



Brighton, UK | 9-13 JUNE 2025

BRIGHTER TOGETHER

Meet the e-Infras!

TNC25 Community Hub session -

Research Without Borders: Open Science & e-Infrastructures

Tuesday 10 June 2025 - 16:00-17:30 BST

TNC25, Brighton, UK



Co-funded by
the European Union



Together for Open Science



E-infrastructure Assembly....working together for our users



MOU signed between EGI, EUDAT, GEANT, OpenAIRE and PRACE in Lecce 3rd October 2024 – established the "E-infrastructure Assembly"

Key objectives:

- Joint Advocacy:** Increasing awareness and visibility of e-Infrastructures with policymakers, funding bodies, and other relevant stakeholders,
- Collaboration and Coordination:** Aligning activities in areas of common interest, including seeking joint funding opportunities and avoiding duplication of efforts,
- Innovation and Open Science:** Collaborating in R&D to support service innovation and promote Open Science principles and practices,
- Community Engagement:** Enhancing connections with research communities and fostering dialogue with them to understand their needs better,
- Policy Influence:** Actively contributing to shaping discussions on the digitisation of European research and education,



EGI Federation

A European sovereign infrastructure for data-intensive computing

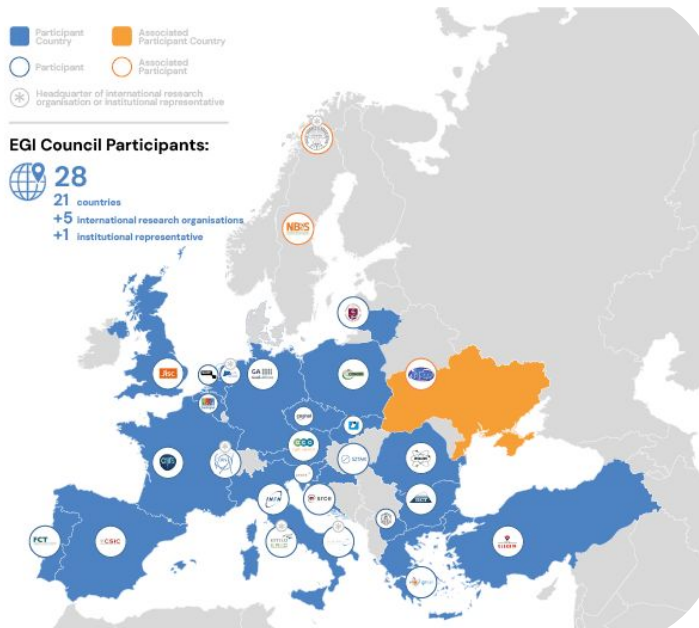
+116,000 users from **+160** countries

+250 research collaborations supported

20 ESFRI Research Infrastructures partnering in R&D

21 years of history in collaborations

A European flagship digital infrastructure for data-intensive scientific computing



Why Federation?

- Support science at international scale
- Build an hyperscale facility for research
- Invest nationally, access globally
- Bring computing to the data

EGI Services

EGI delivers advanced computing services to support scientists, international projects, research infrastructures and businesses.





Vision

All researchers have seamless access to services, resources and expertise to collaborate and conduct world-class research and innovation

Federation Mission

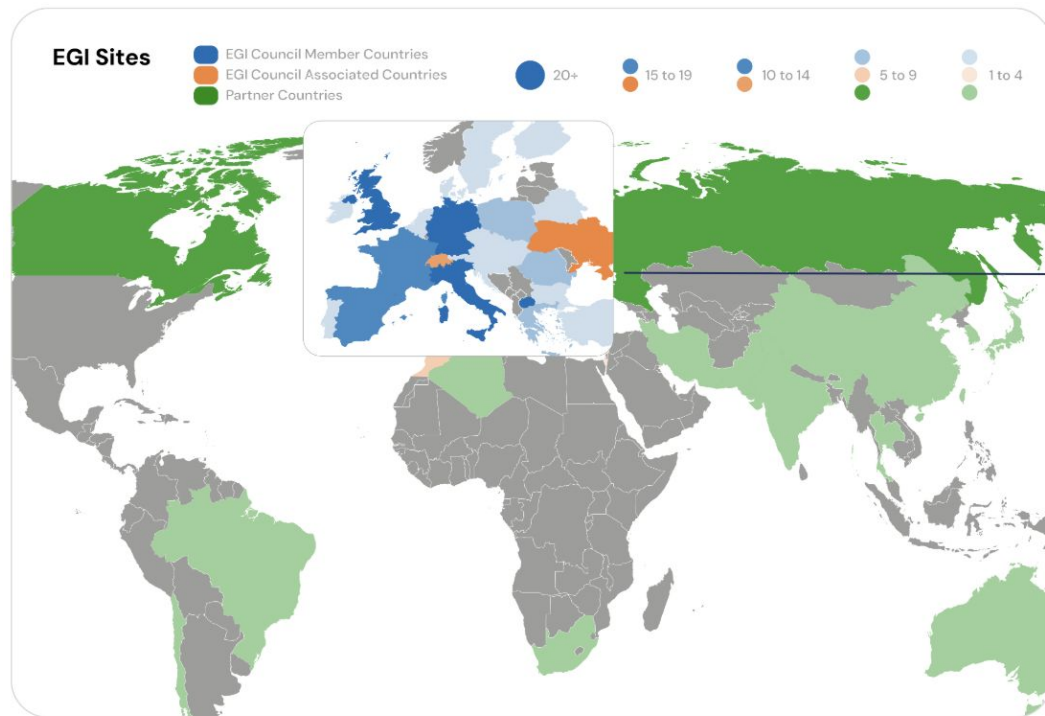
Deliver open solutions for advanced computing and data analytics in research and innovation

