The Science Clusters address a warm welcome to all:

- OSCARS consortium partners.
- Representatives of the Research Infrastructures composing the five Science Clusters.
- All concerned colleagues.
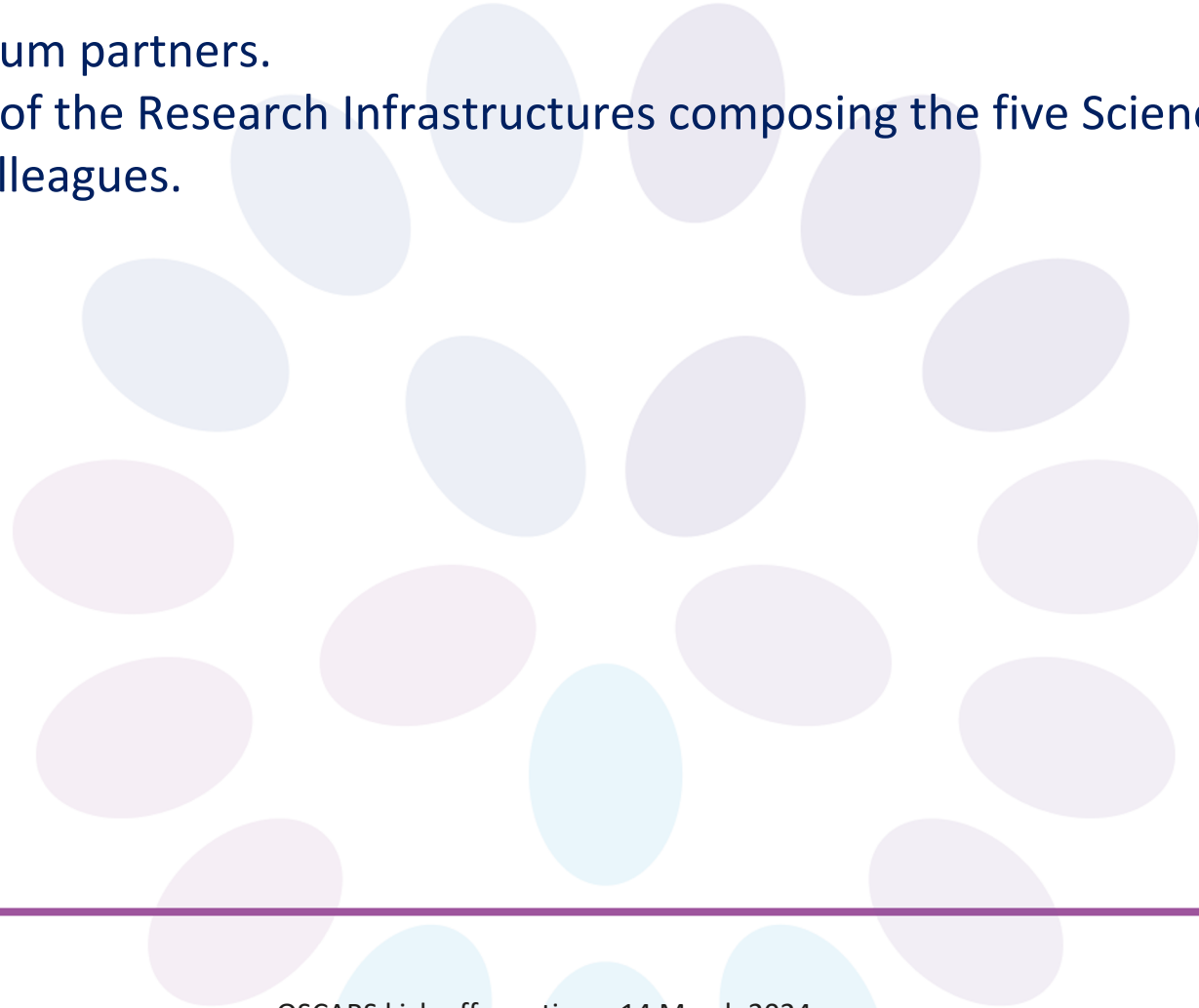
In response to the EU call on EOSC

