

LifeWatch Italy: the Italian hub for open and FAIR research data

Andrea Tarallo, Ilaria Rosati, Alberto Basset

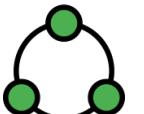


UNIVERSITÀ
DEL SALENTO



**Università
di Genova**

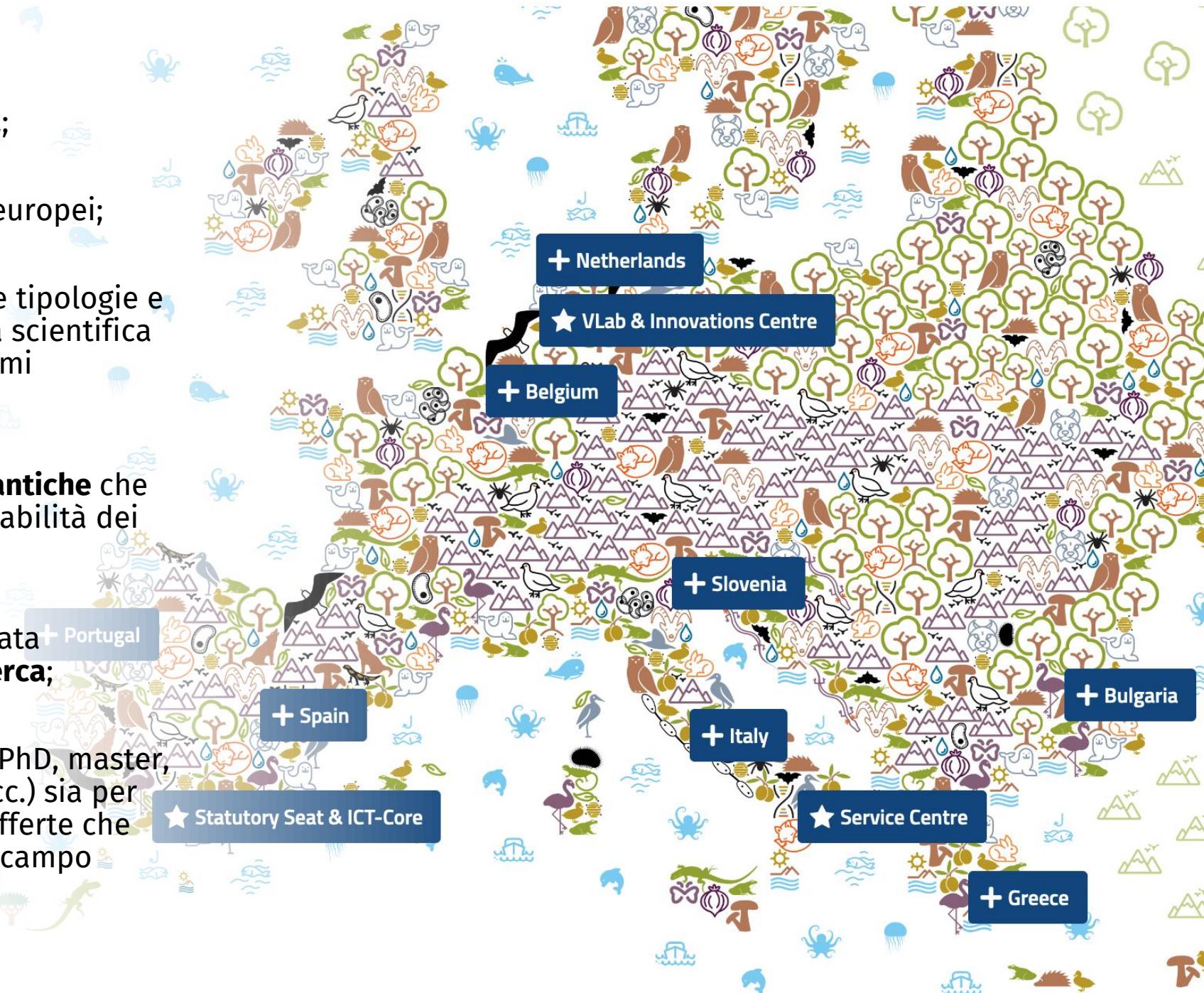
GenOA week 2023 | 23-27 ottobre
Dati della ricerca come risorsa e bene comune



LifeWatch Italy è il nodo Italiano di LifeWatch ERIC

LifeWatch ERIC is a European Research Infrastructure Consortium providing e-Science research facilities to scientists investigating biodiversity and ecosystem functions

- È una **Infrastruttura di Ricerca Europea**;
- Ha una struttura **distribuita in 8 paesi** europei;
- Fornisce l'accesso a dati FAIR di diverse tipologie e a diversa scala prodotti dalla comunità scientifica che studia la biodiversità e gli ecosistemi attraverso il **catalogo di metadati**;
- Mantiene un **repository di risorse semantiche** che permettono l'integrazione e l'interoperabilità dei dati;
- Sviluppa e offre servizi di analisi avanzata attraverso dei **laboratori virtuali di ricerca**;
- Fornisce vari **strumenti di formazione** (PhD, master, summer school, webinar, e-learning, ecc.) sia per l'utilizzo delle soluzioni tecnologiche offerte che nell'ambito degli aspetti scientifici nel campo biodiversità ed ecosistemi.



