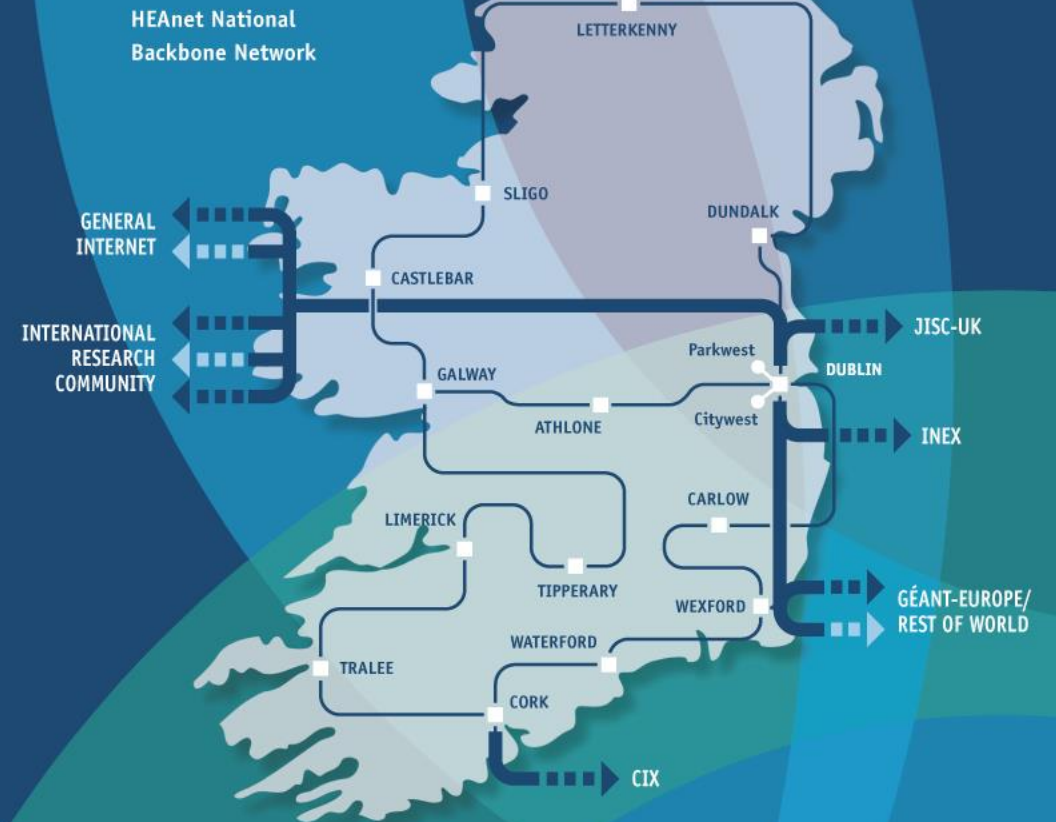




# FAIR Data Management and Open Science: Services and opportunities available in Europe

Roberto Sabatino – HEAnet  
Antti Pursula – EUDAT

HEAnet Conference, Killarney, 11 March 2022



# Introduction

- Research Engagement at HEAnet
- Researchers don't know us
  - Our services “just work”
  - Missed opportunities
- And FAIR data ?
  - Limited awareness of services and opportunities available through our European colleagues



