Science clusters contributions to a (minimally) viable European Open Science Cloud

EOSC Core Functionalities

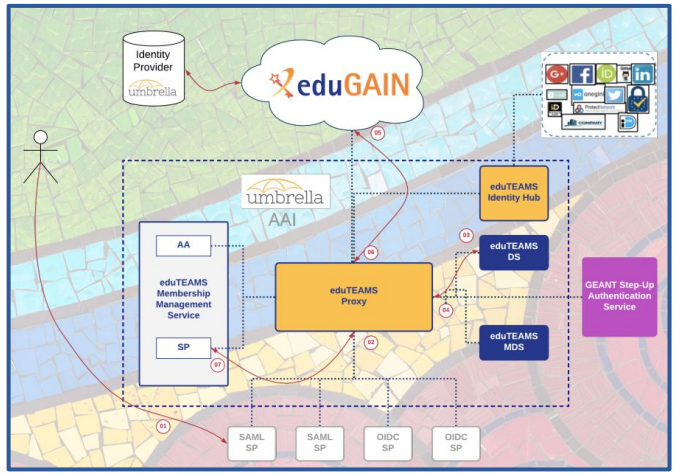
example: AAI

ESCAPE AAI is federated with EOSC AAI

- also shown to work with *EGI-checkin* & FENIX HPC AAI
- ESCAPE AAI is a hybrid allowing our "legacy" RIs to continue to use X.509 as well as tokens

LS LOGIN delivered in production by EOSC-Life

- Connect existing LS RI AAI systems with EOSC AAI
- Security features for sensitive data (incl GA4GH standards)
- XX users; YY organisations



ENVRI FAIR

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

SSHOC social sciences & humanities open cloud

EOSC-Life

panosc photon and neutron open science cloud

Exchange : reusable services, data and scientific analysis tools

- ESCAPE data lake and virtual research environment
  - *Consistent toolset across experiments reduce complexity and drive long-term sustainability*
- EOSC-Life: reusable and extendable data, interoperability and analysis services
  - *Adopted for Horizon Europe / Pandemic preparedness and Cancer Mission*
- SSHOC Marketplace
  - *Catalog of reusable services for Social sciences and humanities*
- ENVRI-Hub
  - *Catalogue of services and collaboration platform for Environmental Sciences*

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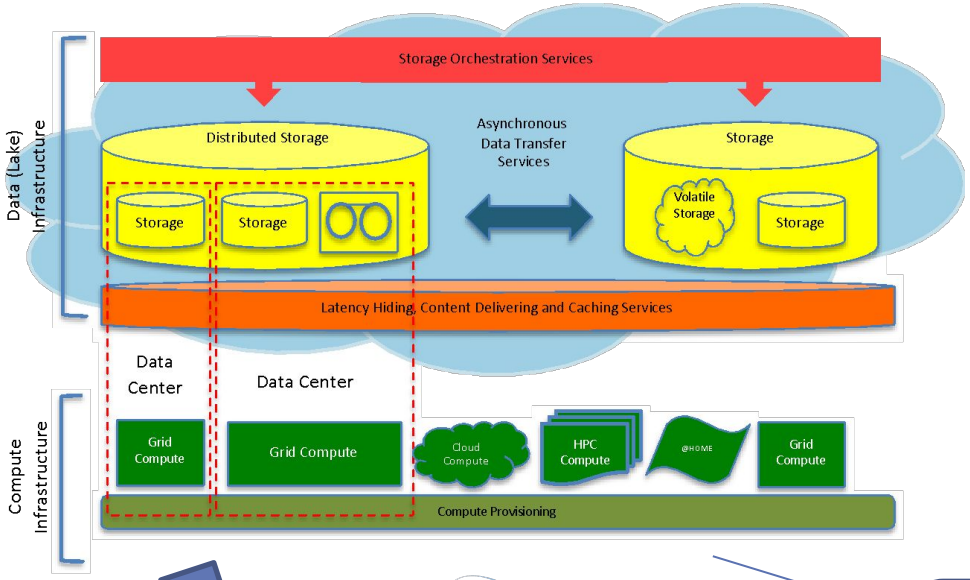
ESCAPE tools and EOSC integration



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

Data Lake: RUCIO

VRE: jupyter reana kubernetes

Software Repo: ESCAPE OSSR Open-source Scientific Software and Service Repository, zenodo

ESCAPE AAI — EOSC Future

AAI Federated with EOSC ✓

ESCAPE Data Lake (Federated storage)