LifeWatch Italy: Open & Interoperable Research



Acquisition
& Access



DATA
PORTAL



METADATA
CATALOGUE



CITIZEN SCIENCE
PLATFORM



Annotation
& Curation

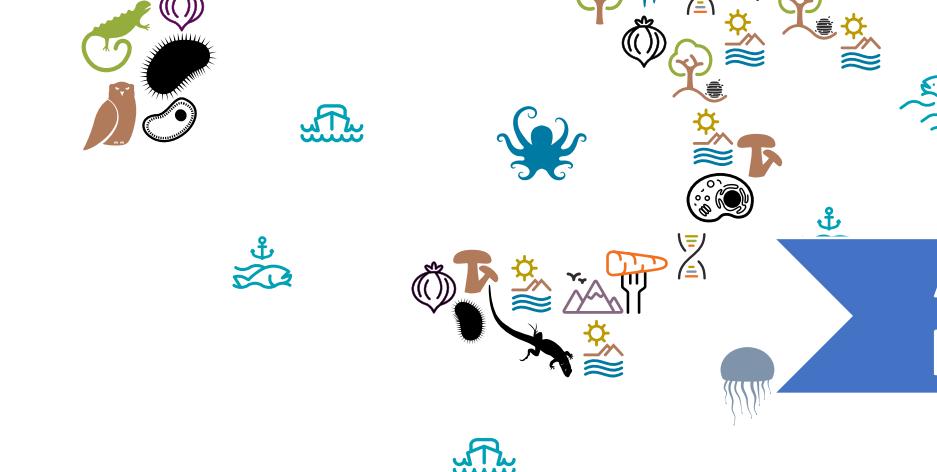


RISORSE
SEMANTICHE



SEMANTIC
PLATFORM

 
LifeWatch
ERIC
< > EcoPortal



Analysis &
Processing



DATA LAB
CODING COLLABORATIVO



WORKFLOWS

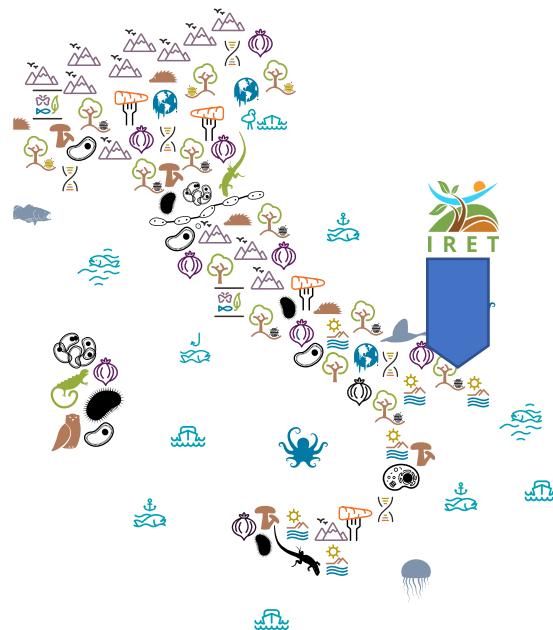


VREs



LifeWatch Italy Joint Research Unit

LifeWatch ITA has been established as a **Joint Research Unit (JRU)** in 2010 with 9 founding members **leaded by CNR**. It has now **35 members** including research institutes, universities, associations and private companies distributed, seeking to reinforce integrated scientific research on biodiversity and ecosystems.



