

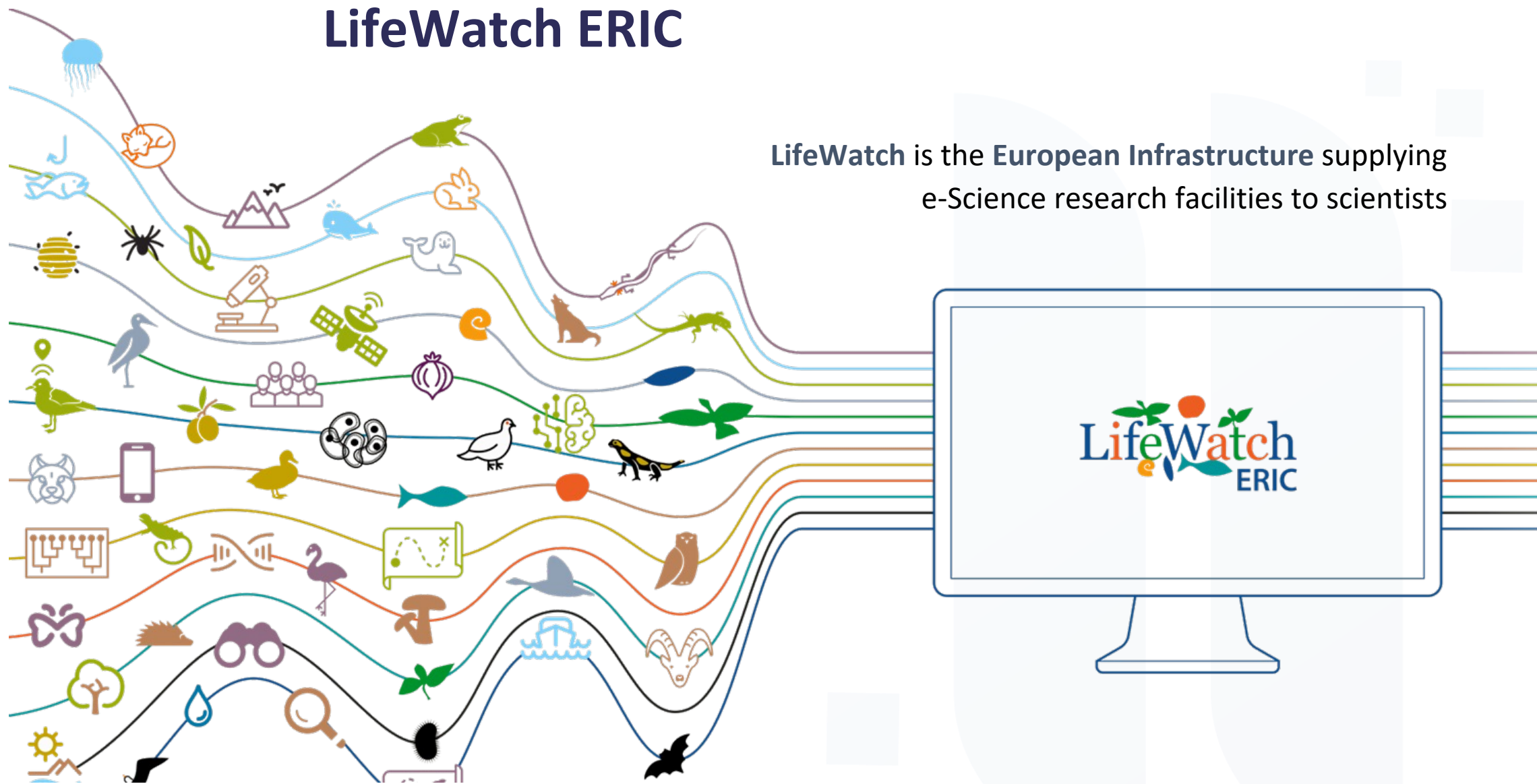


# PIDs: Ecoportal and the meta(data) Catalogues in LifeWatch ERIC

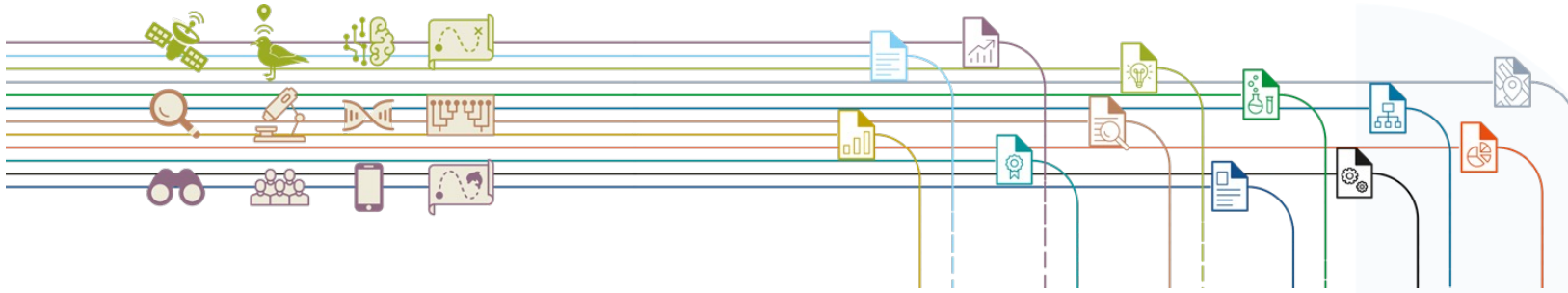
**Nicola Fiore,**  
LifeWatch ERIC, Service Centre ICT Coordinator

# LifeWatch ERIC

LifeWatch is the European Infrastructure supplying e-Science research facilities to scientists

