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open science

## Toward a generic and integrated FAIR data management platform

Nathalie Aussenac-Gilles, Michelle Sibilla, Christophe Baehr, Marianna Braza, Pascal Dayre, Pascal Gaillard, Emmanuel Courcelle, Etienne Gondet, Jessica Eynard, Thierry Louge, et al.

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# 18th Research Data Alliance Plenary Poster session (#13)

## Toward a generic and integrated FAIR data management platform

**dataNOOS**

*Steering Committee and dataCore experts group*

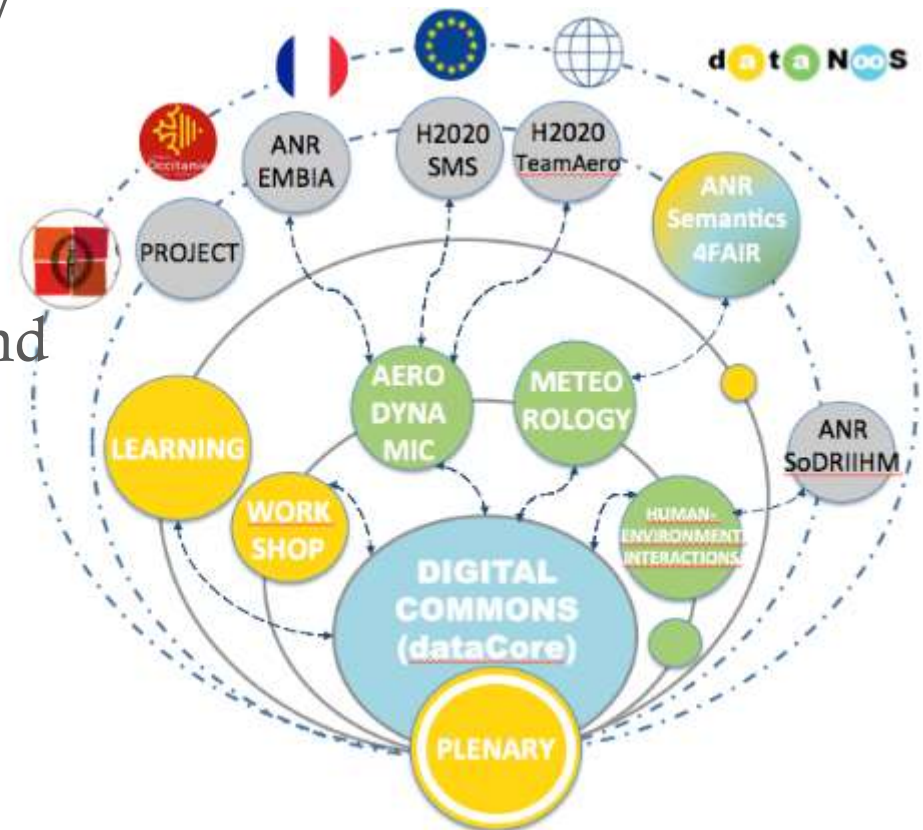


# Towards Open Science

- ◆ 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

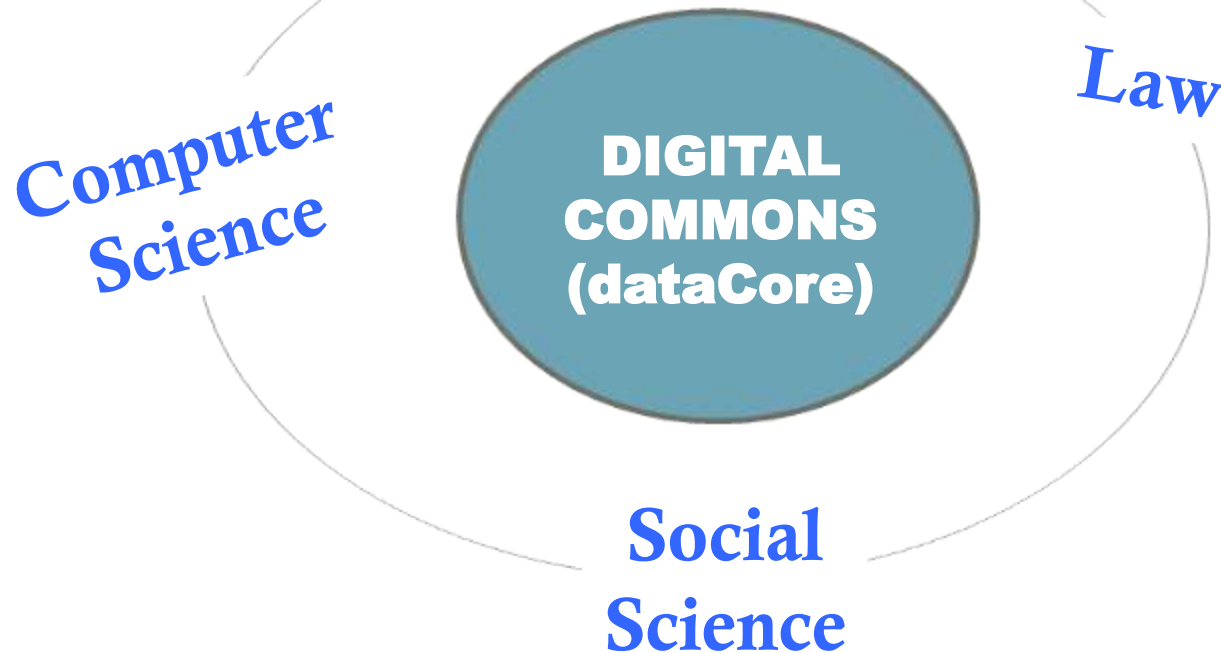
# An academic agora

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



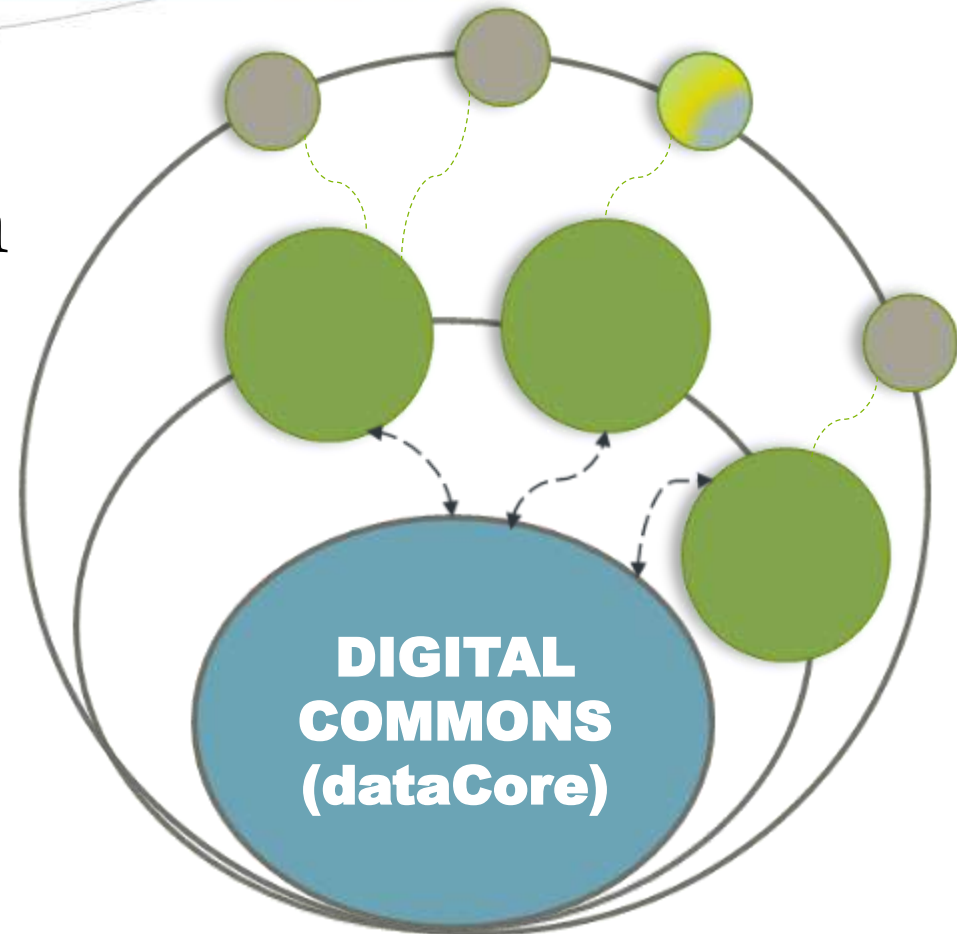
# How to build digital commons?