HORIZON-INFRA-2023-EOSC-01-01

- Building on the **Science Cluster approach**
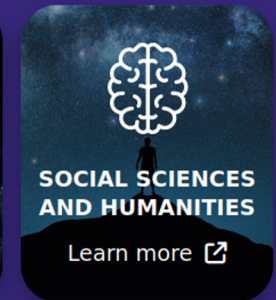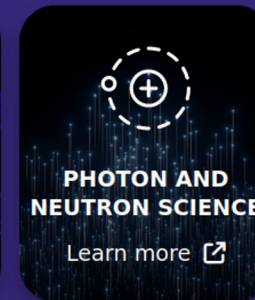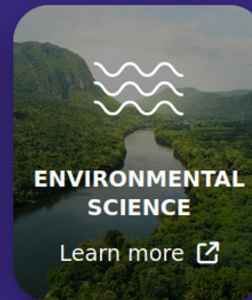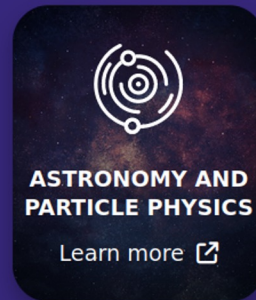- to ensure the **uptake of EOSC by research communities**

Partners

- Coordinator: **CNRS** LAPP
- **15** partners, **2-3** representing each Science Cluster community

Budget and timeline

- Starting date: **1 January 2024**
- Duration: **4 years**
- EC funding: **25 M€** (100%)

Research Infrastructures and Communities

The science clusters have grown out of five collaborative projects funded by the European Union in 2019 to link ESFRI and other world-class Research Infrastructures (RIs) to the European Open Science Cloud (EOSC). The services developed by the clusters and other outcomes of the projects are cornerstones of the emerging EOSC fabric and support both disciplinary communities and multidisciplinary initiatives with harmonised models for access to data, tools, workflows and training. Each cluster unites multiple RIs in their specific scientific domain.

ASTRONOMY AND PARTICLE PHYSICS — Learn more

ENVIRONMENTAL SCIENCE — Learn more

LIFE SCIENCE — Learn more

PHOTON AND NEUTRON SCIENCE — Learn more

SOCIAL SCIENCES AND HUMANITIES — Learn more

https://science-clusters.eu/

SCIENCE-CLUSTERS.eu
Research Infrastructures for Open Science

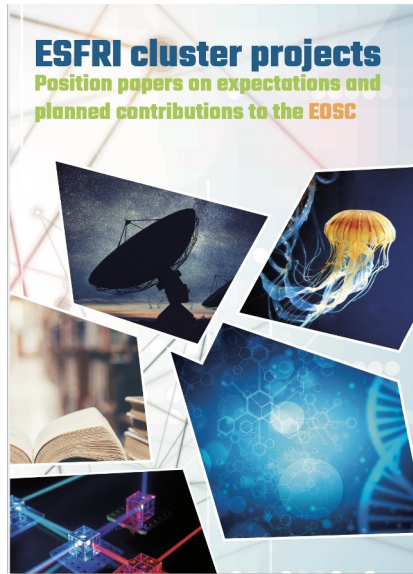**Science Clusters fostering the uptake of Open Science in Europe**

