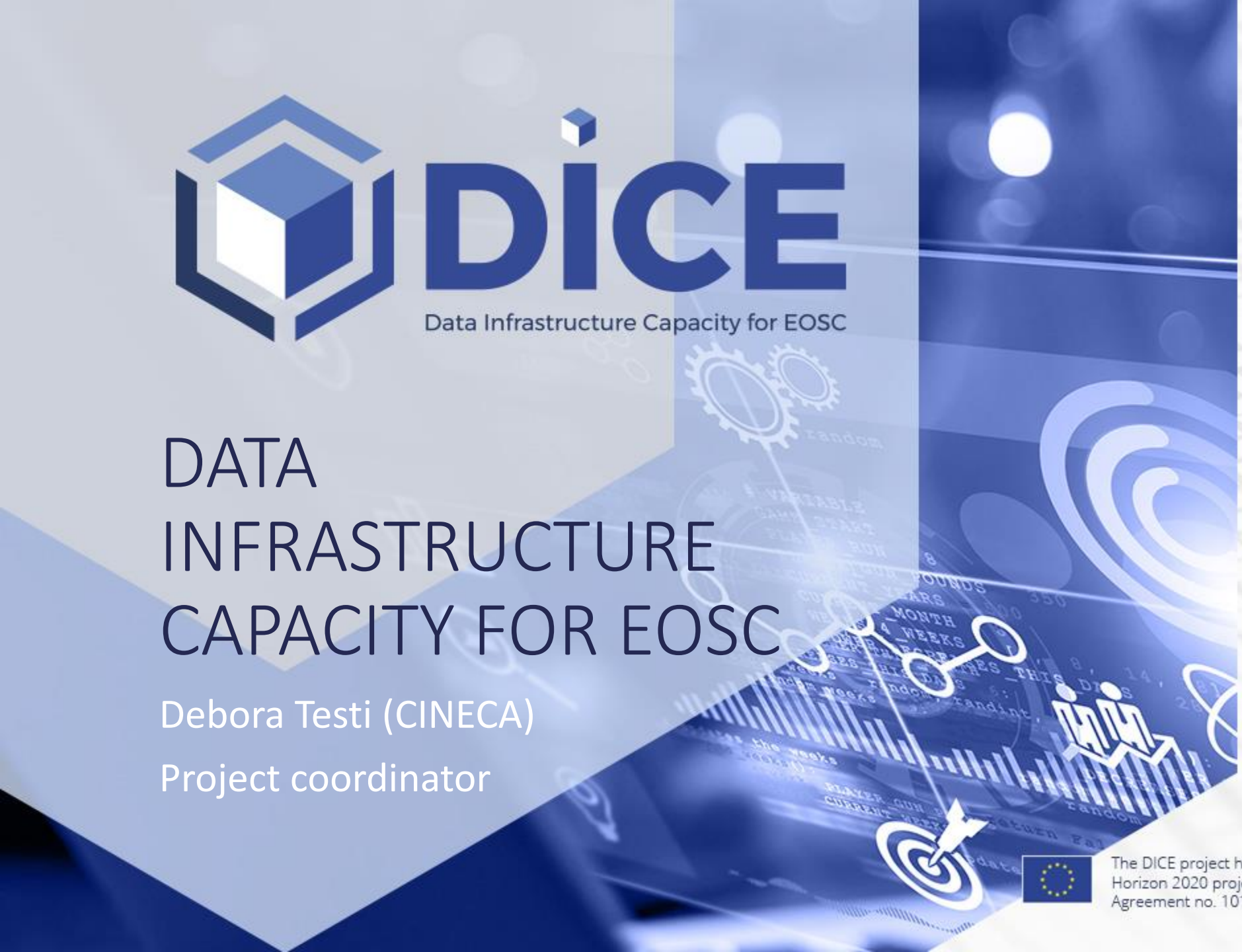
DICE

Data Infrastructure Capacity for EOSC

DATA INFRASTRUCTURE CAPACITY FOR EOSC

Debora Testi (CINECA)

