

Enabling Open Science

Discussing NREN Research Data Management Needs

Yann Le Franc, PhD
Head of EUDAT Secretariat

- 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**



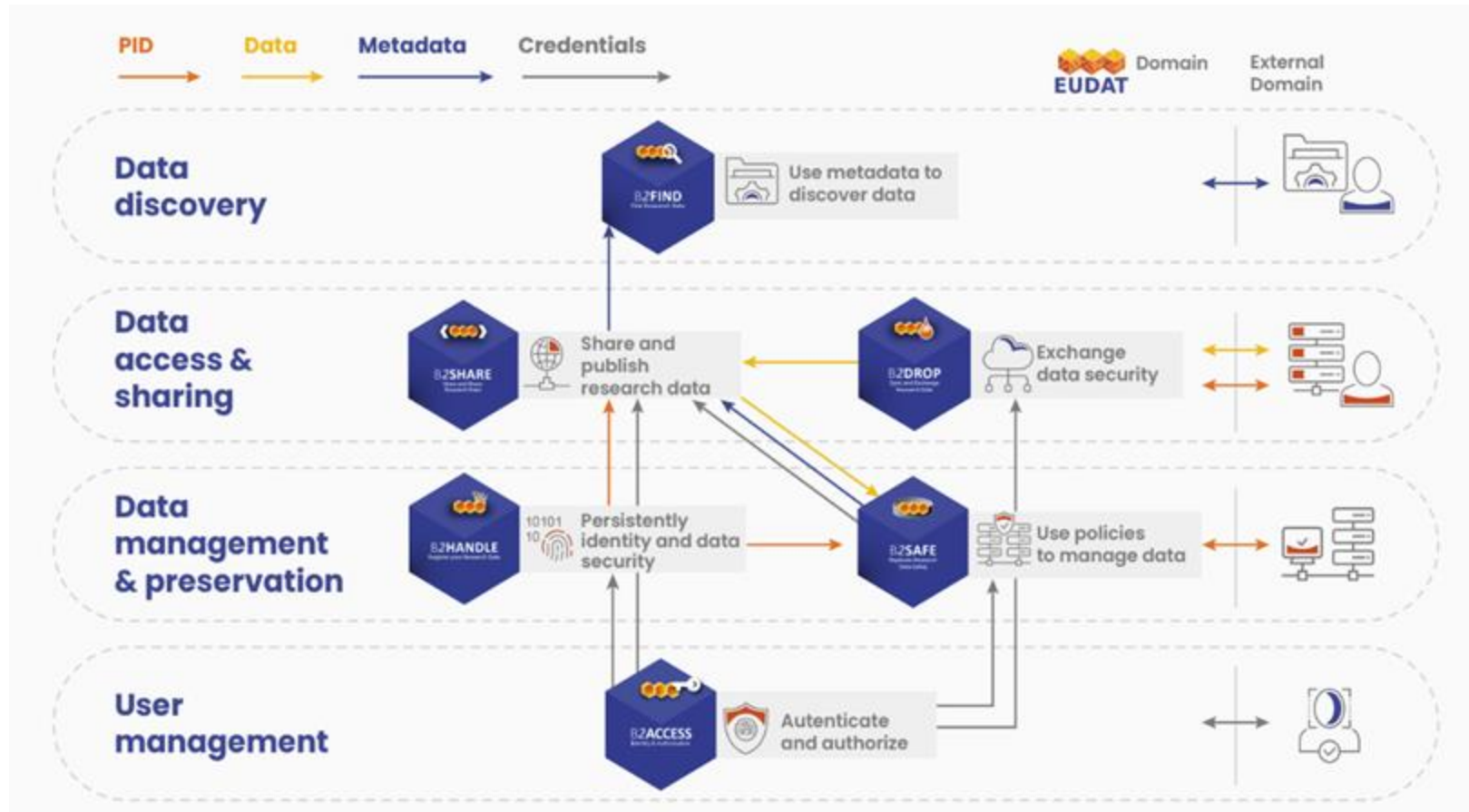
According to the vision, EUDAT provides:

- **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



What EUDAT offers



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

Documentation for all services available at: <https://docs.eudat.eu>

What EUDAT offers



EUDAT service suite



Documentation for all services available at: <https://docs.eudat.eu>

Providing services to NRENs

*Storage service for active data -
a HEAnet testimony*

Robert Sabatino



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EUDAT engagement model

- EUDAT services are designed and implemented to be generic and be used in any scientific domain
 - We currently serve users from 17 different scientific domains
- Services can be used individually or in combination
- Services can be integrated in communities workflows



Different strategies for different usage scenarios



- For end-users and single researchers

- Access to generic services (i.e. B2DROP, B2SHARE, B2FIND)



Free access

- For data managers of communities and projects



Pay per use



- Data storage, replication and transfer for computing on B2SAFE
- Sync and share data service with B2DROP
- Registration of prefixes and hosting of PIDs with B2HANDLE
- Community specific metadata and collections in B2SHARE
- Harvesting of community repositories in B2FIND
- Dedicated instances can be created and provided

- For research organisations and research infrastructures



Pay per use

- Contracted customised services or solutions
- Make use of our expertise

- NRENs can make use of services provided by EUDAT for their users
 - Besides the central instances, dedicated instances can be deployed and provided
 - Dedicated solutions can also be discussed and configured to meet specific requirements
 - Customers can be the individual universities or NREN as broker
 - Support to users is provided by EUDAT providers as part of the service offering
- Collaboration with NRENs can also be achieved via joint participation to EU funded projects

Any organisation can join as a service provider (CDI Nodes), as long as it satisfies a set of technical requirements. A service provider can join as an interoperable or integrated node

Process

1. Apply @ eudat-cdi-secretariat@postit.csc.fi
2. Membership evaluation and approval by CDI Council
3. Sign CDI Collaboration Agreement
4. Agree to comply with EUDAT Service Management Framework (SMF) and the EUDAT CDI Model

Generic Service Providers have regional, organizational or national mandates to support scientific research, usually from different disciplines.

Thematic Service Providers are discipline-specific organisations mandated to support a well-defined scientific community or group of customers and users.

Interoperable CDI node

- Must (or plan to) have a data repository
- Commitment to provide in kind contribution on some of EUDAT activities

Integrated CDI node via one of the following

- provide services through EUDAT Ltd, and sign the service distribution agreement for the relevant services;
- run a central EUDAT service or service component as part of the EUDAT CDI infrastructure, and sign the relevant OLA
- run an EUDAT service or service component, on behalf of EUDAT CDI, as part of a collaboration project or initiative (e.g. EC project), and sign the relevant OLA

What is your preferred way of engagement?



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The future of EUDAT: Becoming one of the main building block of the EOSC Federation

- European Open Science Cloud (EOSC) aims to provide researchers and innovators in Europe with an open and trusted multi-disciplinary environment where they can publish, find and reuse data, tools and services for research and innovation.
- Steps are being taken to realise the objective to establish EOSC as a federated system of systems for sharing of research data and digital resources across Europe.
- The EOSC EU Node, procured by the EC, was launched in October 2024.
 - It is the first node of the EOSC Federation, providing a set of data, tools and services to researchers across Europe.
 - It serves as reference node and facilitates the interconnection of other nodes in the EOSC Federation.

What is the EOSC Federation?