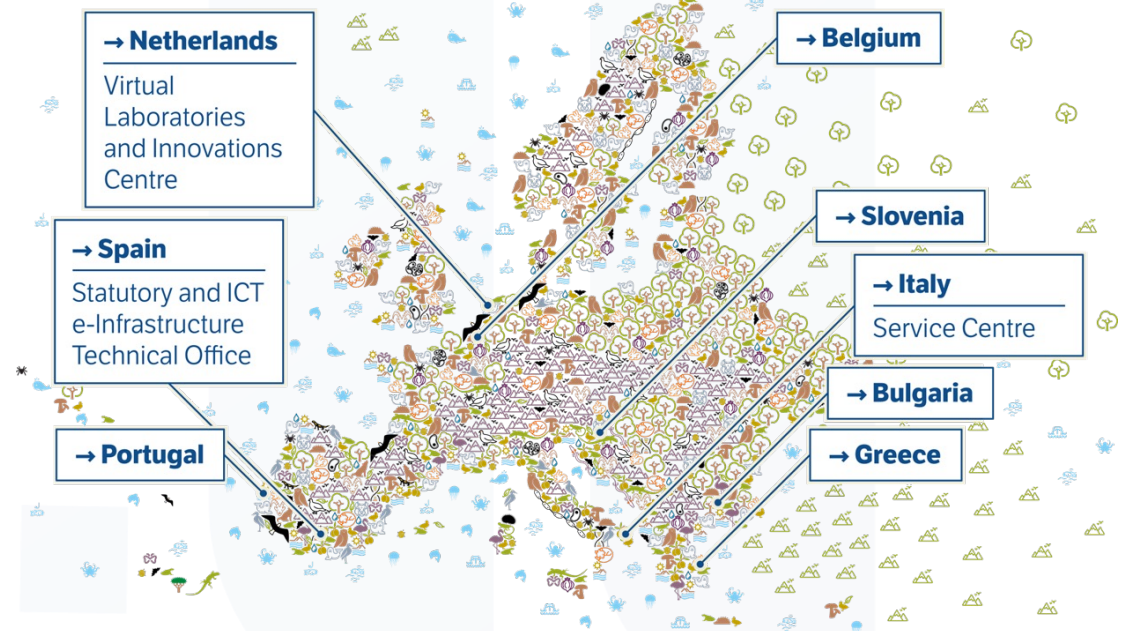


# LifeWatch ERIC



adding knowledge and deepening understanding on **Biodiversity** organisation and **Ecosystem** functions and services

by **federating** distributed physical observatories, research and institutional environment management centres ...