Project coordinator



The DICE project has received funding from the European Union's Horizon 2020 project call H2020-INFRAEOSC-2018-2020 under Grant Agreement no. 101017207

Summary

Consortium: 24 Partners
Coordinator: CINECA

Grant Agreement: 101017207
Call: INFRAEOSC-07-2020

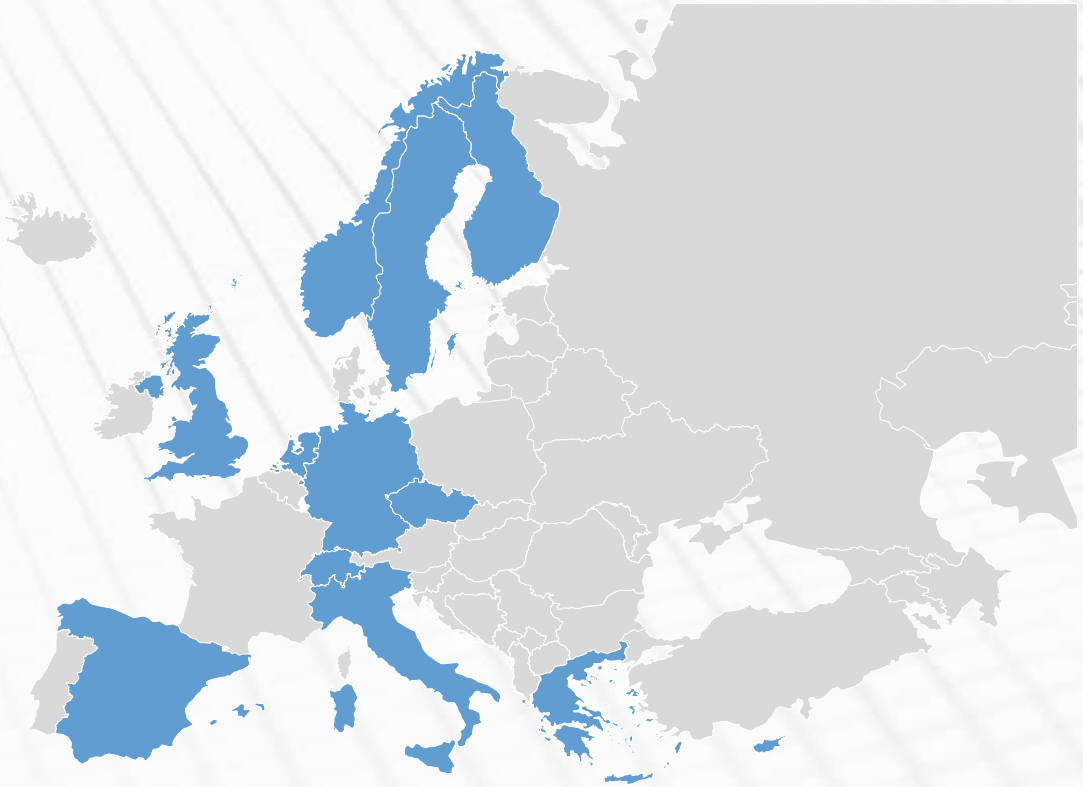
30 months
(1 Jan 2021 – 30 Jun 2023)

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

Consortium



Service providers

CINECA
JÜLICH Forschungszentrum
CSC
BSC Barcelona Supercomputing Center Centro Nacional de Supercomputación
MPCDF Max Planck Computing & Data Facility
grnet
KIT Karlsruhe Institute of Technology
DKRZ Deutsches Klimarechenzentrum
ETH zürich CSCS Centro Svizzero di Calcolo Scientifico Swiss National Supercomputing Centre
SURF
INFN Istituto Nazionale di Fisica Nucleare
KNAW
DataCite Find, Access, and Reuse Data
SNIC
The Cyprus Institute Research·Technology·Innovation
GWDG Gesellschaft für wissenschaftliche Datenverarbeitung mbH Göttingen
VŠB Technická univerzita Ostrava | IT4Innovations Národní superpočítačové centrum
cesnet
UNINETT
Sigma2