- Engagement and inclusion of other nodes is currently being pursued to expand the EOSC Federation for the benefit of researchers.
- 13 candidate nodes have been selected to be part of the first build-up phase

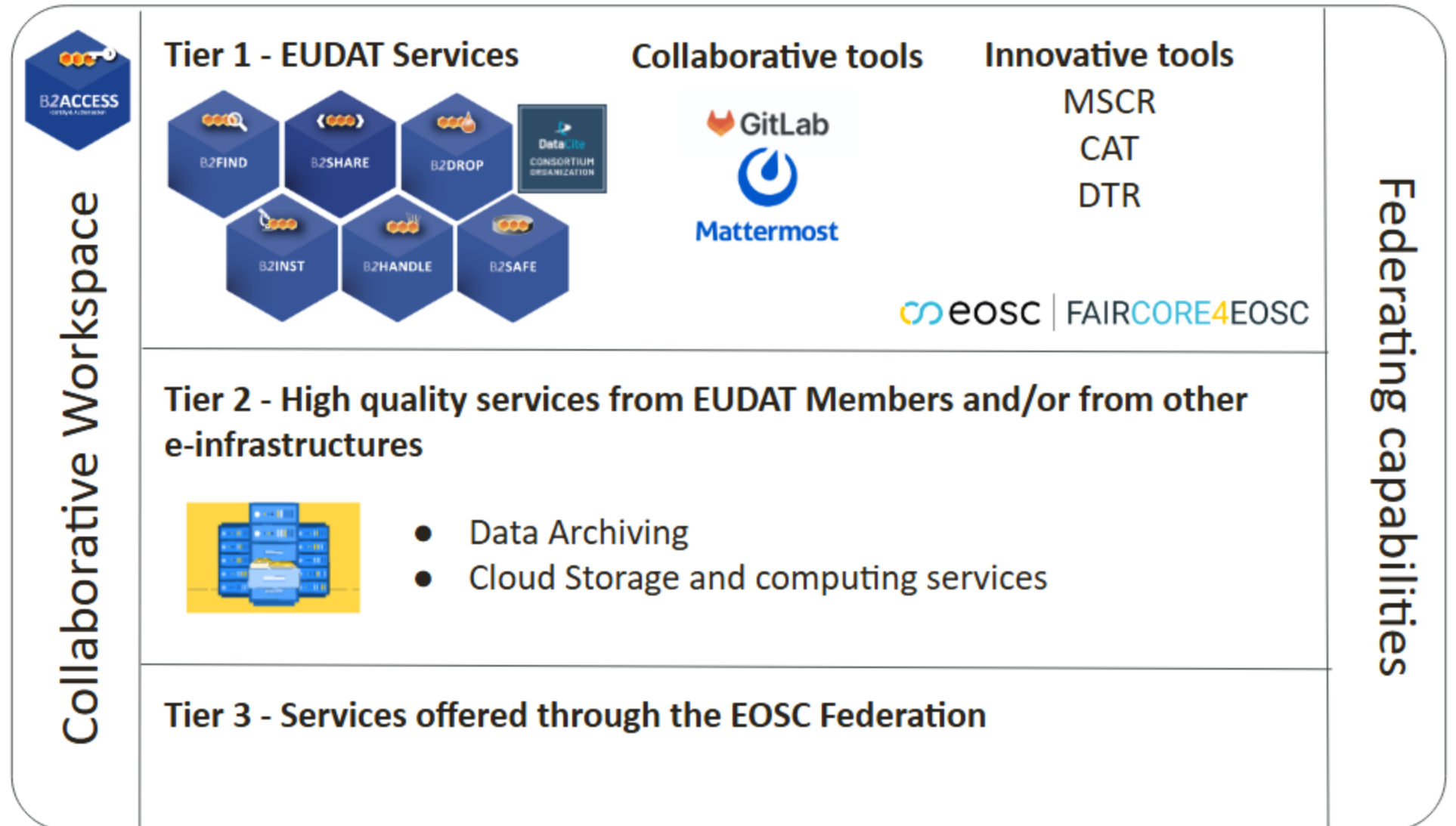


- Involved in structuring EOSC since in inception via projects either directly or indirectly through its members: EOSC Pilot, EOSC-Hub, EOSC-Enhance, EOSC-Future, DICE, EOSC Beyond, EOSC Entrust, FAIRCORE4EOSC, FAIR IMPACT
- Involved in EOSC related WGs: EOSC Architecture WG, EOSC Interoperability TFs, EOSC PID TF, EOSC Opportunity Areas
- EUDAT ambition: propose a transnational collaborative FAIR enabling data management space connected with domain specific services