OSCARS

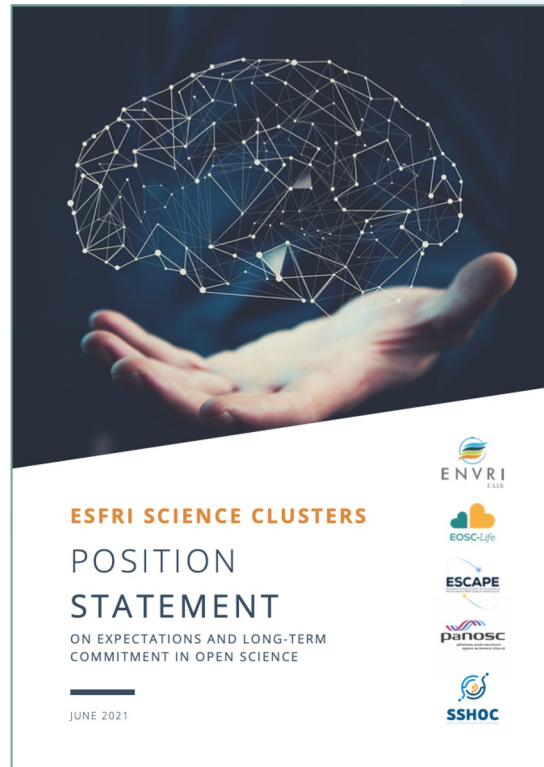**The Science Clusters: a stimulating adventure.**

- We took a gamble by joining the EOSC concept in order to foster cooperation among our RIs.
- We offered ourselves an opportunity and a role to help the uptake of Open Science in Europe.
- We build and provide visions.
- We deploy cooperative actions and support a shared work programme

SCIENCE-CLUSTERS.eu
Research Infrastructures for Open Science

The Science Cluster concept was aimed at supporting "**Open-science data-intensive research**" in order to "**raise productivity of researchers and to lead to new insights and innovation**" and has enabled broader synergies and **shared visions**

https://zenodo.org/record/3675081 - .X2R2PJNLhTY

https://zenodo.org/record/4889503

https://indico.in2p3.fr/event/24327/

The Science Cluster concept was aimed at supporting "**Open-science data-intensive research**" in order to "**raise productivity of researchers and to lead to new insights and innovation**" and has enabled broader synergies and **shared visions**
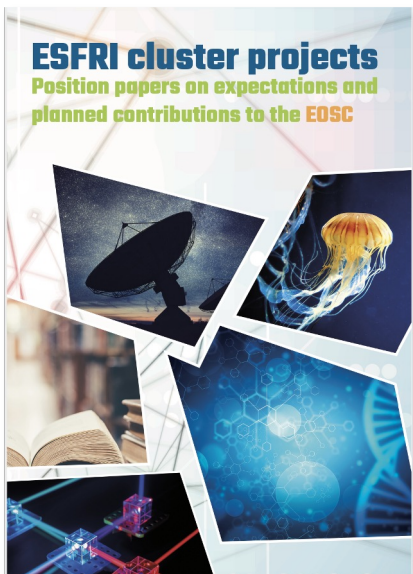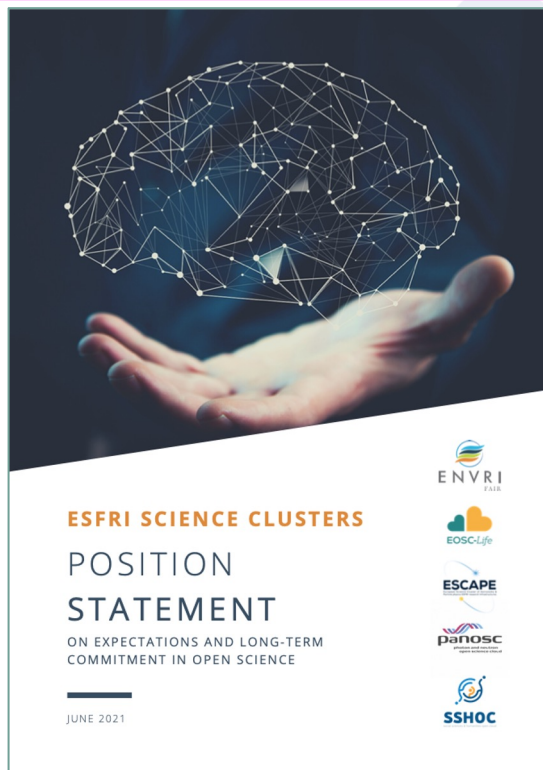