Our projects

Data management



FAIRification and RI development



Our projects

Data management

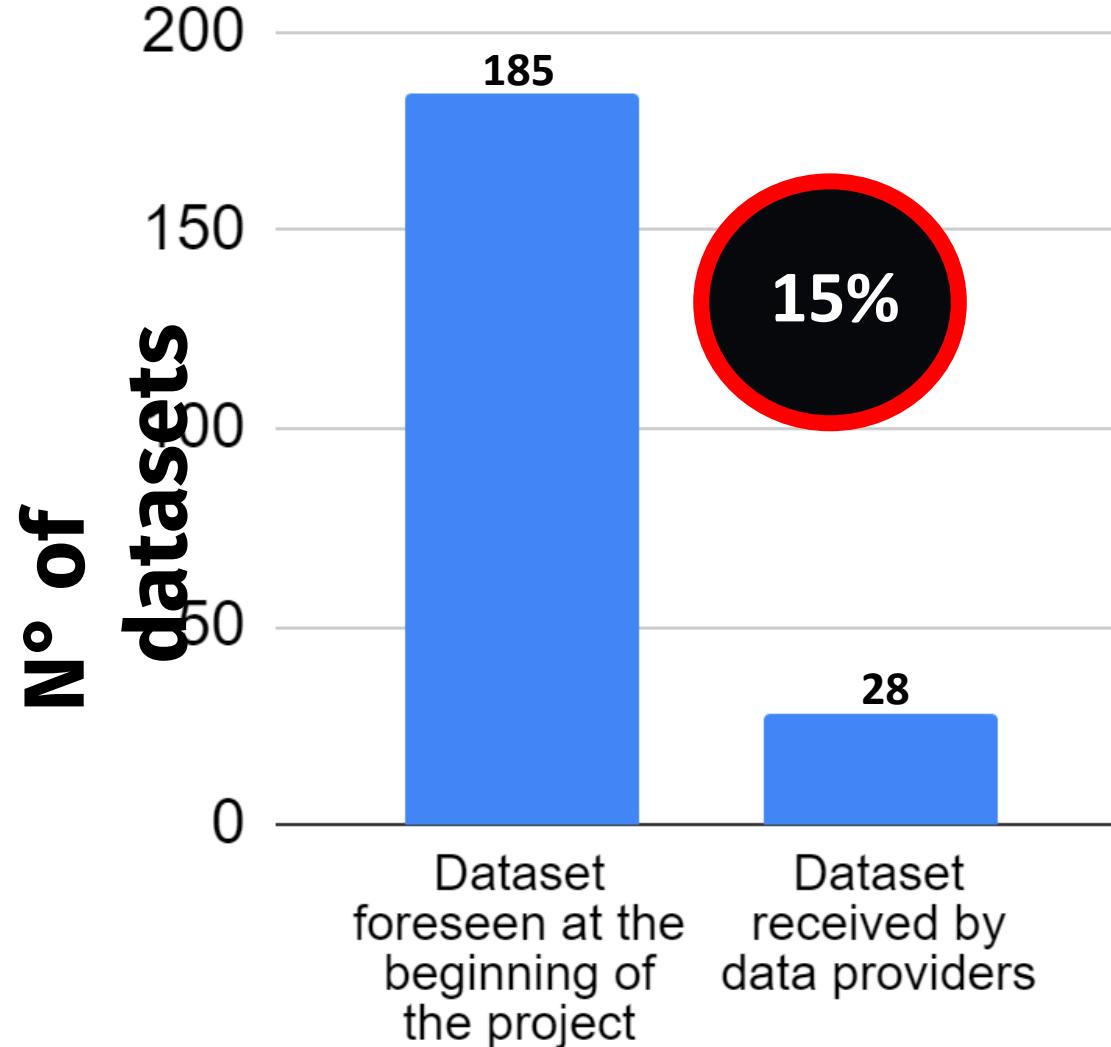


Nuovi dati + dati da articoli già pubblicati

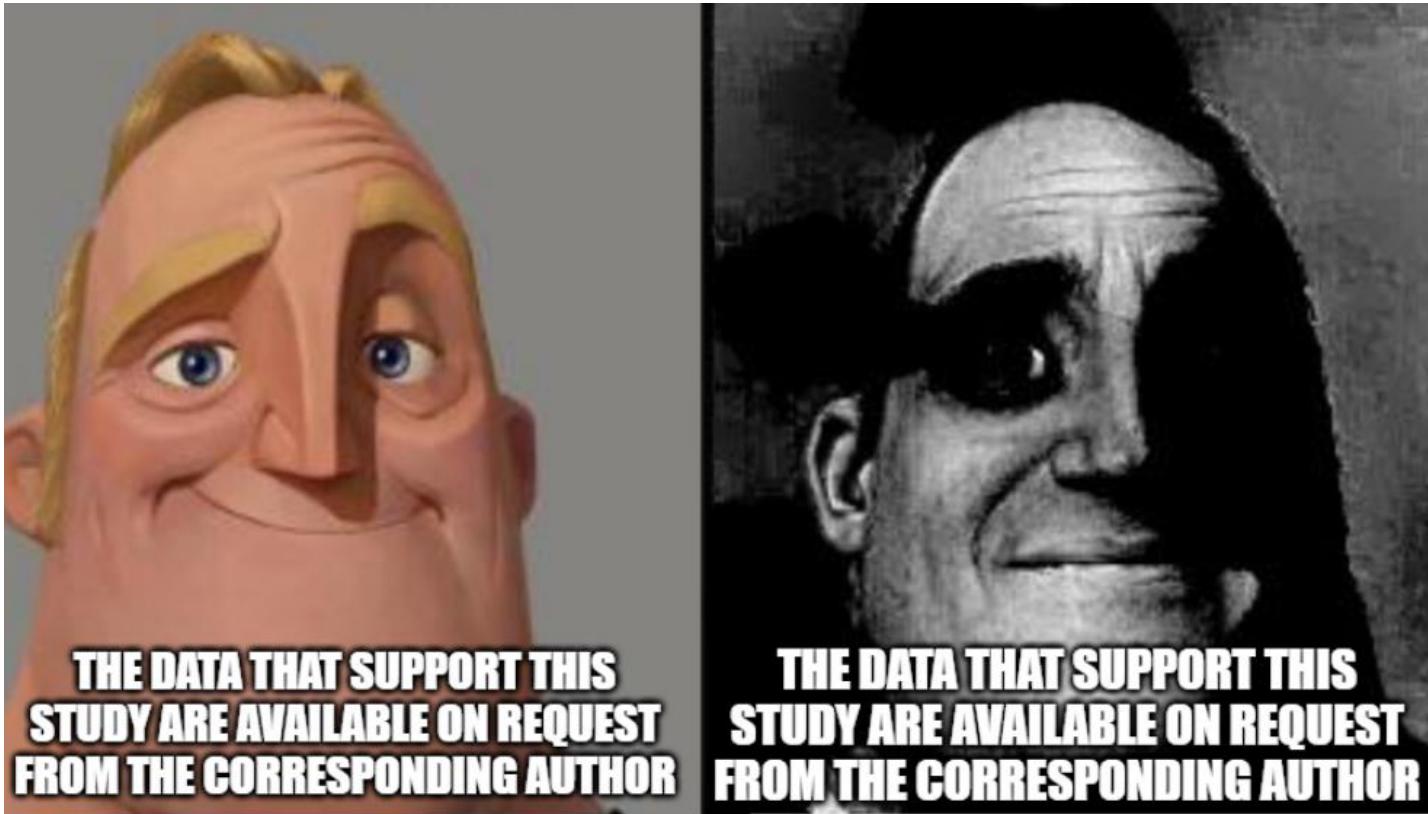
- Digitise
- Clean
- Harmonise
- Validate
- Compile metadata
- Archive
- Give access



