



From one node to a Federation



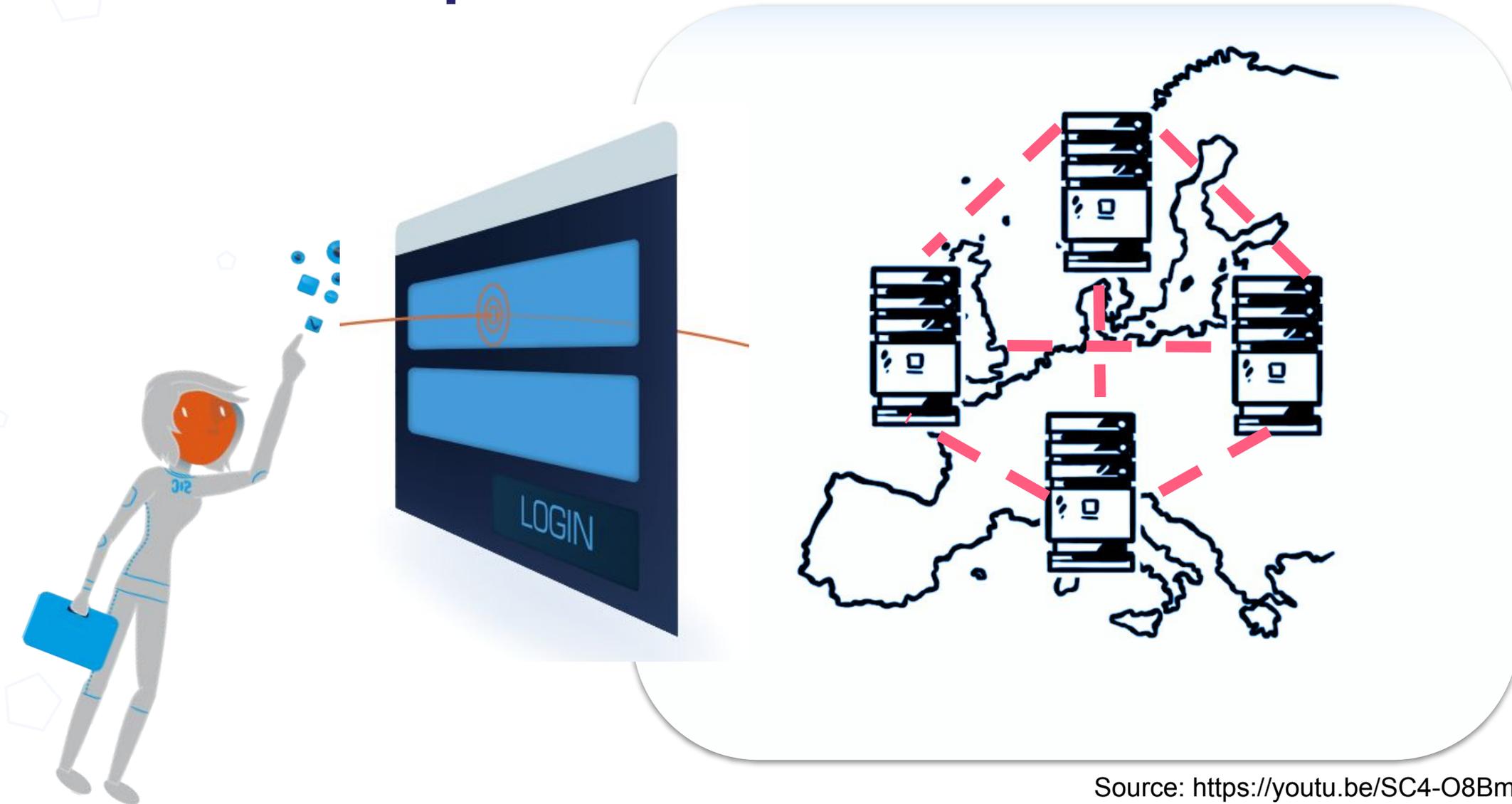
EOSC concept



Source: <https://youtu.be/SC4-O8BmI4I>



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EOSC EU NODE

The EOSC EU NODE (EEN) is a platform to support multi-disciplinary and multi-national research and promote the use of FAIR data in Europe and beyond. It offers a number of managed services accessible to all EU users. The EEN is delivered as a managed service to the EC.

