



# OSCARS

Open Science Clusters' Action  
for Research & Society

## The thematic Research Infrastructures view on research results valorisation

Anca Hienola

-OSCARS-

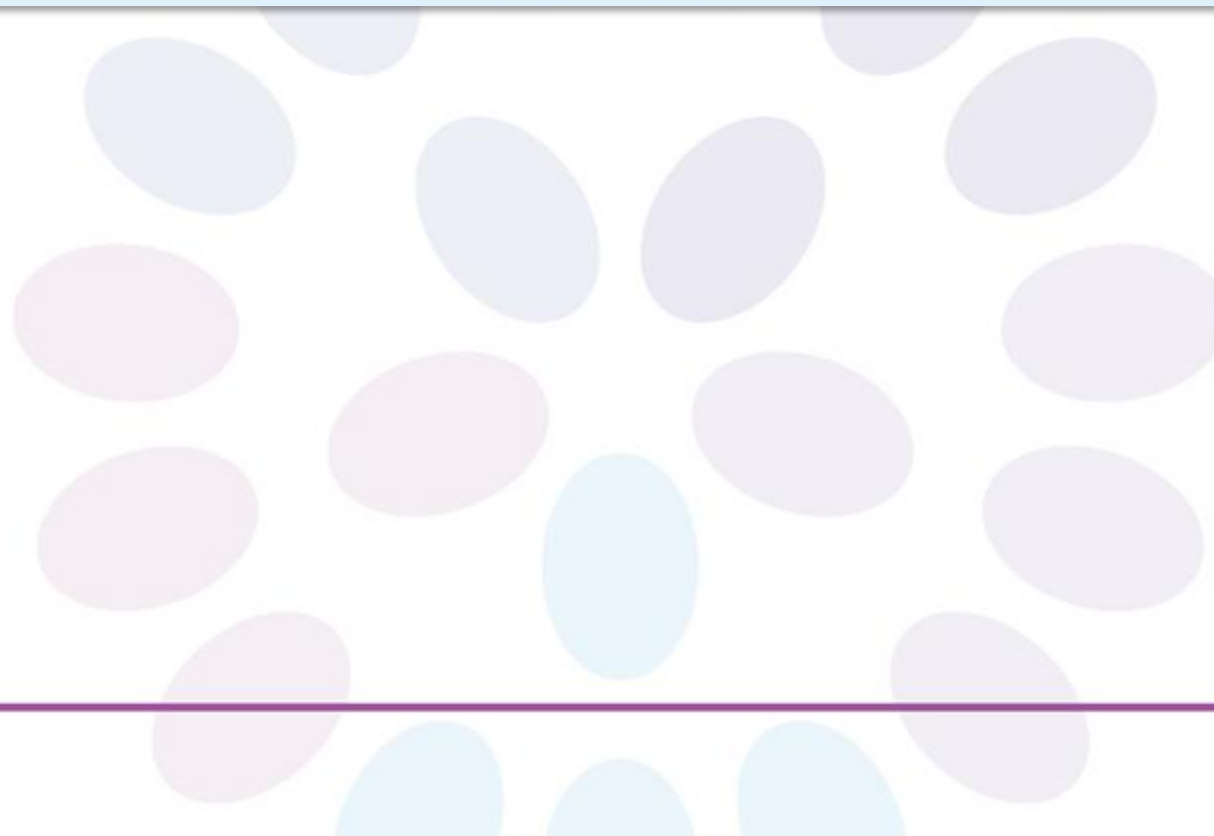
Finnish Meteorological Institute



Funded by  
the European Union

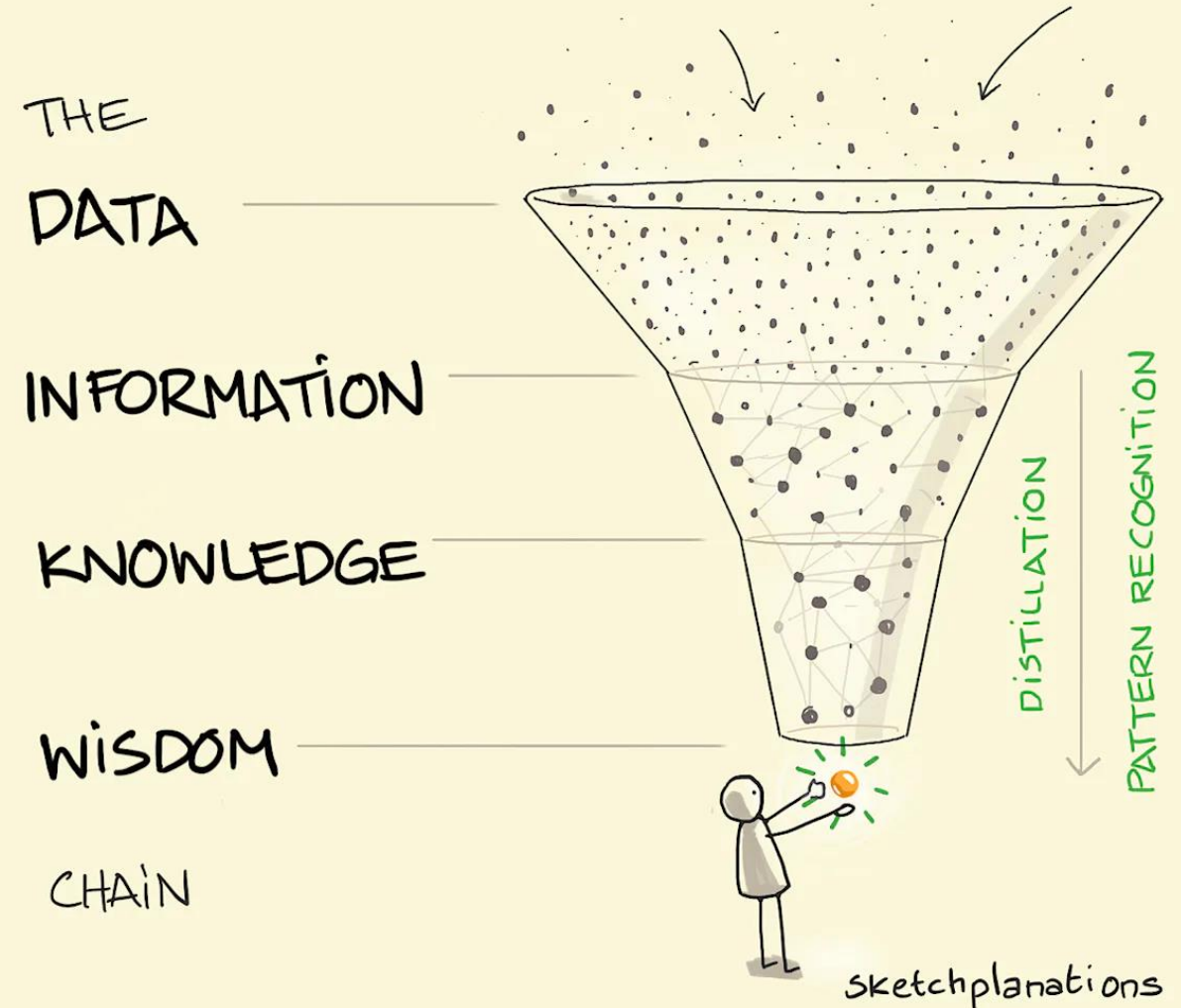