Dati prodotti vs dati disponibili



Dati prodotti vs dati disponibili



Tedersoo et al. 2021- cross-disciplinary, **5-30%** raw data upon request

Hussey 2023 – behaviour, **25%** upon request

Wicherts et al. 2006 – psychology, **27%** upon request

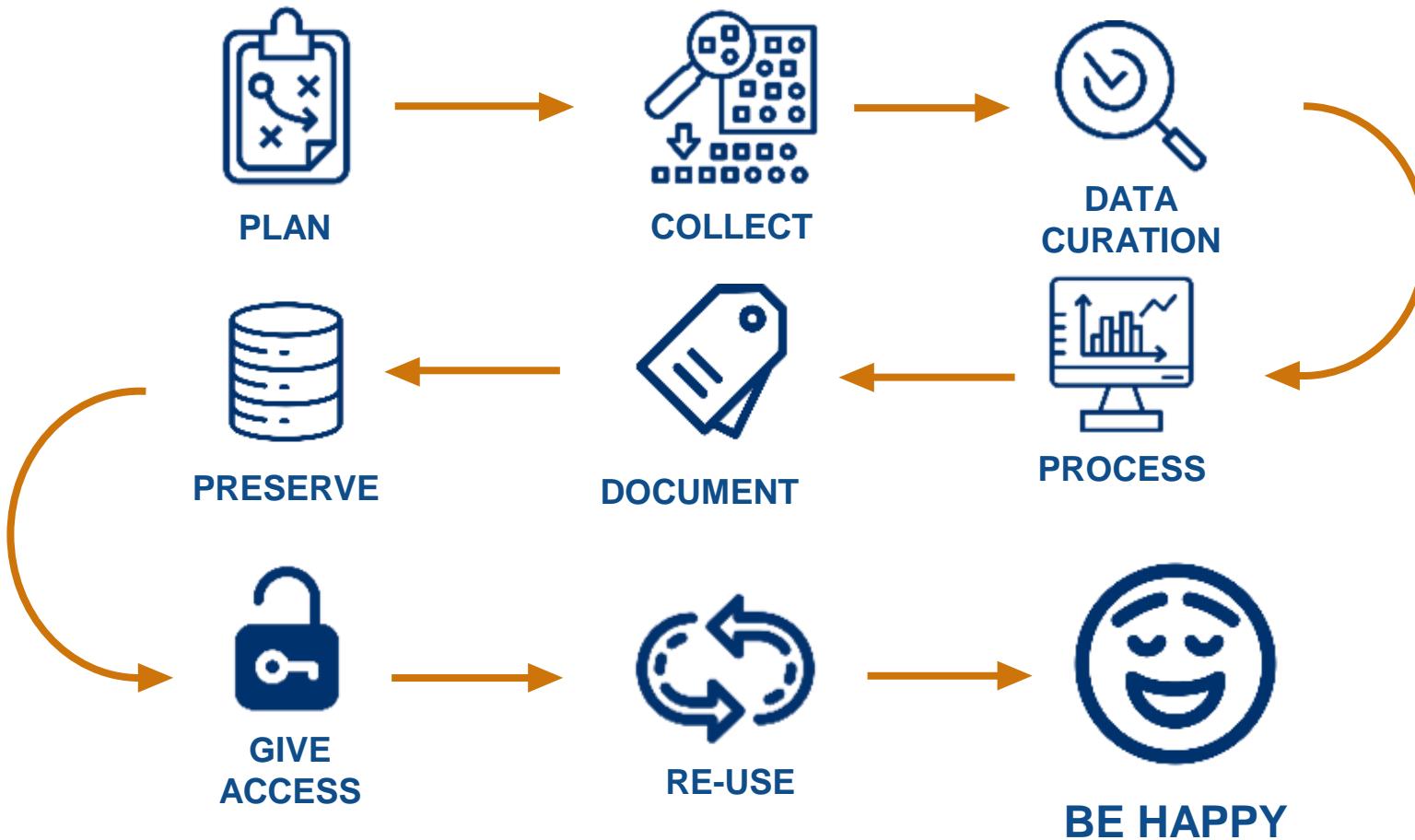
Krawczyk & Reuben 2012 - economic,s **44%** upon request