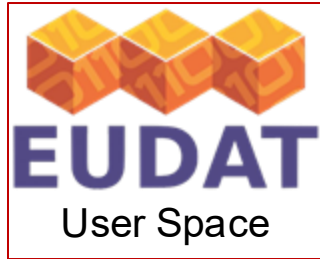
 Provide a backbone infrastructure for ERICs to support scalability needs and focus development on domain specific services.



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



EUDAT Node Platform - User Space



Service Catalogue Helpdesk



Monitoring



The main interface displays a welcome message for 'Alessandro Petrocelli' and a navigation menu on the left. The central area is divided into several sections:

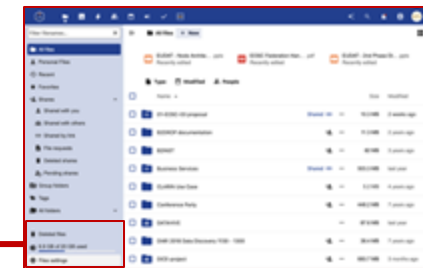
- Services:** A list of services including B2Access, B2Drop, B2Find, B2Handle, B2Safe, and B2Share.
- Recently visited info:** A list of recently visited services.
- Resources:** A section showing the status of resources, including B2Drop (running) and B2Share (running).
- EUDAT Node Health:** A section showing the health status of the node, with a 'Go to EUDAT Health' link.
- Wallet:** A section showing the current month costs and orders.

Red boxes highlight specific areas of interest:

- Services:** A box around the B2Drop and B2Share services.
- Resources:** A box around the B2Drop (running) resource, showing 52,27 GB of 100GB used.
- EUDAT Node Health:** A box around the health status, showing a 'Go to EUDAT Health' link.
- Wallet:** A box around the current month costs, showing 'XXX'.