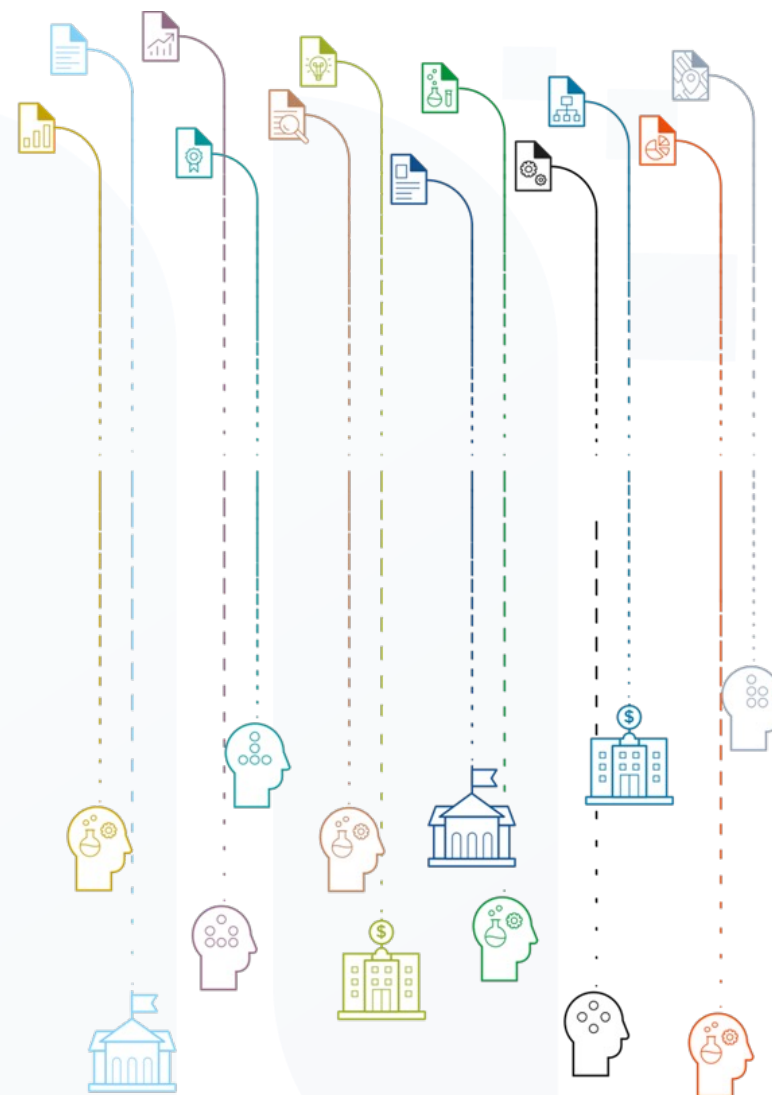


# LifeWatch ERIC

... and by bringing together **scientific communities** into a single accessible web space



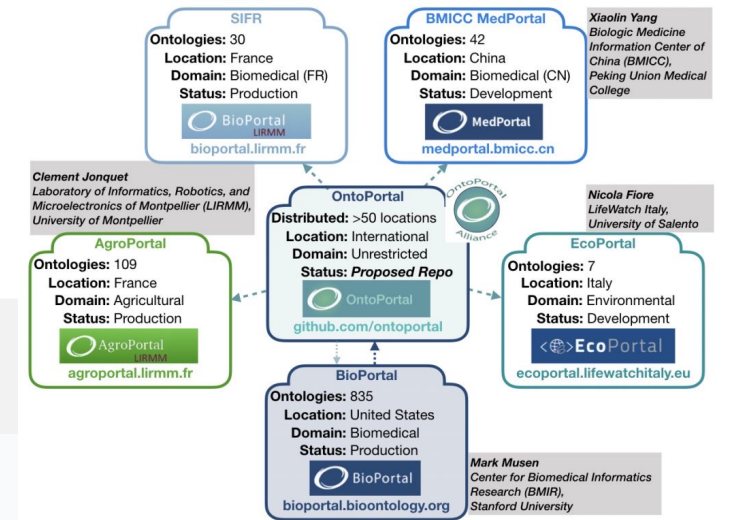
in support of our societies to address **key planetary challenges**



# EcoPortal

<http://ecoportal.lifewatch.eu>

## Part of OntoPortal Alliance





# Metadata Catalogue

← → ↻ [metadatalogue.lifewatch.eu/srv/eng/catalog.search#/home](https://metadatalogue.lifewatch.eu/srv/eng/catalog.search#/home)

LifeWatch ERIC LifeWatch ERIC Metadata Catalogue

Search ...

1648 resources for biodiversity and ecosystem researchers

## Browse resources



VREs

12



Datasets

1502



Services

118



Workflows

5

Latest Records Most popular

An individual-based dataset of carbon and nit...