# Agenda

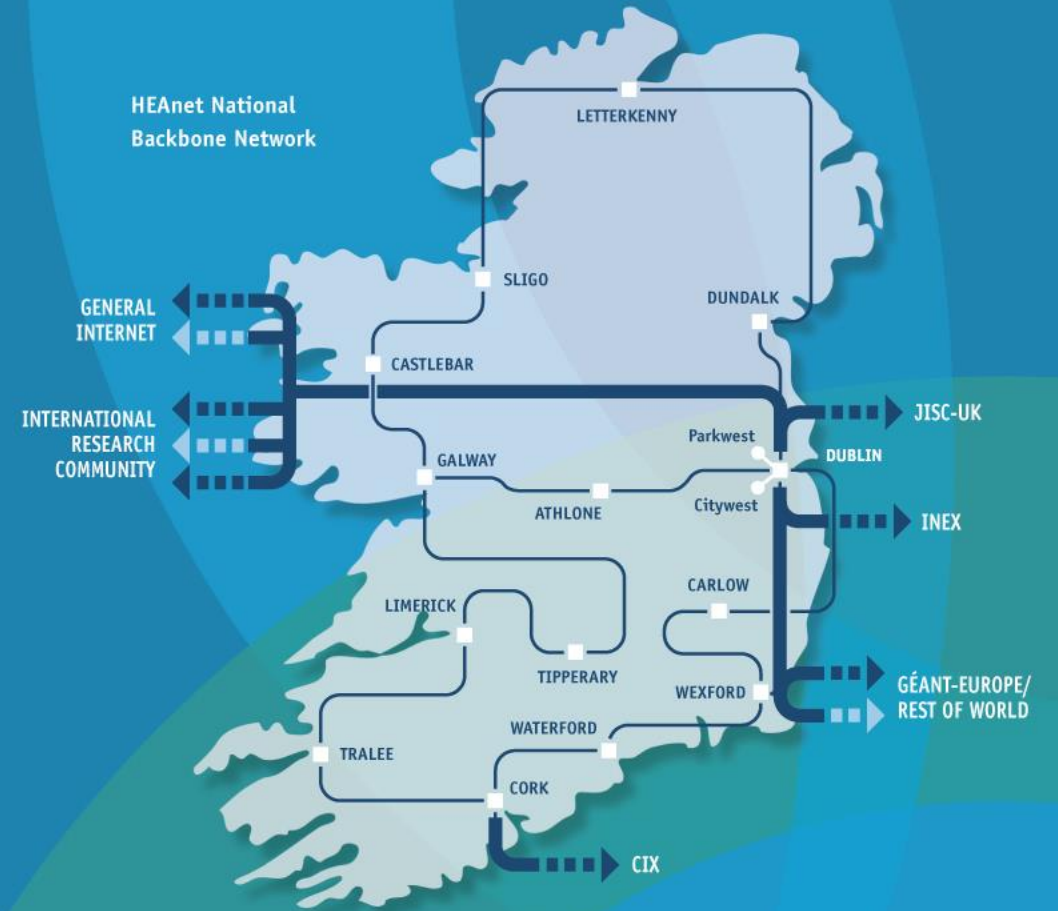
- RDM scene setting
- EUDAT services
- DICE-eosc

***Slides & content courtesy of  
Antti Pursula EUDAT Head of Secretariat***





# RDM Scene setting

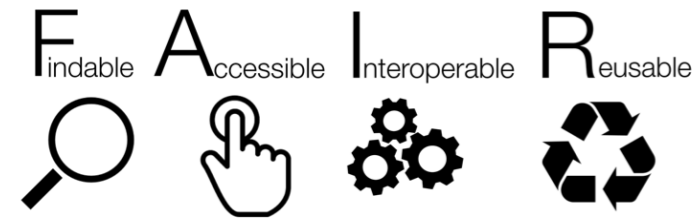


# Research Data Management

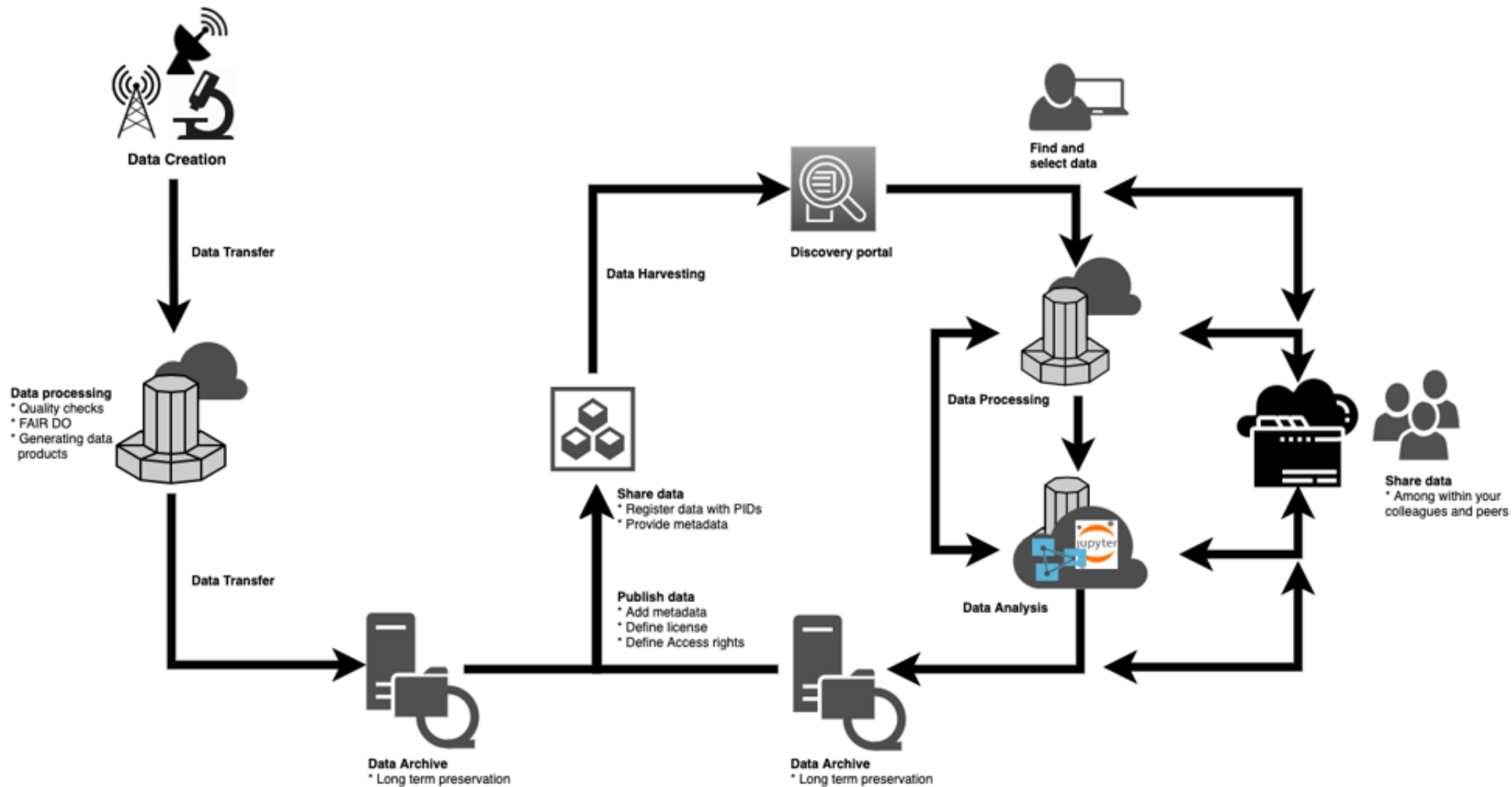
***Data management is a set of practices to handle collected and created information. It consists of a wide range of practices, concepts, procedures, processes, policies, and of accompanying systems. It enhances the value of data by making it interoperable, easier to find and understand, less likely to be lost, and more likely to be used and reused during original use and beyond.***