Contract started on Feb 14 2024 and runs for 36M to cover operations, maintenance and support. EEN operational in Oct 2024.

Users' feedback

About 4000 registered users, 2.5 million credits in user wallets

Nov 2025

Happy users

“Shared storage and Notebooks are very useful”

“**Credit system is working well for us**”

“Willingness to pay for support, extra credits, and/or additional services”

Critical users

“Provide more credits to users”

“**Documentation has a steep learning curve**”

“EOSC EU Node’s known lifecycle is a barrier for wider adoption”

Demanding users

“Need a solution for deploying production services”

“**Guaranteed access for EC-funded projects**”

“Expand User Access Policy levels to include members, employees, researchers and students”



The role of the EEN

Federated
Capabilities
to EOSC
Nodes



Digital
Services for
end users



EC
resources

Glue to the Federation:

- Federated AAI
- Service catalogue
- Accounting
- Helpdesk
- Monitoring

Data-centric services

- File Sync & Share
- Interactive Notebooks
- Large File Transfer Service
- Bulk data Transfer

Infrastructure services

- Virtual Machines
- Cloud Containers

Commission's
gateway to EOSC



Next step: the EOSC Federation

Building the EOSC Federation

The image features the EOSC Tripartite logo in the top left corner, consisting of a stylized 'e' and 'o' icon followed by the text 'eosoc | Tripartite'. To the right is a network diagram with various colored nodes (pink, teal, grey, black) connected by thin lines. The text 'Building the EOSC Federation' is written in a large, white, sans-serif font on a dark background.



The journey through the EOSC federation has started



The vision for EOSC is to establish a system that enables researchers in Europe to store, share, process, analyse, and reuse FAIR research outputs—such as research data, publications, and software—across disciplines and borders.

System of systems

Community Driven

Inclusivity and accessibility

Trust

Governance

Security

Autonomy and control

Broad engagement



What to expect from the EOSC Federation

By Q4 2025 **the EOSC Federation** will ...

... consist of several enrolled EOSC Nodes

... have established a first operational governance and organisational structure, including clear description of the roles and responsibilities of its constituent bodies

... have detailed the application process to become an EOSC Node, including assessment of organisational, legal and technical requirements

... have established a first edition of Federation-wide policies, such as Rules of Participation, Access and Acceptable Use policies, cybersecurity, privacy and data protection

... have established a first edition of the EOSC Interoperability Framework

... have demonstrated cross-Node utilisation of some of the federating capabilities such as monitoring, accounting or helpdesk