Foundation Mission

Enable the EGI Federation to serve international research and innovation together



EGI High Throughput Computing Infrastructure



+220

Data Centres

42

Countries

EGI Cloud Compute Sites



31

**Federated Research
Clouds across
Europe, Africa &
Asia**



+116K

Users

62.7M

Cloud CPU hours

7.4B

HTC CPU Hours
Consumed

402M

HTC Computational
Jobs

2,8K

Enabled Open
Access Articles



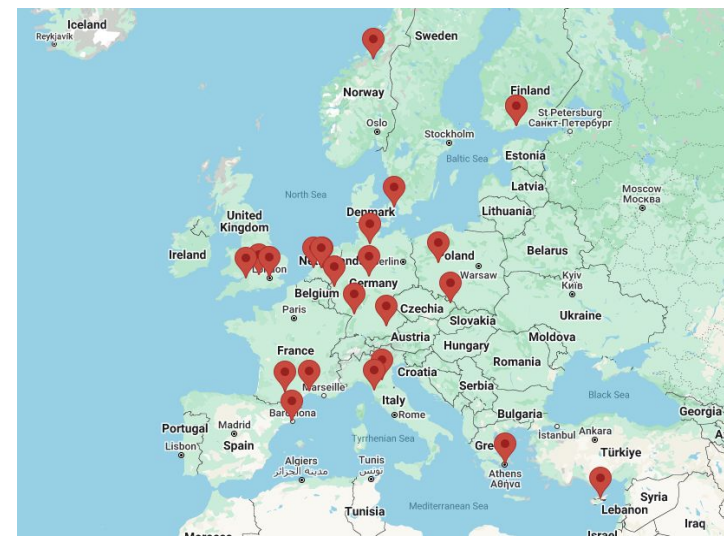
37

EU Funded Projects
Contributing to Co-Design,
Innovation and User Support

28

EGI Council
Participants

- The EUDAT Collaborative Data Infrastructure (EUDAT CDI) is one the major e-infrastructures supporting research in Europe
- EUDAT is a membership organisation supported by EUDAT Ltd., a not-for-profit company
- It is a growing network of over 20 European organizations



EUDAT's vision:
**Data is shared and preserved across
borders and disciplines**



According to the vision, EUDAT provides:

- **a trusted environment** for European researchers from any research discipline to preserve, find, and access data
- **a set of interoperable data management services** that support European researchers in different steps of the research data life cycle and the process of making their data FAIR
- **essential infrastructure services** such as storage and long-term preservation to support the capacity scaling of research infrastructures
- **consultancy and training services** to support organisations in their endeavour to build reliable, trustworthy and FAIR enabling data infrastructures