Enabling good research data management requires

- Policies
- Skills and support
- Services and infrastructure

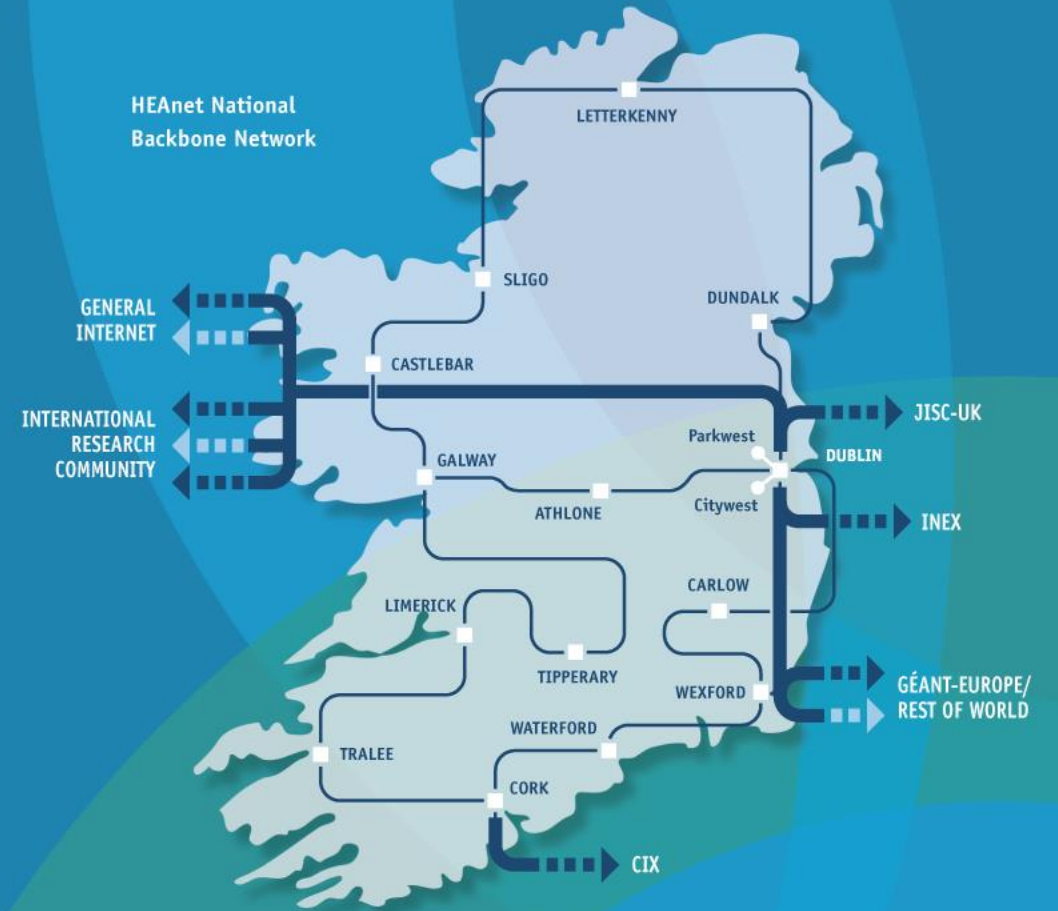








# EUDAT and its RDM services



## EUDAT CDI in a nutshell

- The EUDAT Collaborative Data Infrastructure (EUDAT CDI) is one the major e-infrastructures supporting research in Europe
- EUDAT's vision:

**Data is shared and preserved across borders and disciplines**

- According the vision, EUDAT provides a set of interoperable services that support European researchers in different steps of the research data life cycle.