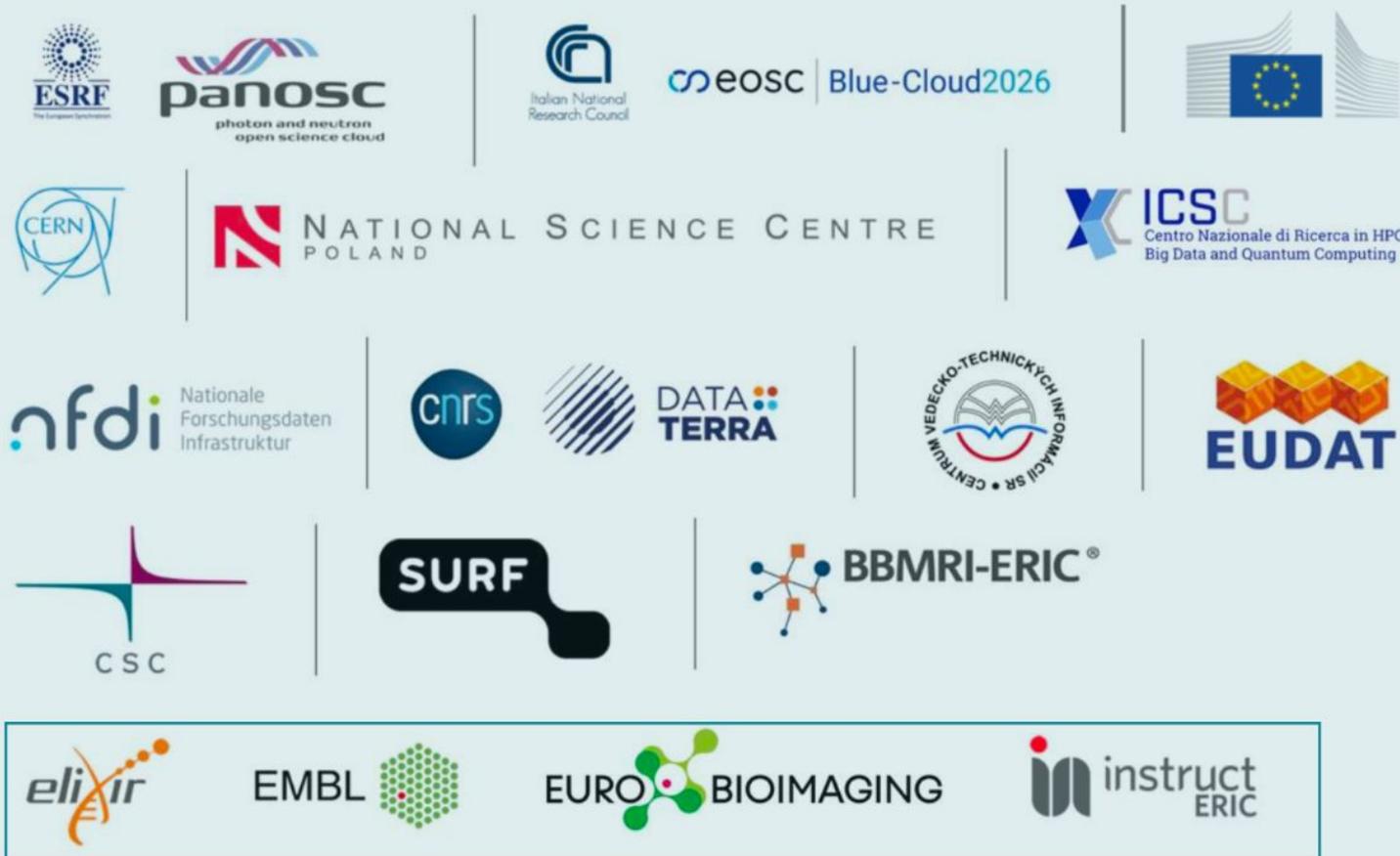




What to expect from the EOSC Federation

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... consist of **several enrolled EOSC Nodes**