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



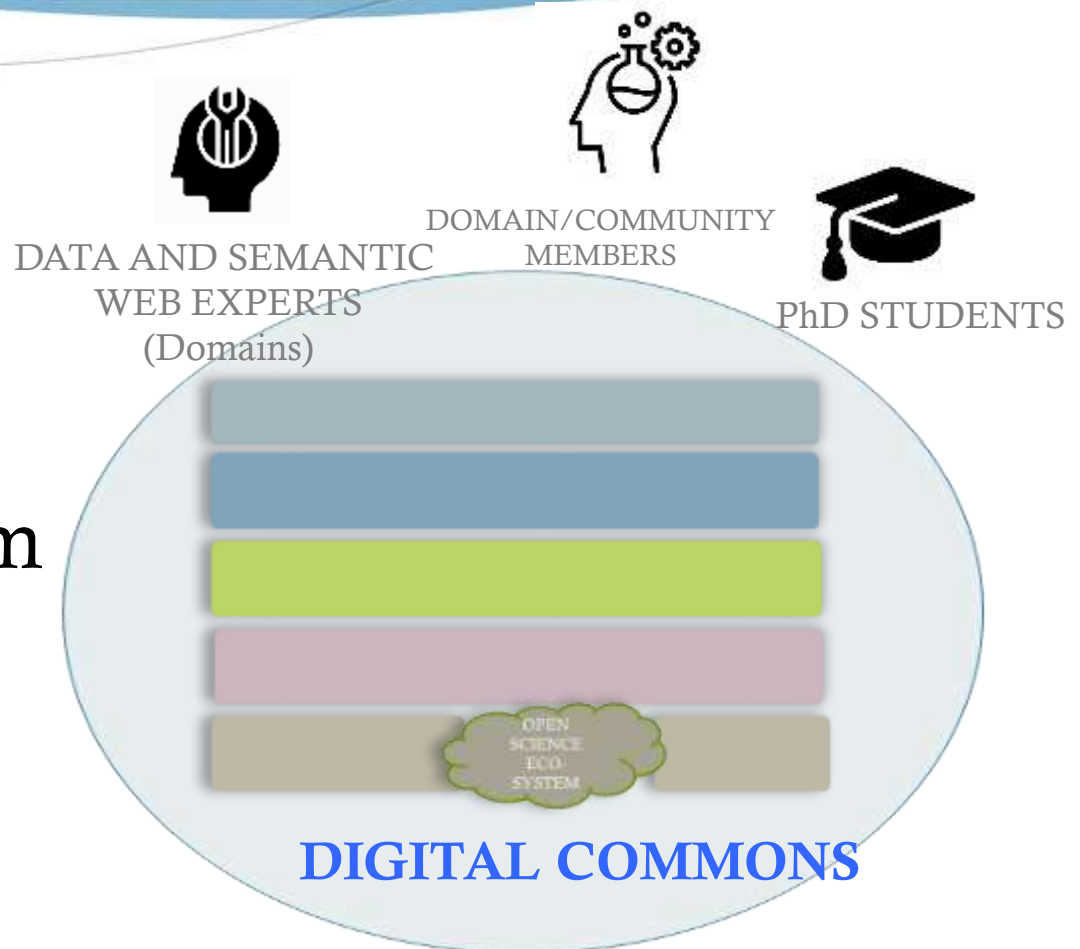
# How to build digital commons?

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

(see RDA posters 4 & 15)

## FAIR Meteorological data

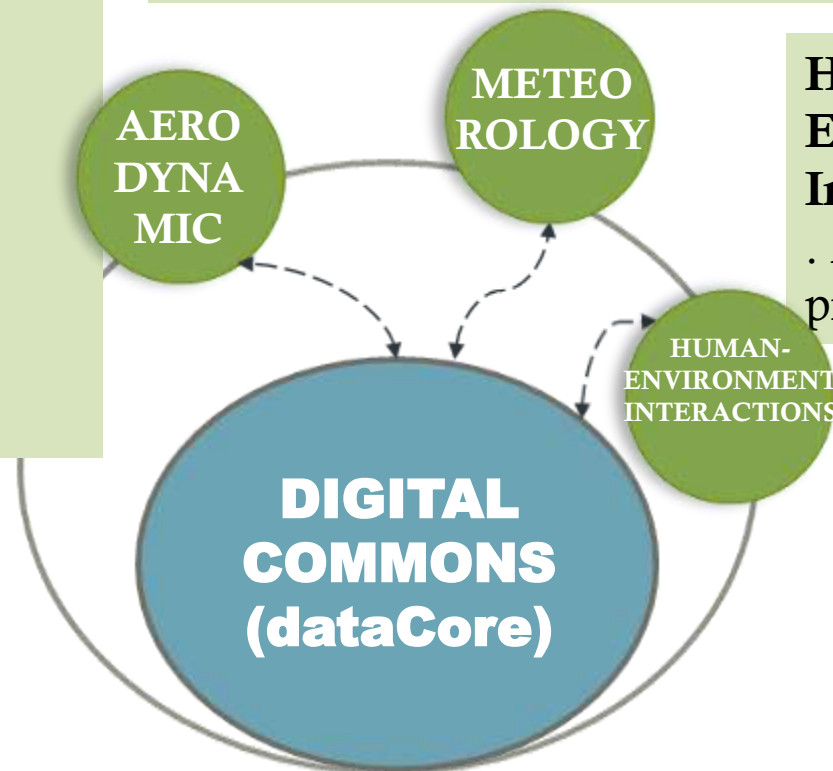
- . Meteorology, AI, biology
- . ANR Semantics4FAIR project

