Thematic Discovery Marketplaces for the European Open Science Cloud

Speakers: Owen Appleton
Andreas Petzold
Kay Graf
Carole Goble
Tobias Richter
Frank Fischer
Chair: Marieke Willems, Trust-IT

Housekeeping rules

- The sessions will be recorded and made available afterwards.
- Please stay muted and keep your video off during presentations.
- You can ask your questions in the chat throughout the session.

Agenda

- **The EOSC ecosystem of open science marketplaces - from EOSC-hub to EOSC Future** - Owen Appleton (EGI, EOSC-hub)
- **Discussion Thematic Discovery Marketplaces for the European Open Science Cloud**
  - SSHOC: SSH Open Marketplace - Frank Fischer (DARIAH)
  - EOSC-Life: Registries for software and workflows - Carole Goble (University of Manchester)
  - ESCAPE: software and service repository - Kay Graf (Friedrich-Alexander University Erlangen-Nuremberg, ECAP)
  - PANOSC: Federated Catalog service - Tobias Richter (European Spallation Source)
  - ENVRI-FAIR Data/service catalogue- Andreas Petzold (Forschungszentrum Jülich GMBH)
- **Conclusions** - Owen Appleton (EGI, EOSC Enhance)

Realising the European Open Science Cloud

Speakers

Carole Goble
University of Manchester

Frank Fischer
Higher School of Economics Moscow, DARIAH

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Friedrich-Alexander University Erlangen-Nuremberg ECAP

Tobias Richter
European Spallation Source

Andreas Petzold
Forschungszentrum Jülich GMBH , IAGOS

Owen Appleton
EGI

EOSC-Life

SSHOC
social sciences & humanities open cloud

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

panosc
photon and neutron open science cloud

ENVRI FAIR

EOSC-hub

Realising the European Open Science Cloud

Thematic Clusters & You

Stakeholder groups, where do you fit best? 0 2 2

Researcher
5 %

Research Funder
0 %

University & Research Institute
14 %

Research Library & Archive
27 %

Research and e-infrastrcutures, EOSC ecosystem
59 %

Private sector and Industry
5 %

Policy Maker
0 %

Citizen scientist
0 %

Are you involved in data service building or are you a user? 0 2 6

Involved in data service building
54 %

Data service user
4 %

Both
35 %

None
8 %

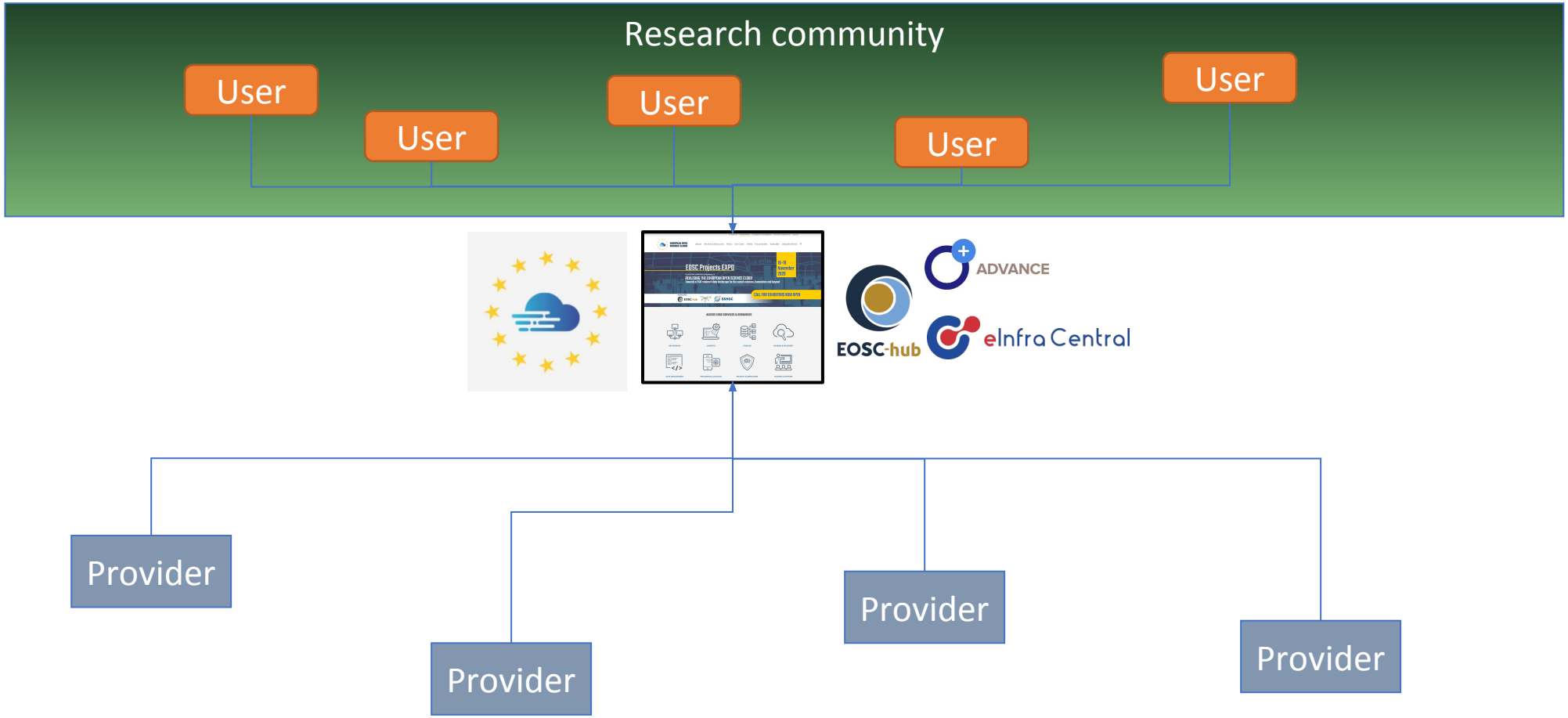
What research domain interests you the most? 0 2 3