Metabarcoding Occurrence Intersector



GBIF NIS Verifier



<https://metadatalogue.lifewatch.eu>

LifeWatch ERIC LifeWatch ERIC Metadata Catalogue

Search ...

Active filters [Remove all filters](#)

TYPE OF RESOURCES Dataset

Filter  Expand  Collapse

- TYPE OF RESOURCES
  - Dataset (1502)
- TOPICS
  - Environment (1)
  - Climatology, meteorology, atmos... (1)
- KEYWORDS
  - Data (131)
  - Marine Genomics (128)
  - Meiobenthos (97)
  - Biodiversity (79)
  - Macrobenthos (77)

all (15)
- CONTACT FOR THE RESOURCE
  - Flanders Marine Institute (VLIZ) (1205)
  - Viaams Instituut voor de Zee (173)
  - CIBIO-InBIO, Centro de Investi... (112)
  - Universiteit Gent; Faculteit Wete... (86)
  - EDP - Energias de Portugal (82)

all (25)
- YEARS
  - 2021 (1)

« < 1 - 20 on 1502 > » Sorted by relevancy

**OCEAMM harbor porpoise sightings in the North Sea**

In this study, systematic surveys were conducted to document the distribution of the harbor porpoise observed in the English Channel (North Sea, France).  
Observatoire pour la Conservation et l'Etude des Animaux et Milieux Marins

**Senckenberg's collection management system**

Sesam is the Collection Management System of the Senckenberg Museum. SeSam was developed together with com2 (Bad Homburg). All collections (both zoological and botanical) of the Senckenberg Research Institute are going to use this efficient tool.  
Senckenberg Gesellschaft für Naturforschung; Senckenberg Forschungsinstitut Frankfurt a. M; Abteilung Marine Zoologie; Sektion Crustacea


**Phytoplankton data collected from a diurnal station in Sevastopol Bay (Black Sea) during 1952**

The data were collected by the IBSS staff at one diurnal station in Sevastopol Bay (Black Sea) during 1952. This dataset contains abundance data (individuals per liter) for phytoplankton taxa. No additional metadata available.  
National Academy of Sciences of Ukraine; Institute of Biology of the Southern Seas

## Where PIDs are used

- Semantic artefacts
  - ontologies
  - controlled vocabularies
    - taxonomies
    - thesauri
  - named authority lists



- DOIs for the semantic artefact (*upon request*) 
- PIDs for creators and points of contact (*optional*)
- PIDs for affiliated institutions (*optional*)
- Versions, multiple PIDs, provenance ?



## Where PIDs are used

- Semantic artefacts

- ontologies
- controlled vocabularies
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- named authority lists



- complex, evolving datasets
  - complete or partial imports
  - references to external artefacts
  - highly evolving according to type
- IRIs: strategy, procedure for minting
  - we need *a lot* of them
  - URL or URN, meaningful or opaque: security, language bias, persistence







## Where PIDs are used

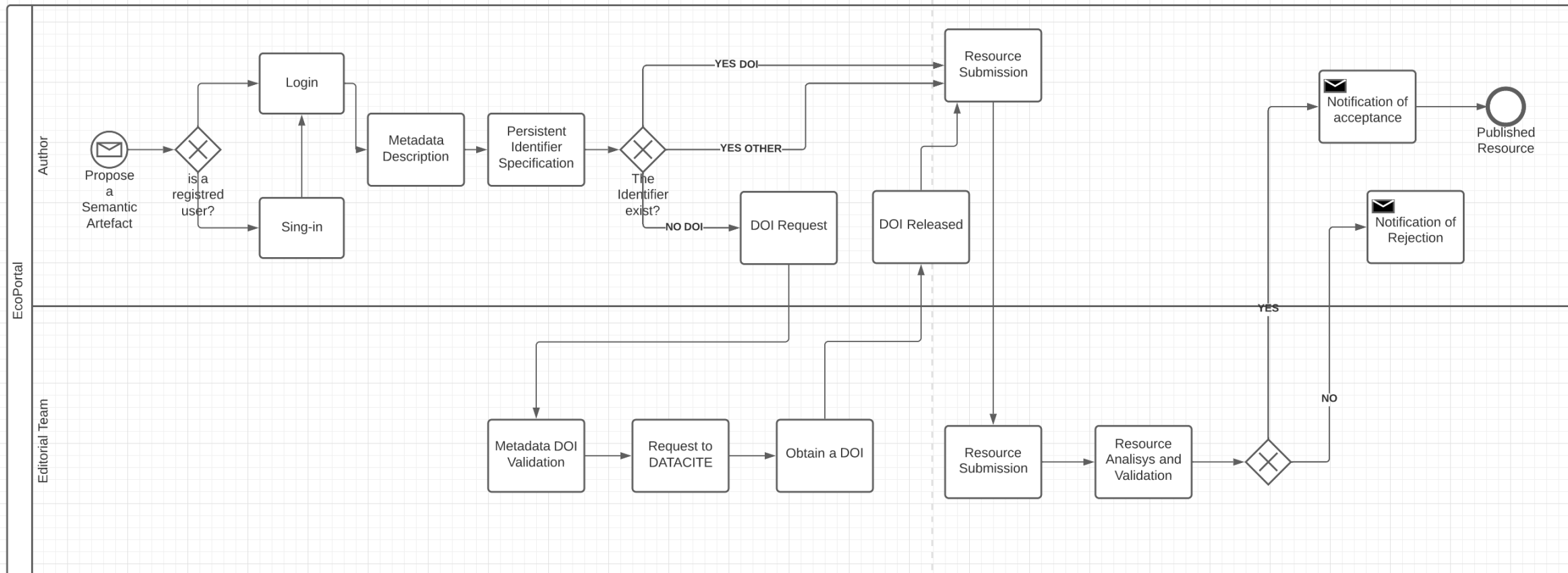
- Datasets
- Services
- Workflows
- Virtual Research Environments
- Research Sites