Users' communities

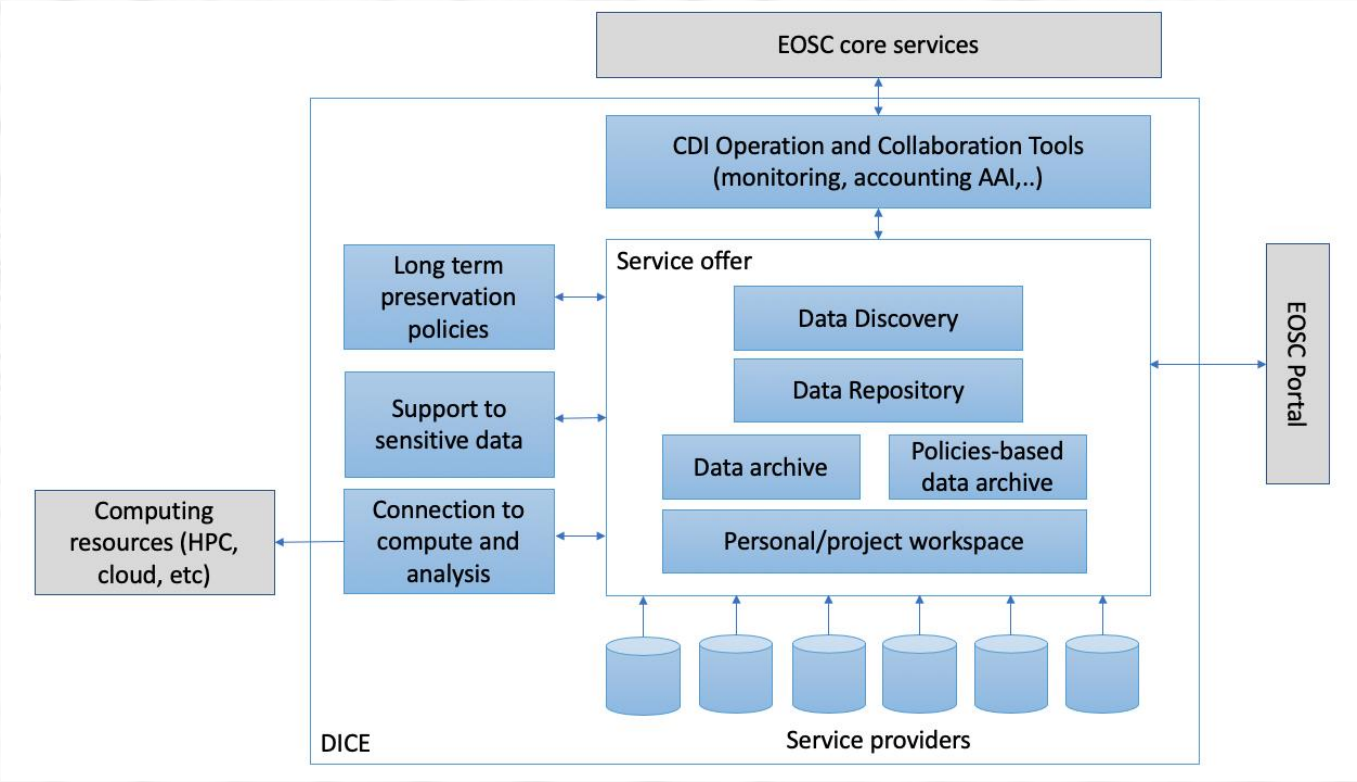
ASTRON
ICOS Carbon Portal
UCL

Outreach & sustainability