slido

The EOSC ecosystem of open science marketplaces - from EOSC-hub to EOSC Future

Owen Appleton - EGI.eu (EOSC-hub & EOSC Enhance)

The Before


Research community
User
User
User
User
User
EOSC Projects EXPO
ADVANCE
EOSC-hub
eInfra Central
Provider
Provider
Provider
Provider

The After

EOSC stresses user choice and empowerment

Researcher

Go to a regional portal for their area

Access to local language services and nationally subsidised resources.

Comprehensive registry, experiments in composability, innovative value added Services.

Go to a EOSC portal

Access to deep ontologies, vocabularies, subject specific expertise.

Go to their regular thematic portal

Community Marketplace
Community Portal

Portal website
EOSC Marketplace
EOSC Portal

Community Marketplace
Community Portal

As much as possible, researchers can enter EOSC through any channel they choose, and still get benefit from EOSC.

- Whatever path they chose:
  - Same AAI, access policies, helpdesk
  - Same monitoring and accounting, support for virtual access
  - Access to same public good and open datasets
- Different entry points offer different added value options
- Coordination is ‘automatic’ from user perspective

Thank you!

Owen Appleton
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EOSC-hub

eosc-hub.eu
@EOSC_eu

project-freya.eu
@freya_eu

SSHOC
social sciences & humanities open cloud

sshopencloud.eu
@SSHOpenCloud

EOSC-hub, FREYA and SSHOC receive funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. #777536 #777523 and #823782.

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Social Sciences & Humanities Open Marketplace

Discover new resources for your research in Social Sciences and Humanities: tools, services, training materials and datasets, contextualised. Read more...

