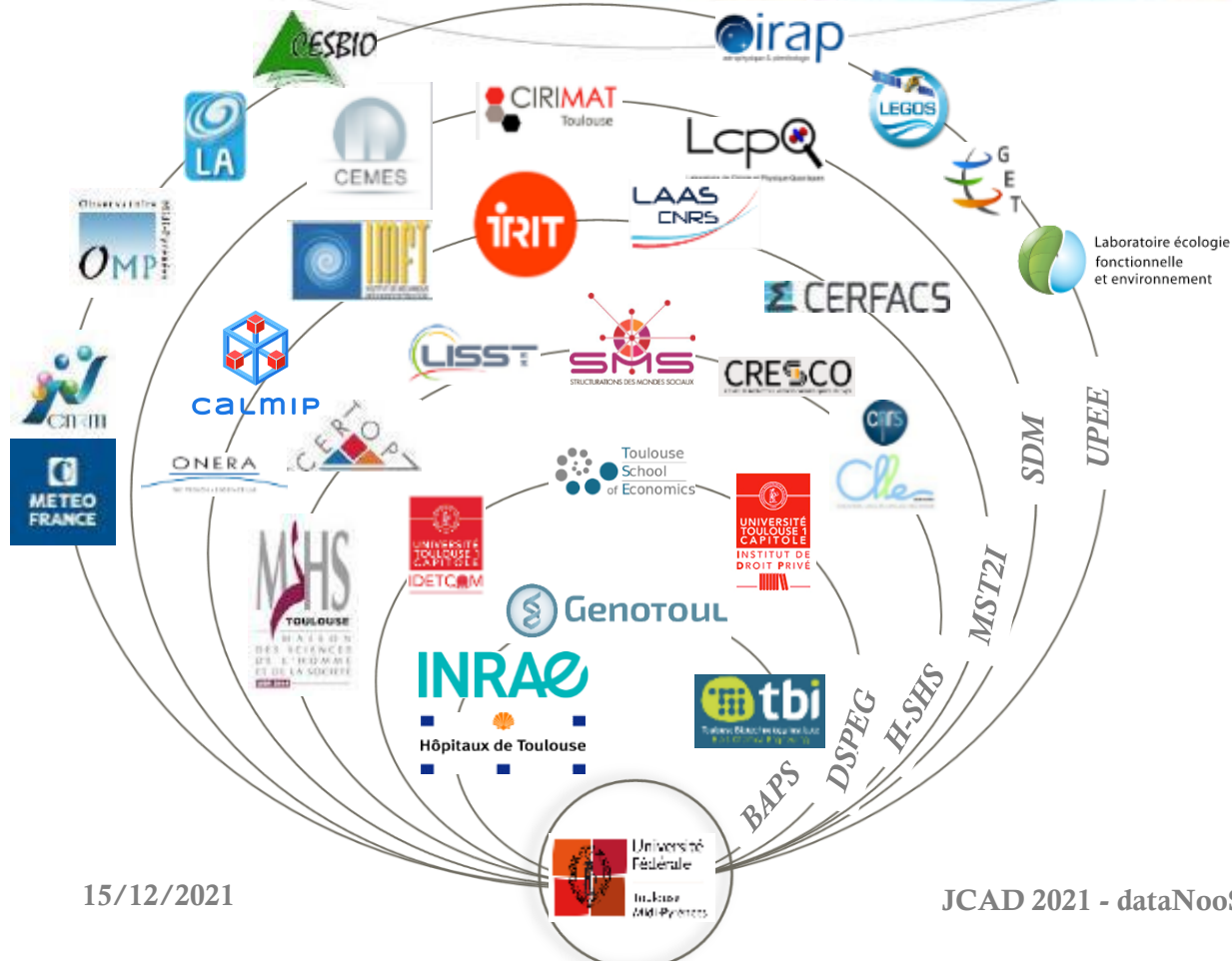
How to find relevant meteorological datasets?

Semantic search algorithm to enhance dataset search



PARTNERS

dataNooS



30 research units

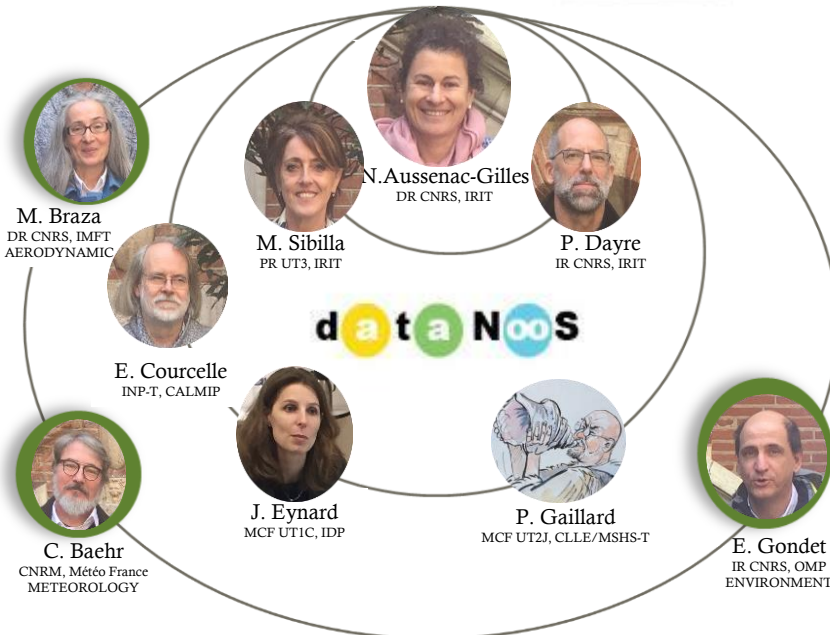
covering the 6 research coordination hubs in the Toulouse University :

- BAPS : Biology, Agronomy, Biotechnology, Health
- DSPEG : Law, Political Science, Economics, Management
- H-SHS : Humanities, Social Sciences and Society
- MST2I : Mathematics, Sciences and Technology of Information and Engineering
- SDM : Sciences of matter
- UPEE : Universe, Planets, Space, Environment

CONTRIBUTORS



Steering Committee



dataCore experts group

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15/12/2021

JCAD 2021 - dataNooS



Visit our web site :

<https://datanoos.univ-toulouse.fr/en/>

Visit the CALLISTO platform :

<https://callisto.calmip.univ-toulouse.fr>

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Link to RDA WGs

- ◆ Link to the Research Data Repository Interoperability WG :
 - ◆ FAIR principles and standards adoption
 - ◆ an integrated platform for connecting Open Science ecosystem
- ◆ Link to the FAIR Data Maturity Model WG :
 - ◆ a generic platform for domain and community specializations
 - ◆ Data quality checking
- ◆ Link to RDA for interdisciplinary research
 - ◆ a generic platform to manage cross-disciplinary datasets