## Enhanced & intelligent aerodynamic data modeling

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

## Human-Environment Interactions

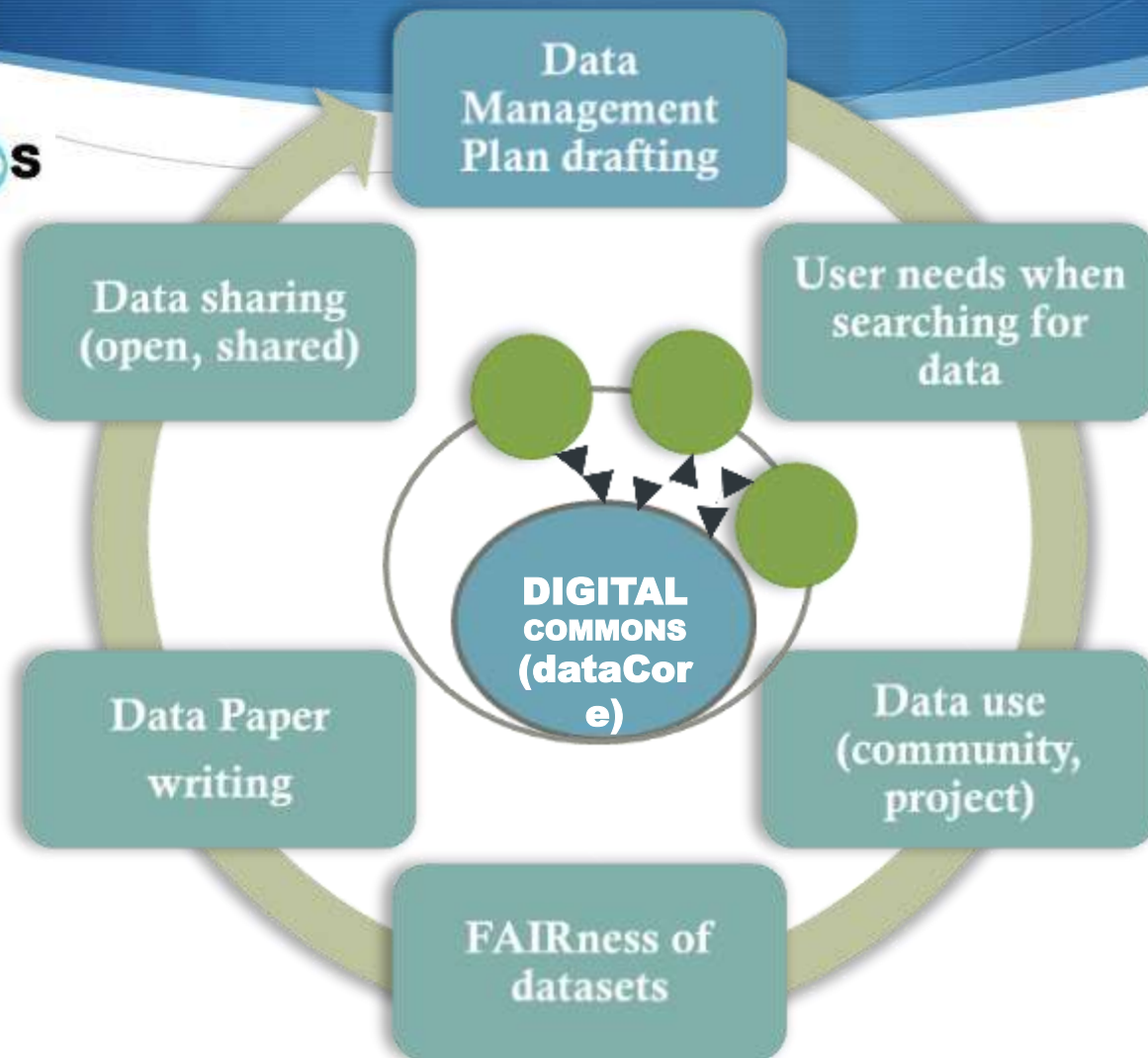