EUDAT service suite

**B2FIND**

Find Research Data

**B2HANDLE**

Register your Research Data

**B2SHARE**

Store and Share Research Data

**B2SAFE**

Replicate Research Data Safely

**B2DROP**

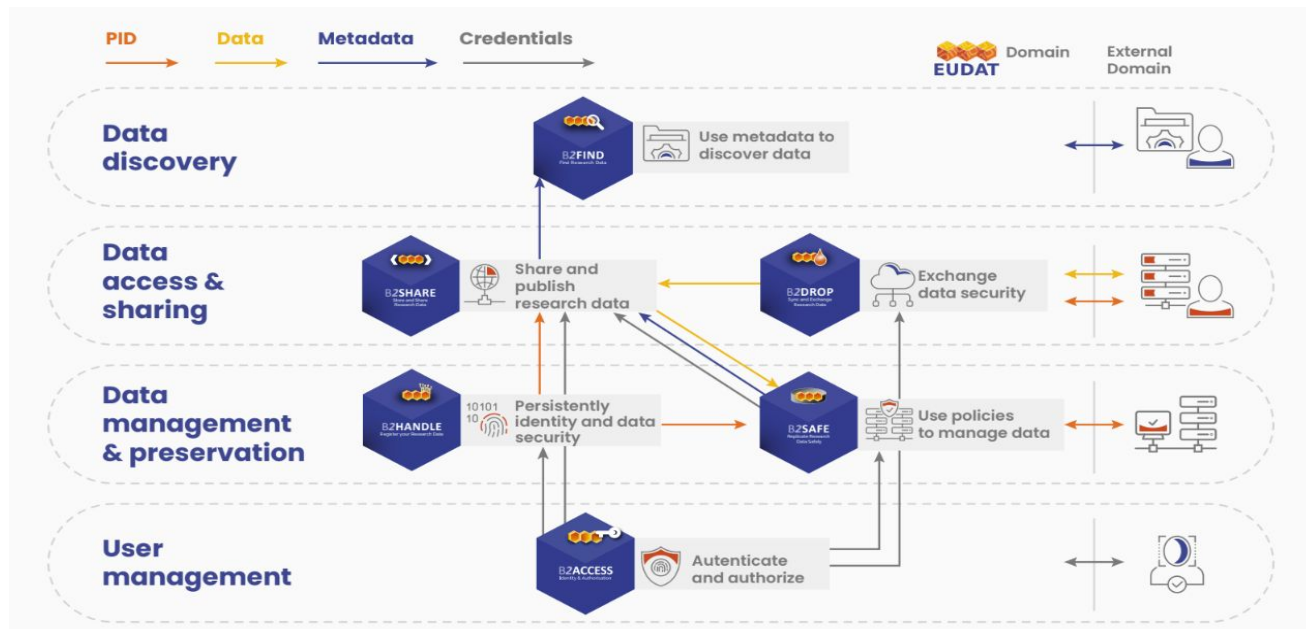
Sync and Exchange Research Data

**B2ACCESS**

Identity & Authorisation

Supporting the Research Data Life Cycle





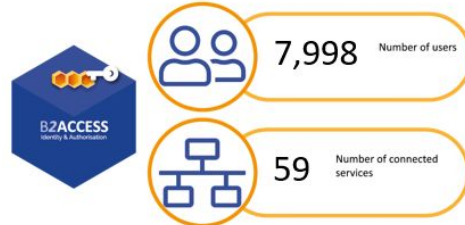
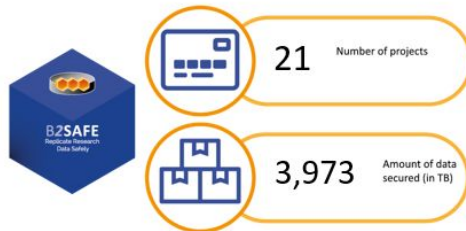
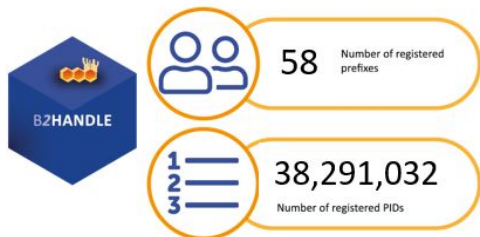
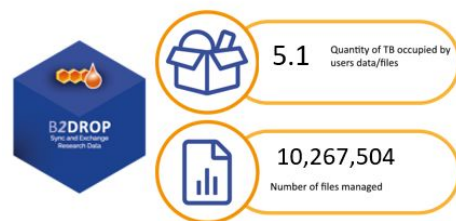
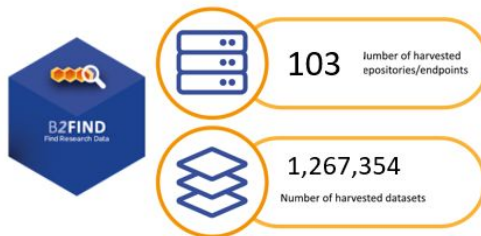
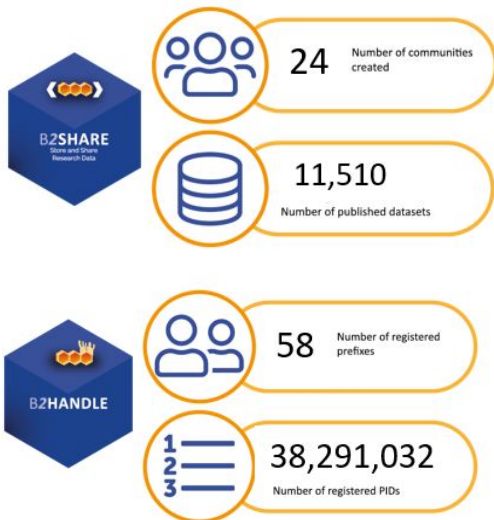
B2FIND - Research data search engine and discovery service

B2SHARE - Publish research data and metadata & **B2DROP** - Synchronise and collaborate on active research data

B2HANDLE - Persistent identifier registry & **B2SAFE** - Store research data with data management policy