- 8/10 Nodes enrolment ready
- Resources from 3 Nodes onboarded to EU Node

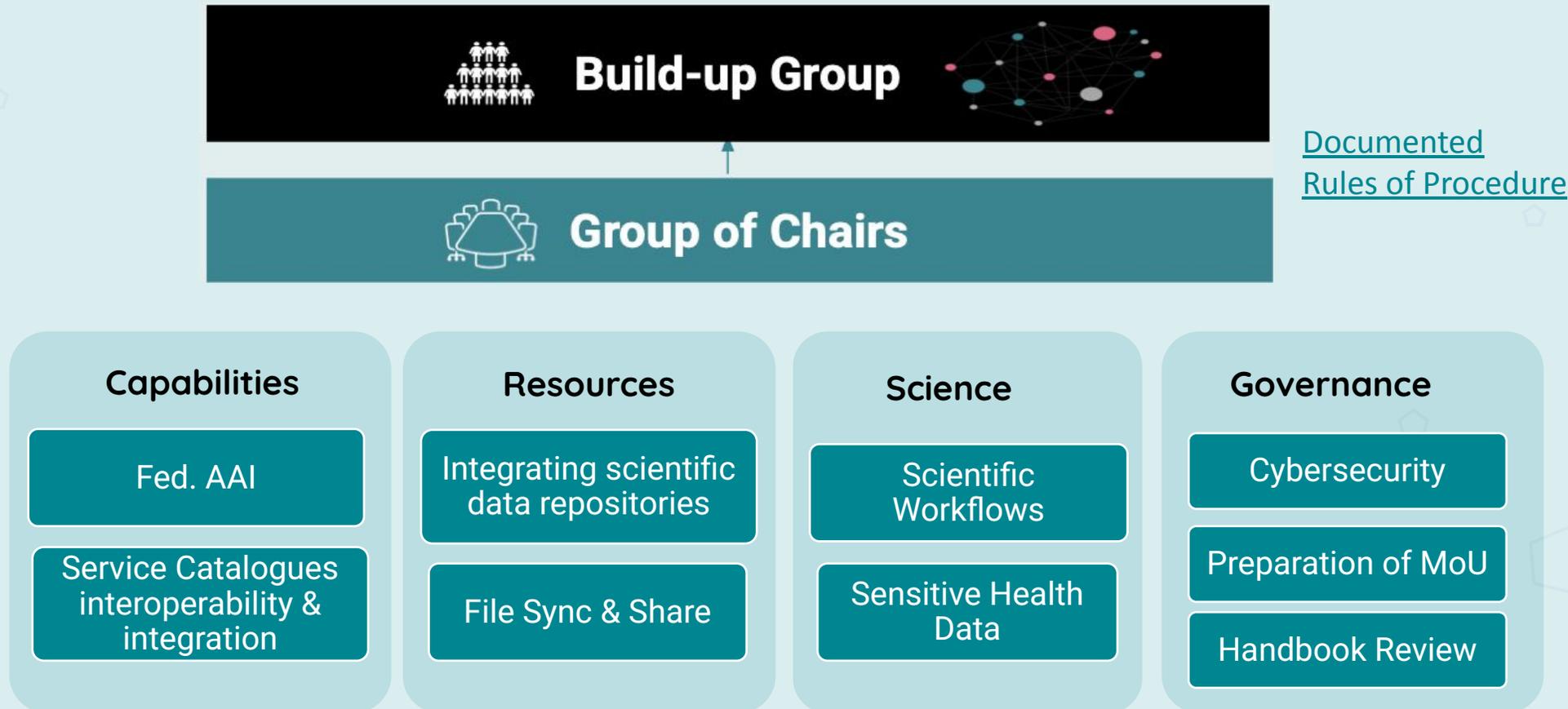
New nodes will be able to enroll in 2026



