OSCARS

Open Science Clusters' Action for Research & Society

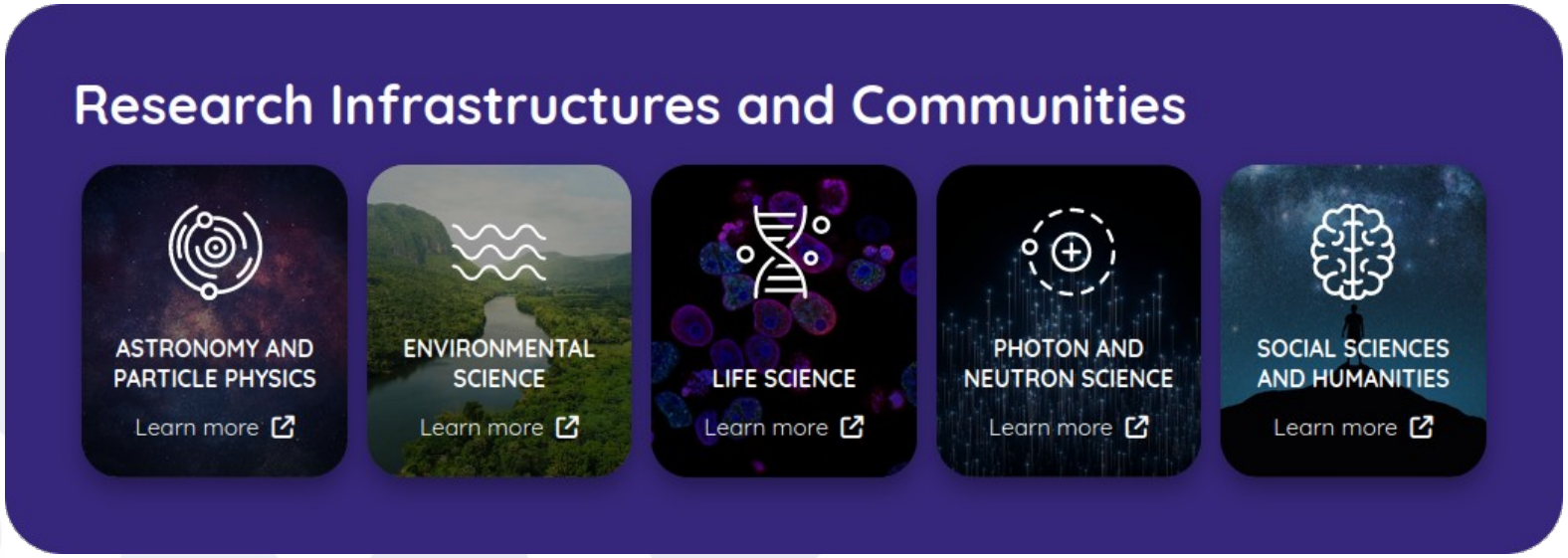
An overview

Paul Millar, WLCG/HSF workshop 2024-05-17

Funded by the European Union

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

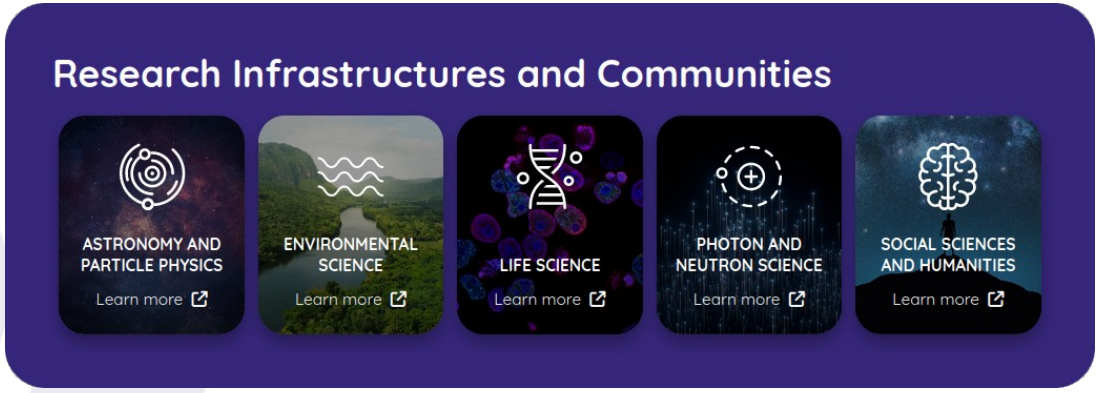
- Coordinator: **CNRS** LAPP
- **15** partners, **2-3** representing each Science Cluster community

https://science-clusters.eu/

SCIENCE-CLUSTERS.eu
Research Infrastructures for Open Science

Budget and timeline

- Starting date: **1 January 2024**
- Duration: **4 years**
- EC funding: **25 M€** (100%)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EOSC Federating Core
ESCAPE
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ENVRI FAIR
panosc
EOSC-Life
SSHOC
cta cherenkov telescope array
ESO
EST european solar telescope
FAIR
CERN HiLumi HL-LHC PROJECT
KM3NeT
SKA SQUARE KILOMETRE ARRAY
LSST Large Synoptic Survey Telescope
VIRGO
JIVE Joint Institute for VLBI ERIC