- . ANR So-DRIIHM project





# Some issues in the data life cycle

dataNOS



# A platform for dataset management

dataNOOS



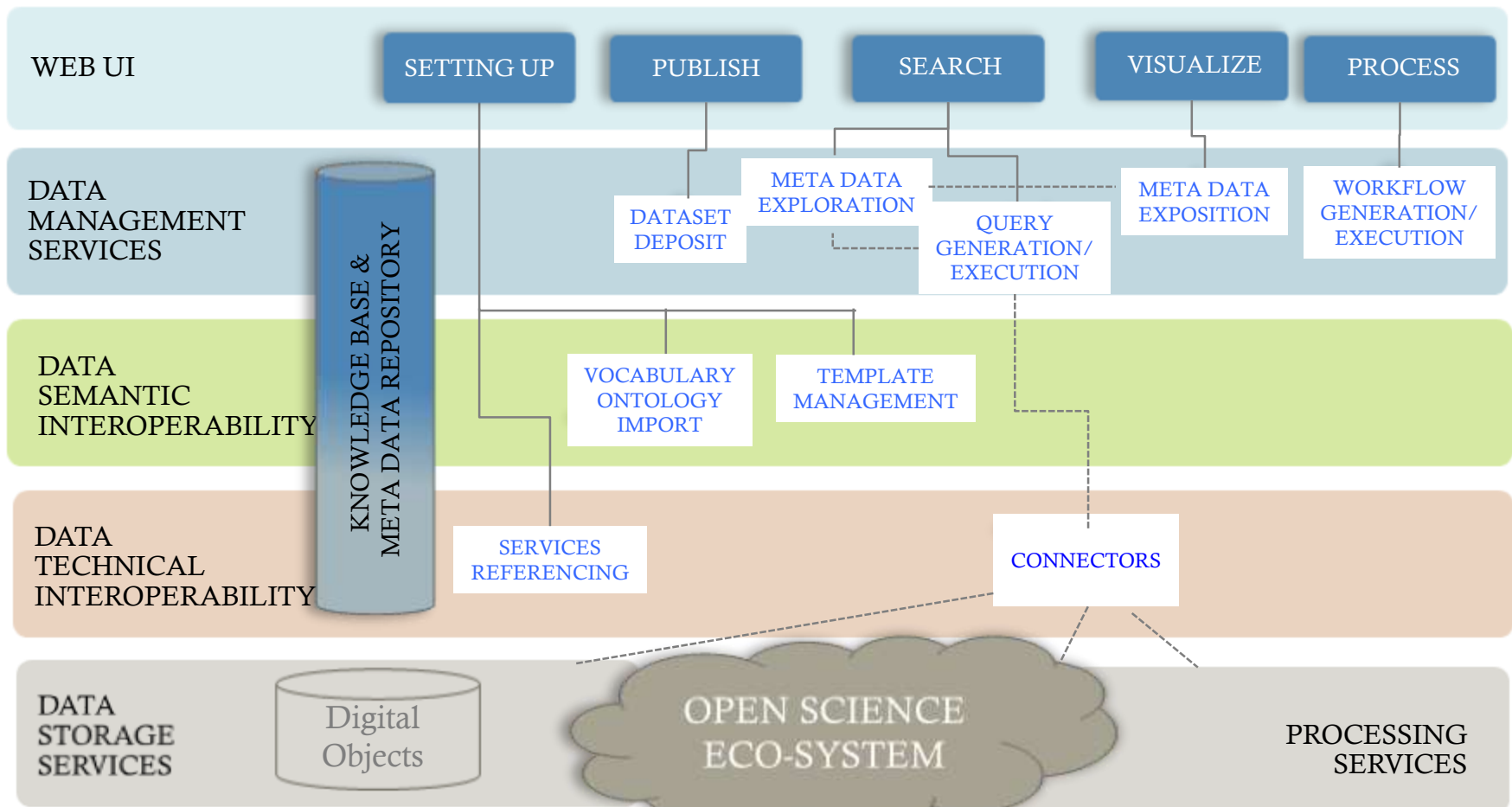
DATA AND SEMANTIC WEB EXPERTS  
(Domains)