The process of generating value from **KNOWLEDGE** by connecting various fields and sectors.

It converts **DATA** and research findings into sustainable products and **SOLUTIONS** that benefit society, enhancing economic prosperity, environmental sustainability, social progress, and informed policy-making.



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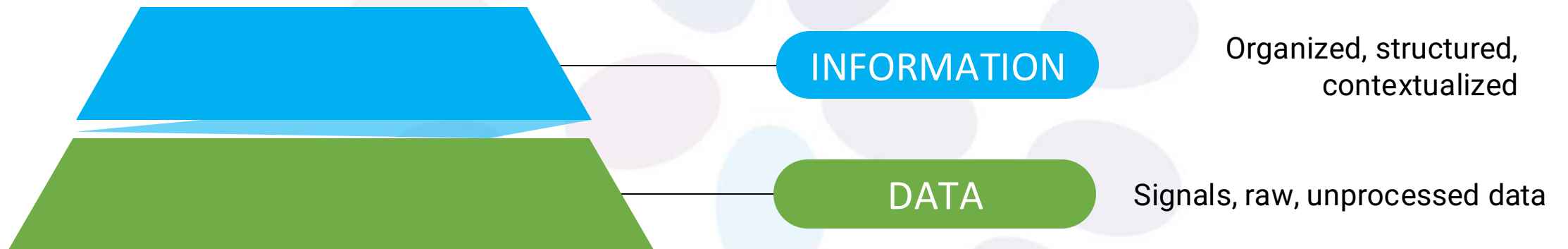