B2ACCESS - Authentication and authorisation of users

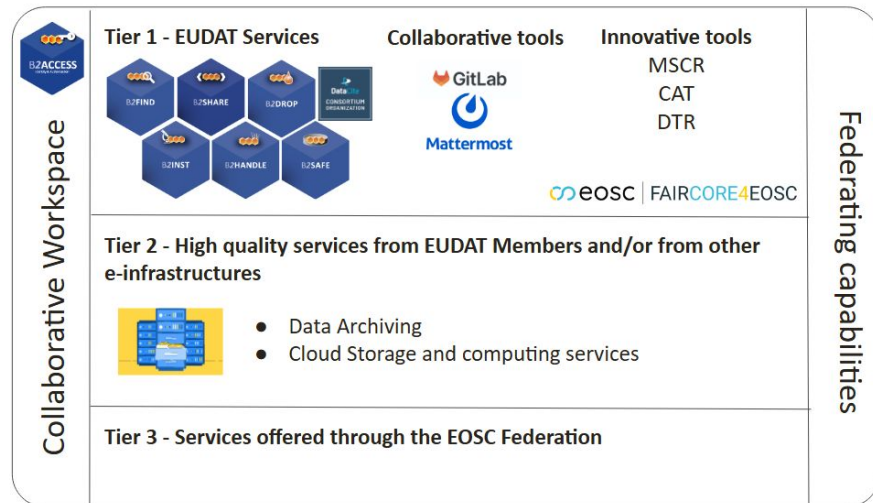
Serving users in 21 different countries and 17 different domains



- EUDAT selected as candidate node part of the first build-up phase of the EOSC federation
- Ambition:
 - Offer a transnational collaborative FAIR enabling data management space connected with domain specific services
 - Connecting services to create a unique collaborative environment

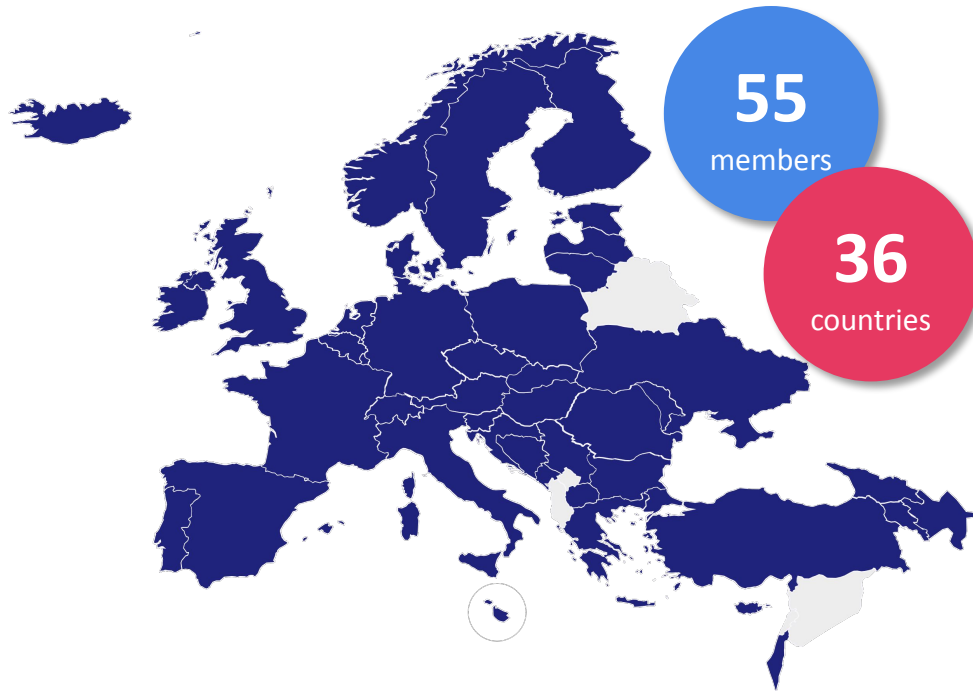


- Access
- Order
- Provision
- Monitor
- Share
- Support



OpenAIRE AMKE

- Non-profit organisation, established **Oct 2018**
- **Mission:** Shift scholarly communication towards openness and transparency and facilitate innovative ways to communicate and monitor research
- A **Scholarly Communication e-Infrastructure** that brings together **human capital** and advanced **ICT services**
- A **network of experts** from major national organisations (National Open Access Desks) in operation since 2009