AAI - SSO



Service Accounting



Research Product Accounting

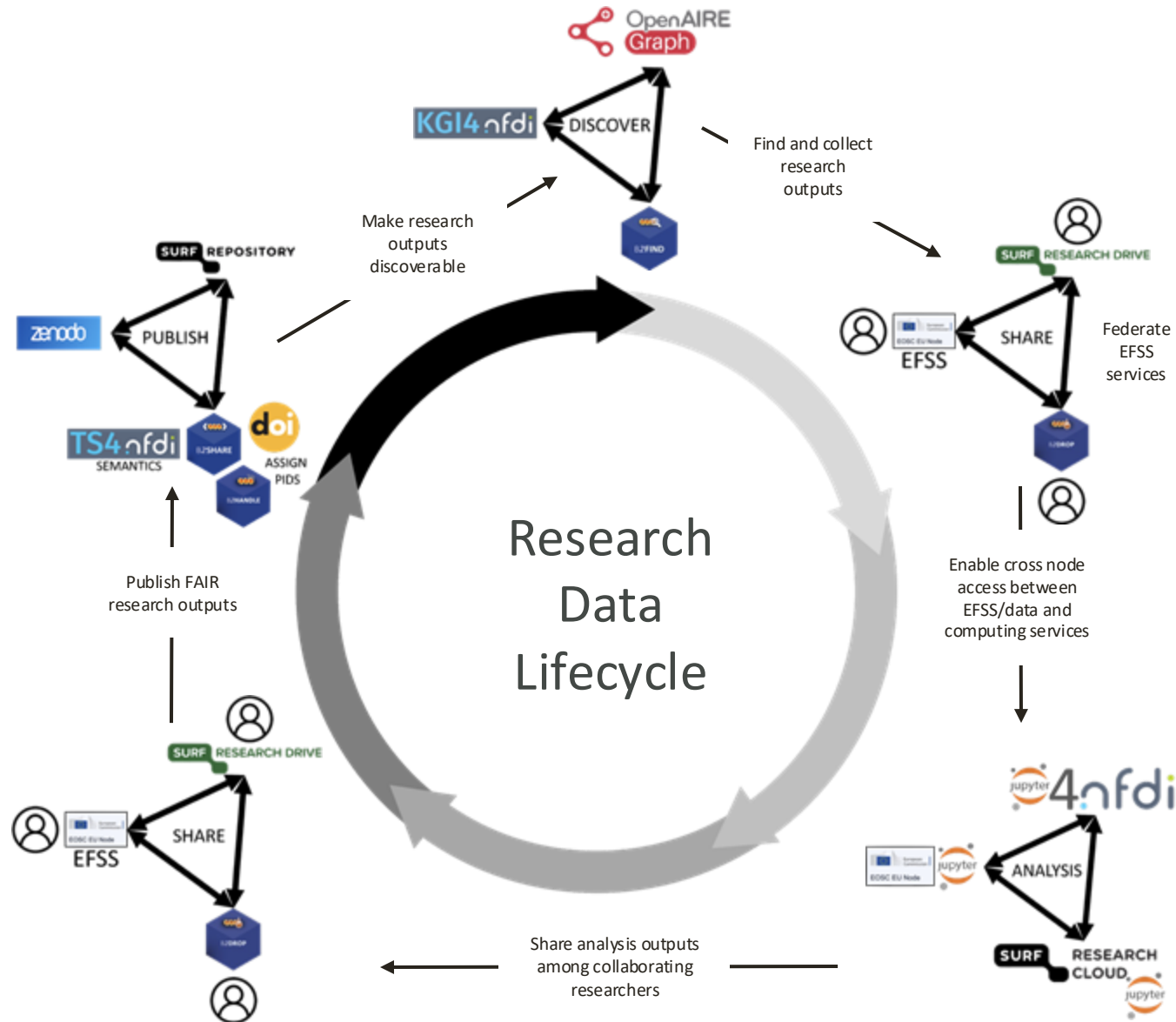
Order
Management
Process

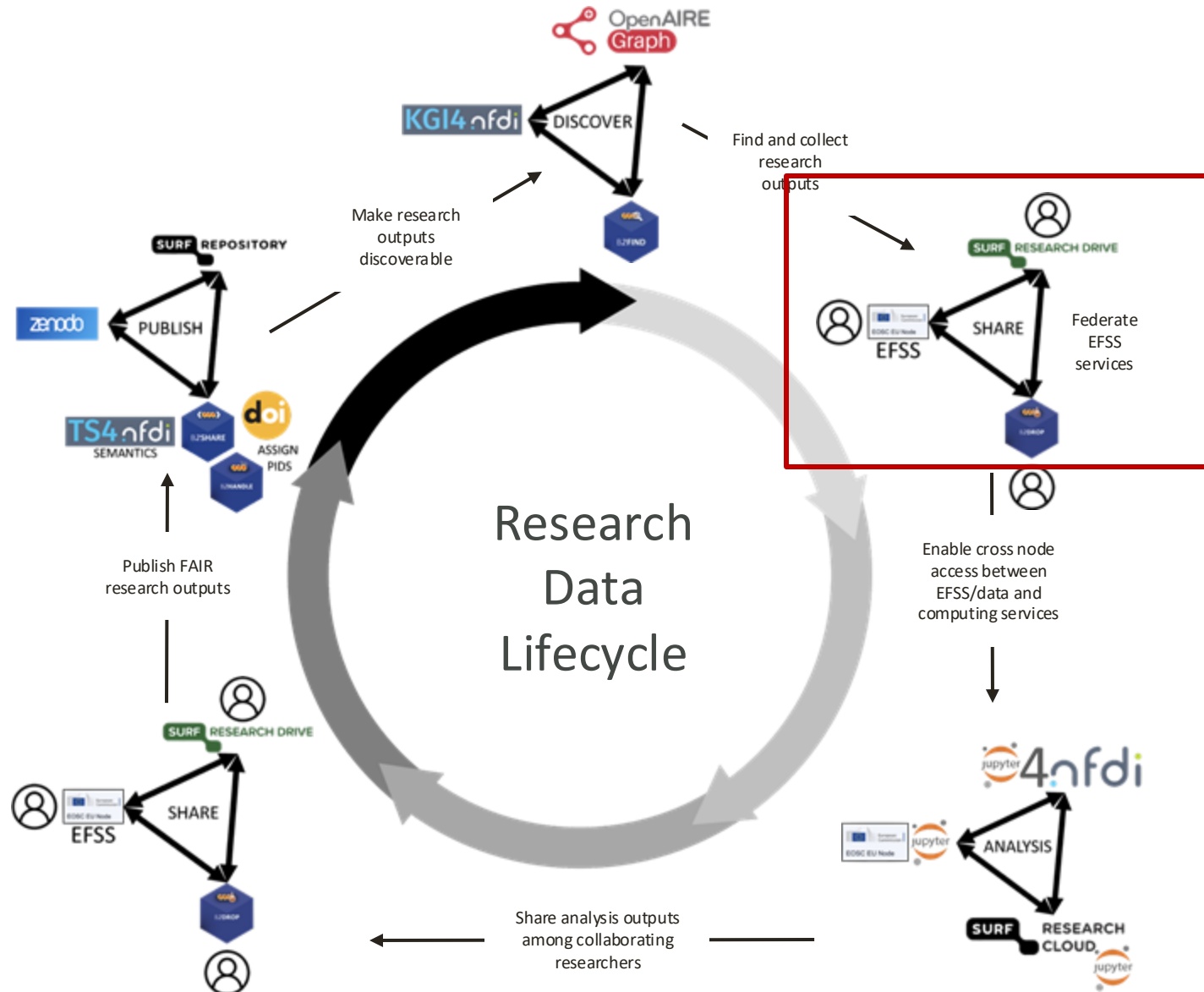
Resource
Provisioning

The screenshot displays the EUDAT Node Platform User Space interface. On the left is a sidebar with navigation links: Overview, Notifications, SERVICES (B2Access, B2Drop, B2Find, B2Handle, B2Safe, B2Share, Other Services), GENERAL (Favourite, Settings, Billing Unit Calculator), and QUICKLINKS (Helpdesk, Monitoring, Training Platform). The main content area shows a list of services. The 'B2Drop' service is expanded, revealing four plans: S, M, L, and XL. Each plan card displays its available storage, user limits, domain, subdomains, backup schedule, and an 'Order' button with a price of €0. Below the B2Drop section are links for B2Find, B2Handle, B2Safe, and B2Share. The footer contains EUDAT branding, a description of the EUDAT CDI as a pan-European network, contact information for the European Commission, and links to cookies, privacy policy, and legal notice. Logos for Trust-IT and CONFIDENTIAL are also present.

Plan	Available Storage	Users	Domain	Subdomains	Backups	Order Price
S	500 GB	20	*.mydomain.com	1	1 per day for the last 15 days	€ 0
M	1 TB	50	*.mydomain.com	3	Daily backups for the last 30 days	€ 0
L	2 TB	100	*.mydomain.com	5	Weekly backups for the last 60 days	€ 0
XL	4 TB	unlimited	*.mydomain.com	unlimited	Weekly backups for the last 60 days	€ 0