Savage & Vickers 2009 – Medicine and clinics, **60%** upon request

Stodden et al. 2018 - data and code from journal Science, **44%** upon request

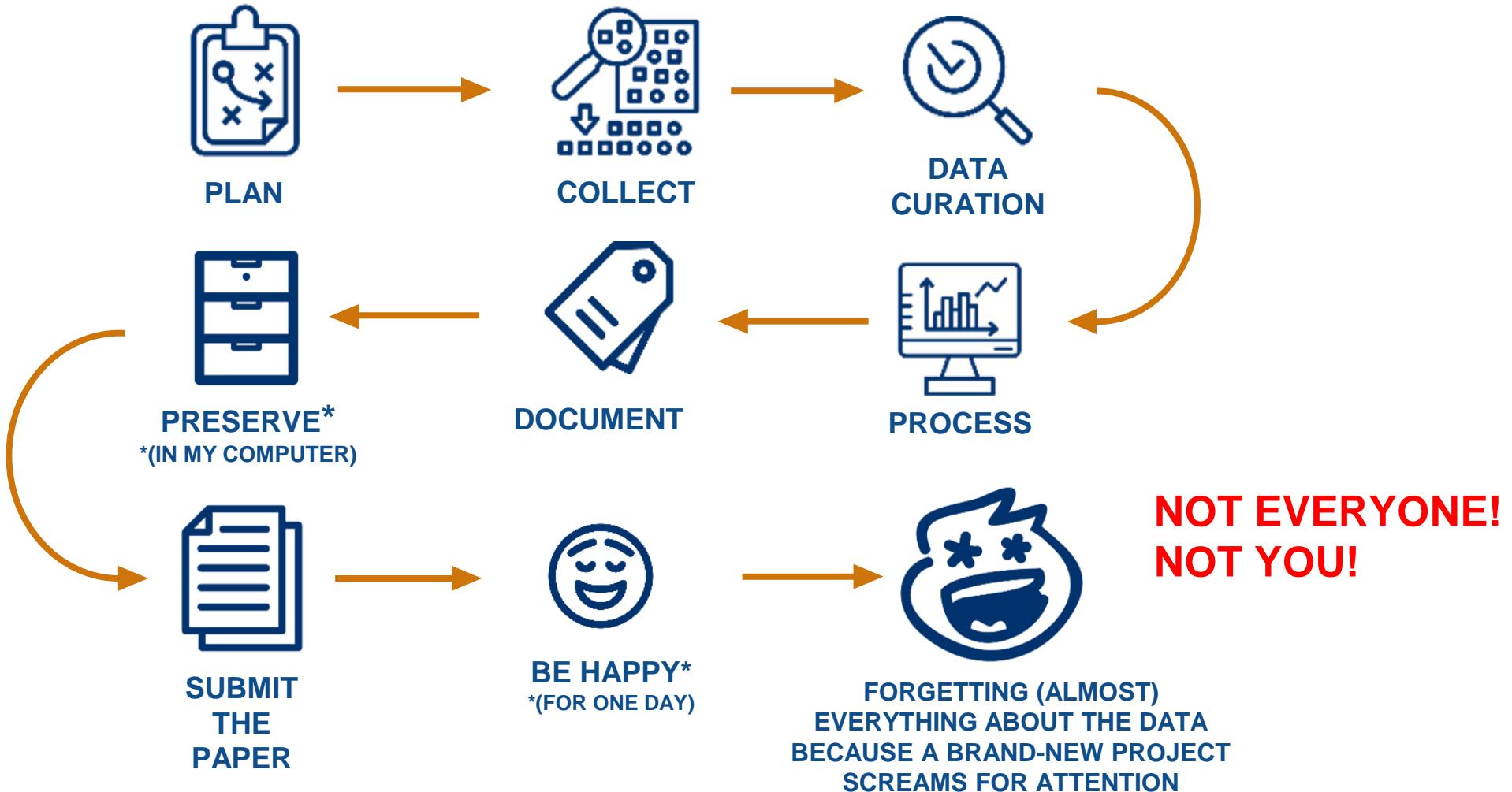
Gabelica et al., 2022 – BMC journals with data sharing statement, **6.8%** upon request