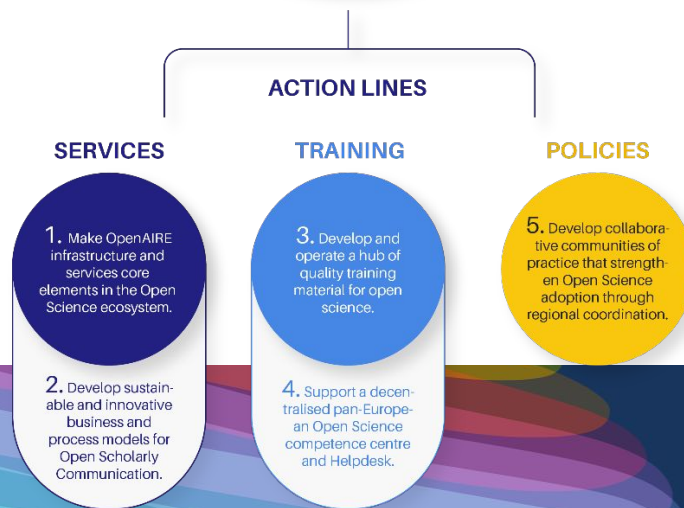


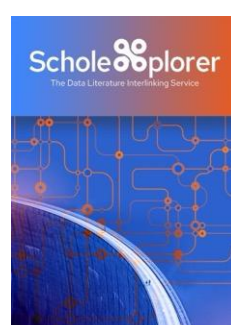
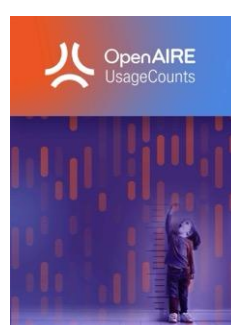
Global Collaborations: Latin America, US, Canada, Japan, Korea, ...

OpenAIRE Strategy 2023-2025

Our Commitment to facilitate Open Science

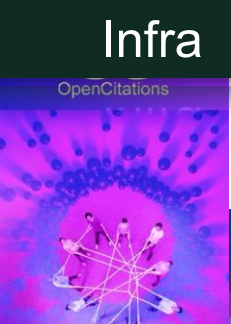
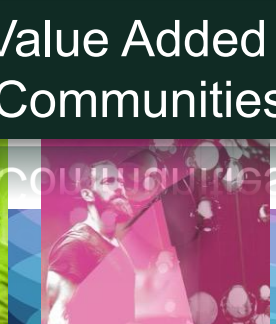
<https://www.openaire.eu/strategy-2023-25>