Hosts/ingests open data sources into a common store; ✓
Includes EOSC Exchange provisioned storage EOSC Future

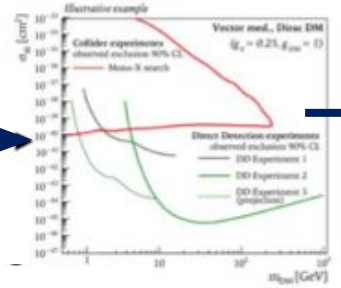
Virtual Research Environment (VRE)

Cloud computing using EOSC Exchange provisioned compute, & HPC (✓ EOSC Future)

Software Repository

EOSC Future

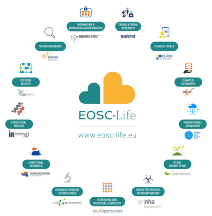
Archive of reusable pipelines: ✓
Onboarded to EOSC marketplace



Publish results to Zenodo

zenodo

EOSC Core:
+ Helpdesk as a service ✓
(+monitoring)
(+accounting)
EOSC Future



FAIRsharing.org
standards, databases, policies

Bioschemas.org

RO-Crate

WorkflowHub

LS LOGIN

Galaxy Europe

BY-COVID

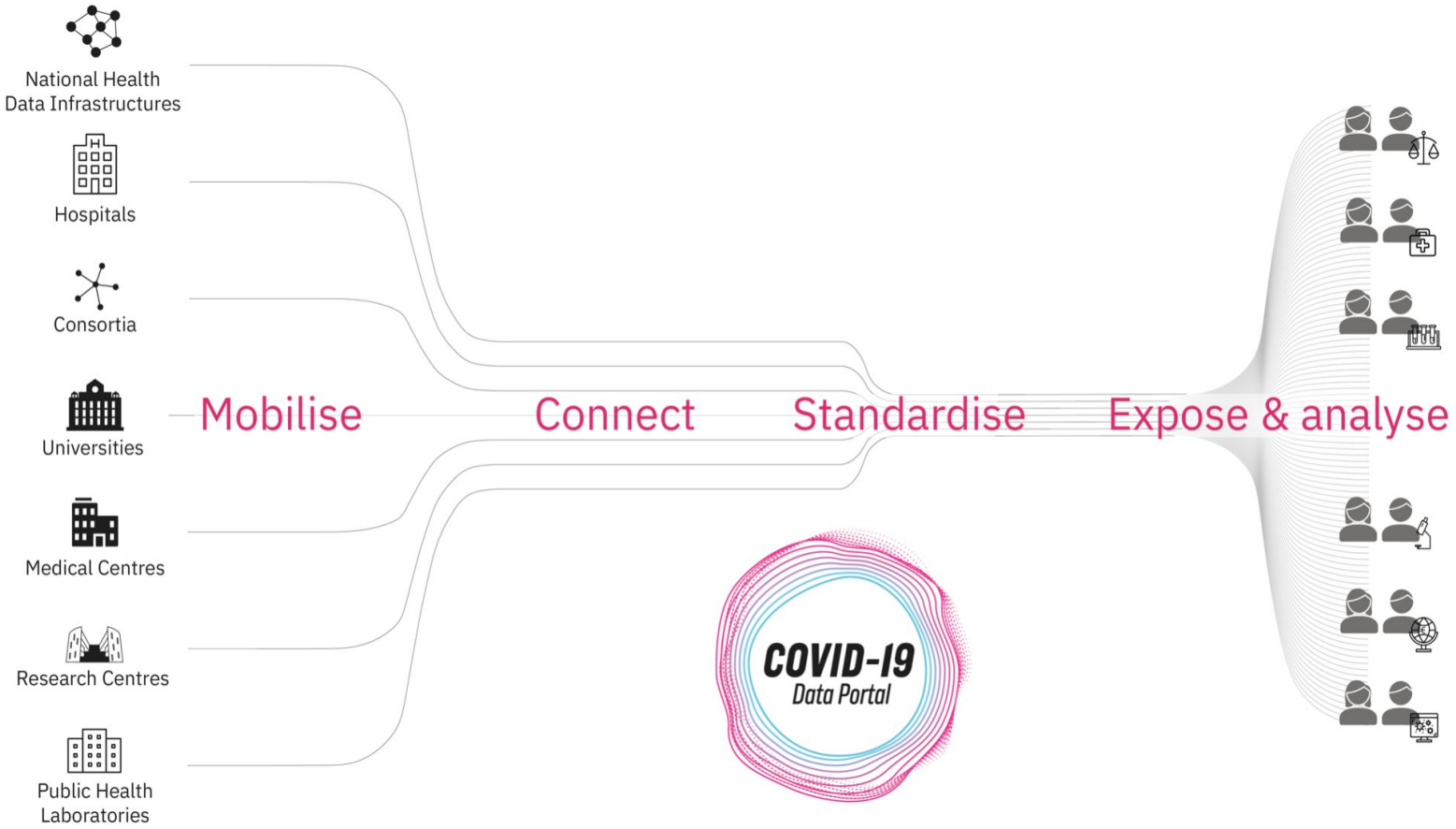
eosc
cancer

EuroScienceGateway

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824087

BY-COVID

https://www.covid19dataportal.org/



B1MG

PHIRI Population Health Information Research Infrastructure

SSHOC

veo

Re CoD ID

Consortium of European Social Science Data Archives
cessda DC Data Catalogue

EOSC-Life www.eosc-life.eu

FAIRsharing.org standards, databases, policies

Bioschemas.org