DATA

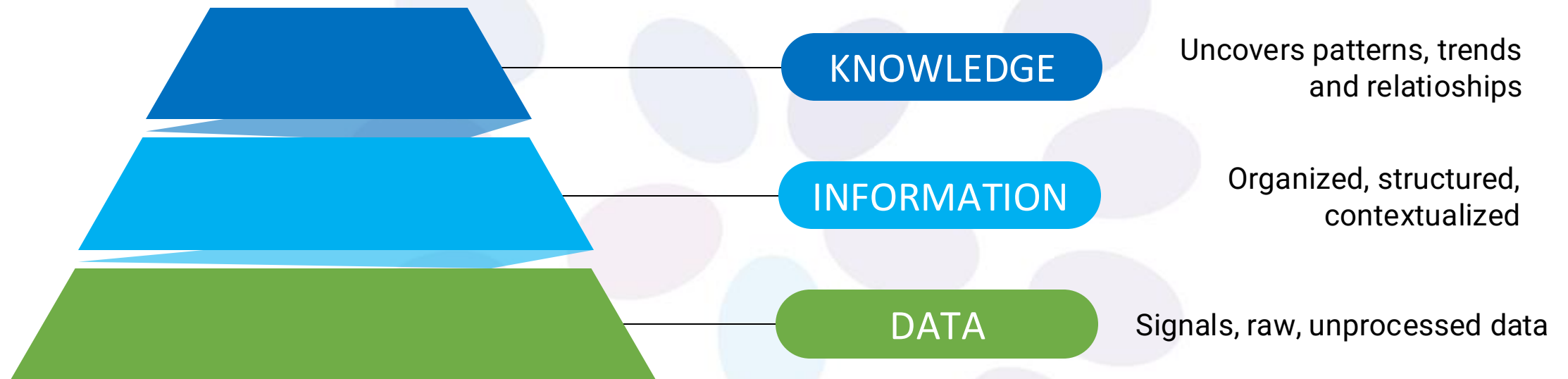
The diagram shows a green trapezoid on the left, connected by a horizontal line to a green rounded rectangle labeled "DATA". To the right of the "DATA" box is the text "Signals, raw, unprocessed data". The background features a faint, large-scale pattern of light blue and purple ovals.