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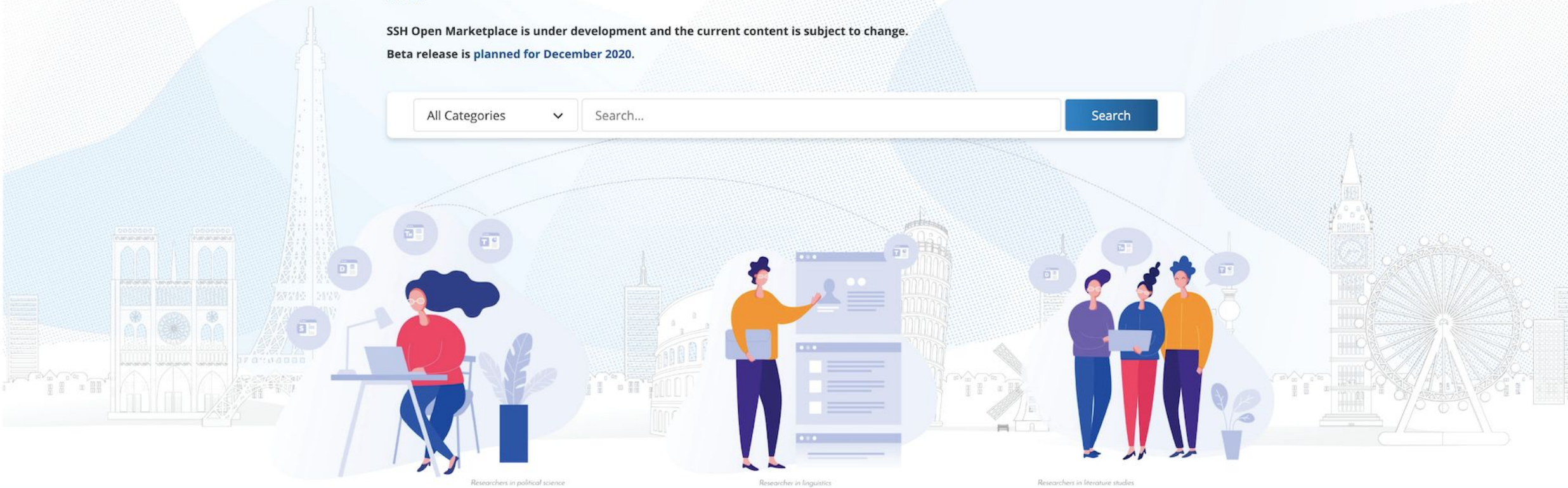
Beta release is planned for December 2020.

All Categories | Search... | Search



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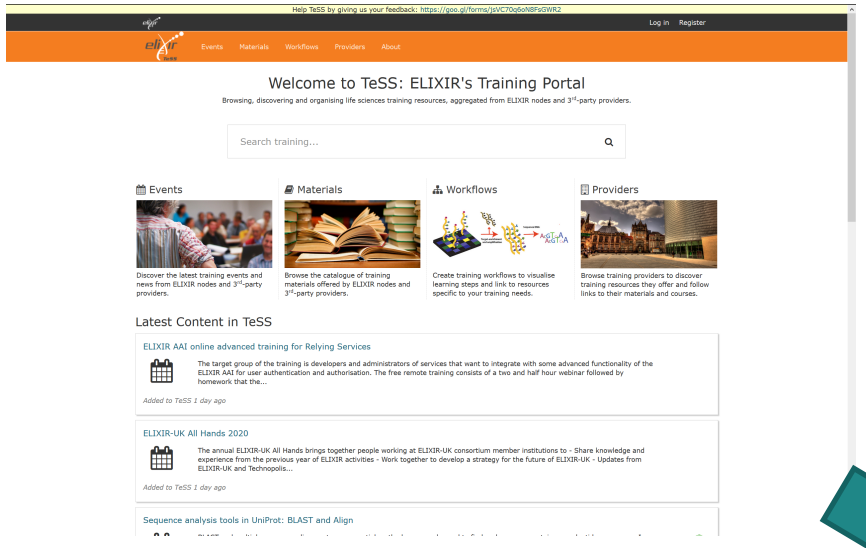
Content and sources

Curation and Governance

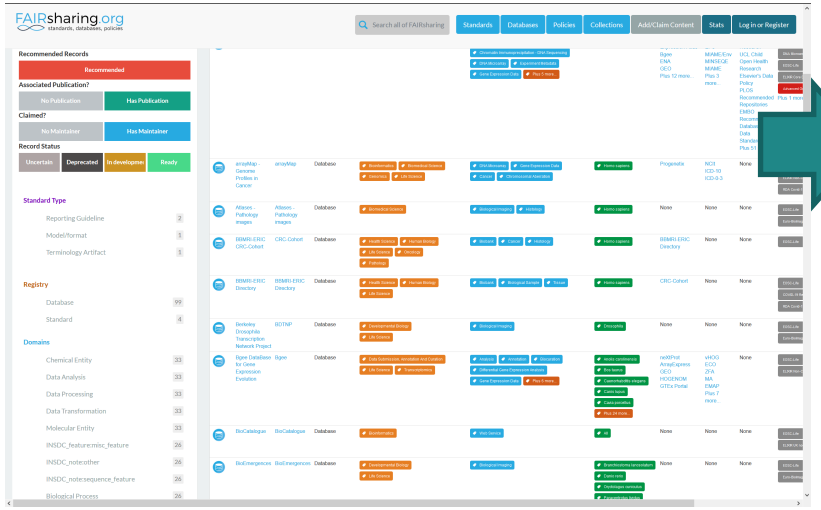
SSHOC, "Social Sciences and Humanities Open Cloud", has received funding from the European Union's Horizon 2020 project call H2020-INFRAEOSC-04-2018, grant agreement #823782