**EUDAT** Collaborative  
Data Infrastructure

# The EUDAT members

## The CDI members (December 2020)

### Generic, Integrated Service Providers

- 1 CSC - IT Center for Science (CSC) - FI
- 2 CINECA, Consortium of universities (CINECA) - IT
- 3 Barcelona Supercomputing Center (BSC) - ES
- 4 Science and Technology Facilities Council (STFC) - UK
- 5 SURFpara Bv (SURFpara) - NL
- 6 Karlsruhe Institute of Technology (KIT) - DE
- 7 Max Planck Computing and Data Facility (MPCDF) - DE
- 8 CINES - National Computing Center for Higher Education (CINES) - FR
- 9 Greek Research and Technology Network S.A. (GRNET) - GR
- 10 Jülich Research Centre (JÜLICH) - DE
- 11 Institute of Bioorganic Chemistry Polish Academy of Sciences (IOB PAS) - PL
- 12 The Cyprus Institute - GR

### Generic, Interoperable Service Providers

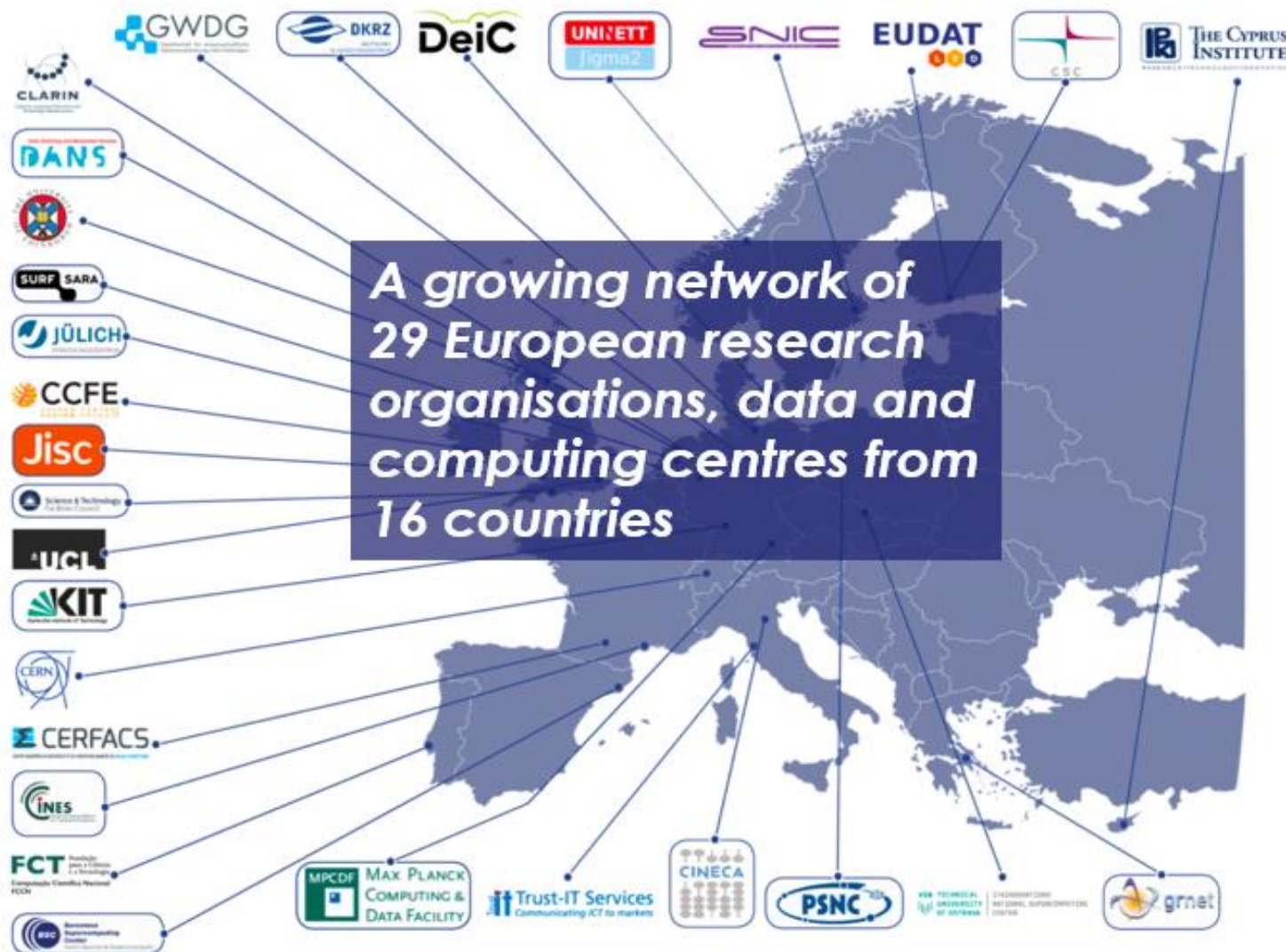
- 1 Uninet Sigma 2 As (SIGMA) - NO
- 2 Data Archiving and Networked Services (DANS) - NL
- 3 JISC LBG (LIS) - UK
- 4 Swedish National Infrastructure for Computing (SNIC) - SE
- 5 University of Edinburgh - UK
- 6 Danish eInfrastructure Cooperation (DeiC) - DK
- 7 The National Scientific Computing Unit of the Foundation for Science and Technology (FCT/FCCN) - PT
- 8 Gesellschaft für wissenschaftliche Datenverarbeitung mbH Göttingen (GWDG) - DE
- 9 IT4Innovations - CZ
- 10 Trust-IT Services - IT