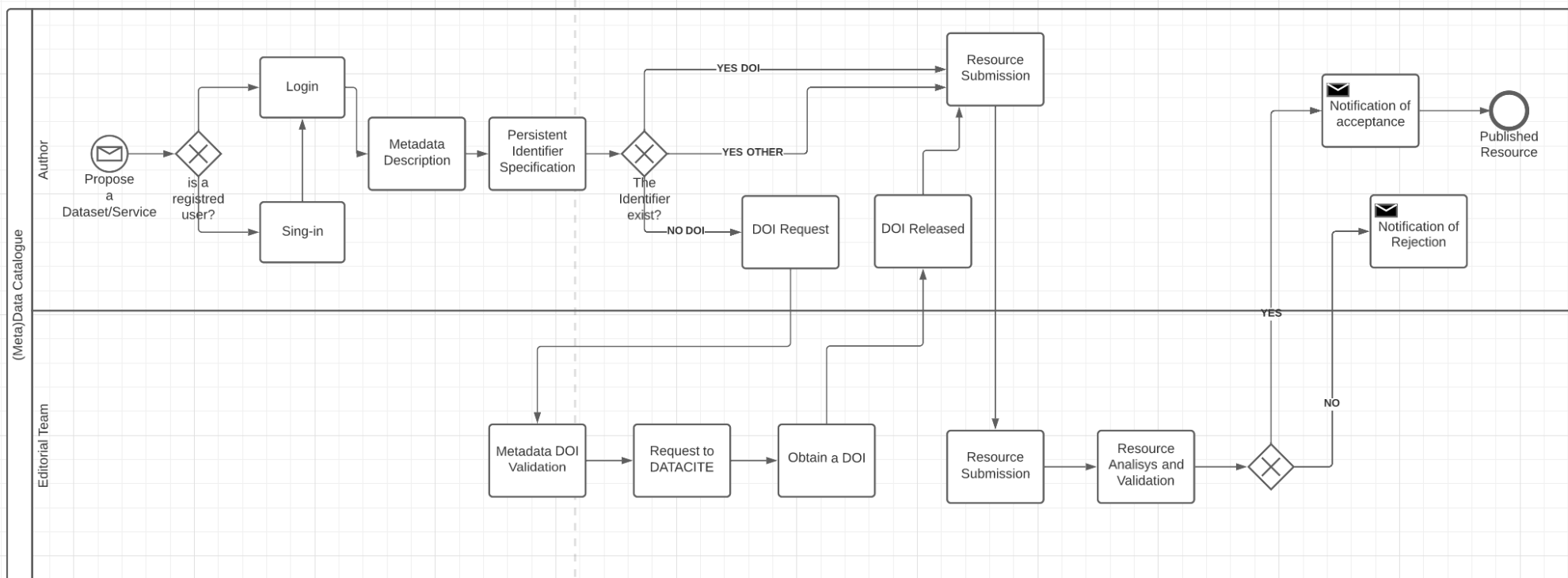
- DOIs for the metadata records 
- Datasets *may* already have their own PIDs
- Services, Workflows, VREs, Research Sites 