AN OPEN COLLABORATIVE SPACE FOR DIGITAL BIOLOGY IN EUROPE

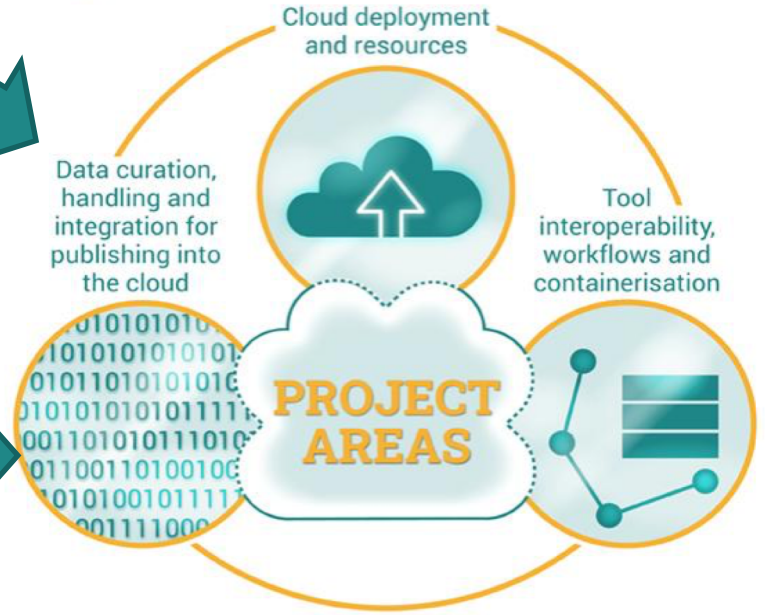


1500+ materials in TeSS Training Portal

100+ Resources in FAIRsharing Registry



A European Open Science Cloud (EOSC-Life) call for projects sharing data, tools and workflows in the cloud



Next Slide

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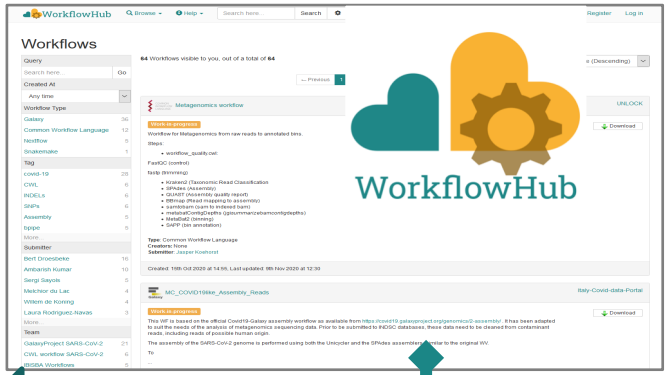
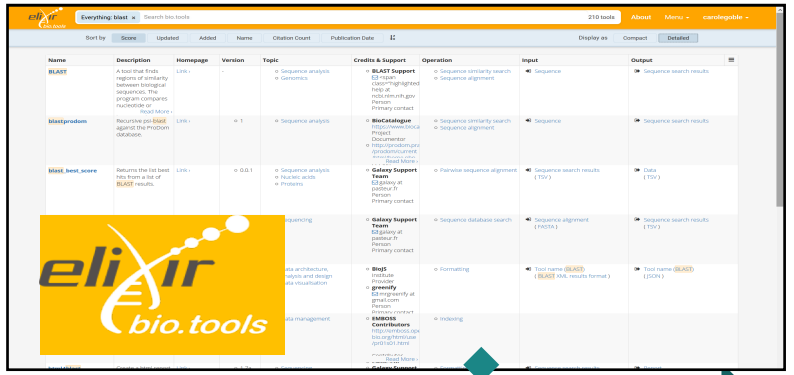
Tool and Workflow Registries





COMMON WORKFLOW LANGUAGE

Workflow RO-Crate

Global Alliance for Genomics & Health
Collaborate. Innovate. Accelerate.