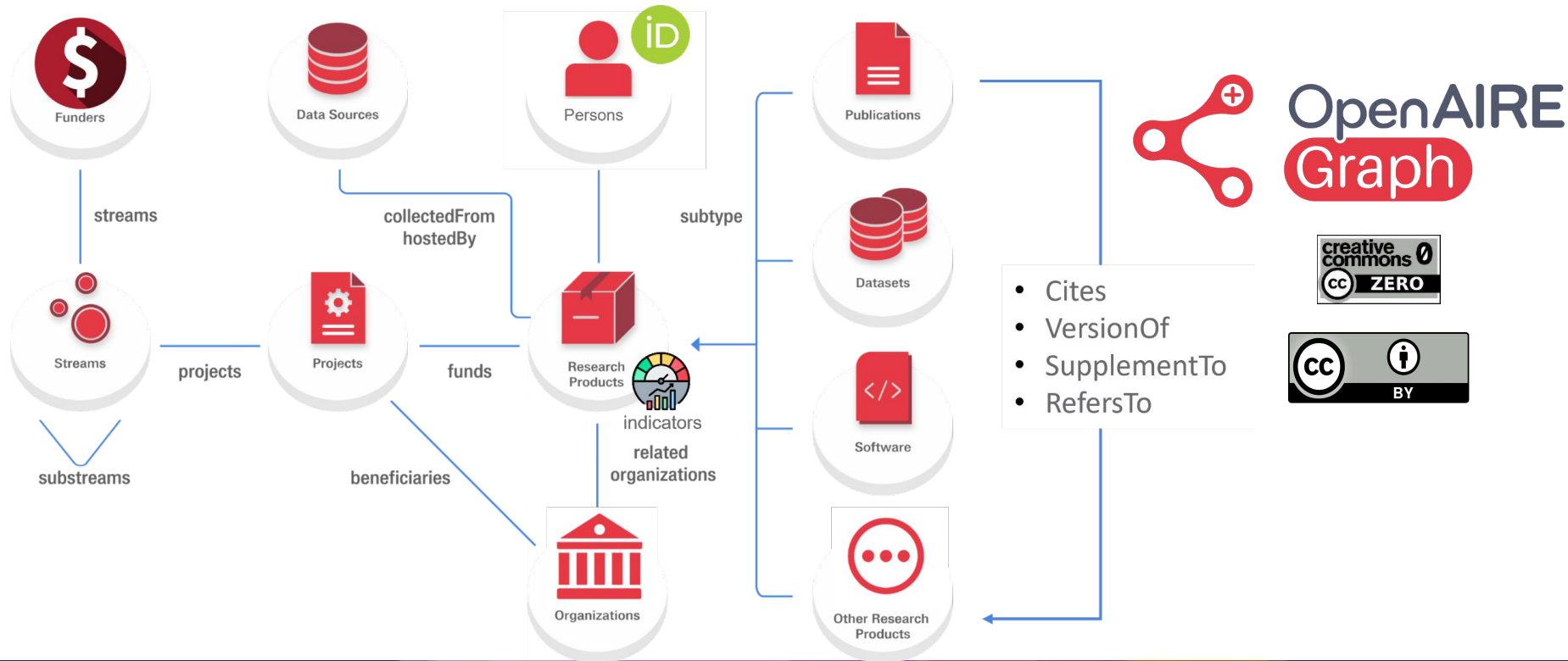


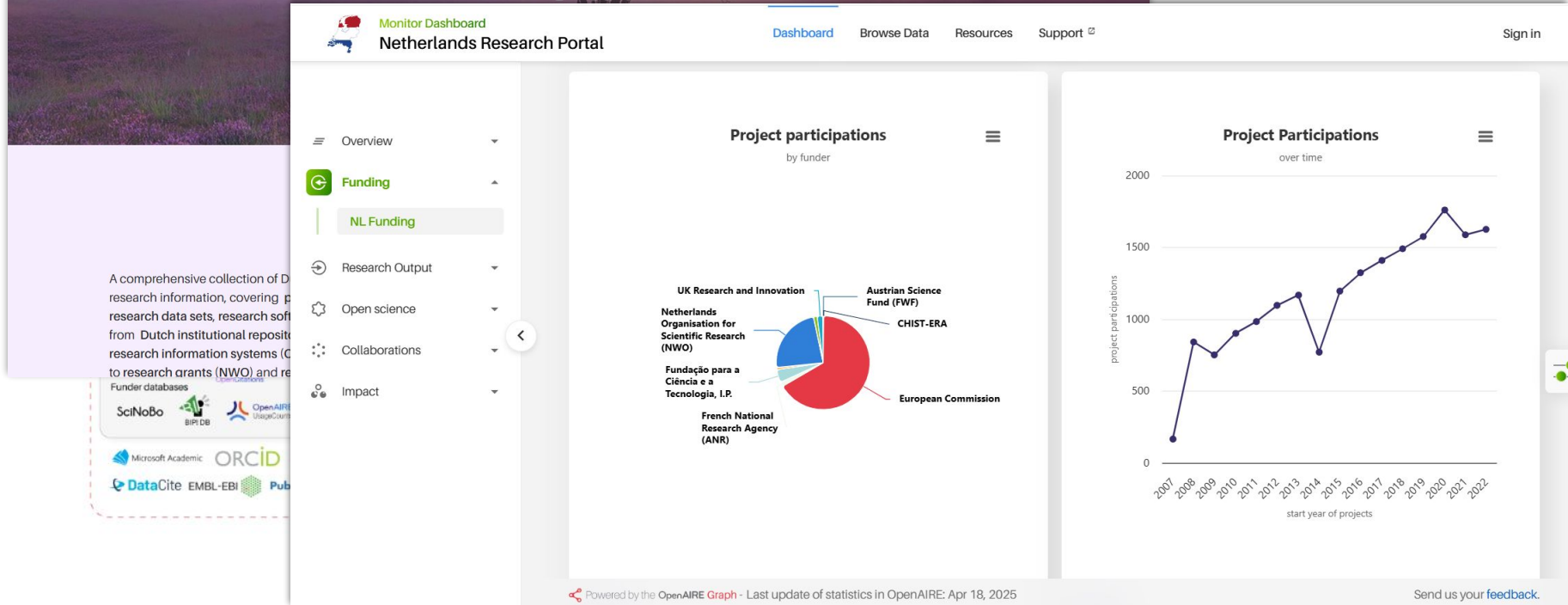
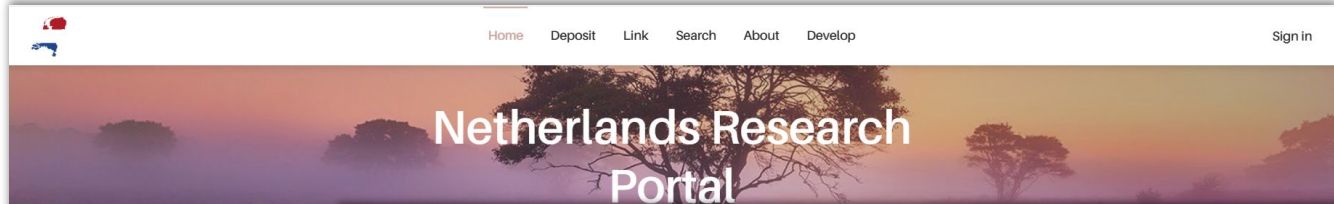
Services for all actors
in the R&I ecosystem

<http://catalogue.openaire.eu>



Data Backbone: The OpenAIRE Graph





PRACE Partnership for Advanced Computing in Europe

PRACE 3 – For HPC. For You.