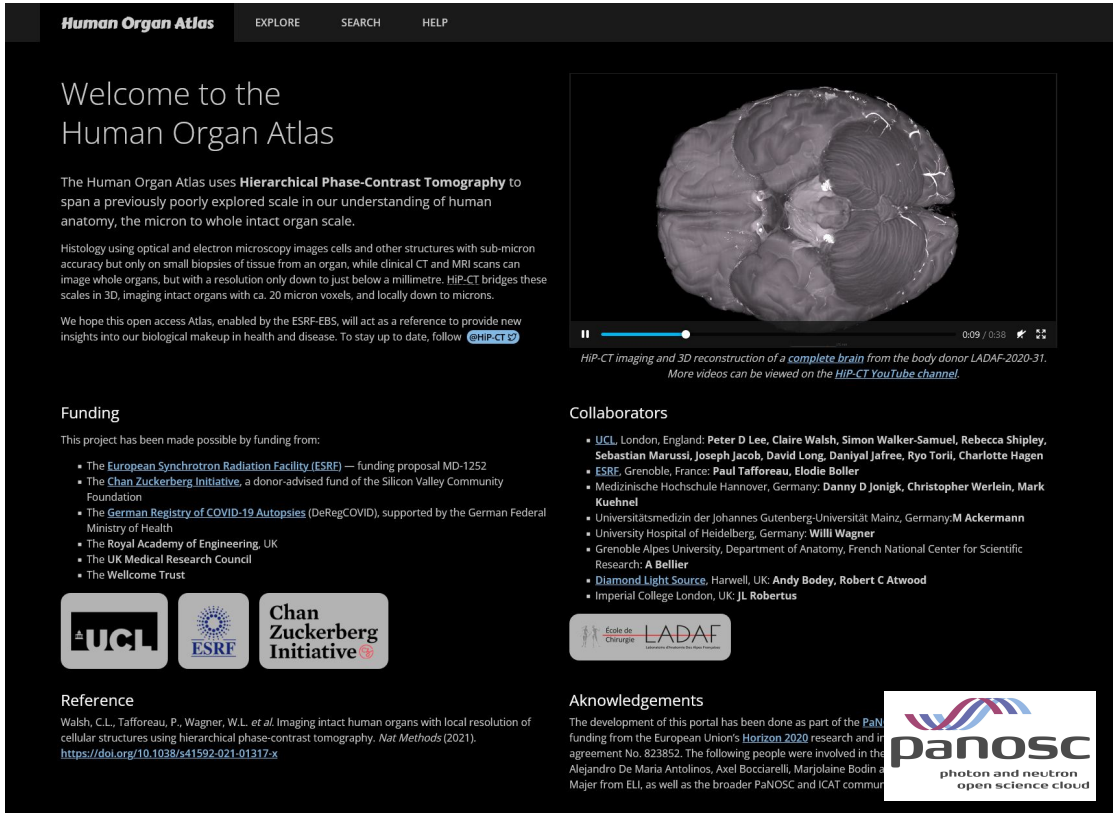
RO-Crate

WorkflowHub

LS LOGIN

Galaxy Europe

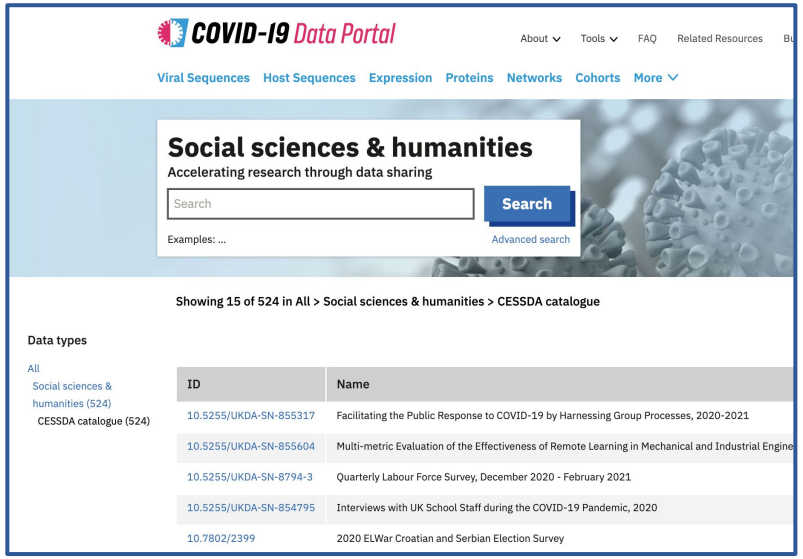
Science clusters bring data to the EOSC



ParlaMint

ParlaMint – harmonised corpora of parliamentary records in around 20 languages available for the study of public debate about COVID

SSHOC
social sciences & humanities open cloud



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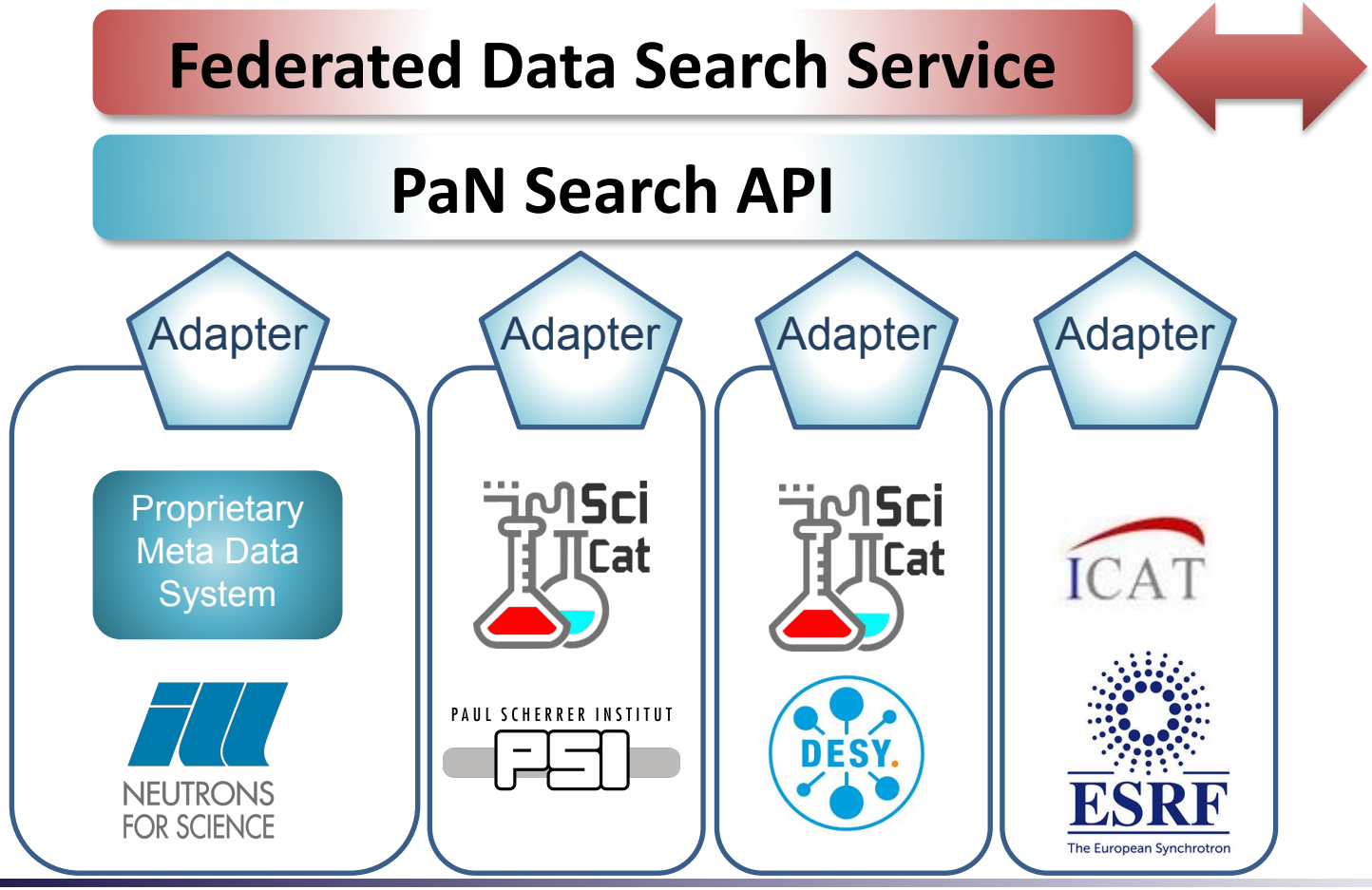
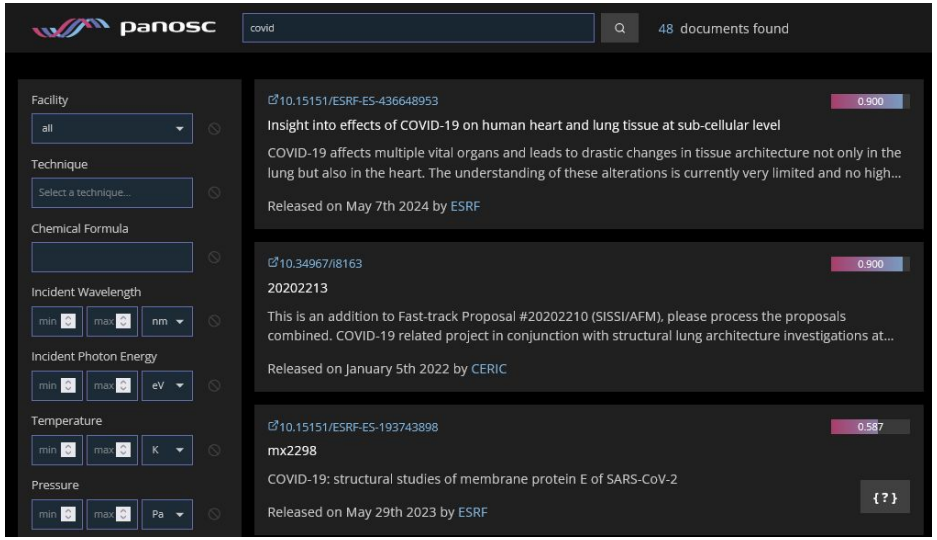
PaN Search API with Federated Search Portal





