Expected outcomes

Research communities, as well as ESFRI and other European research infrastructures increase their alignment with EOSC standards and policies,

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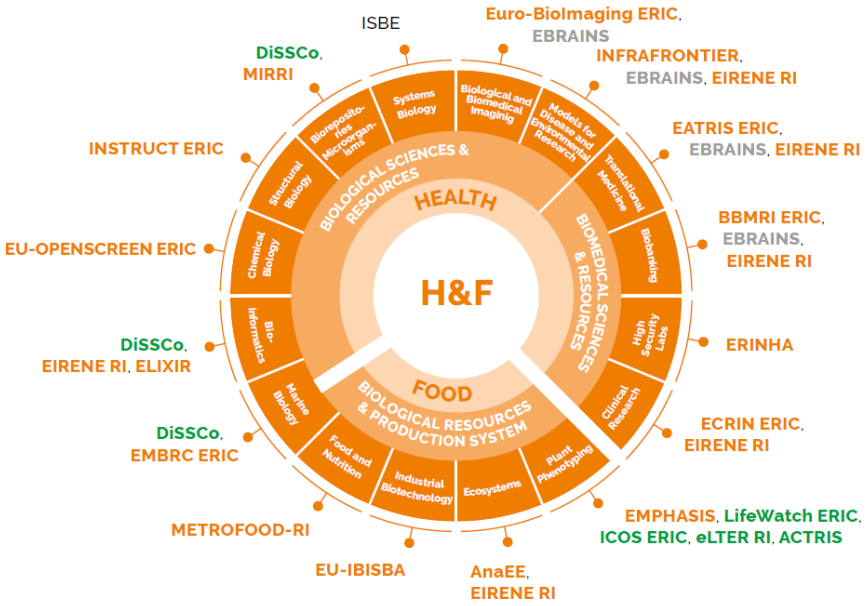
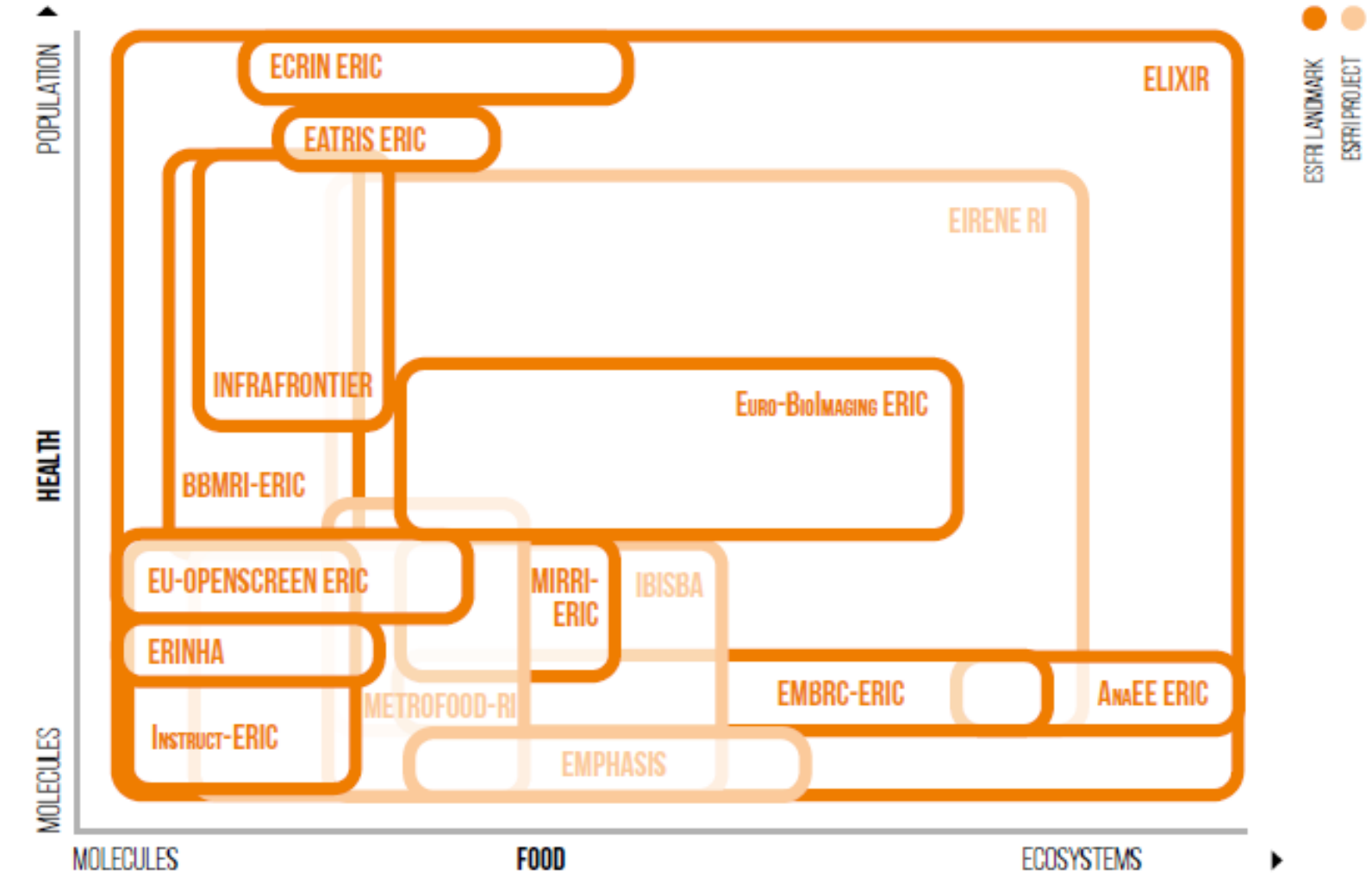