Data lifecycle: quando la ordini su wish



Data lifecycle: quando ti arriva a casa

Alsheikh-Ali et al. 2011 - cross-disciplinary **9%** deposited full primary raw data online.

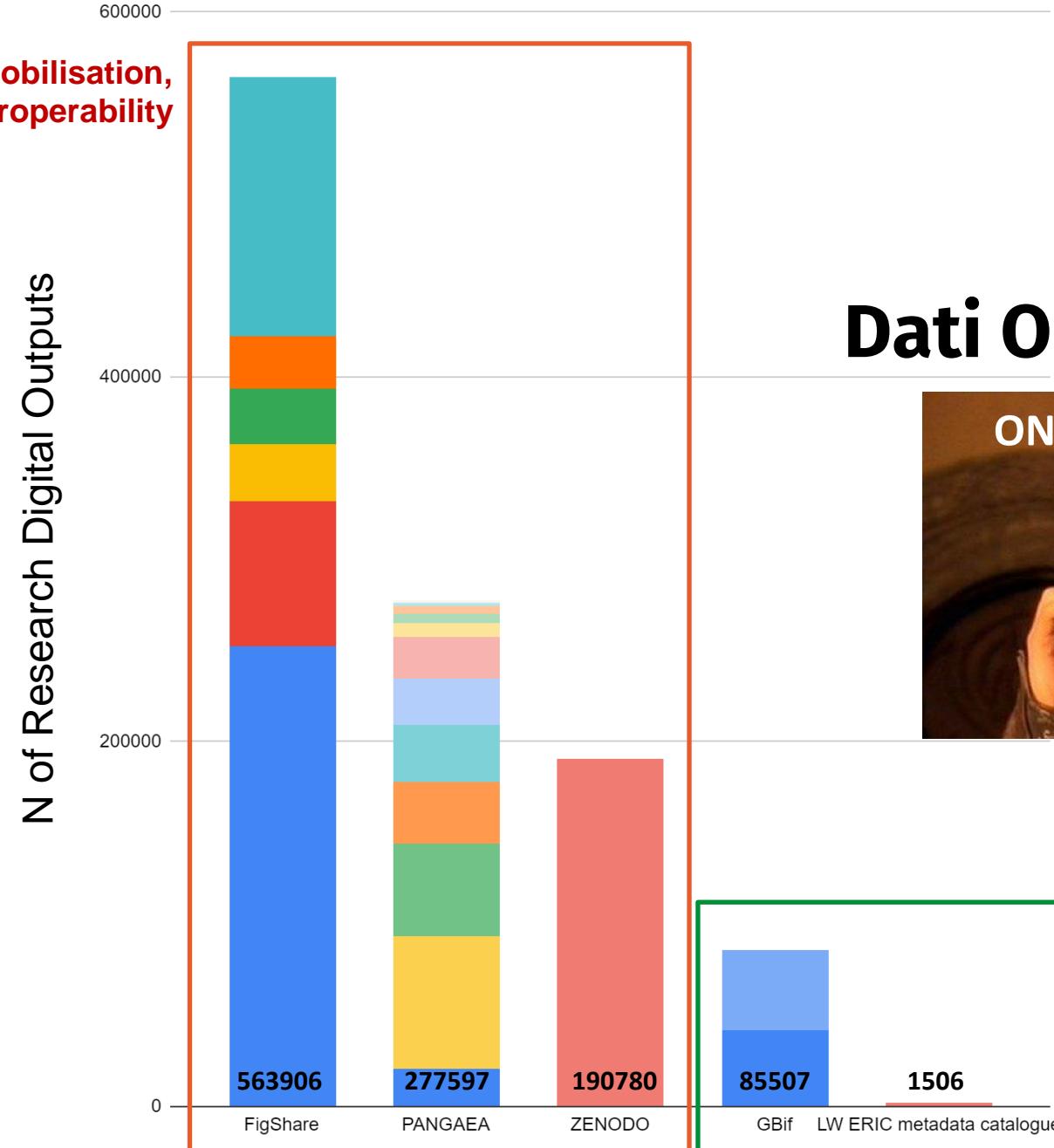


Data lifecycle: quando ti arriva a casa



- Agriculture
- Fisheries
- Human dimensions
- Lakes & Rivers
- Cryosphere
- Geophysics
- Biosphere
- Land surface
- Oceans
- Paleontology
- Atmosphere
- Biological classification
- Litosphere
- Chemistry
- All
- Plazi.org
- Plant biology
- Plant systematics and taxonomy
- Microbial ecology
- Mycology
- Marine Biology
- Ecology

**High level of mobilisation,
low interoperability**



Dati OPEN e dati FAIR



**Low level of mobilisation
(*if compared with the generalist
repositories)**
High interoperability

5

4

3

2

1

0



Never participated in an EU project



Participated at least in one EU project



Is involved in RI and EU projects

Research products are deposited or indexed in a searchable repository