ESFRI cluster projects
Position papers on expectations and planned contributions to the EOSC

https://zenodo.org/record/367 5081 - .X2R2PJNLhTY

ESFRI SCIENCE CLUSTERS

POSITION STATEMENT

ON EXPECTATIONS AND LONG-TERM COMMITMENT IN OPEN SCIENCE

JUNE 2021

ENVRI FAIR
EOSC-Life
ESCAPE
panosc
SSHOC

https://zenodo.org/record/4889503

https://indico.in2p3.fr/event/24327/

EOSC Future

A small but impactful participation and a step forward in shaping the SCL work plan.

- Supporting Open Research Test Science Projects
- Fostering the domain based EOSC exchange services for RIs
- Integrating them with EOSC core functionalities

After H2020 grants, the five Science Clusters are putting long-term structures in place (through MoU or Collaboration Agreements).

Definition of more structuring inter-Cluster objectives.

SCIENCE-CLUSTERS.eu
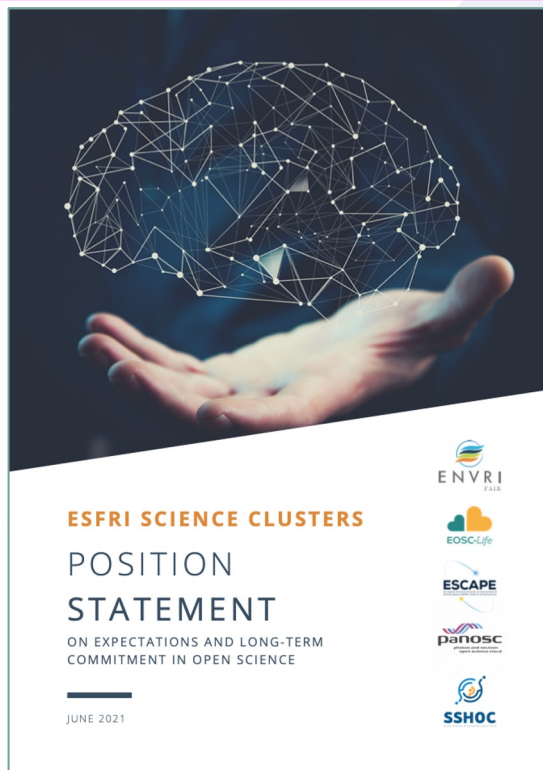Research Infrastructures for Open Science

The Science Clusters in Horizon Europe : OSCARS and EVERSE
- Acknowledge software achievements, raise awareness of the foundation approach (virtual institute), promote careers and skills
- Implement EOSC through highly composable platforms (VRE), including software
- Consolidate SCL services and support the goals of Open Research.