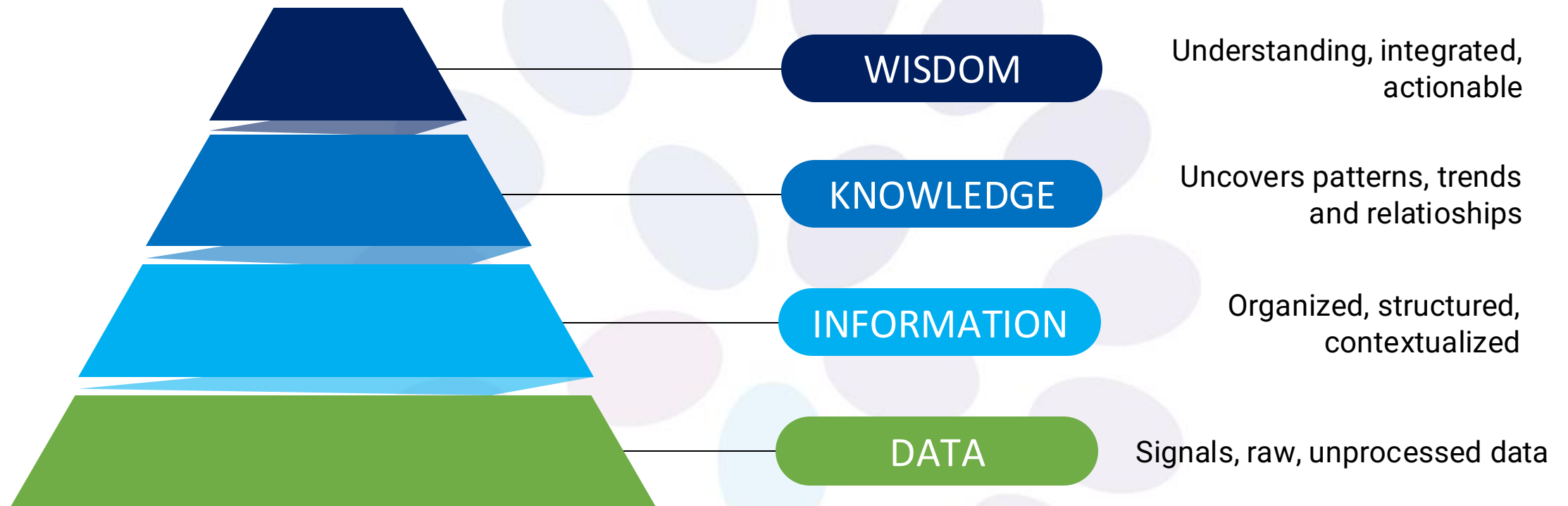
Signals, raw, unprocessed data

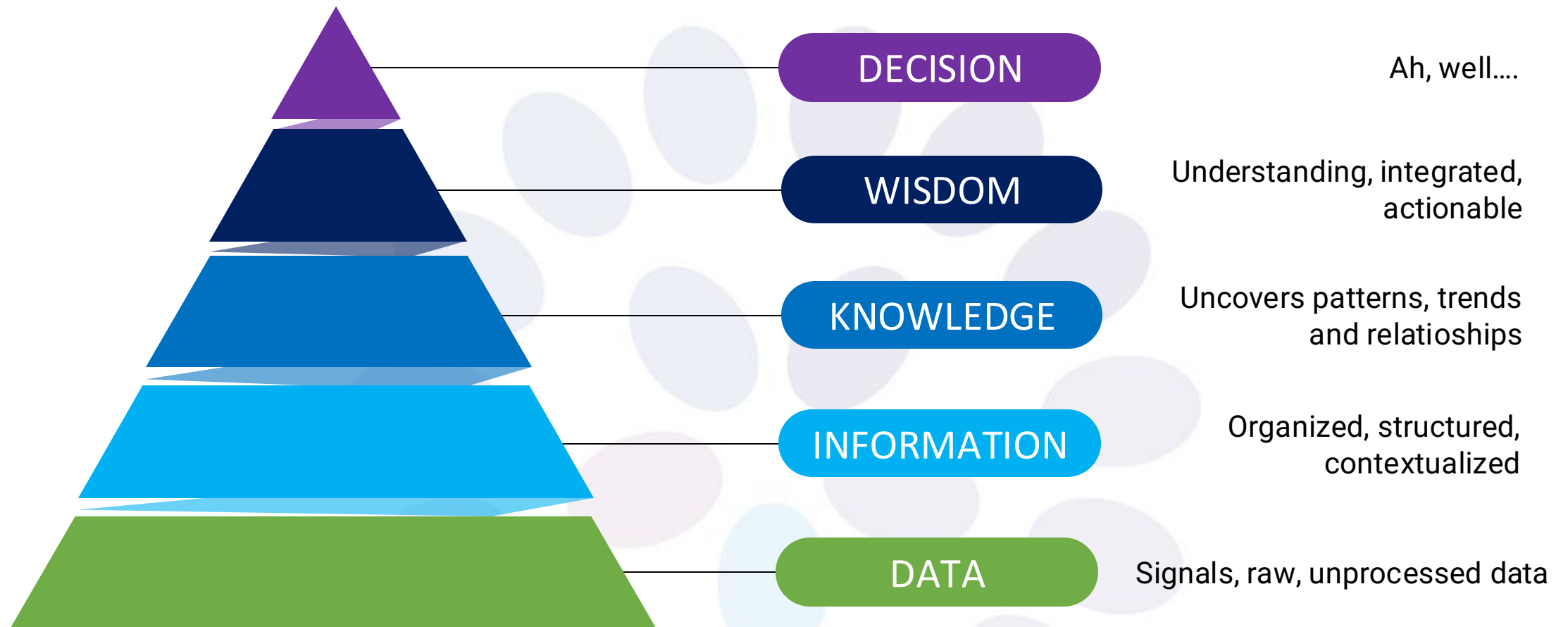
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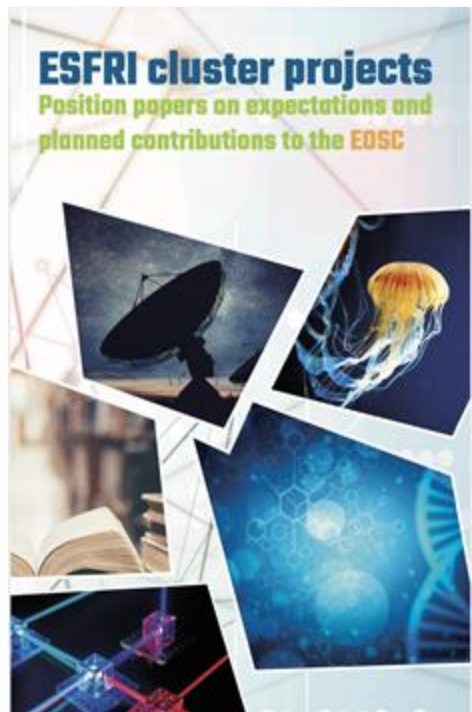