https://data.panosc.eu

Find data on: *covid, alzheimers, protein xyz, dinosaurs, batteries, …*

PaNOSC and ExPaNDS projects have received funding from the European Union's Horizon 2020 research and innovation programme under grant agreements 823852 and 857641, respectively.

Science clusters contribute users to the viable
European Open Science Cloud

Target Groups for ENVRI Products and Services

Scientific Communities

Research Infrastructures

EOSC

Experienced users of ENVRI products access data portals of RIs directly via RI portals or APIs

RIs share knowledge and training resources across scientific domains and foster evolution of RIs

EOSC users access ENVRI ecosystems through the platform ENVRI-Hub guided by rich metadata

Users

Project lead: Emma Karoune, Historic England

https://open-phytoliths.github.io/FAIR-phytoliths/

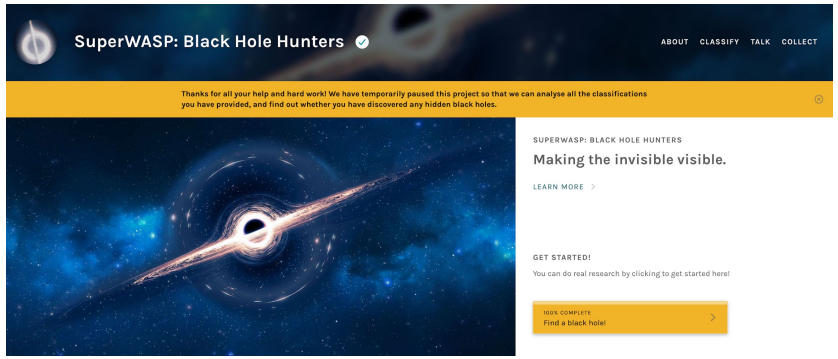
Accessible and scalable detection and identification of foodborne pathogens

Team lead: Bérénice Batut, University of Freiburg

Industry partner: Biolytix AG

Project team: Ralf Seyfarth, Anna Henger, Engy Nasr

ESCAPE CS | Citizen Science



https://www.zooniverse.org/projects/hughdickinson/superwasp-black-hole-hunters

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