### Thematic, Integrated Service Providers

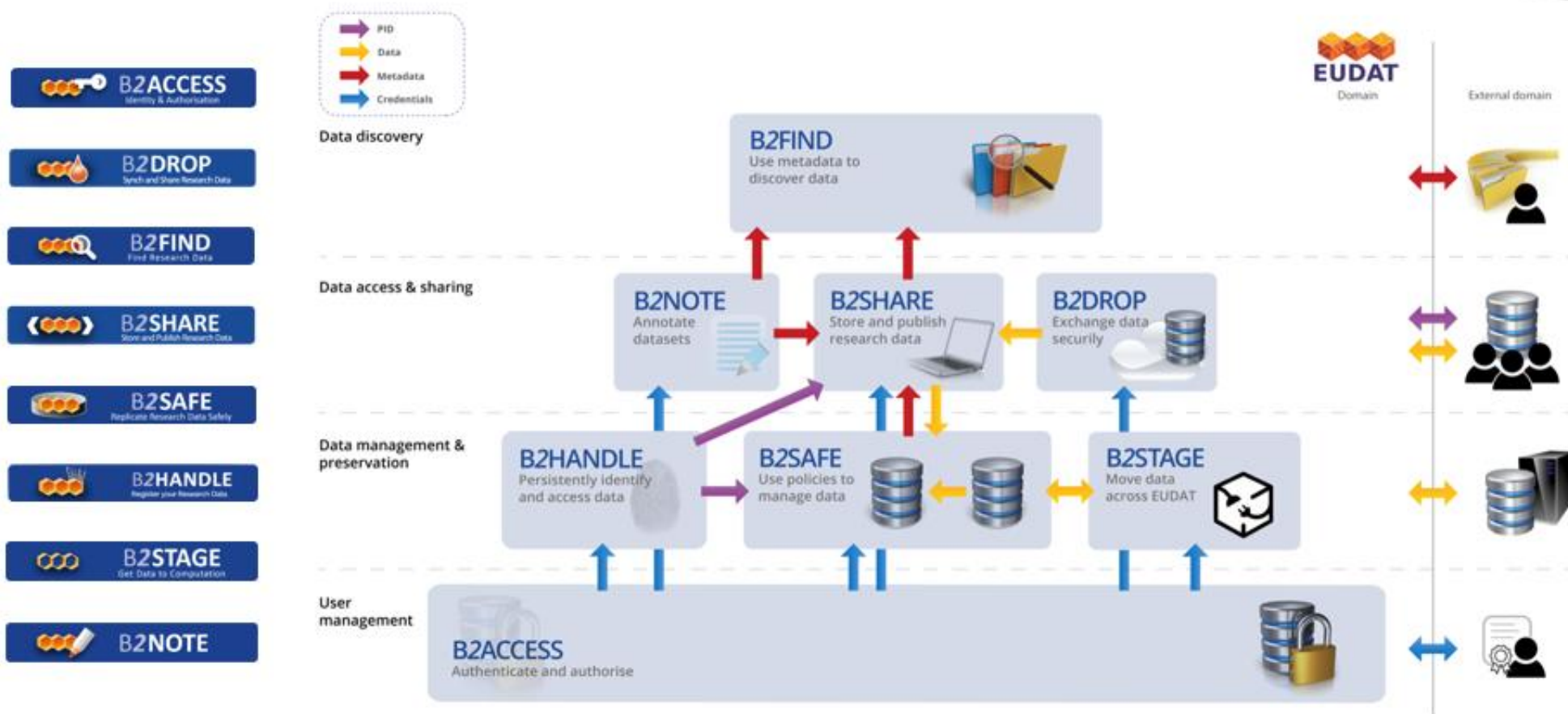
- 1 German Climate Computing Centre (DKRZ) - DE
- 2 University College of London (UCL) - UK