OSCARS

The Science Cluster concept was aimed at supporting "**Open-science data-intensive research**" in order to "**raise productivity of researchers and to lead to new insights and innovation**" and has enabled broader synergies and **shared visions**
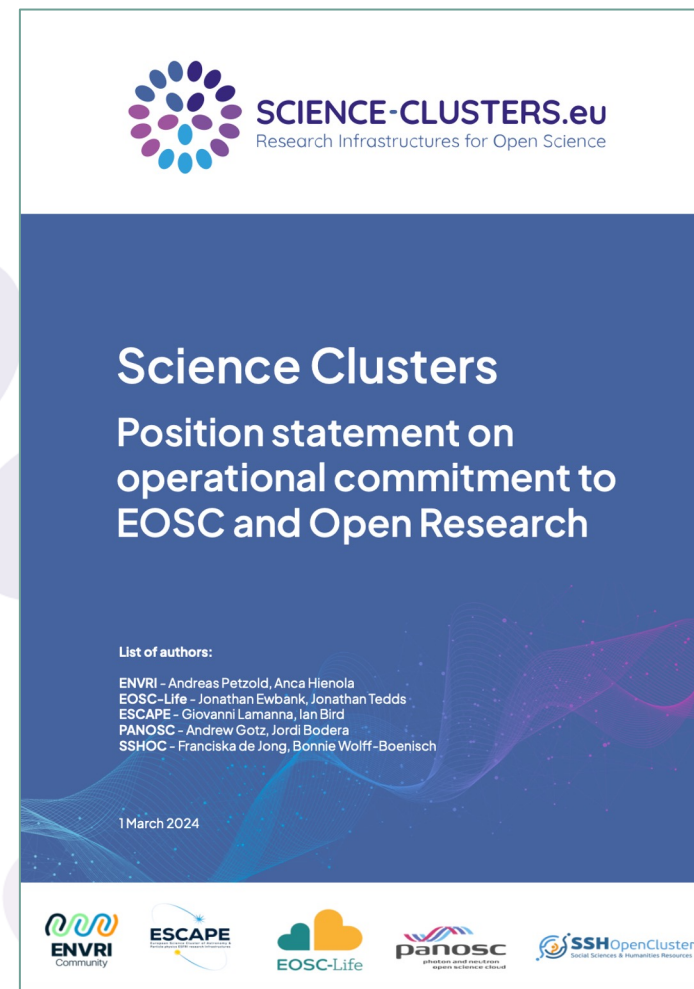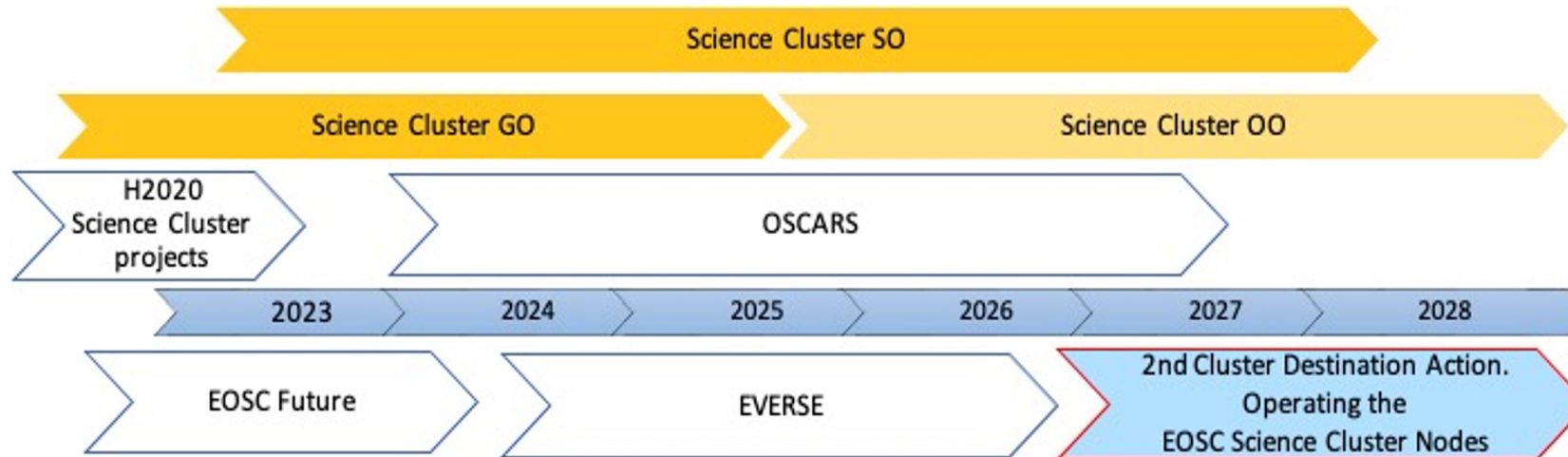

ESFRI cluster projects
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ESFRI SCIENCE CLUSTERS

POSITION STATEMENT

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SCIENCE-CLUSTERS.eu
Research Infrastructures for Open Science

Science Clusters
Position statement on operational commitment to EOSC and Open Research

List of authors:

ENVRI – Andreas Petzold, Anca Hienola
EOSC-Life – Jonathan Ewbank, Jonathan Tedds
ESCAPE – Giovanni Lamanna, Ian Bird
PANOSC – Andrew Gotz, Jordi Bodera
SSHOC – Franciska de Jong, Bonnie Wolff-Boenisch

1 March 2024

ENVRI Community
ESCAPE
EOSC-Life
panosc
SSHOpenCluster

https://doi.org/10.5281/zenodo.10732049

- **EOSC is seen as a federation of distributed systems of multiple interconnected <u>Nodes</u>.**

- **Defining and developing the implementation model of such a federation is a significant challenge.**

- **The Science Clusters' vision: EOSC Federation as a system of "<u>Web of FAIR Data and Services for Science</u>" and effective thanks to a "community-governed" open science commons co-developed and operated by scientists.**

- **It is proposed to establish thematic community-based 'EOSC Science Cluster Nodes', contingent upon resources, and interconnected with the EOSC EU Node and National Nodes.**
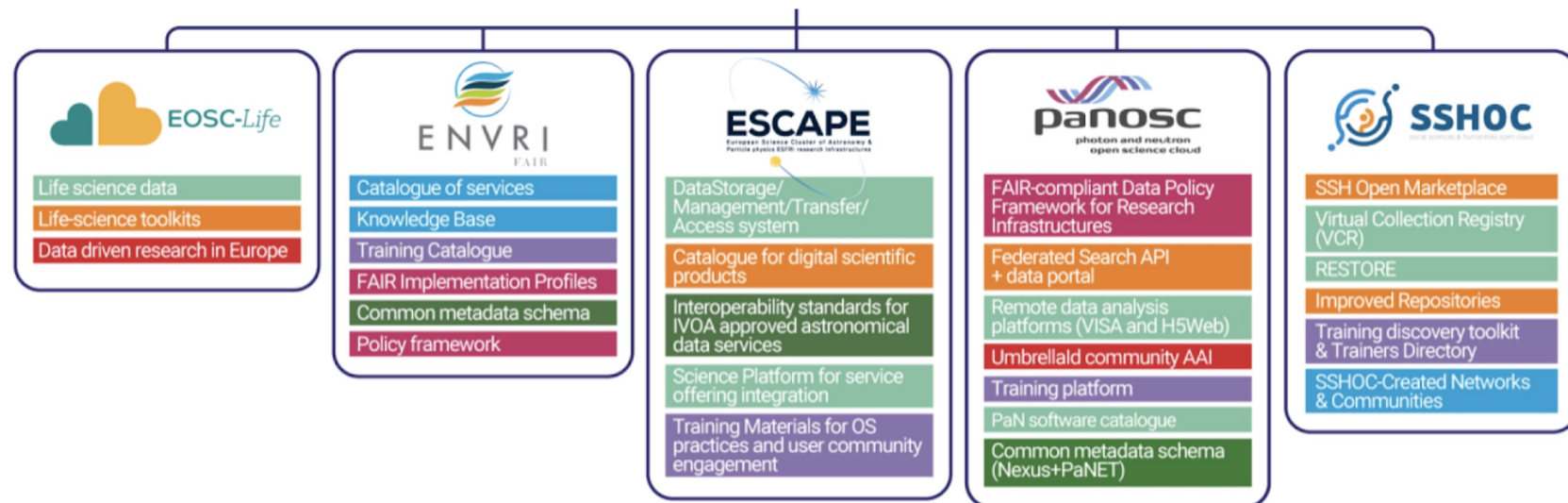
Science Cluster SO

Science Cluster GO | Science Cluster OO

| H2020 Science Cluster projects | OSCARS |

| 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |

| EOSC Future | EVERSE | 2nd Cluster Destination Action. Operating the EOSC Science Cluster Nodes |

The Science Clusters' workplan addresses General, Specific and Operational Objectives (GO, SO & OO).