Bioschemas.org

EDAM

Metadata & API Framework

Testing

OPENEBENCH

Life Monitor

Workflow Systems

nextflow

Galaxy

SCIPION

Containers

docker

Workflow Repos

GitHub

Galaxy EUROPE

nf-core

Tool Packages

Bioconductor
OPEN SOURCE SOFTWARE FOR BIOINFORMATICS

debian med

IUC

BIOCONDA

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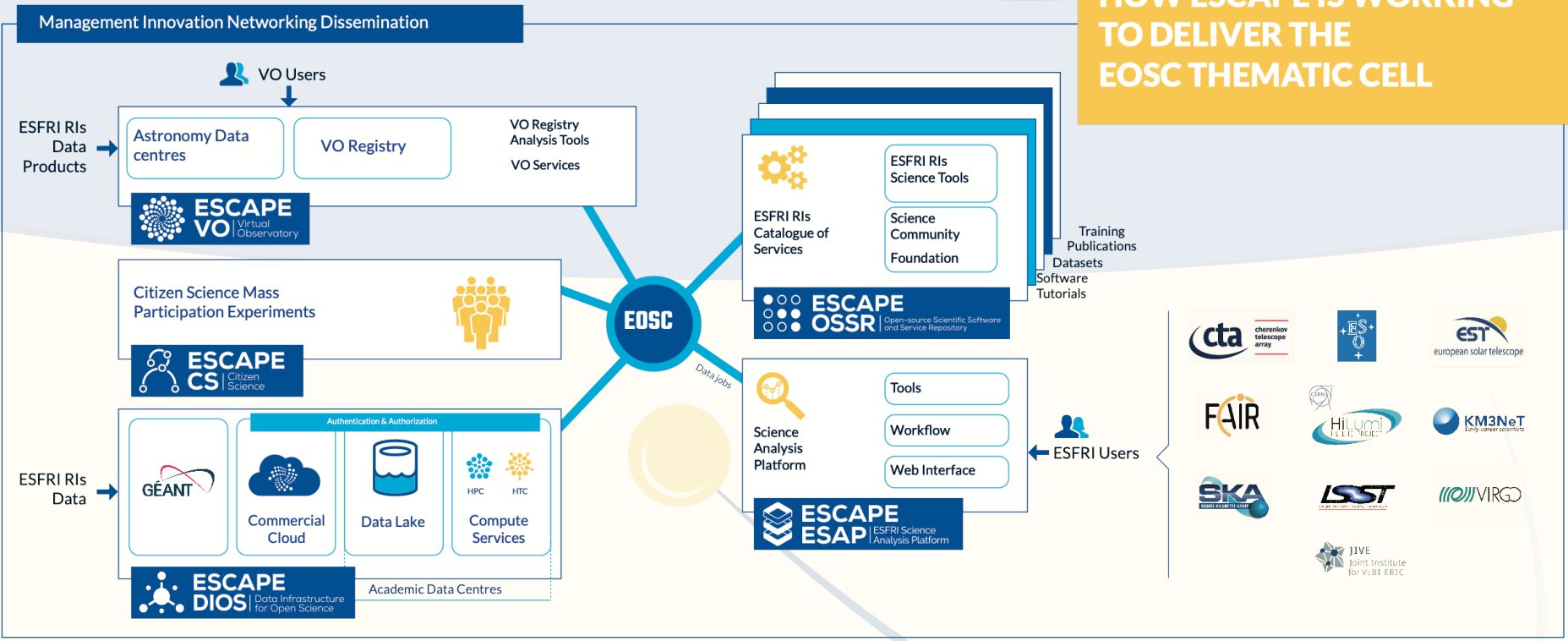
European Science Cluster of Astronomy & Particle physics ESFRI research infrastructures

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

ESCAPE brings together the astronomy, astroparticle and particle physics communities, as well as a cluster with European Strategy Forum on Research Infrastructures (ESFRI) projects. These ESFRI have demonstrated capabilities in addressing various stages of data workflow and concerned with fundamental research through complementary approaches.