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VIRGO
JIVE Joint Institute for VLBI ERIC
WLCG
Worldwide LHC Computing Grid

- **WP1** – CLuster Open science Competency Centres (CLOCC)
- **WP2** – Composable Research Infrastructure Services in EOSC (CRISE)
- **WP3** – Testing and Widening uptakE (TEWE)
- **WP4** – MAnagement, Communication and open Calls (MACC)

- 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

https://oscars-project.eu/open-calls

CASCADING-GRANT CALLS FOR OPEN SCIENCE PROJECTS

OSCARS

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1st CALL IS NOW CLOSED
264 proposals submitted!

https://oscars-project.eu/open-calls

ESCAPE
European Science Cluster of Astronomy & Particle physics ESFRI research Infrastructures

The **ESCAPE data-related activities** are now grouped as:

- Distributed data management,
- Data access and data analysis frameworks,
- AAIs and cyber security.

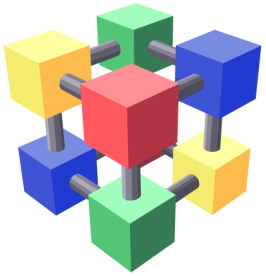
Three **draft documents** (“straw-dogs”) were shared among the community and a small workshop was schedules last month for each of the activities.

From these mini-workshops the **short- and medium-term plans** are being discussed and agreed. The responsible person in each activity will be scheduling further meetings soon.

Alignment with the OSCARS project is part of this discussion.

CERN cnrs

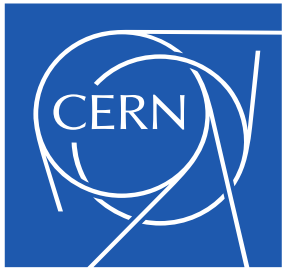
WARNING: THIS SLIDE MAY CONTAIN INACCURATE INFORMATION



Anticipate developing and testing of **Analysis Facilities** at CERN.

Desired feature-set:

- Support **interactive analysis** (rapid iterations) on large datasets.
- Allow interactive workloads to be converted and run on **batch systems**.
- “Cloud bursting”-style **adoption of WLCG** to scale beyond capabilities of the facility (as necessary).
- Support efficient training of **machine learning models**.
- **Reproducibly** instantiate desired software stack.
- Collaborate in a **multi-organisational team** on a single resource.



Example: adoption of **Rucio JupyterHub plugin** at an analysis facility.

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- OSCARS is **25 M€ project**, over four years: 2024-01-01 / 2027-12-31.
- It is based on the **Science Clusters** concept, with a goal to facility FAIR and open science.
- Core **OSCARS activities** include: building Community Competency Centres, enhancing existing services and funding “seed projects” (16 M€ of 25 M€).
  - First call is now closed. Second (and final) call will open 2024-11.
- WLCG is represented (in OSCARS) by CERN.
- The anticipated benefits for WLCG are improvements to data-management, AAI/security and analysis facilities.

My thanks go to **Giovanni Guerrieri** and **Enrique Garcia** for their valuable input when preparing the ESCAPE-specific slides.


OSCARS
Thank you

OSCARS consortium members

OSCARS

cnrs

CERN

CERIC
Central European Research Infrastructure Consortium

cessda

CLARIN

COMMpla
Communication Platforms and Online Solutions

DARIAH-EU

DESY

eatris

EMBL

erinha
European Research Infrastructure on Highly Pathogenic Agents

ESRF
The European Synchrotron

FMI

JÜLICH
FORSCHUNGSZENTRUM

KNAW

MUNI Masaryk University

Universiteit van Amsterdam

Uni Freiburg

University of Ljubljana

universität wien

Trust-IT Services
communicating to markets

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Giovanni Lamanna
OSCARS project coordinator

WP1
CLuster Open science Competence Centres (CLOCC)

Jordi Bodera Sempere

WP2
Composable RI Services in EOSC (CRISE)

Sally Chambers

WP3
Testing and Widening UptakE (TEWE)

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Key Tasks in WP2

TASK 2.1 – CONSOLIDATION

- Inventorise the Services and FAIR Data portfolios offered by each of Science Clusters
- Undertake a gap analysis to identify where these offerings may be made composable

TASK 2.2 – COMPOSABILITY

- Identify and select a set of services which, when improved, will provide the basis for their Composable Open Data and Analysis Services (CODAS).

TASK 2.3 – ENGAGEMENT

- Each Cluster will build 1-2 exemplary “Composability demonstrators”
- Engage researchers in order to encourage uptake and solicit feedback