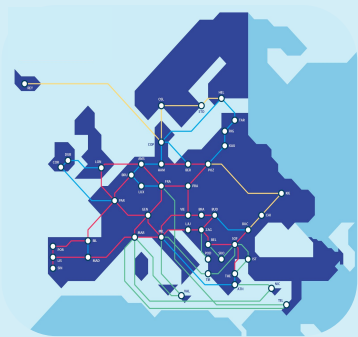
- ▶ Networking
- ▶ User centric
 - ▶ *Support for User communities (ind. & academic)*
 - ▶ *Peer Review*
 - ▶ *Community support e.g. FENIX calls*
 - ▶ *Access to advanced cloud resources*
 - ▶ *Access to Exotic Architectures Systems - prepare next generation HPC systems*
- ▶ Representative of the user communities
 - ▶ *Publish Scientific and Innovation Cases for HPC in Europe*
 - ▶ *Recommendations towards EuroHPC and national HPC stakeholders*

PRACE 3 – For HPC. For You.

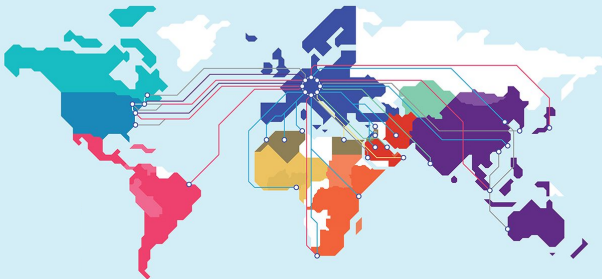
- ▶ Maintain close relationship with all European HPC stakeholders & with actors beyond Europe
 - ▶ *EuroHPC, Centres of Excellence, Competence Centres, ...*
 - ▶ *European research infrastructures , ...*
 - ▶ *Other European initiatives*
- ▶ Analysis of HPC-HPDA-AI-QC Impact
 - ▶ *Achieved scientific excellence and innovation incl. sound methodology development*
- ▶ Communication and dissemination activities
 - ▶ *PRACE Intersection Seminar*
 - ▶ *Maintain and develop awards (Ada Lovelace and HPC Excellence)*



The **GÉANT Association** is the collaboration of
European National Research and Education Networks (NRENs)



Supporting and representing
38 NRENs + NORDUnet across Europe



Interconnecting R&E
communities worldwide



Network &
Connectivity



Security



Identity
& Access

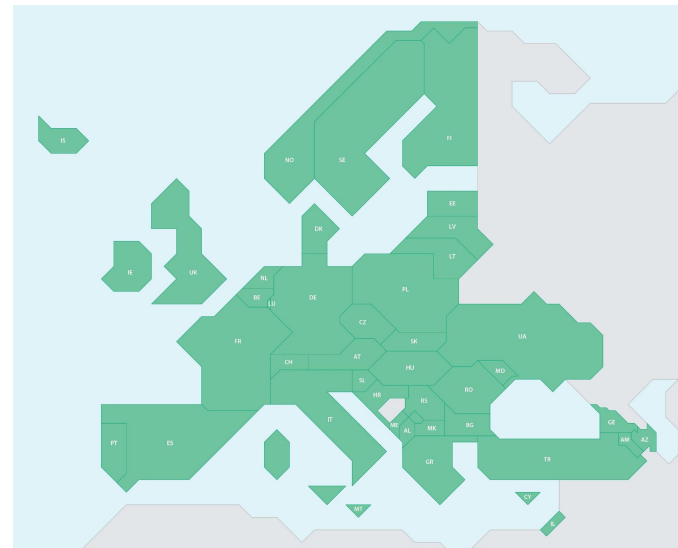


Cloud

Managing a portfolio of advanced R&E
services

GÉANT: a European Membership Organisation

- GÉANT represents all of Europe, bringing together 38 National Research and Education Networks (NRENs) plus NORDUnet (representing the Nordic countries)
- Jointly we support 10,000 institutions and 50 million citizens across the continent.
- GÉANT members connect universities, research institutions, laboratories, supercomputers, and more.



March 2025

NATIONAL MEMBERS

| | | | | | | | | | |
|----|-------------|----|----------------|----|-----------|----|-----------------|----|----------------|
| AL | Albania | CZ | Czech Republic | HU | Hungary | ME | Montenegro | SI | Slovenia |
| AM | Armenia | DE | Germany | IE | Ireland | MK | North Macedonia | SK | Slovakia |
| AT | Austria | EE | Estonia | IL | Israel | MT | Malta | TR | Turkey |
| AZ | Azerbaijan | ES | Spain | IT | Italy | NL | Netherlands | UK | United Kingdom |
| BE | Belgium | FR | France | LT | Lithuania | PL | Poland | UA | Ukraine |
| BG | Bulgaria | GE | Georgia | LV | Latvia | PT | Portugal | | |
| CH | Switzerland | GR | Greece | RO | Romania | | | | |
| CY | Cyprus | HR | Croatia | MD | Moldova | SE | Sweden | | |

REPRESENTATIVE MEMBER (NORDUnet)