ESFRI H&F: diversity



LS Ris in EOSC-Life, then OSCARS

LS RIs together in HE INFRA projects

LS RIs in EU partnerships

BE READY
European Partnership for Pandemic Preparedness

2032 – 243 million

OH AMR
European Partnership on One Health Antimicrobial Resistance

2035 – 253 million

EUP AH&W
European Partnership on Animal Health and Welfare

2030 – 114 million

EVH
EUROPEAN VACCINES HUB

2029 – 170 million

ESFRI H&F: diversity

A virtually limitless range of services

LIFE SCIENCE RI

Scope

This topic aims to further increase across Europe the adoption of open science and research data management practices in line with the FAIR principles

Priority areas: FAIR

I: Cross-RI/cluster/partnership metadata

OSCARS2 as the convener for implementation

R: Extend data integrity/provenance solutions

including for AI implementation

towards
data science
Publish AI, ML & data-science insights to a global community of data professionals.

MACHINE LEARNING

Data Poisoning in Machine Learning: Why and How People Manipulate Training Data

Do you know where your data has been?

Stephanie Kirmer
Jan 17, 2026 • 14 min read

Priority areas: FAIR

R: Extend provenance solutions

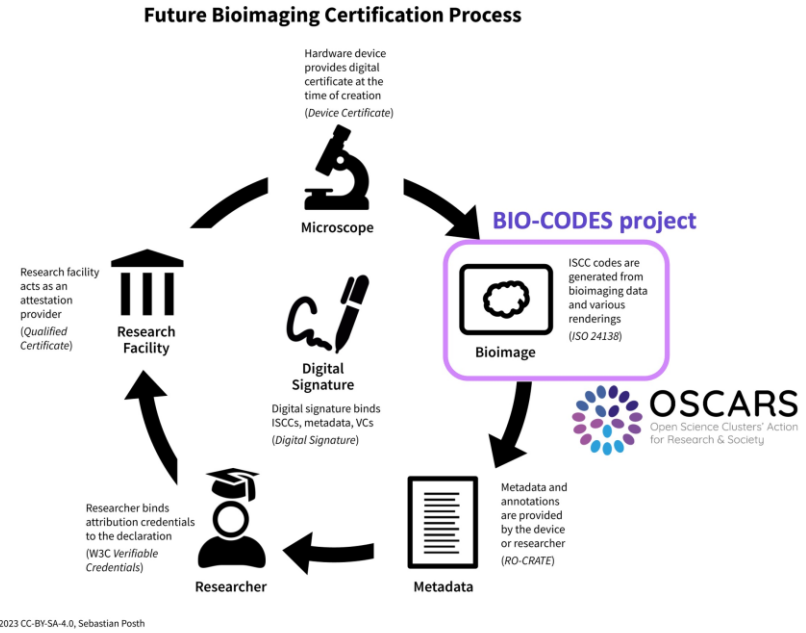
LIFE SCIENCE RI

International Standard Content Code

ENVRI - Environmental Sciences

ESCAPE - Astronomy, Nuclear and Particle Physics

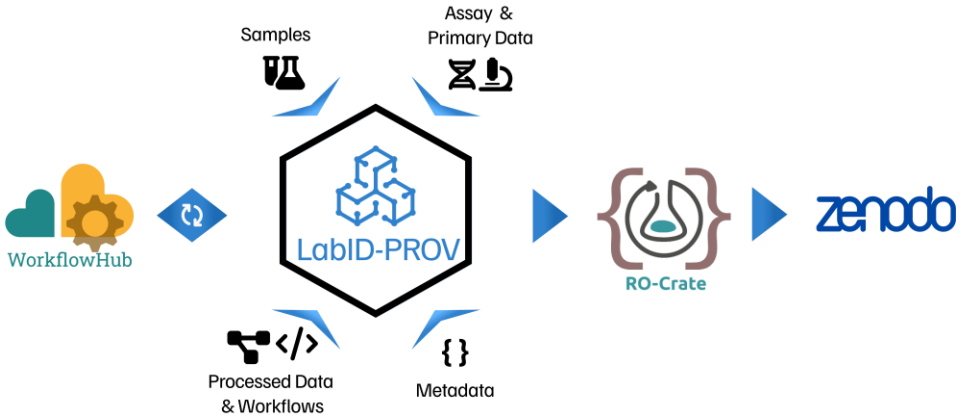
PANOSC - Photon and Neutron Science



Priority areas: FAIR

R: Extend provenance solutions

LIFE SCIENCE RI



- ENVRI - Environmental Sciences
- ESCAPE - Astronomy, Nuclear and Particle Physics
- PANOSC - Photon and Neutron Science

Provides a method for guaranteeing open (embargoed) RI-generated data deposition

Priority areas: FAIR

I: EVERSE

OSCARS2 as the convener of an EOSC Federation-wide Competence Centre for best practices for research software

R: Extend research software integrity and provenance

including for AI implementation

EVERSE

Paving the way towards a European Virtual Institute for Research Software Excellence

Funded by the European Union

13 | 10 | 2025 by Fotis Psomopoulos (INAB|CERTH)

Pilots & Drivers

Environmental Sciences: *Integration of Science Cluster ENVRI-Community through ENVRI-HUB*

- Integrate EVERSE framework into the ENVRI-HUB Knowledgebase and Virtual Research Environment
- Apply to the development of the Essential Climate Variable computing program and cloud workflows