What to expect from the EOSC Federation

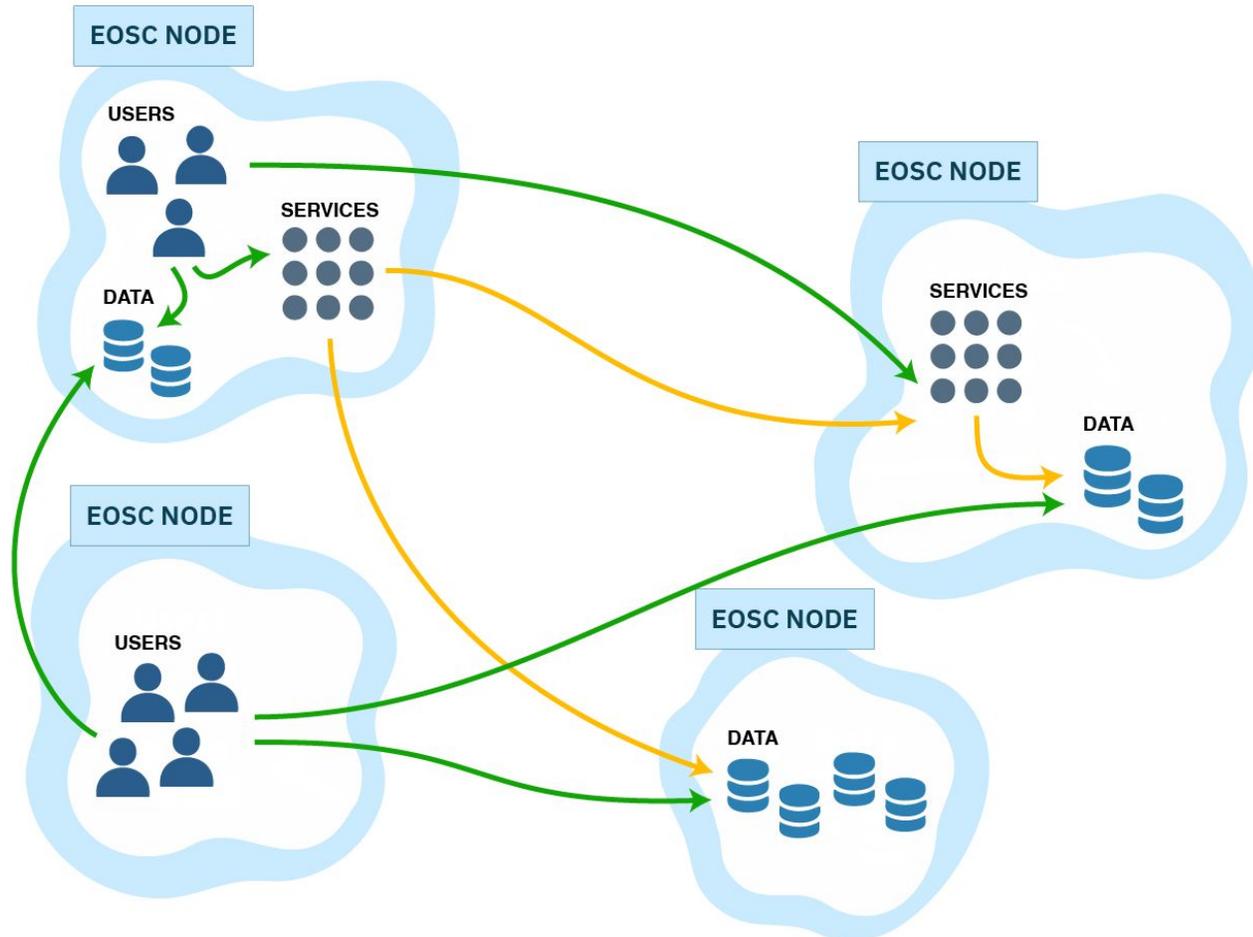
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