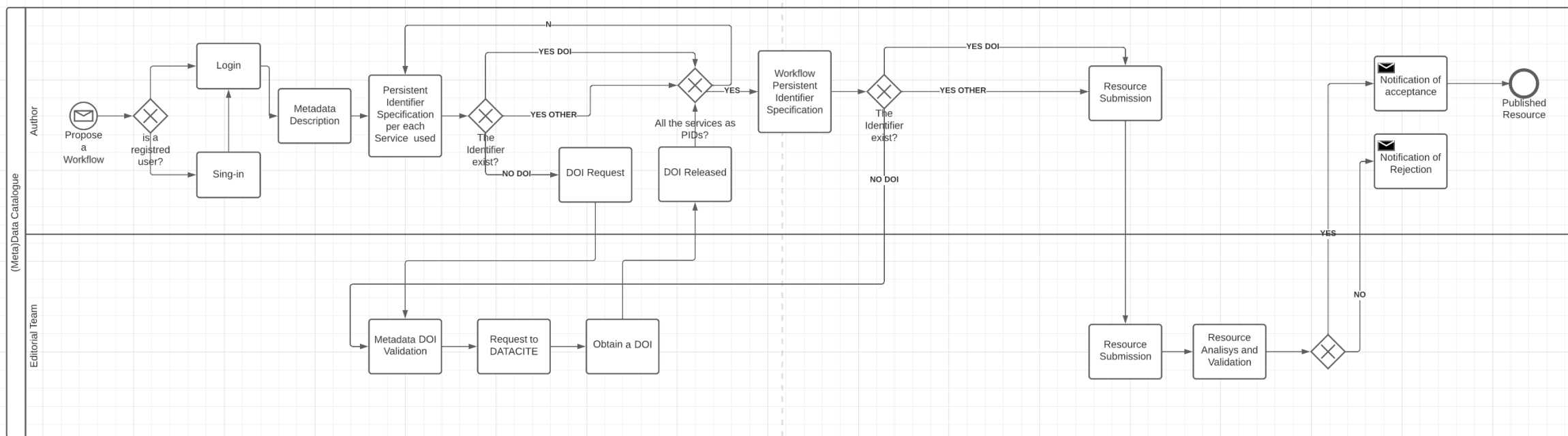
# EcoPortal Governance



# Meta(Data) Catalogue Governance




# Meta(Data) Catalogue Governance



## PIDs Open Issues

- Dataset granularity: commonly in the Virtual Research Environment, a dataset can be filtered and composed with rows coming from other datasets and analyzed by services, the final result is a new dataset. How can we manage the provenance of this new dataset? DOI/PIDs of the entire dataset or DOI/PIDs of the provenance subsets? Plus DOI/PIDs of the services. Different Metadata Schema Profiles?
- Workflow granularity: a workflow contains one or more services, each service has assigned or not a DOI/PID. Before to assign a DOI to the workflow all the services that compose it must have an assigned DOI? Is it possible to automatize the DOI assignment process ?
- Version granularity: version of the entire artefact, version of the entities inside, link between deprecated and valid entities
- PID Policy definition: how to be aligned with the EOSC Policy?

# PIDs Challenges: LIFEBLOCK – the adoption of Blockchain technology



**User Tools**

- My data
- Search Tool
- LifeBlock Explorer
- Wallet Info

**Dev Tools**


- Lifeblock Smart Contract Tool
- Lifeblock-API

**Management Tools**

- Blockchain Monitor
- Token Generator
- Smart Contract Monitor
- Traceability Tool
- IPFS Monitor

**General Tools**

- User Administration



**Explorer > Token details**

Token data | Traceability | Transfer token

**Token 42**

- Token id: 42
- Block number: [143506](#)
- Transaction hash: [0x60...3ee0](#)
- Timestamp: 3 weeks ago
- Contract address: [0x40...218d](#)
- Owner address: [0x0d...b11d](#)
- Title: 2204\_Tracking small loggerheads from spanish nests (aggregated per 1-degree cell)
- Dataset id: 551
- First ancestor: [38](#)
- Type: NFT

**Hierarchy**

```

    graph TD
      38[38] --- 42[42]
      42 --- 43[43]
  
```

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LinkedIn



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the European Union

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