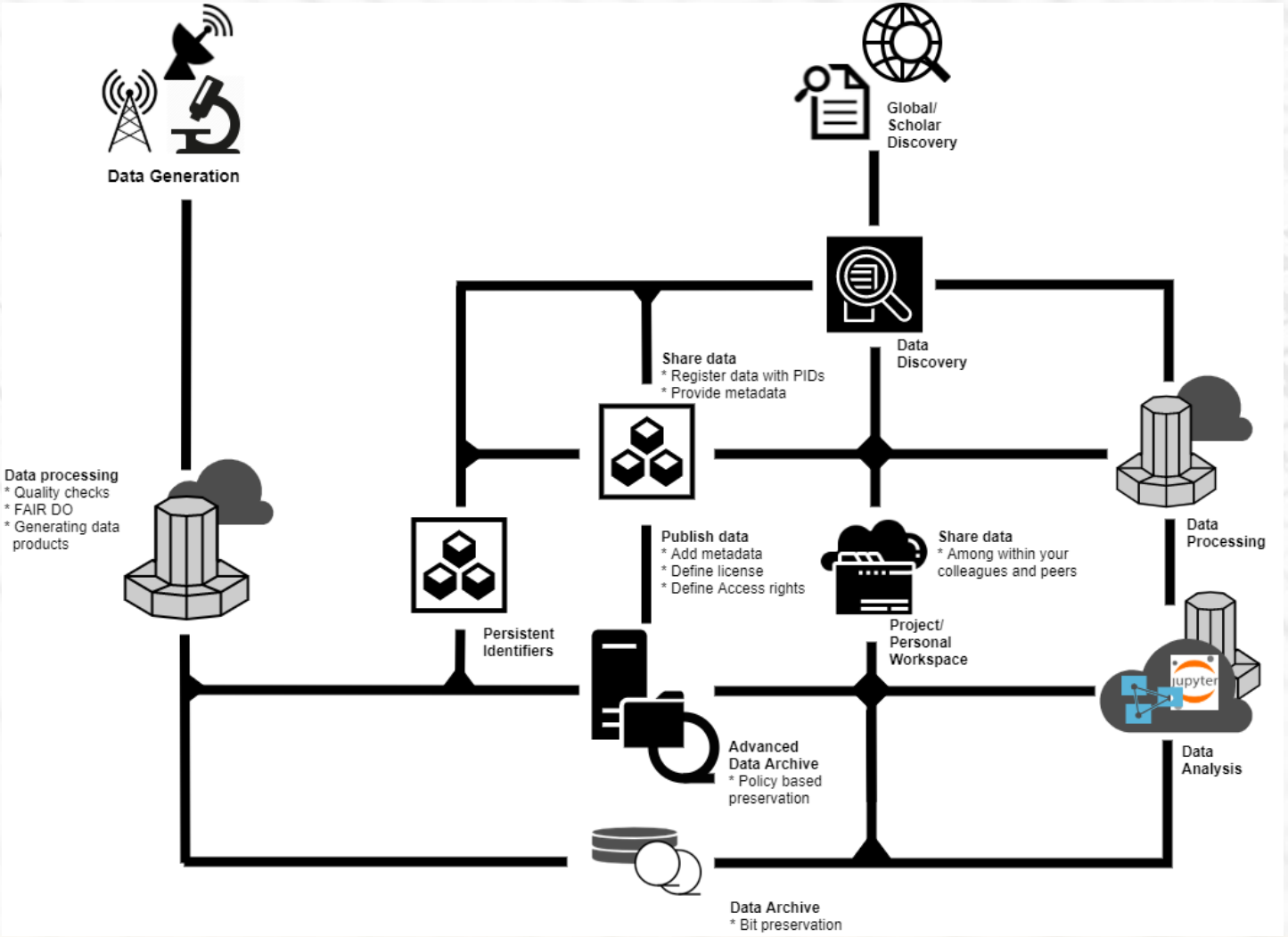
Trust-IT Services Communicating ICT to markets
EUDAT LTD

