

# EUDAT2020

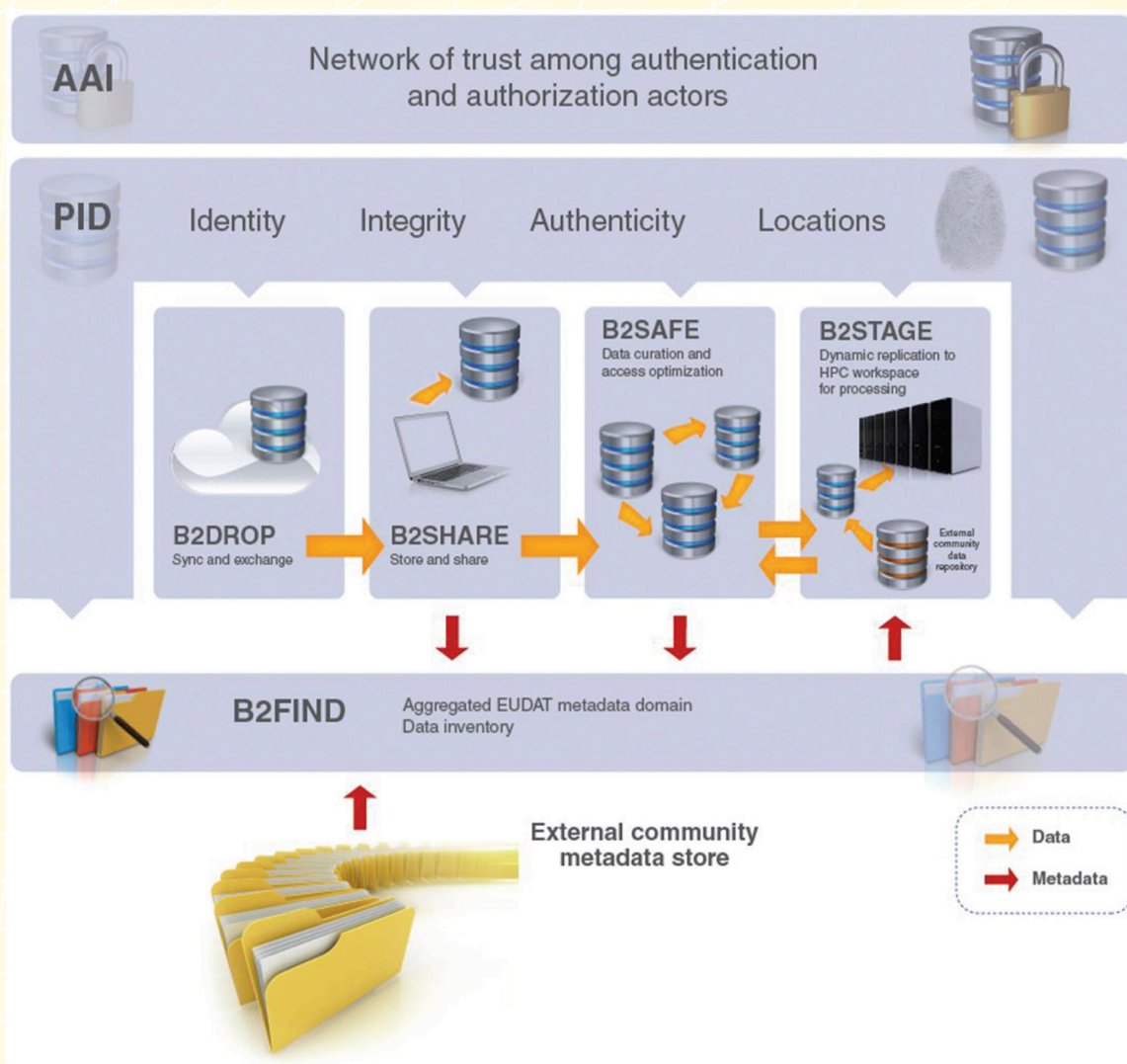


Figure 1: Interaction of EUDAT services

EUDAT2020 brings together a unique consortium of e-infrastructure providers, research infrastructure operators, and researchers from a wide range of scientific disciplines, working together to address the new data challenge. In most research communities, there is a growing awareness that the "rising tide of data" will require new approaches to data management and that data preservation, access and sharing should be supported in a much better way. Data, and in particular Big Data, is an issue touching all research infrastructures.

EUDAT2020's vision is to enable European researchers and practitioners from any research discipline to preserve, find, access, and process data in a trusted environment, as part of a Collaborative Data Infrastructure (CDI) conceived as a network of collaborating, cooperating centres. The CDI combines the richness of numerous community-specific data repositories with the permanence and persistence of some of Europe's largest scientific data centres.

EUDAT2020 builds on the foundations laid by the first EUDAT project (Fig. 1), strengthening the links between the CDI and expanding its functionalities and remit. Covering both access and deposit, from informal data sharing to long-term archiving, and addressing identification, discoverability and computability of both long-tail and big data, EUDAT2020's services will address the full lifecycle of research data.

One of the main ambitions of EUDAT2020 is to bridge the gap between research infrastructures and e-Infrastructures through an active engagement strategy, using the communities that are in the consortium as EUDAT beacons and integrating others through innovative partnerships.

During its three-year funded life, EUDAT2020 will evolve the CDI into a healthy and vibrant data-infrastructure for Europe, and position EUDAT as a sustainable infrastructure within which the future, changing requirements of a wide range of research communities are addressed.

### EUDAT Service Suite

Research communities from different disciplines have different needs for data management and analysis, but they all have requirements for basic data services.

**EUDAT** offers common data services (Fig. 2) that support multiple research communities through a geographically distributed network of general-purpose data centres and community-specific data repositories.

**B2DROP** is a secure and trusted data exchange service for researchers and scientists to keep their research data synchronized and up-to-date and to exchange it with other researchers.

**B2SHARE** is a user-friendly, reliable and trustworthy service for researchers, scientific communities and citizen scientists to store and share small-scale research data from diverse contexts. B2SHARE offers the data owner to define access policies, add community-specific metadata and assigns persistent identifiers to data sets.

**B2SAFE** is a robust, safe and highly available service that allows community repositories to implement data management policies on their research data and replicate data



Figure 2: EUDAT service suite

across multiple administrative domains in a trustworthy manner.

**B2STAGE** is a reliable, efficient, and lightweight service to transfer research data sets between EUDAT storage resources and High Performance Computing (HPC) workspaces.

**B2FIND** is a simple, user-friendly metadata catalogue of research data collections stored in EUDAT data centres and other repositories.

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