DOMAIN/COMMUNITY MEMBERS

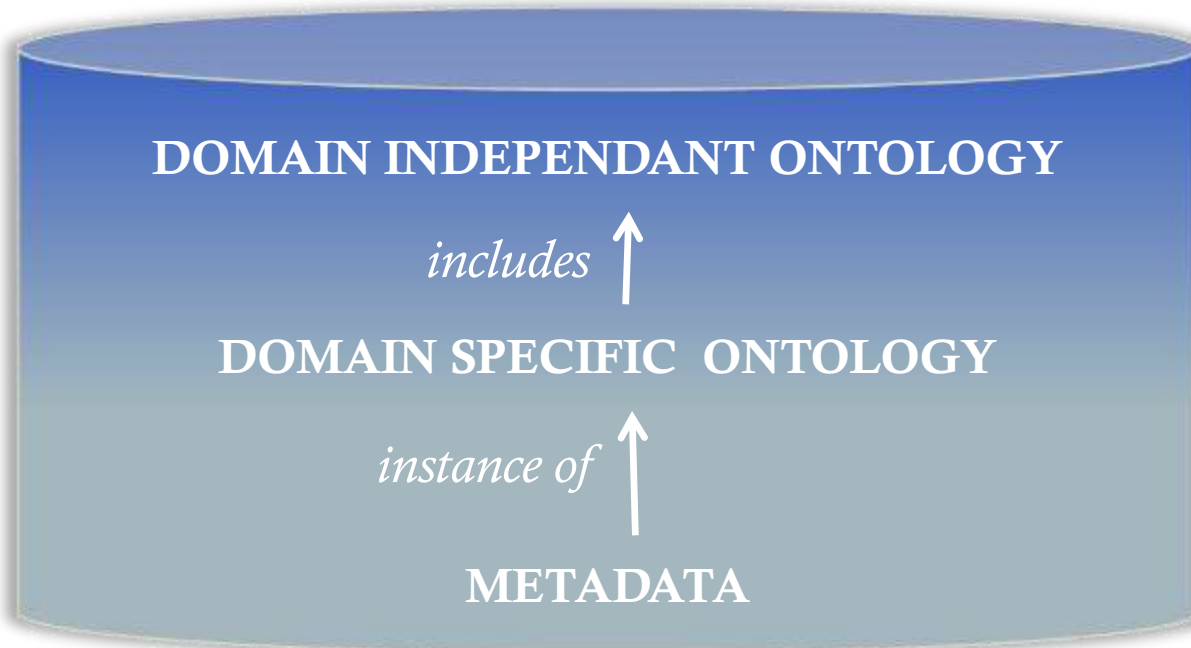


PHD STUDENTS

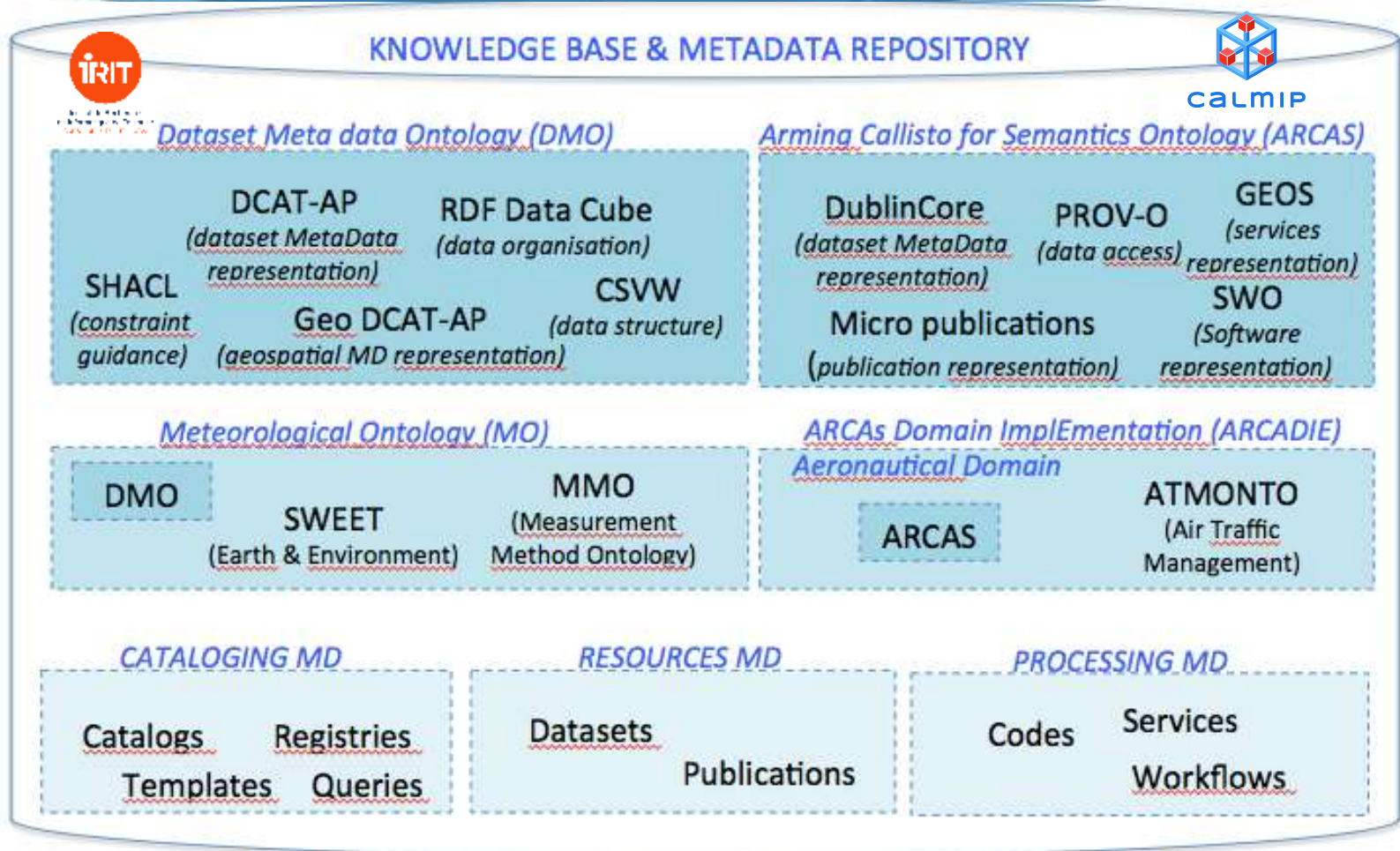


# Ontology based approach for FAIR digital objects

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



# Focus to the Knowledge Base and Metadata Repository



DOMAIN INDEPENDANT ONTOLOGY

includes

DOMAIN SPECIFIC ONTOLOGY

instance of

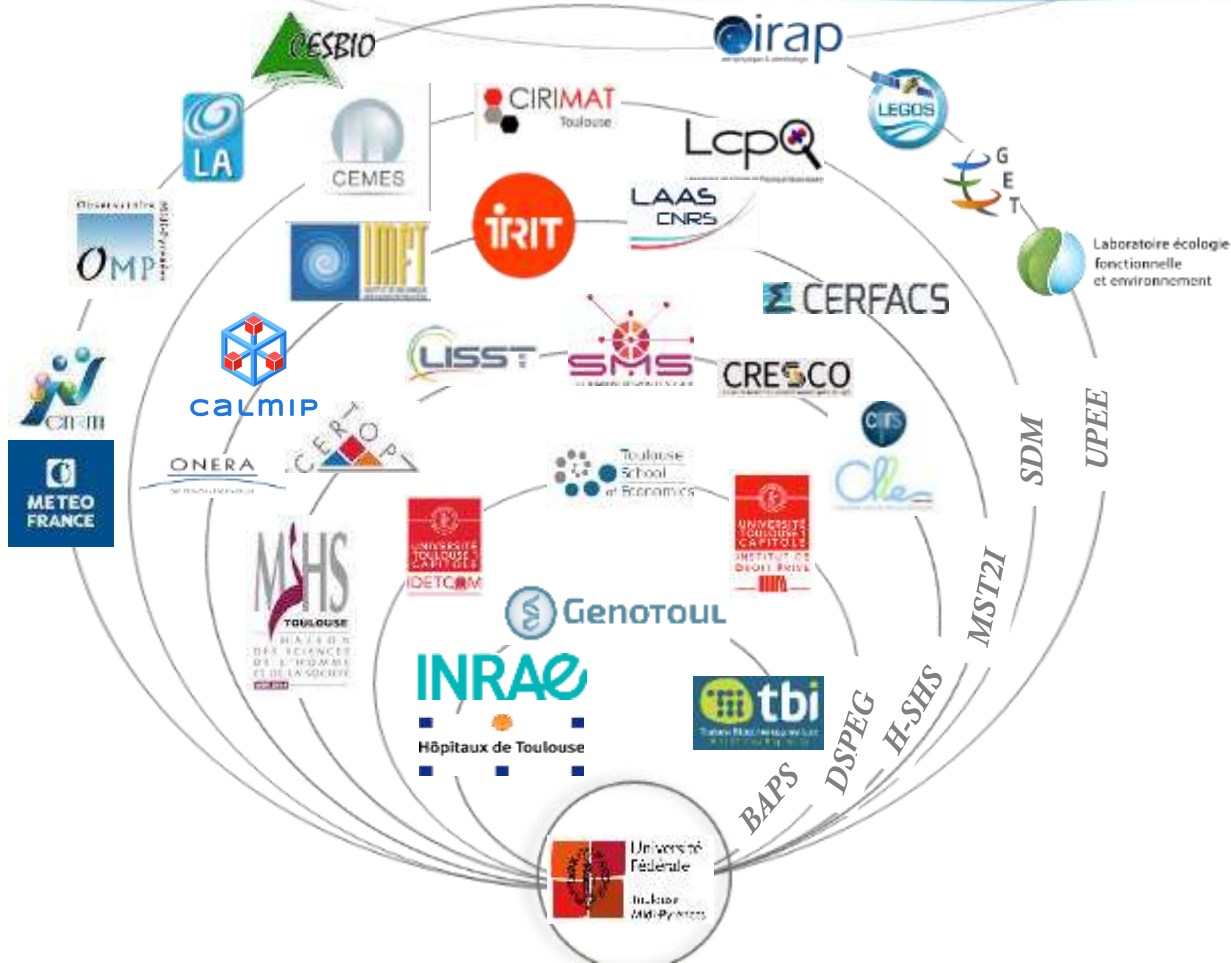
METADATA