Objectives

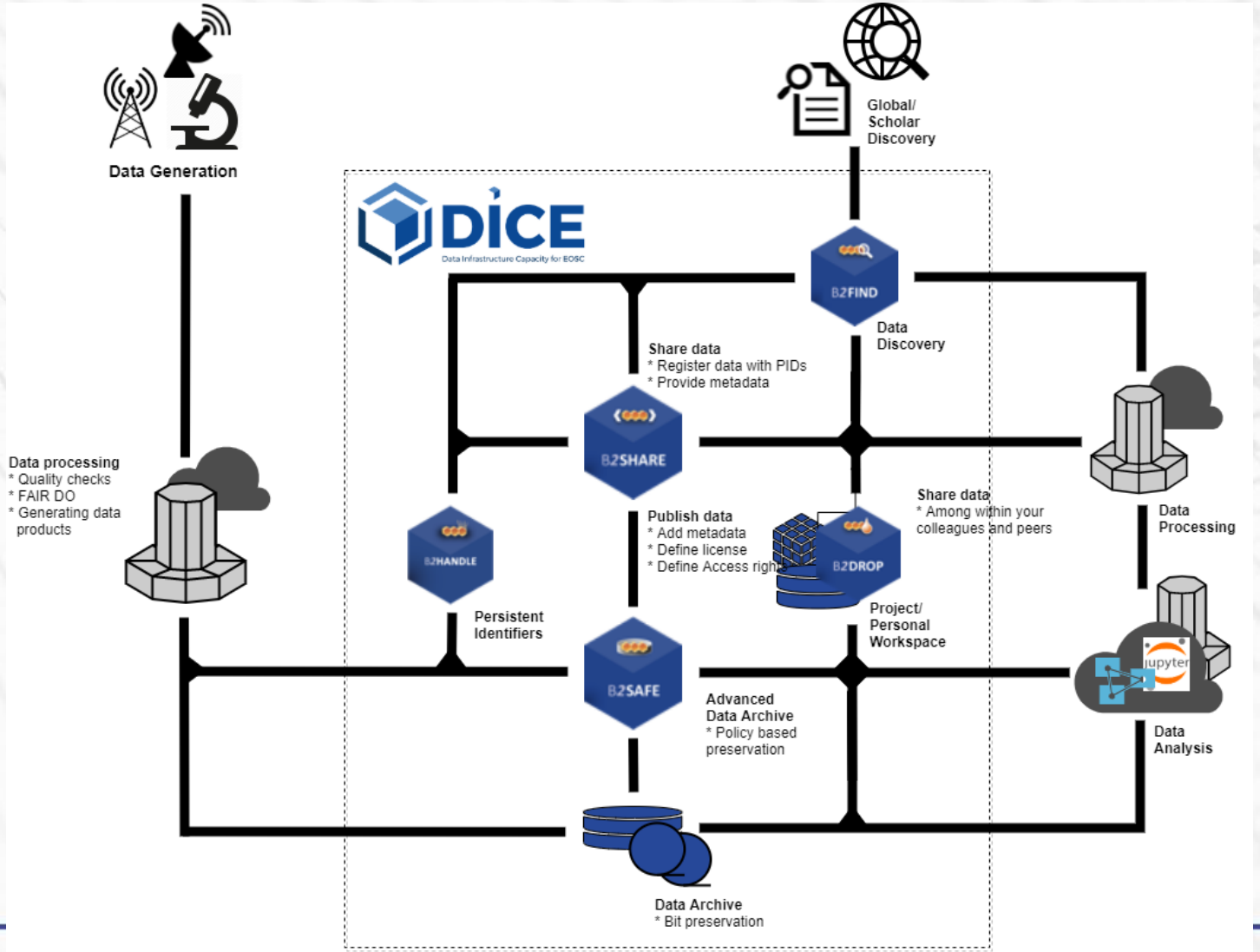
- Enable a European storage and data management infrastructure for EOSC
- Provide generic services to store, find, and accessdata in a consistent and persistent way
- Enrich the available data management services to better support: sensitive data, long-term preservation, connection with compute
- Provide resources under VA mechanism for each service