The Science Cluster concept was aimed at supporting “**Open-science data-intensive research**” in order to “**raise productivity of researchers and to lead to new insights and innovation**” and has enabled broader synergies and **shared visions**



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

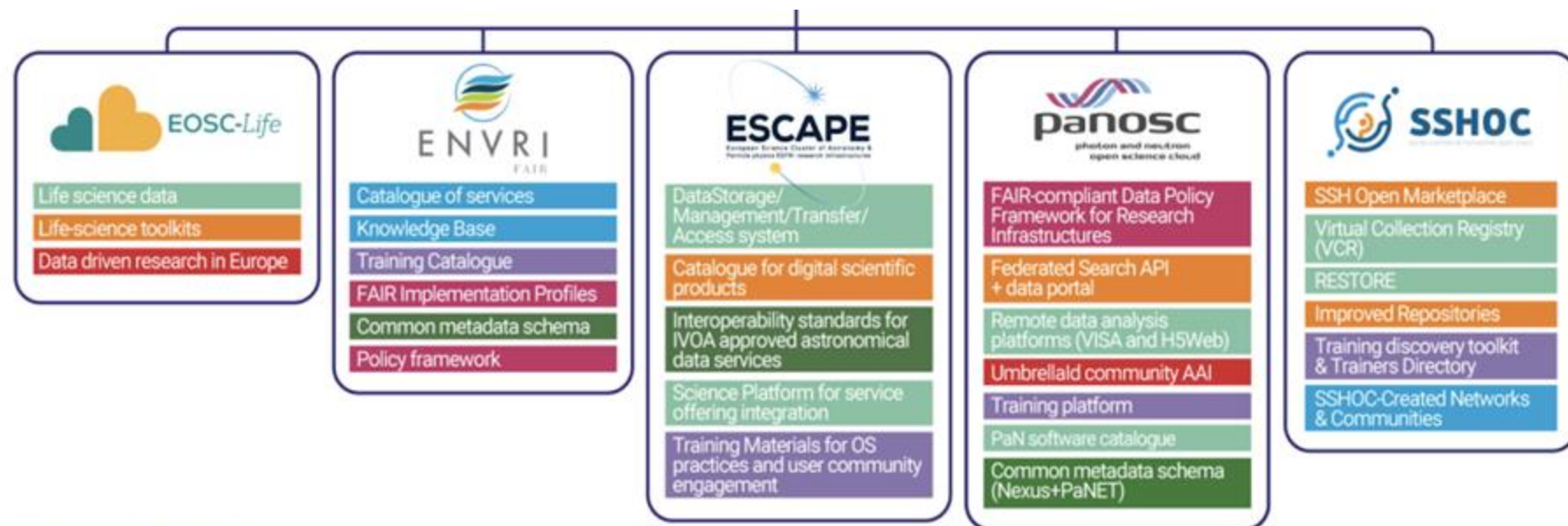


<https://zenodo.org/record/4889503>

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



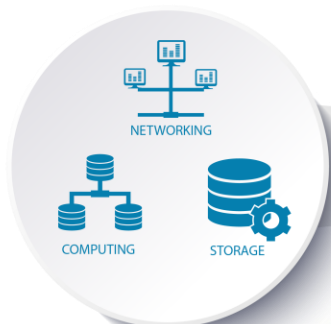
<https://doi.org/10.5281/zenodo.10732049>