HOW ESCAPE IS WORKING TO DELIVER THE EOSC THEMATIC CELL



Funded by the European Union's Horizon 2020 - Grant N° 824064

Common API for 6 catalogues

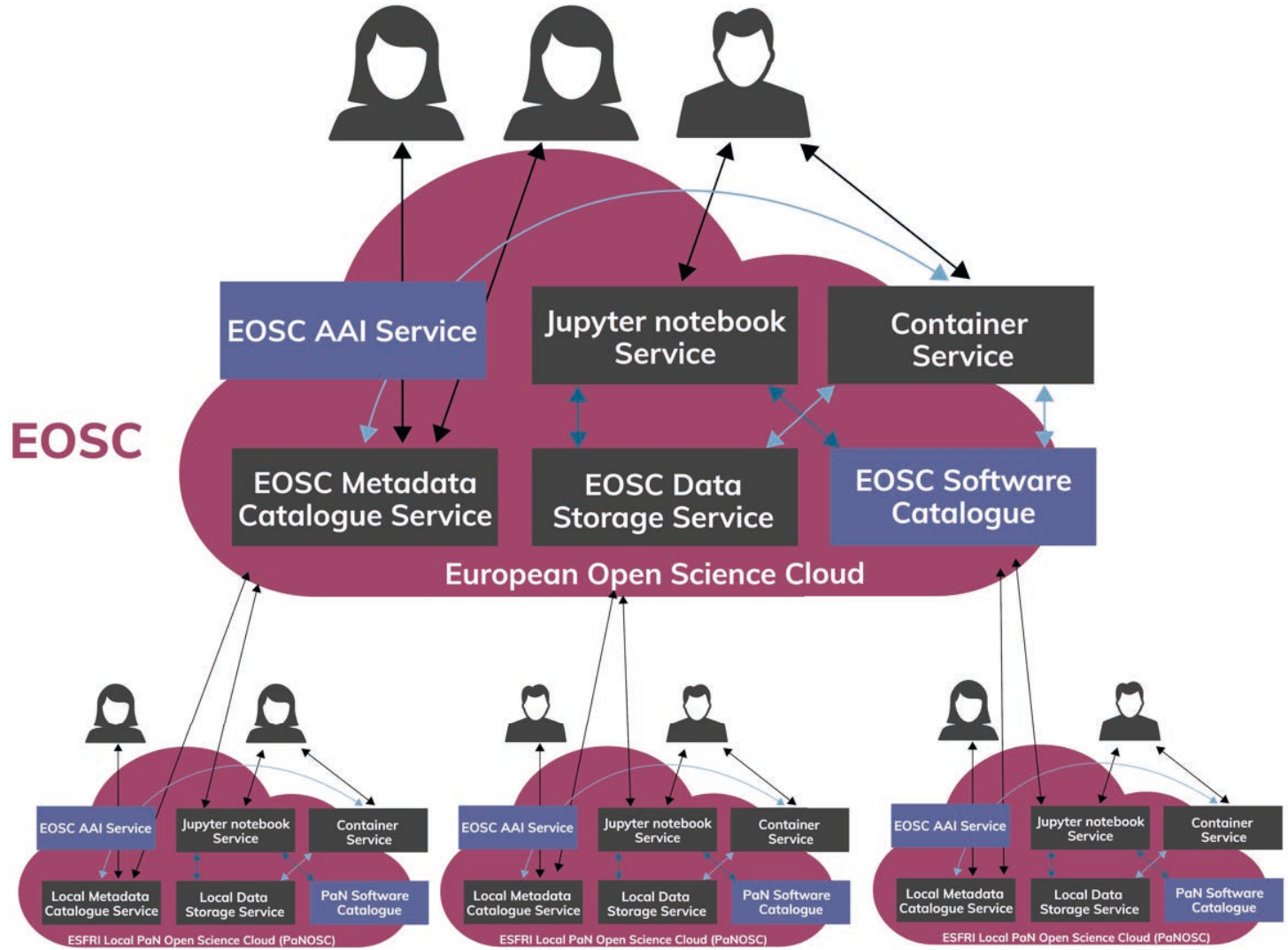
Common API to search across all PaNOSC catalogues

- ESRF (iCat)
- CERIC (VUO)
- ESS (SciCat)
- ILL (local)
- ELI (tbd)
- XFEL (MyMdc)