EUDAT Node use cases: support the full research data lifecycle

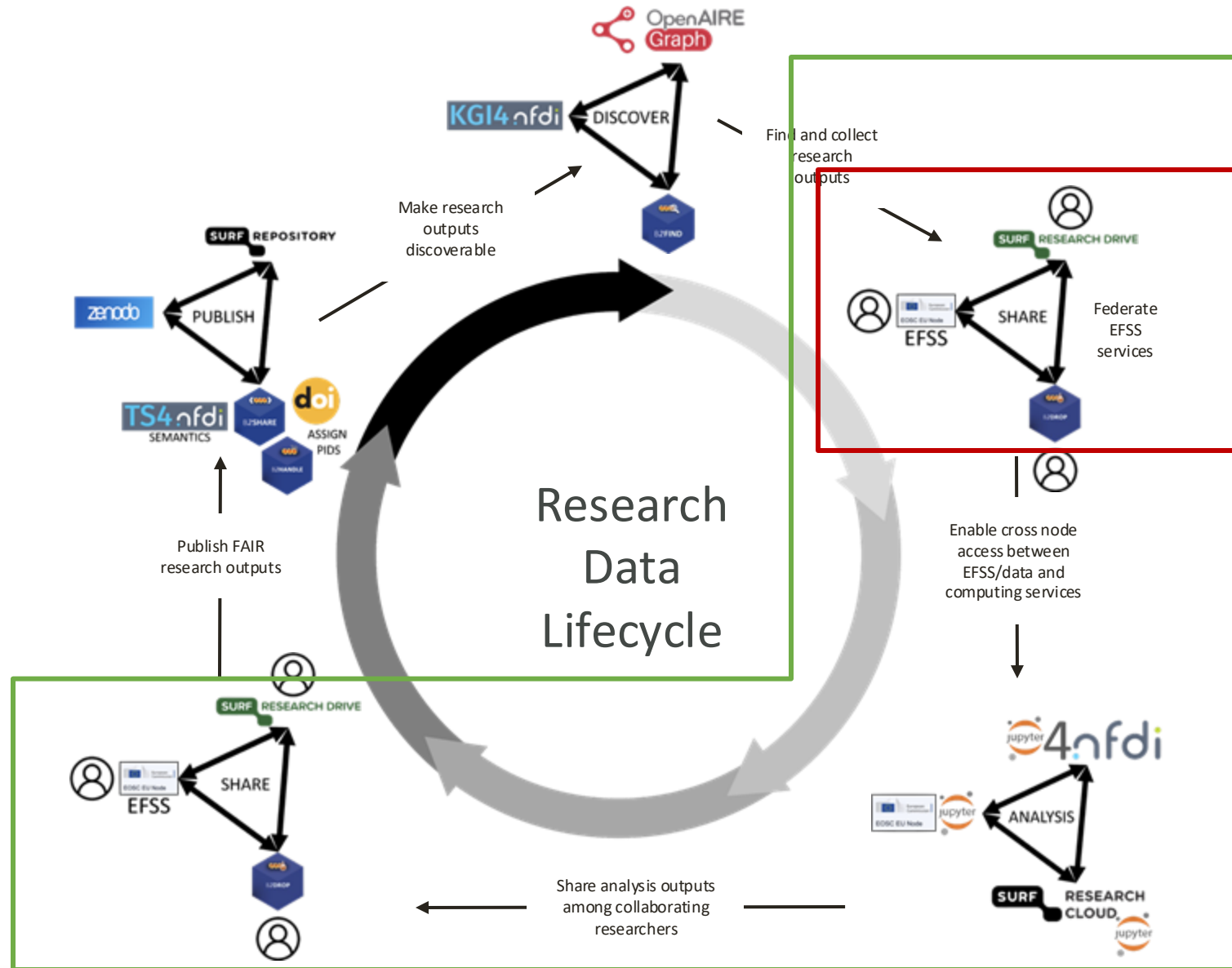




Use-case 1

European Federation
of File Sync & Share
services (EFSS)