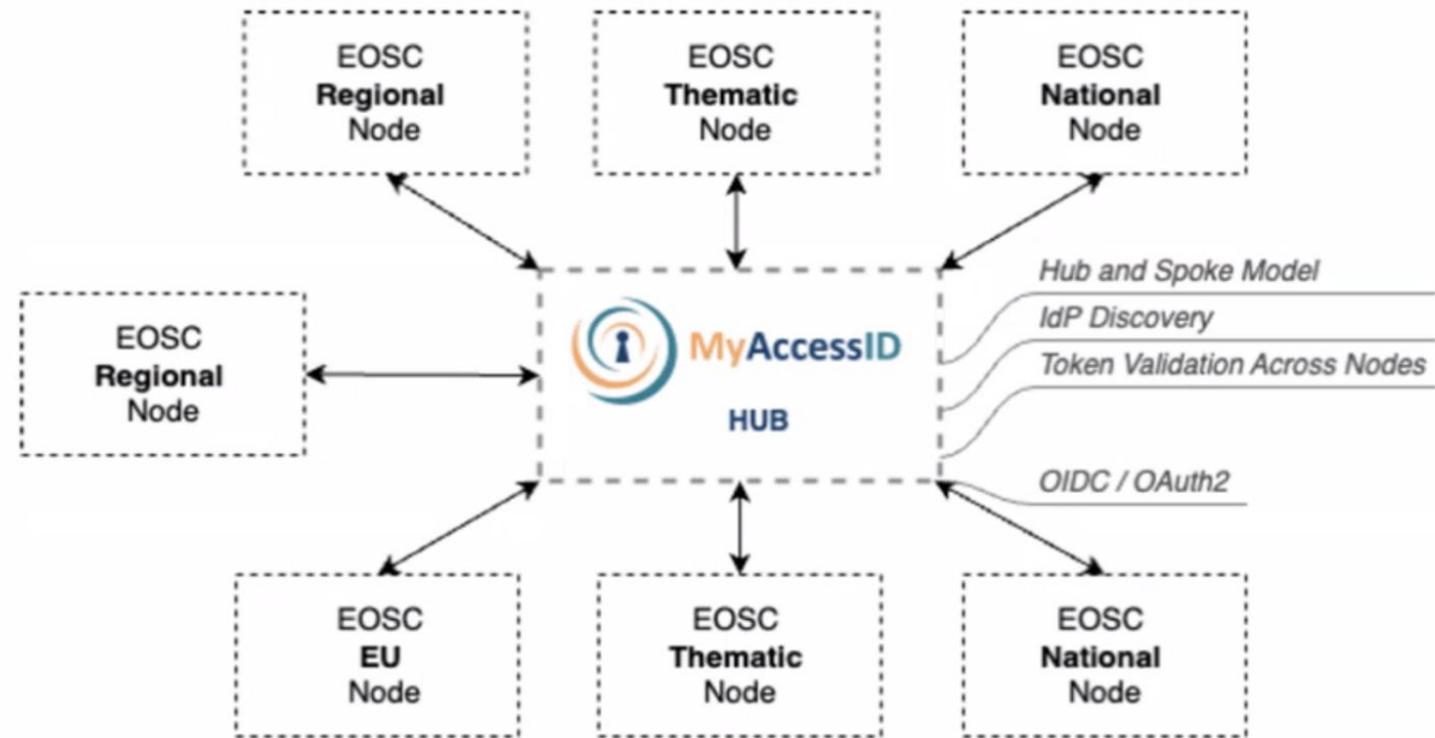
No panic we have the babel fish: the AAI