Research data workflow



Research data workflow - DICE



DICE offering

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

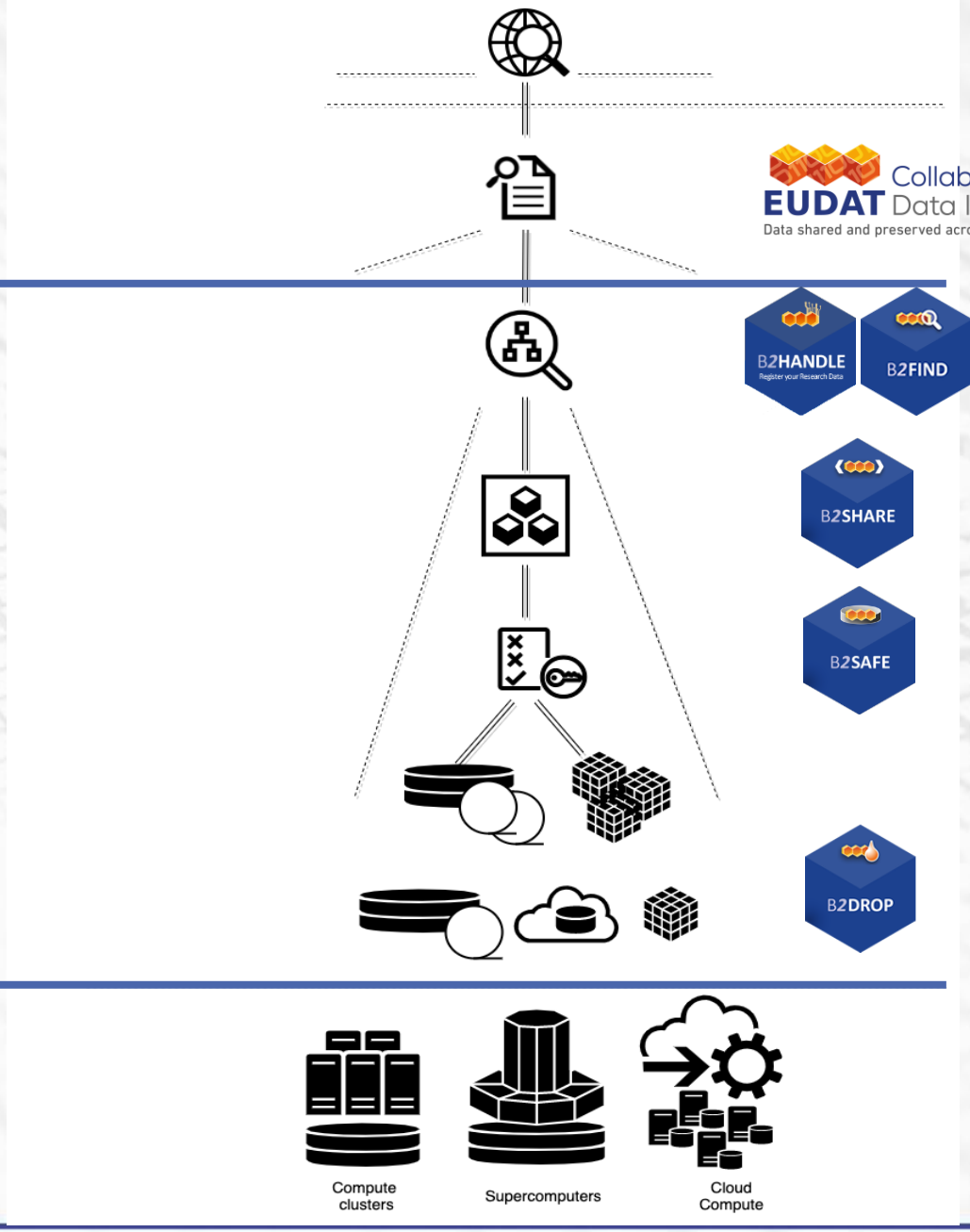
Mid-long term data resources, accessible from computing facilities to store non-active research data
Value-added services (integrity checks, replications, ..) for long-term, stable data archives.