EUDAT Node use cases: support the full research data lifecycle



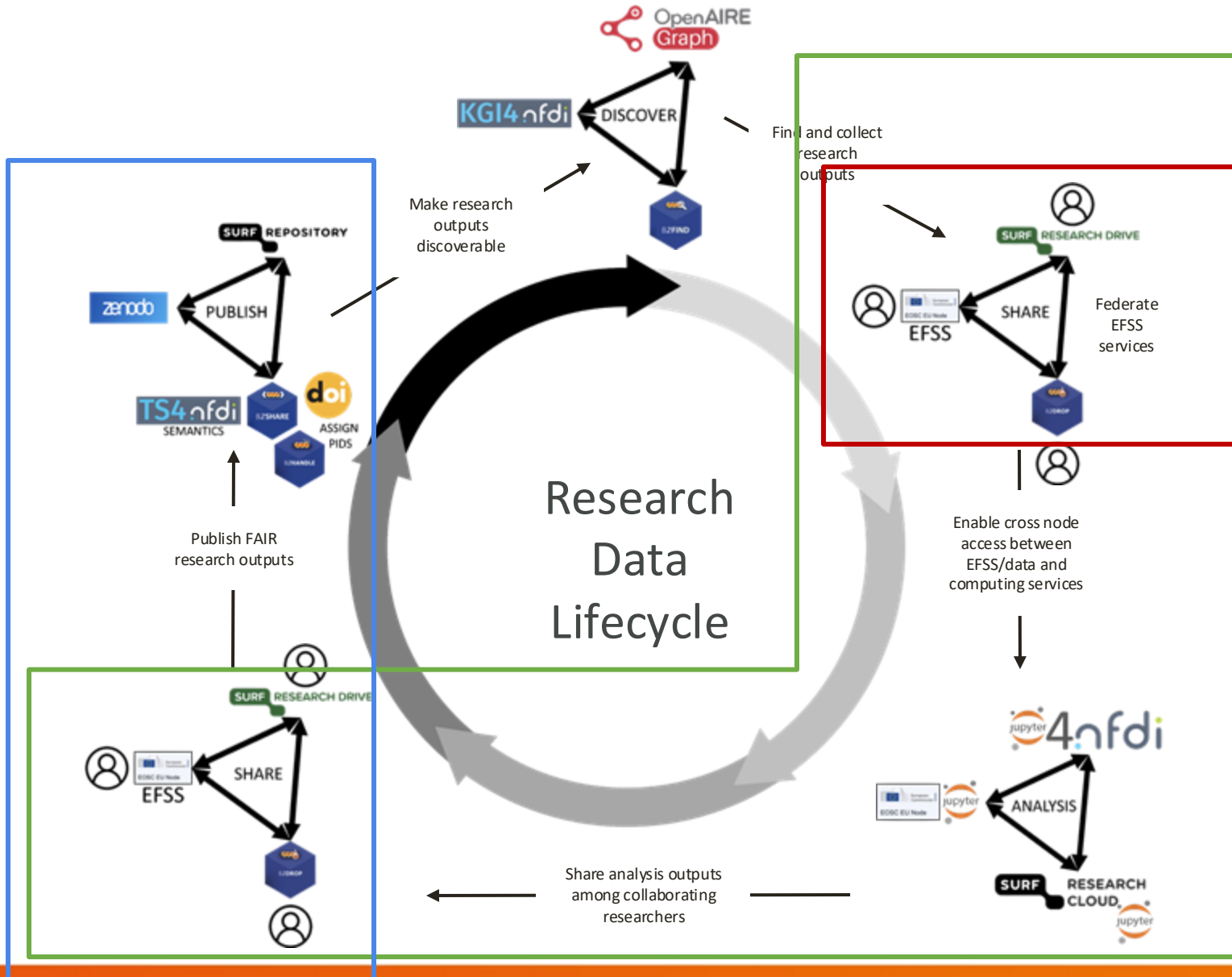
Use-case 1

European Federation of File Sync & Share services (EFSS)

Use-case 2

Connecting the EFSS to compute

Use-case 3 Publish FAIR Datasets from EFSS



Use-case 1

European Federation
of File Sync & Share
services (EFSS)

Use-case 2

Connecting the
EFSS to compute



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