panosc

photon and neutron
open science cloud

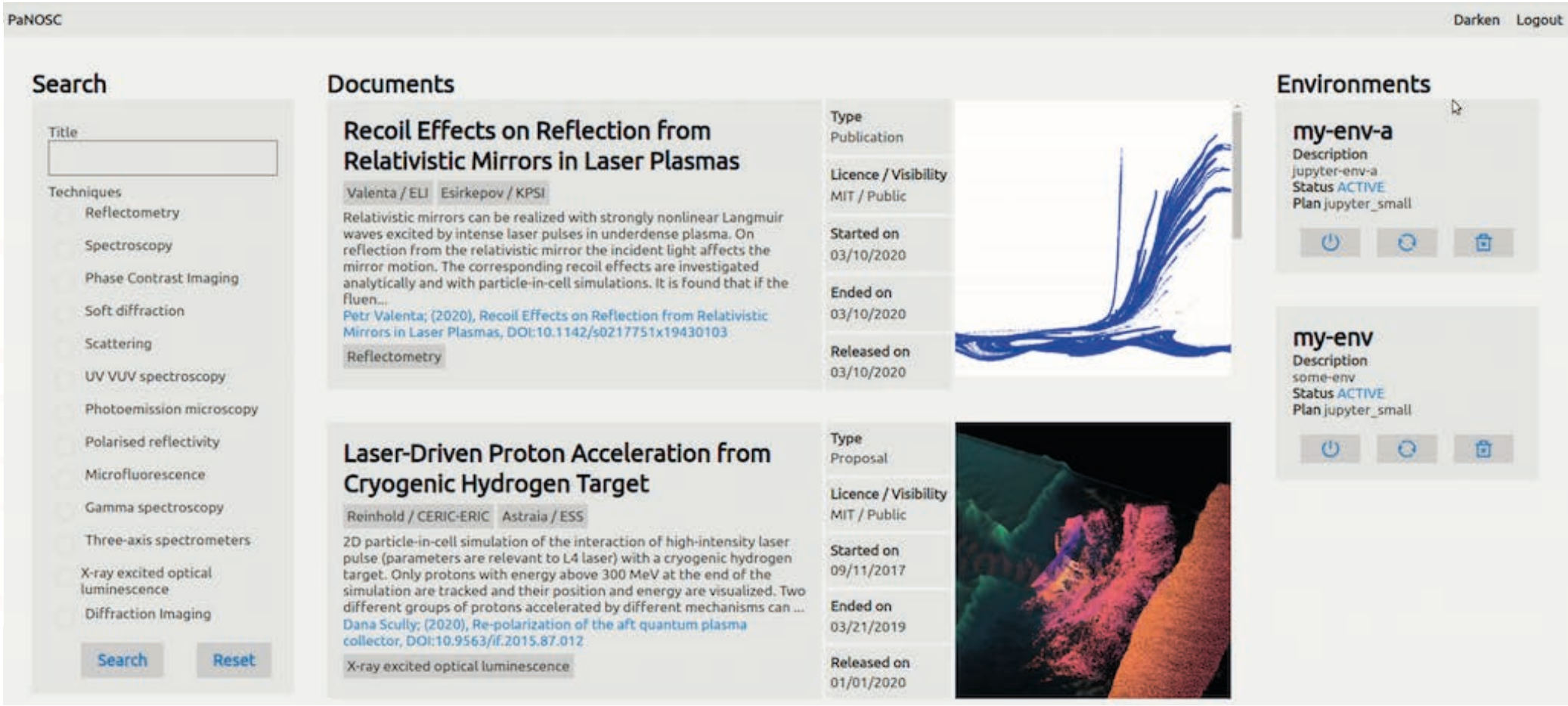
EOSC + PaNOSC Clouds



Common Portal for Data Analysis Services

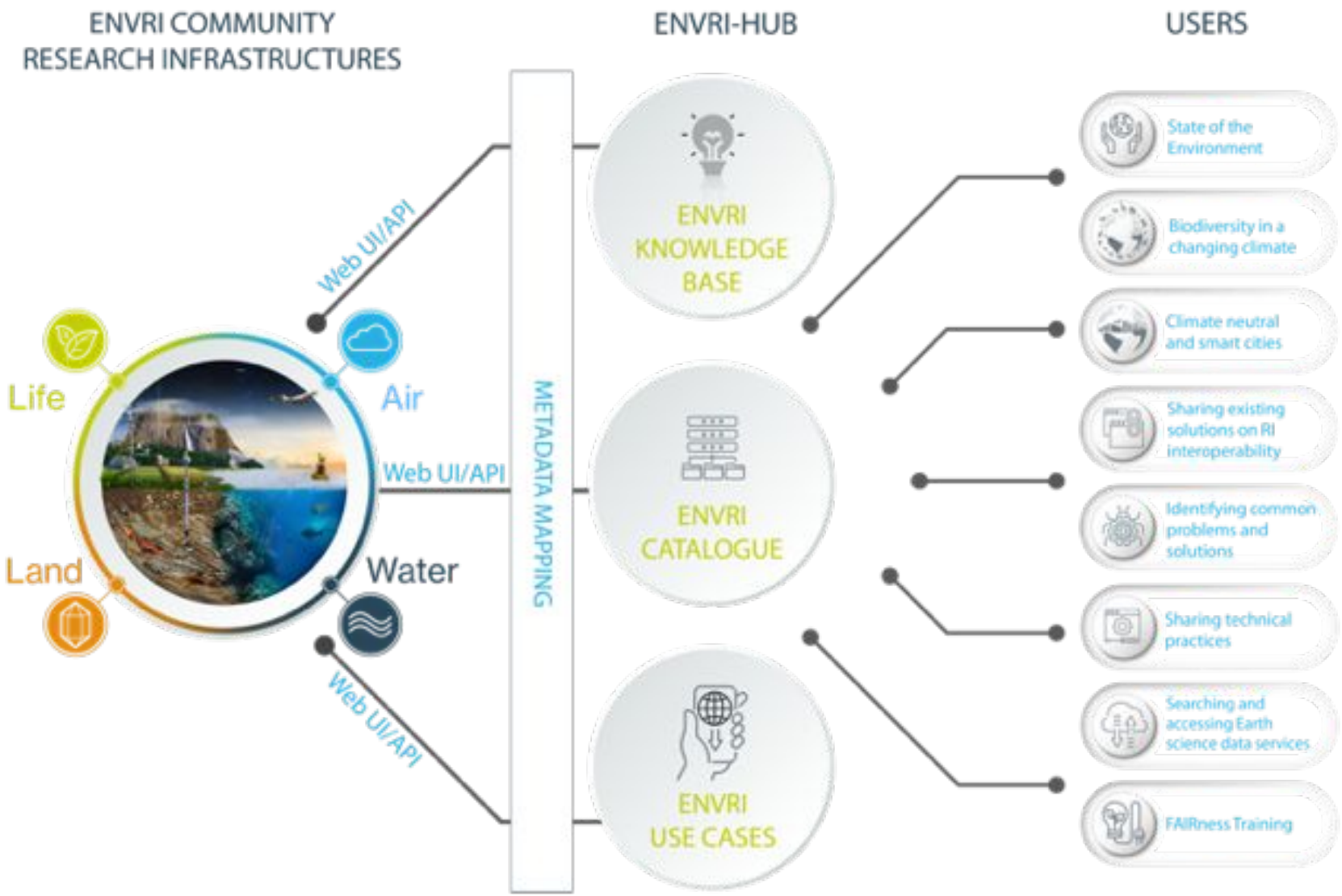
Typical workflow for Common Portal usage

- User authentication using Umbrella ID
- Search for datasets (for which the user has been a proposal member, thus requiring authenticated access)
- Selection of an analysis environment (in either a remote desktop, or Jupyter Notebook environment)
- Spawn the chosen analysis environment and link it to the chosen datasets (if the analysis environment is not physically located with the data, data transfer protocols will be active)
- Access the environment via the Portal and perform data analysis



photon and neutron open science cloud

ENVRI-FAIR – Cluster project of the European Environmental Research Infrastructures



ENVRI-FAIR has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824068

www.envri-fair.eu
@ENVRIcomm
ENVRI community
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ENVRI FAIR

Session Wrapup

- Common topics
  - Clear common interfaces and community standards
  - Automate what we can – reduce the human work to the remainder
  - Build on what is already used and bring it to EOSC, not force a new manner of working
  - Generic techncial solutions from EOSC Core which can be tailored to thematic or regional community needs
  - Thematic communites are providers and users of EOSC – dual role
  - Sustainability and interoperation of EOSC Core to support further work by the thematic communities
- Areas for future work
  - Ensure low barriers to entry, convenience for users and providers
  - Going out to the researchers, through clusters and finding other methods to engage them
  - Incentives for participating: added value for users, sustainable operations for providers. Use case driven.
  - Clarify incentives for opening data, reciprocity
  - Common termionology for key entities: marketplace (is it commercial), onboarding, integration, composability
  - Collaboration versus competition, what ensures sutainability
  - Identify where interoperability / interconenction makes sense and brings benefit (not for its own sake)
  - Deal with community legacies – bring them forward without breaking their workflows
  - Clarity in levels of openess - embargoes, sensetive data, IPR issues etc – as well as linked rules of participation
  - Integrate knowledge and training with services and data
  - Harmonise the Harmonisation already existing within thematic communtiies

Thank you!

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