## RESULTS CATEGORIES

- Technical Harmonisation
- Policy Harmonisation
- Discovery/Access Platform
- Virtual Reserch Environment (VRE)
- Training Resource
- Knowledge Centre
- Authentication and Authorization Infrastructure (AAI)

# European Open Science Cloud =



Enable researchers to access data, storage and compute ("cloud") via an Europe wide federation of IT services ("e-Infrastructure")

**E-Infrastructure consolidation**

+



Drive the transition to Open Science (Open Data, Open Standards, Open Literature) - bring research benefits to European societies at large

**Open Science**

+



Populate EOSC with the scientific data resources and computational tools from research infrastructures - drive usage by to Europe's 1.7 M researchers

**Scientific Communities' content and users**



Enable researchers to access data, storage and compute ("cloud") via an Europe wide federation of IT services ("e-Infrastructure")

## **E-Infrastructure consolidation**



The Science Clusters and e-infrastructures have synergistically crafted an advanced a white paper on SRIA.

Science Clusters and the e-infrastructures developed cutting-edge project proposals.  
(ENVRI-hub NEXT, OSTrails)



The Clusters and the European e-Infrastructures are dedicated to collaborating and actively playing a role in ensuring the success of the European Open Science Cloud (EOSC).



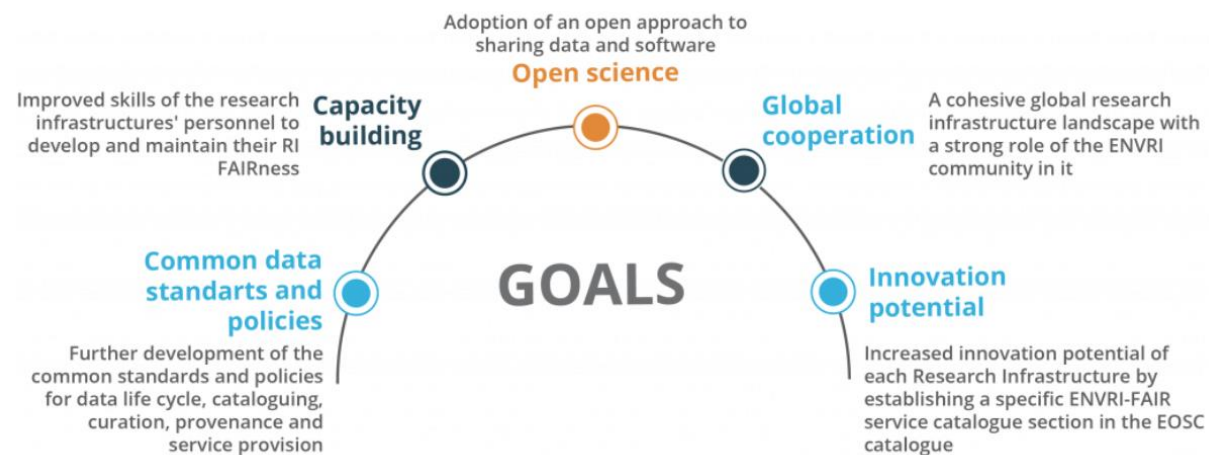


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(Open Data, Open Standards, Open  
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European societies at large

## Open Science



The goal of the Clusters is to advance the FAIRness of the data and services offered by each Cluster research infrastructures (and to connect them to the EOSC)





Populate EOSC with the scientific data resources and computational tools from research infrastructures – drive usage by to Europe's 1.7 M researchers

Scientific  
Communities'  
content and users



The Clusters are producers and providers of research data.

WHY? Societal Grand Challenges  
CLIMATE CHANGE CRISIS, FOOD Security,  
URBANIZATION, HEALTH etc