The repository is commonly accepted within the community of my research domain and it is not a generalist one.

Globally unique and persistent identifier is assigned

My research products are described by semantic resources

The semantic resources are standards within the community of my research domain.

My research products are organised in open, well-established and sustainable file formats (e.g. .csv, .txt, .tiff).

My research products are associated to detailed provenance information (e.g. collector, creator, publisher, etc.).

My research products are released with a clear and accessible usage license.

5

4

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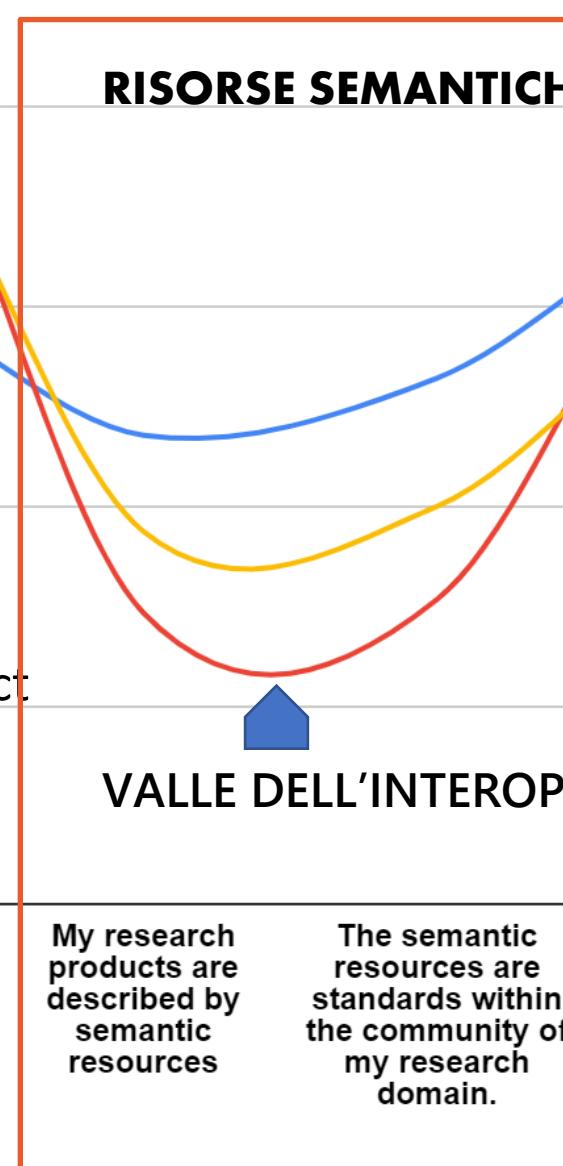
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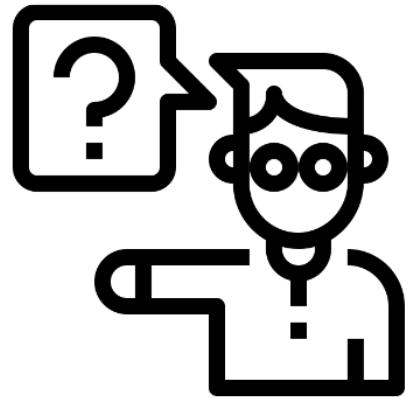
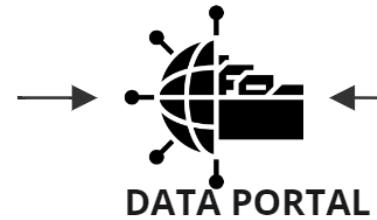
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RISORSE SEMANTICHE