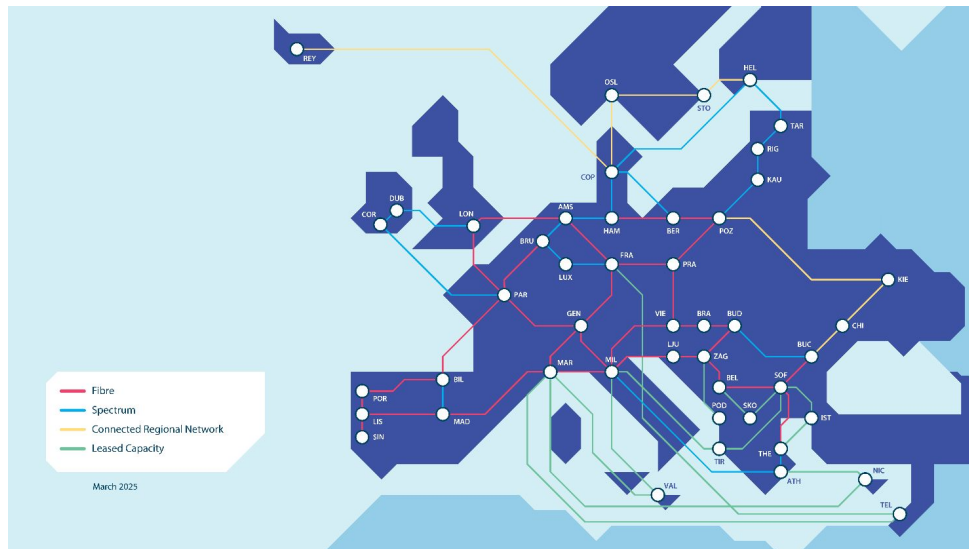
| | |
|-----|---------|
| DK | Denmark |
| FI | Finland |
| IS | Iceland |
| NOR | Norway |
| SE | Sweden |

ASSOCIATES

| | |
|-------|--------------------------------|
| COM | COMET |
| ESA | European Space Agency |
| CSU | CSU (Hungary) |
| RUS | Russian Research and Education |
| SUNET | SUNET (Sweden) |
| SRN | SRN (Norway) |

Tomorrow's network today

- GÉANT's foundation is ultra-high-speed and secure connectivity: a recently refreshed **terabit-ready pan-European internet purely for research and education**, connecting 43 European countries via our NREN members.
- Together we proudly **support all science**, all innovation, and all thematic areas – including high energy physics, biological research, earth observation, and so much more.
- **We are essential** to Europe's current strength and its future, supporting such entities as CERN, ITER, Copernicus, and all of Europe's Research Infrastructures. EuroHPC, AI factories and European quantum computers



THE GÉANT NETWORK



carries over
1000 Terabytes
of data every day



with **100Gbps**
service across the
core network

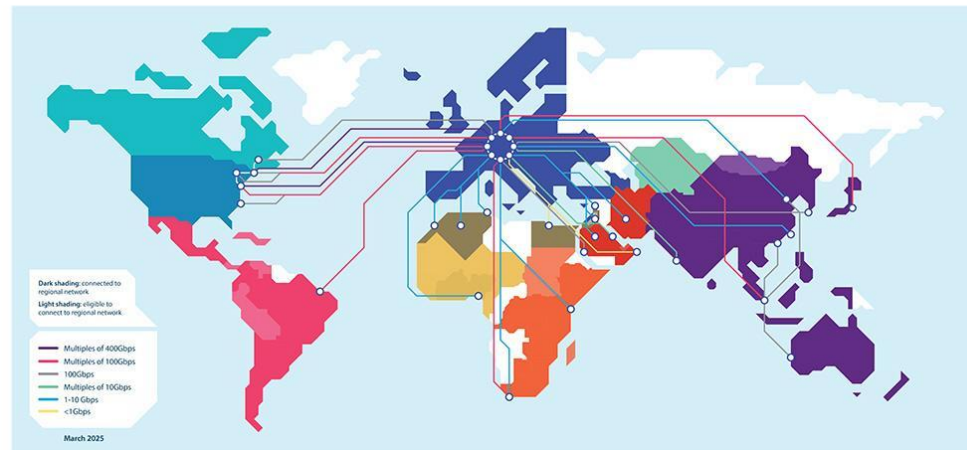


and is designed to
support up to **12 Tbps**
ahead of demand

International leadership

- Through extensive global partnerships, and thanks to EC funding, GÉANT reaches over 110 countries worldwide.
- Since 2003, DG INTPA has co-funded projects in Africa, Latin America, and Asia and this investment and leadership has led to the creation of sustainable structures across the world, following the model set by GÉANT and Europe's NRENs.
- **GÉANT has been building more resilient connections to the world for over 20 years.**

AT THE HEART OF GLOBAL RESEARCH AND EDUCATION NETWORKING



GÉANT Services

GÉANT develops the services its members need to support students, researchers, educators and innovators - at national, European and international levels.

Our portfolio of advanced services covers connectivity and network management, identity & access, security, real-time communications, cloud, procurement services.



**Network &
connectivity**



**Identity &
Access**



Security



Cloud

Thank you

Any questions?



Co-funded by
the European Union