-  interactive login of users
-  service to service



- The document presents **recommendations for the initial implementation of the EOSC AAI Federation**, offering background on prior work and summarising recent advancements, including updates to the AARC Blueprint Architecture.
- It is intended as a **practical guide for candidate EOSC Nodes**, outlining the steps necessary to connect with the EOSC AAI Federation. In the EOSC model, Nodes act as the primary integration points for services as it is described in the EOSC Federation Handbook, services are onboarded to individual Nodes rather than directly to the Federation.
- The overarching goal of the EOSC AAI Federation is to eventually support a **full-mesh, dynamic topology** without introducing a centralised component into the European AAI ecosystem.



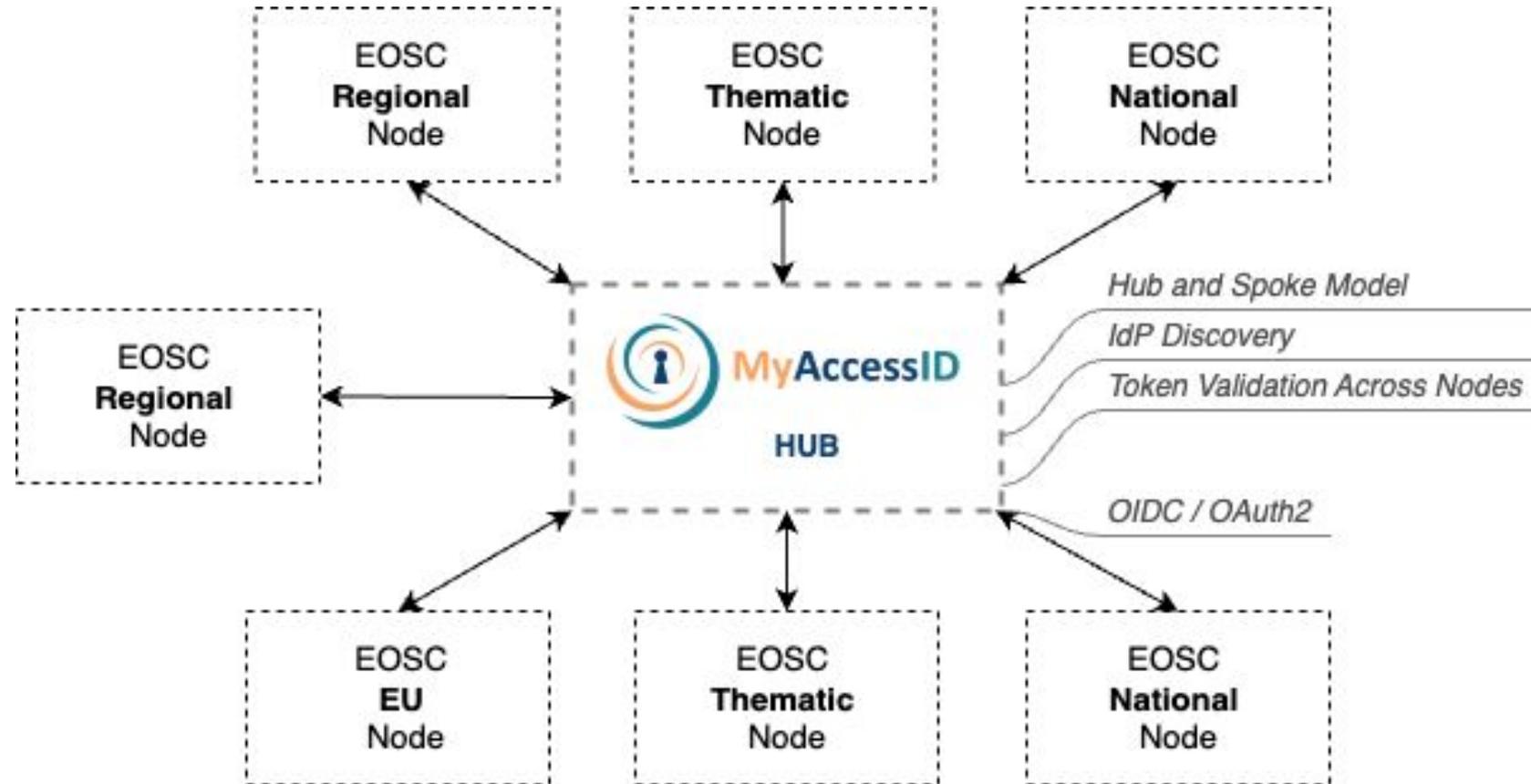
EOSC AAI Federation "hub-and-spoke" model



Integration Options

Two integration options:

- ★ Connect as a Node to the EOSC AAI Federation (enrollment)
- ★ Connect individual services to the EOSC EU Node (onboarding)