# 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

# PARTNERS

dataNoos



## 30 research units

covering the 6 research coordination hubs in the Toulouse University :

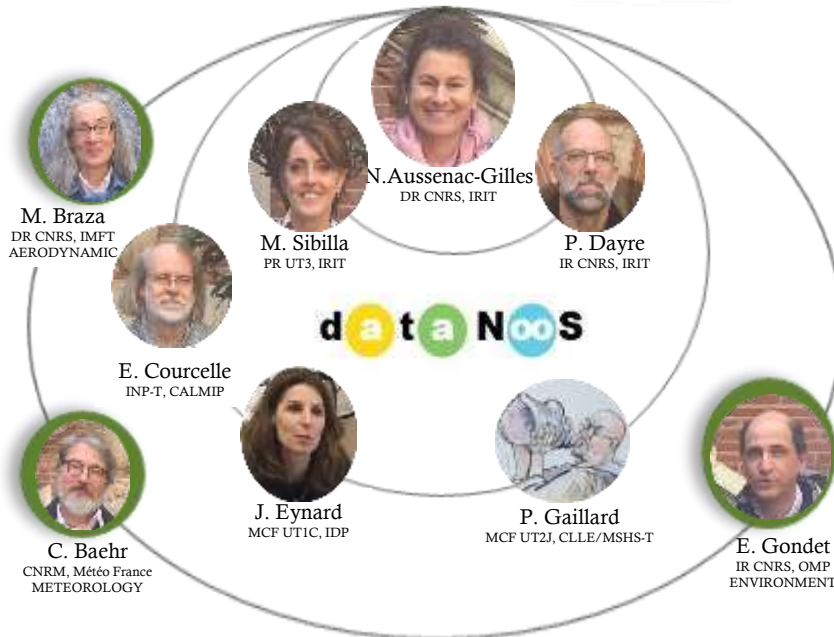
- BAPS : Biology, Agronomy, Biotechnology, Health
- DSPEG : Law, Political Science, Economics, Management
- H-SHS : Humanities, Social Sciences and Society
- MST2I : Mathematics, Sciences and Technology of Information and Engineering
- SDM : Sciences of matter
- UPEE : Universe, Planets, Space, Environment

*(around 120 members)*

# CONTRIBUTORS



## Steering Committee



## dataCore experts group

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## Thanks to students :

- PhD : V.-N Dang
- Master : R. Amal, A. Champagne, L. Kleiber, L. Mendy, G. Robert, W. Xu



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