Life Sciences: *Integration of Science Cluster Life Science RI through ELIXIR*

- Make RO-Crate actionable by incorporating the five safes concept into WfExS for secure and federated workflow orchestration
- Use of community-led standards for materialising research software packaged using container technologies and mobilising encrypted data whenever needed

Astronomy and particle physics: *Integration of Science Cluster ESCAPE through the Dark Matter Test Science Project*

- ML for scientific data compression (standalone code, python)
- A Common Tracking Software
- Choose an ATLAS trigger algorithm as an option for the collaboration

Photon and neutron science: *Integration of Science Cluster PaNOSC through LEAPS/LENS*

Transition software to high performance computing (HPC) and heterogeneous computing architectures

Social sciences: *Integration of Science Cluster SSHOC*

Develop a multilanguage textual analysis pipeline of tools that use a combination of open source tools and own code to create an integrated SotA tool capable of deploying locally or as a service

Building a Network of Research Software Competence Centres

Paving the way towards a **E**uropean **V**irtual Institut**e** for **R**esearch **S**oftware **E**xcellence

Key EVERSE services

- RSQKit (everse.software/RSQKit/)
- TechRadar (EVERSE Technology Radar)
- EVERSE Software Quality Pipelines
- DashVERSE (https://www.dashverse.cloud/)
- Training (EVERSE Training)
- Recognition framework

Establishing a Science Cluster Competence Center

Establish a **Science Clusters' Knowledge Hub** for the Clusters, **jointly owned and maintained by the Communities** and with strong ties to existing efforts within the Clusters that we're interacting with through the EVERSE Network

Goal: Act as a common reference point across the gamut of research outputs such as:

- ✓ Research Data
  - (e.g. embedding and expanding the RDMkit and relevant services such as the Data Stewardship Wizard)
- ✓ Research Software
  - (e.g. adopting the EVERSE RSQKit and continue expanding the related services such as the DashVERSE, the TechRadar etc).
- ✓ AI Models
  - (e.g. implementing a new Knowledge Hub that captures the co-defined aspects of AI for Communities, including standards such as the DOME registry and the Open and Sustainable AI recommendations, and assessment tools around FAIR for AI).