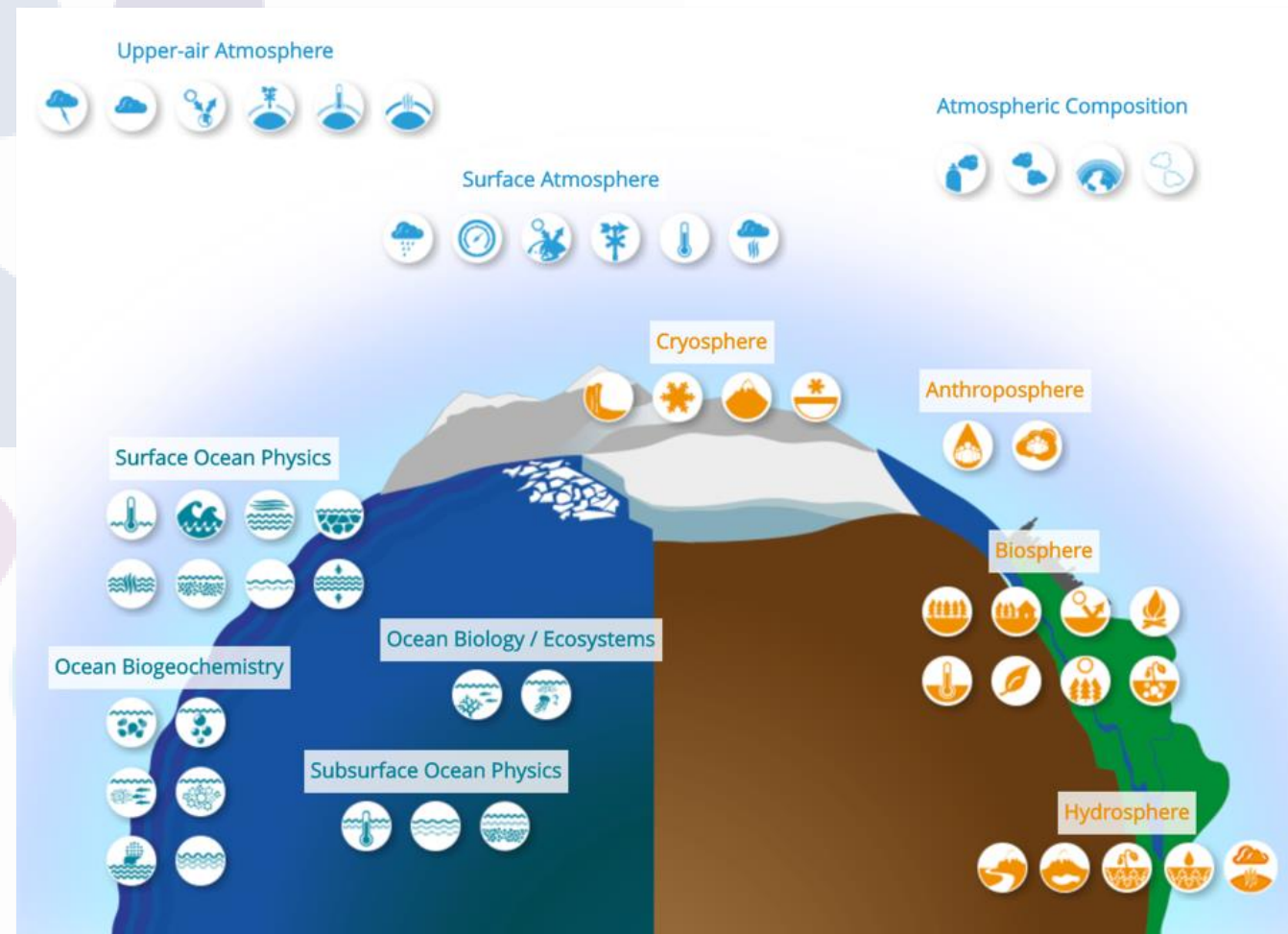
Need for **Open, FAIR, trustworthy data**