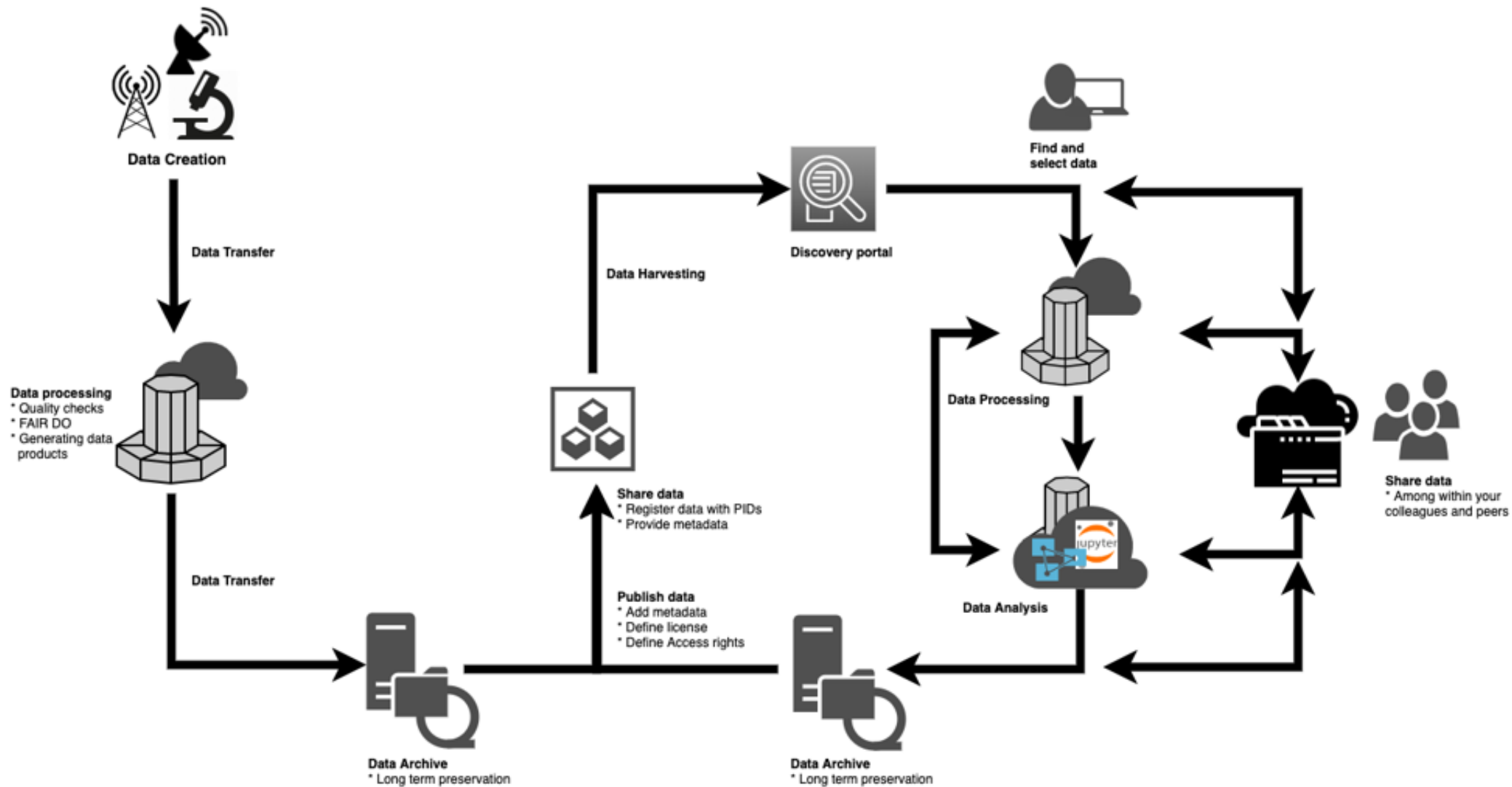
### Thematic, Interoperable Service Providers

- 1 European Organization for Nuclear Research (CERN) - INT
- 2 Culham Centre for Fusion Energy (CCFE) - UK
- 3 Meertens Institute (MEERTENS) - NL
- 4 CLARIN-ERIC - NL
- 5 European Center in Research and Advanced Training on Scientific Computing (CERFACS) - FR