VALLE DELL'INTEROPERABILITA'



<  > Eco PortalPRODUCE
DATAAUTOMATIC
ANNOTATION

SEMANTIC PLATFORM

miro

FEED



PRODUCE
DATA



AUTOMATIC
ANNOTATION



<globe>Eco Portal

FEED



SEMANTIC PLATFORM



LIFEWATCH ERIC
METADATA
CATALOGUE

HARVESTING

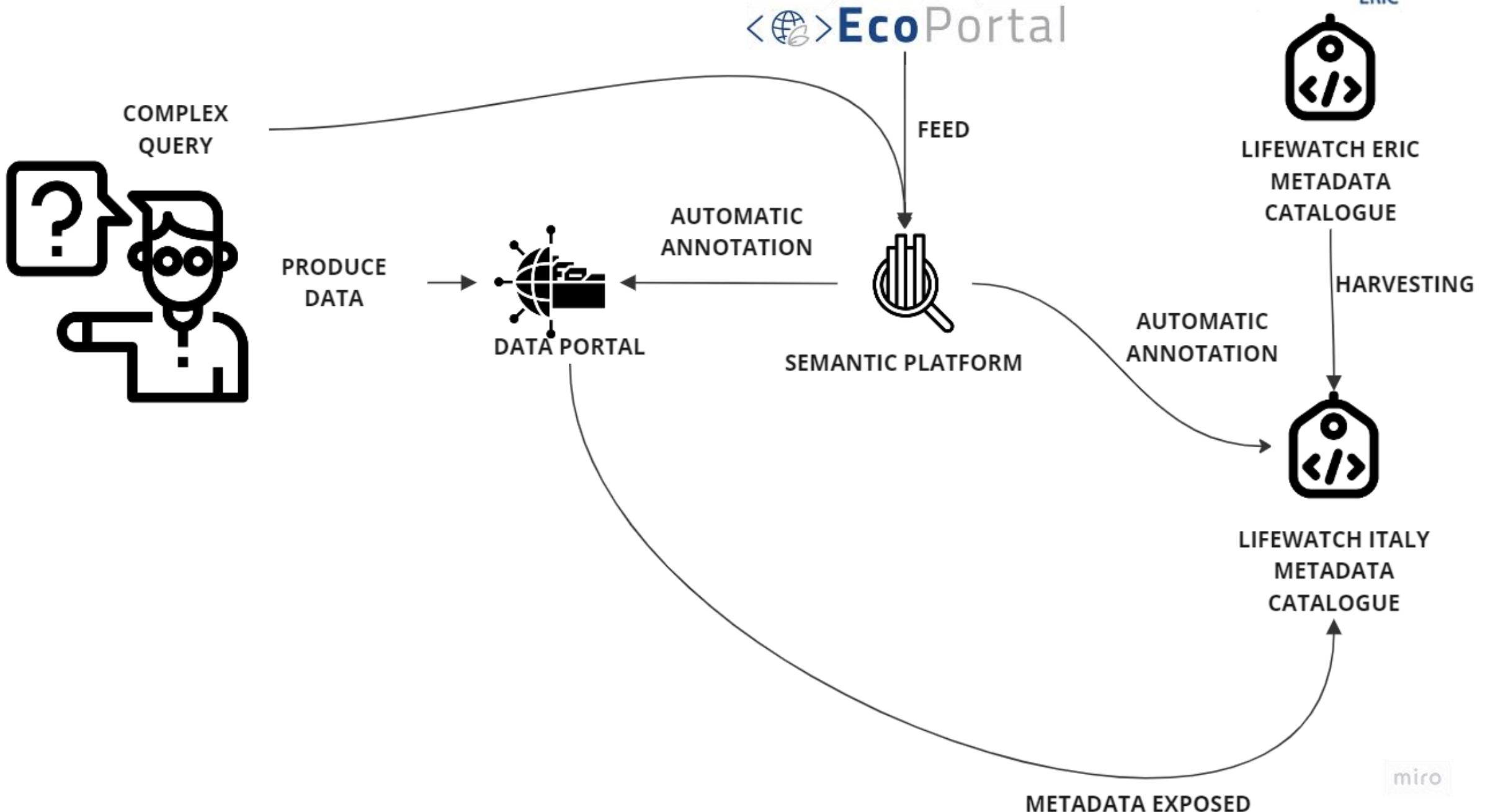


LIFEWATCH ITALY
METADATA
CATALOGUE

AUTOMATIC
ANNOTATION

METADATA EXPOSED

miro



THANK YOU

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