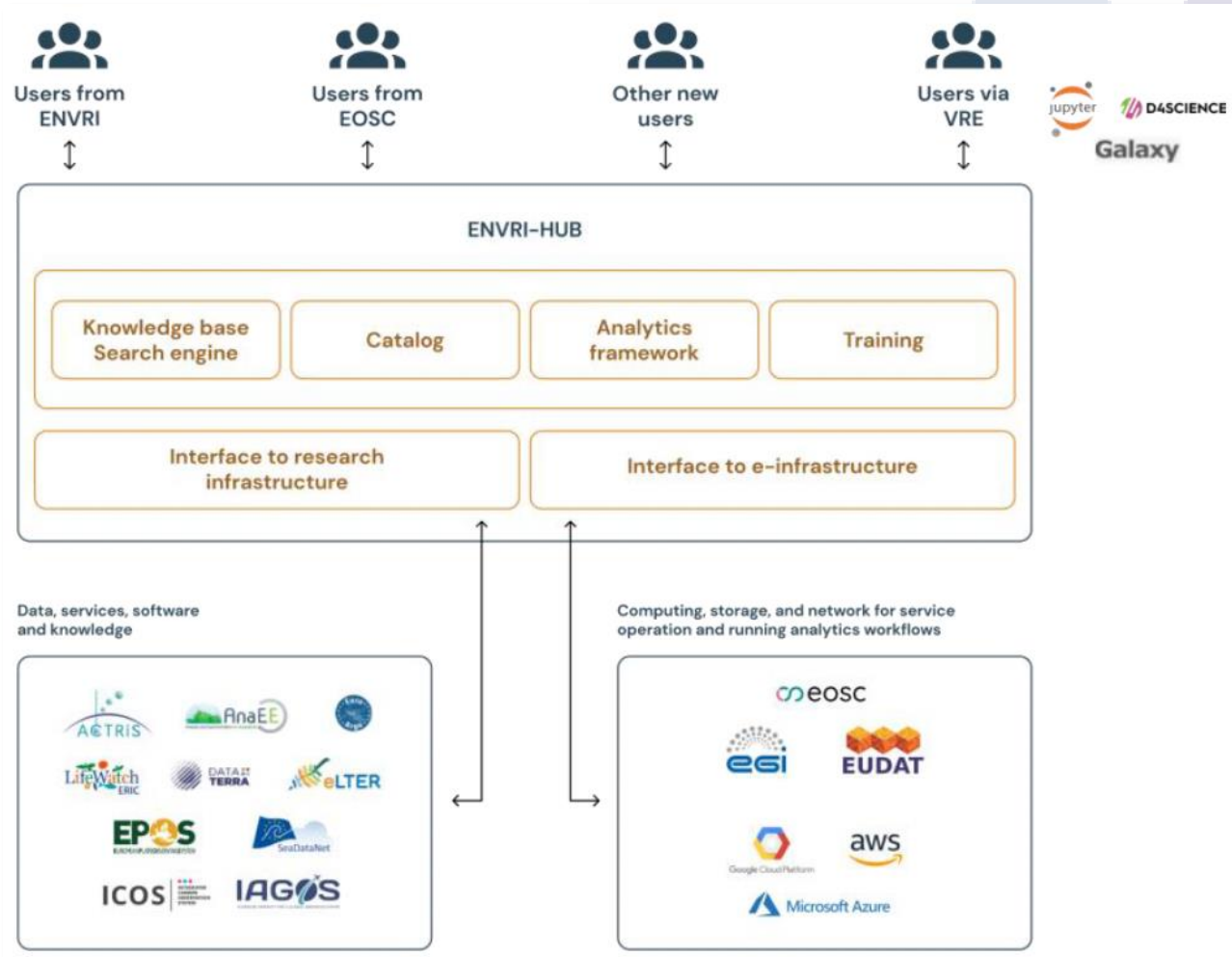
**E-infrastructures provide the technological backbone**



## SCIENCE

- Delivers data and services
- Leverages Essential Climate Variables
- Support for Climate Strategies





## TECHNOLOGY

- Cloud Computing Resources
- Technical Expertise
- Support Services

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## TECHNOLOGY

- Cloud Computing Resources
- Technical Expertise
- Support Services

- Virtual Research Environments (VREs)
- Competence Centers
- Common and New Services
- Software Quality and Standards of Coding
- Innovative Software Solutions
- EU Virtual Institute for Research Software Excellence

# Copernicus, ESA, and GEANT: A Powerful Triad

## Copernicus

The EU's Earth observation program, providing critical data for environmental monitoring and climate change research.

## ESA

The European Space Agency, a key partner in developing and operating Copernicus satellites and infrastructure.

## GEANT

The high-performance data network connecting research and education institutions, enabling seamless data sharing for Copernicus and other initiatives.



# Blue-Cloud & Human Brain Project.

1

## Blue-Cloud

A collaborative platform integrating marine data and technical expertise from EGI, EUDAT, D4Science, and WEKEO.

2

## Human Brain Project

An ambitious international effort to understand the human brain, leveraging GEANT's high-speed connectivity.

3

## EOSC

Could be, theoretically, a success story. But it's not.





The most impactful scientific breakthroughs with benefits for society often result from synergies between research projects, RIs and e-infrastructures.

The e-infras layer is crucial when it supports of the science objectives of a specific scientific initiatives.



OSCARS

Thank you

Waiting for my execution...