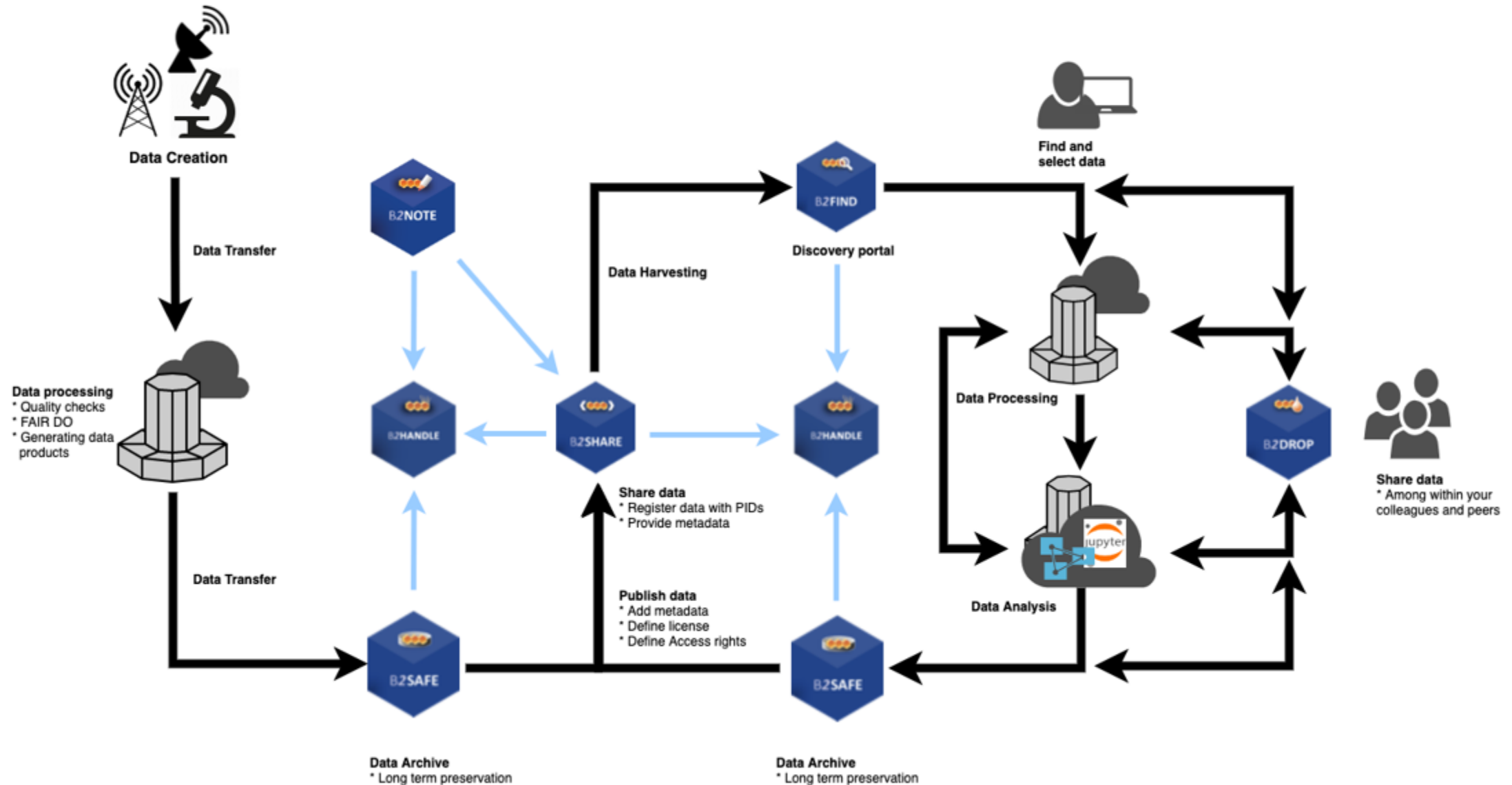


# The EUDAT Service Suite





## Research Data Life Cycle in context of EUDAT building blocks





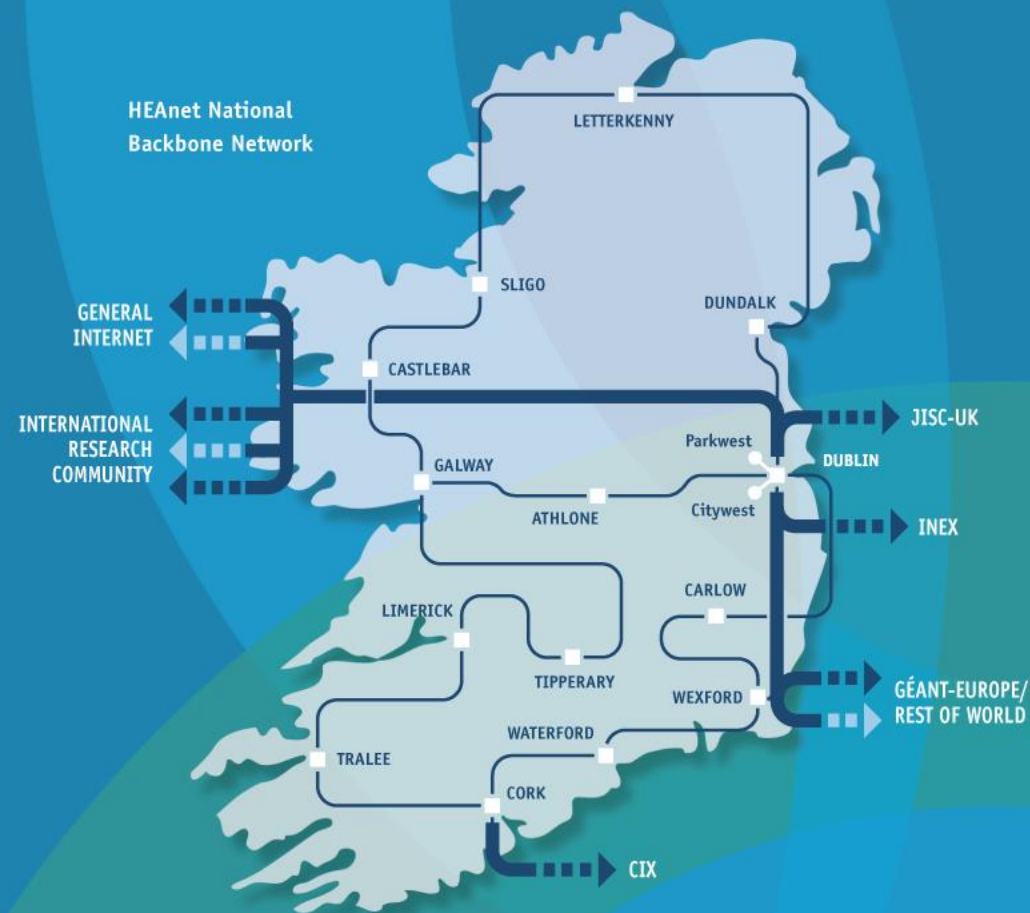
## **EUDAT support to communities**

- For end-users
  - Free generic services B2DROP, B2SHARE, B2FIND
  - Use of community services
- For communities and projects
  - Co-designed customised EUDAT solutions, e.g.
    - Data storage, replication and transfer for computing on B2SAFE
    - Community specific metadata and collections in B2SHARE and B2FIND
- For research organisations and research infrastructures
  - Contracted customised services
  - Membership in EUDAT CDI





DICE-eosc





## Project Summary



**Consortium: 24 Partners**  
**Coordinator: CINECA**



**Grant Agreement: 101017207**  
**Call: INFRAEOSC-07-2020**



**30 months**  
*(1 Jan 2021 – 30 Jun 2023)*



**Enable a European storage  
and data management infrastructure for EOSC**  
**Provide generic services to store, find, access,  
and process data in a consistent and persistent way**



**Budget: € 6.997.706,66**



**18 providers from 11 European countries are offering  
14 state-of-the-art data management services  
together with more than 50 PB of storage capacity**



## Services Offering

- \* 14 services covering the whole research data management lifecycle
- \* >50 PB of storage offered with the services
- \* Standard requests to be served within 2 weeks
- \* Support can be provided for customised solutions
- \* Request the services from the EOSC marketplace - > [here](#)
- \* Ask for further information by email -> [here](#)



### Data Discovery

Making research data findable  
Data source harvestable and to make data widely discoverable



### Data Repository

Long-term data resources preservation and sharing  
To store non-active FAIR data



### Policies based Data Archive

Mid-long term data resources, accessible from computing facilities to store non-active research data  
Value-added services (integrity checks, replications, ...) for long-term, stable data archives.



### Data Archive

Mid term storage resources after/between projects,  
Accessible from computing facilities to store non-active research data, bitwise preservation



### Personal and/or Project workspace

Mid-term storage during project,  
Good connection to computing facilities,  
To store active resource data





# To know more

- <https://www.eudat.eu>
- [https://www.eudat.eu/sites/default/files/EUDAT\\_Brochure\\_Generica\\_Jan\\_UPDATED.pdf](https://www.eudat.eu/sites/default/files/EUDAT_Brochure_Generica_Jan_UPDATED.pdf)
- <https://dice-eosc.eu>
- ResearchEngagement@heanet.ie



# Thank you

Any questions?