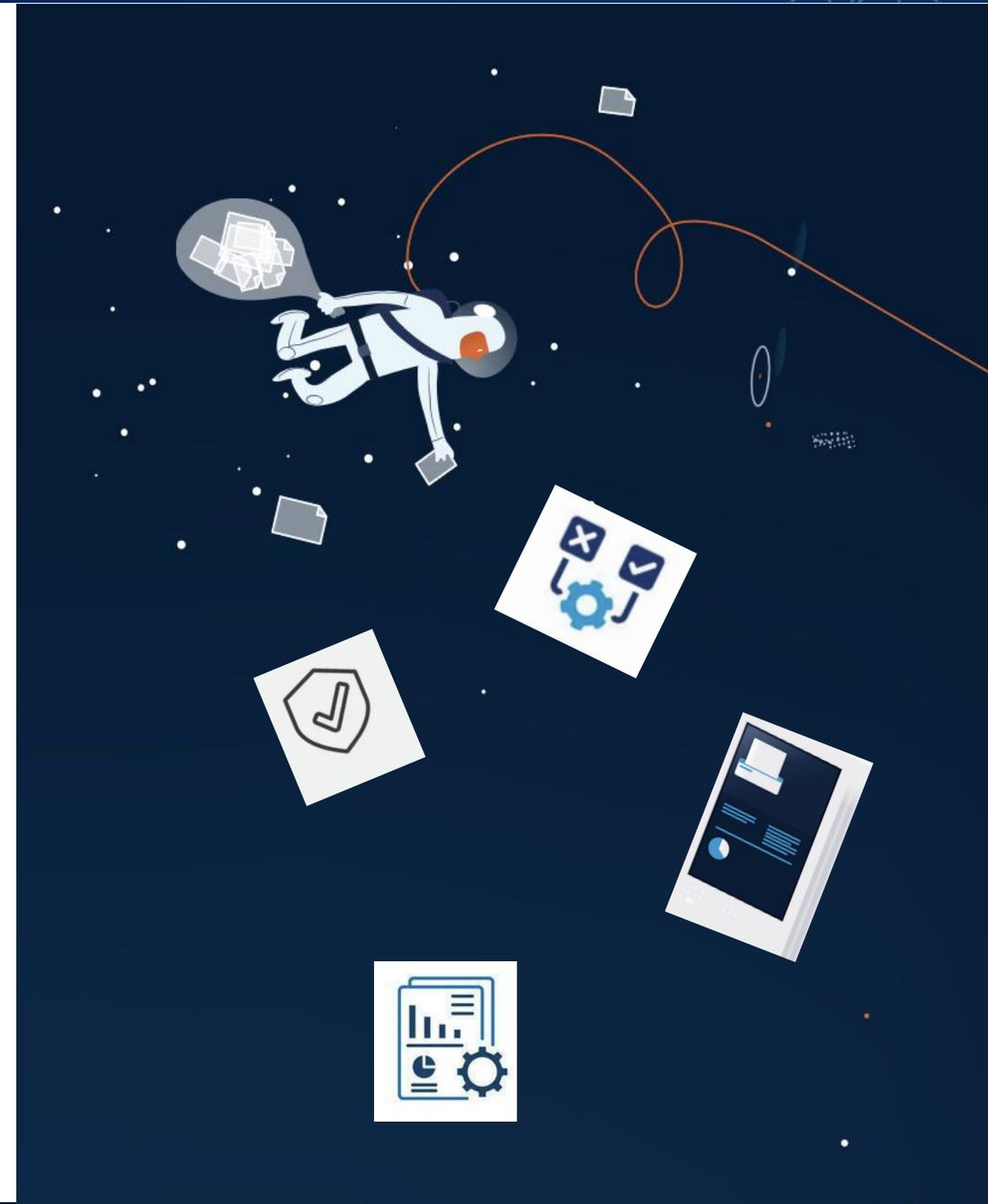


To wrap up

The journey to the creation of the EOOSC Federation has started.

At the moment the focus is on the infrastructure that is needed to realise the EOOSC vision.

Many progresses made but still some challenges to resolve.....





Thank you!