OSCARS as a main step forward

- **OSCARS must be seen as a "relevant phase" of the overall Science Clusters' work plan.**

- **OSCARS goal is to drive the Science Clusters' scientific communities to enter a sustainable operational stage.**

- **OSCARS is an inter-cluster "cooperative framework open to all".**

- **OSCARS challenges the Science Clusters to conceive and implement long-term operative framework for Open Research in ERA.**

- **With OSCARS the Science Clusters integrate the EOSC programme and strengthen the EOSC ambitions.**

OSCARS

Science Clusters' Key Exploitable Results

A) Consolidating achievements from the five H2020 INFRA-EOSC-2018-01-04 projects into **lasting interdisciplinary services and working practices** towards:

- More cohesion;
- Leveraging **cross-domain approach** and **cooperation with e-infrastructures**;
- **Cross-fertilization** for shared solutions of key services for researchers in all domains;
- Cooperating and supporting the **EOSC partnership**.

B) Leading the involvement of a broad range of research communities in Open Research (EOSC) via the development of new **Open Science projects/services** to drive the uptake of FAIR-data-intensive research throughout the ERA by:

- Contributing to a **data space for science, research and innovation**, integrated into the other data spaces described in the European Strategy for Data.

- Pursuing the creation of **pan-European research-enabling value-added services**;

- Fostering the **coordination** of national activities, European RIs and the scientific community at large, including the long tail of science;

- Fostering **interdisciplinarity** for achieving challenging new science pathways.

€16 million
IN OPEN CALLS FOR OPEN SCIENCE PROJECTS

- **Open Science practice**: increased scientific impacts via the support of Open Science projects;

- **Community-based Competence Centres (CCC)**, contributing to the sustainability of the Science Cluster actions, fostering their impacts, supporting and aligning operations of ESFRI and other RIs and involving the long tail of science.

- **Composable Open Data and Analysis Services (CODAS)** (service catalogues, data hubs, analysis platforms, etc.) onboarded into the EOSC, fostering the alignments of practices in scientific data analysis and enhancing researchers' participation in Open Science.

- An **established inter-cluster web-based "scientific social network"** in Europe. Training, mentoring, cross-disciplinary events and cross-cluster developments.
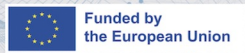
OSCARS

- **Operational Competence Centres**

- Uptake of **web-based highly composable platforms for Open Science data analysis**;

- **Stronger involvement of scientific communities in Open Science** and the shaping of EOSC;

- Enhancing and further structuring of the successful **cross-fertilization** work built by the Science Clusters;

- **Economy of scale** of (cross-cluster) services;

- Enable a **largely participative research ecosystem**, promoting provenance tracking to research outputs and contributing to the evolution of research assessment methodologies.

OSCARS
Open Science Clusters' Action for Research & Society

ENVRI community | ESCAPE | LIFE SCIENCE RI | panosc photon and neutron open science cloud | SSHOpenCluster Social Sciences & Humanities Resources

Open Call for Open Science Projects

Launch event

15 March 2024
Online

Funded by the European Union

- Opens: ~ **March 2024 / Nov. 2024**
- Submission within **60 days**
- Project start: **Sept-Dec. 2024 / Aug-Oct. 2025**
- Budget: **100 - 250 k€** / project
- Duration: **1 - 2 years**

GOAL:

Build on the science cluster approach to ensure the uptake of EOSC, i.e., consolidate FAIR services of the five Science Clusters and, more broadly, perform excellent science and pursue societal benefits by leveraging an Open Research approach.

TARGET USER COMMUNITIES:

Science Clusters and wider community (RIs, Universities, Institutes, either consortia, or individual researchers)

Evaluation criteria for the independent expert panel

- Project description: clear objectives, towards **FAIRness** and/or **openness**
- Scientific impacts: excellent science per **domain RI, multiple RIs / cross-cluster**
- Digital resources: "data", **SCL and EOSC** services / new service
- Implementation: **realistic** within budget

OSCARS

Thank you