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



DICE offering

	Total capacity offered
Data discovery	75 prefixes > 50 organisations
Data repository	7’900 TB
Policy based Data Archive	17’450 TB
Data archive	25’350 TB
Personal/project workspace	5’150 TB

Resources are offered free at the point of use until June 2023

Services can be used by themselves or in combination with other DICE services and providers

Integration with communities' platforms SUMMARY

	Use cases	Compute and Analysis	Discovery and Referencing	Long Term Preservation
CompBioMed	biomed data findability and replica in HPC centers	B2SHARE B2HANDLE		B2SAFE
LOFAR	radio astronomy data preservation and discovery		B2HANDLE B2FIND	B2SHARE
ICOS Integrated Carbon Observation System	benchmarking tool, data storage staging and publication	B2SHARE		B2SAFE

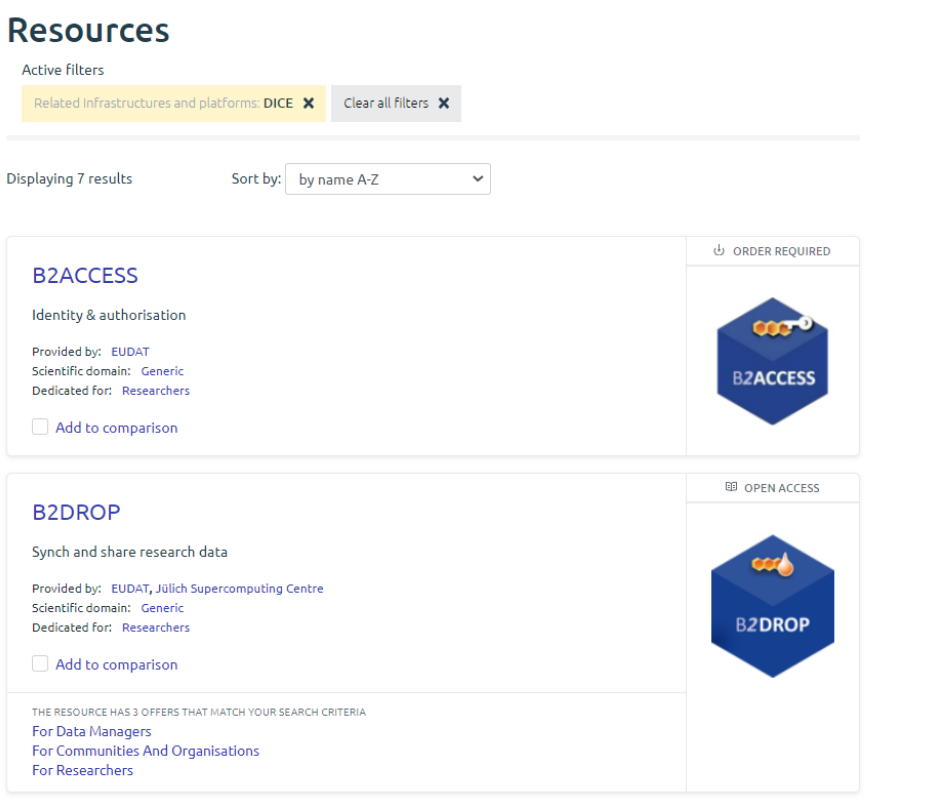
How to access DICE services

- Services can be requested any time
- For most categories, services are already onboarded and accessible in the EOSC marketplace

https://marketplace.eosc-portal.eu/services?sort=_score&related_platforms%5B%5D=53

- More services/installations will be made available in the next few weeks
- Services can be requested also via the EUDAT support channel:

https://eudat.eu/contact-support-request



DICE
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Thank you!

JOIN OUR COMMUNITY

DICEosc

/company/diceosc

For further information:
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