Science and Technology Facilities Council

Scientific Computing

The European Open Science Cloud

What is it and why should universities get involved?

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Coordinator EOSCpilot (2018-19)

Member EOSC Executive Board (2019-20)

UKRO Workshop, 25th October 2021

Overview

1 The EOSC vision in pictures (a personal view)

2 History

3 Current activities

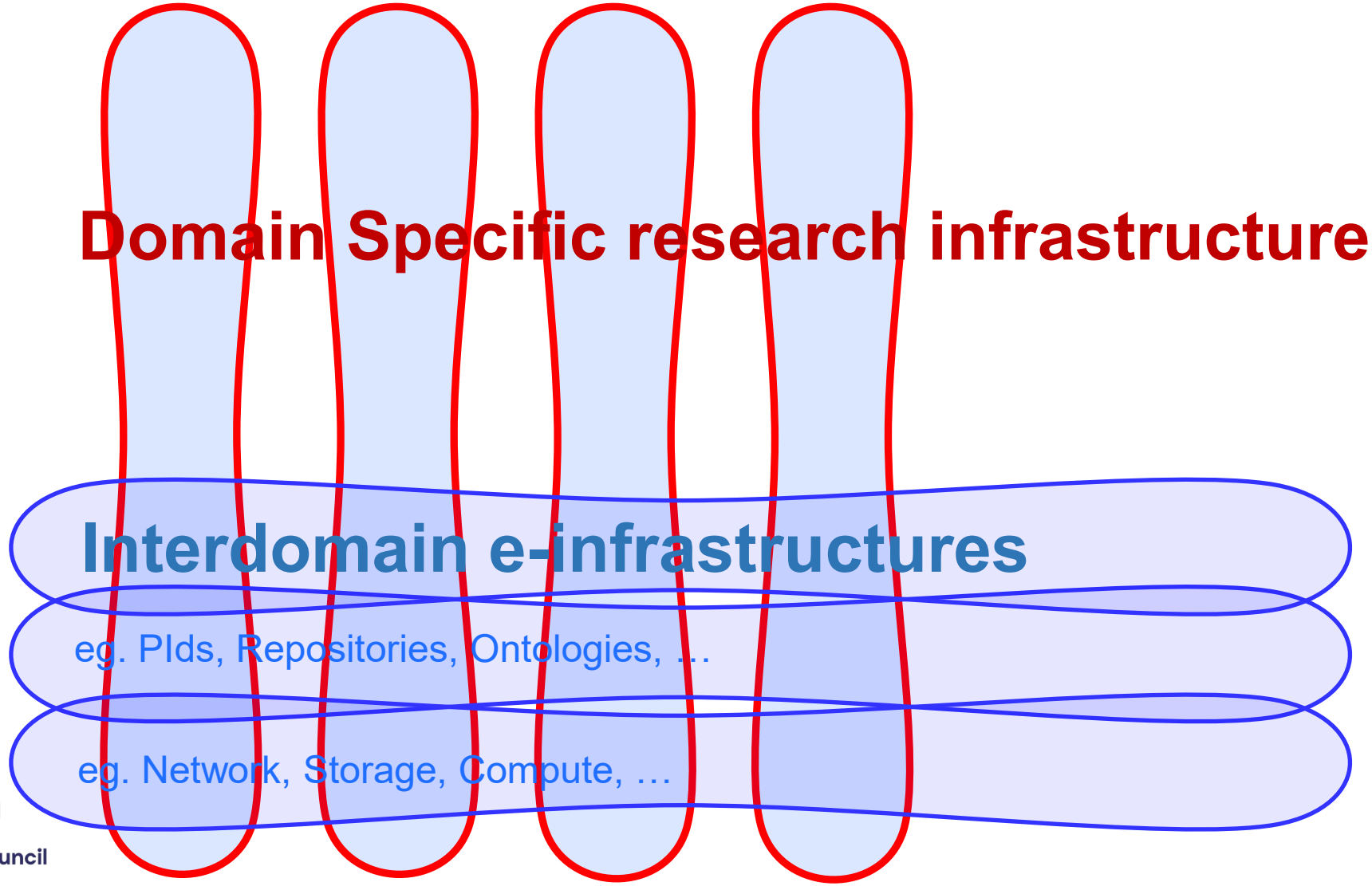
4 Why get invovled

Data storage tape robot at RAL

EOSC is *NOT*

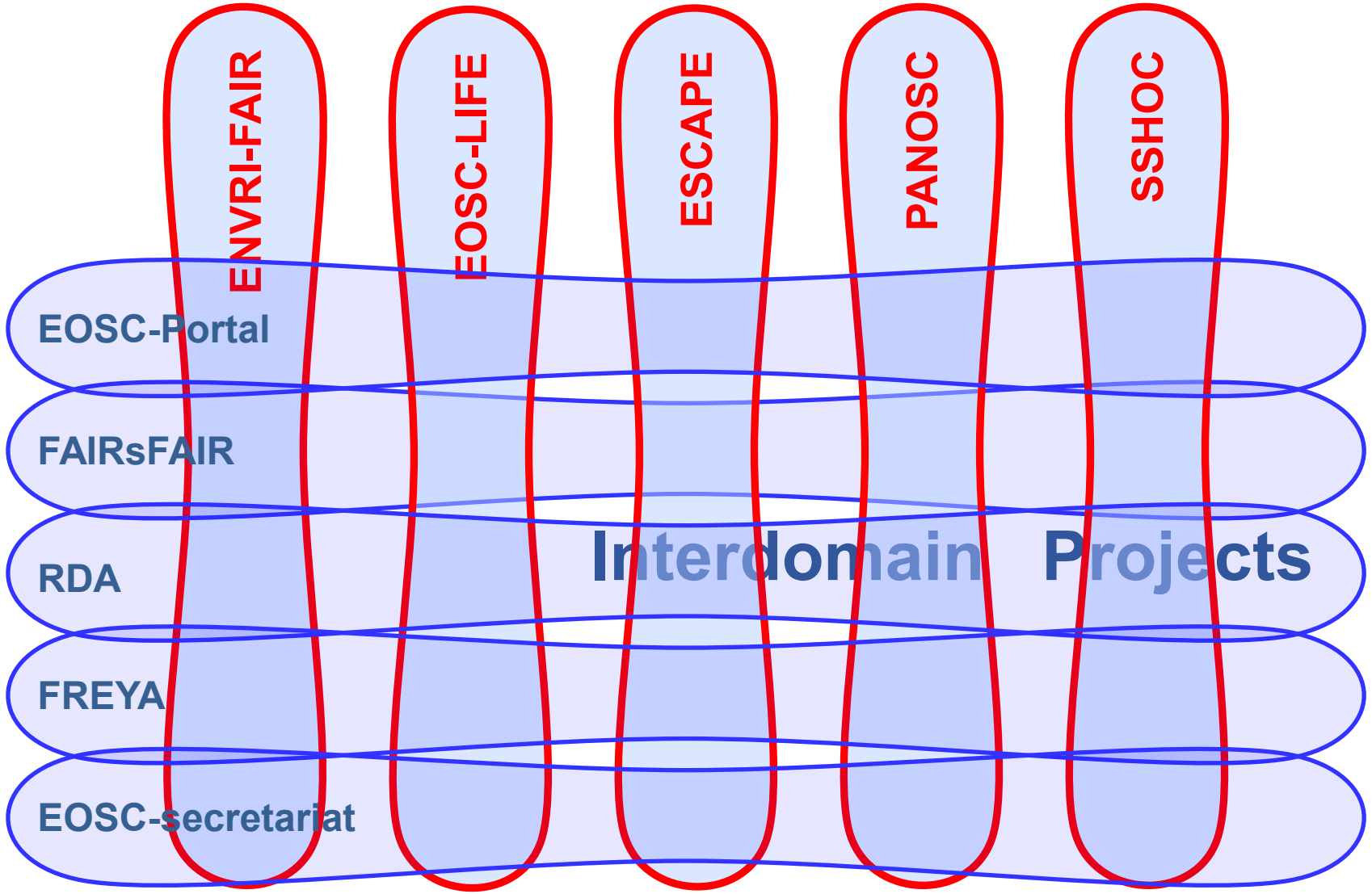
a big data storage cloud

Previously: Horizontal and Vertical infrastructures

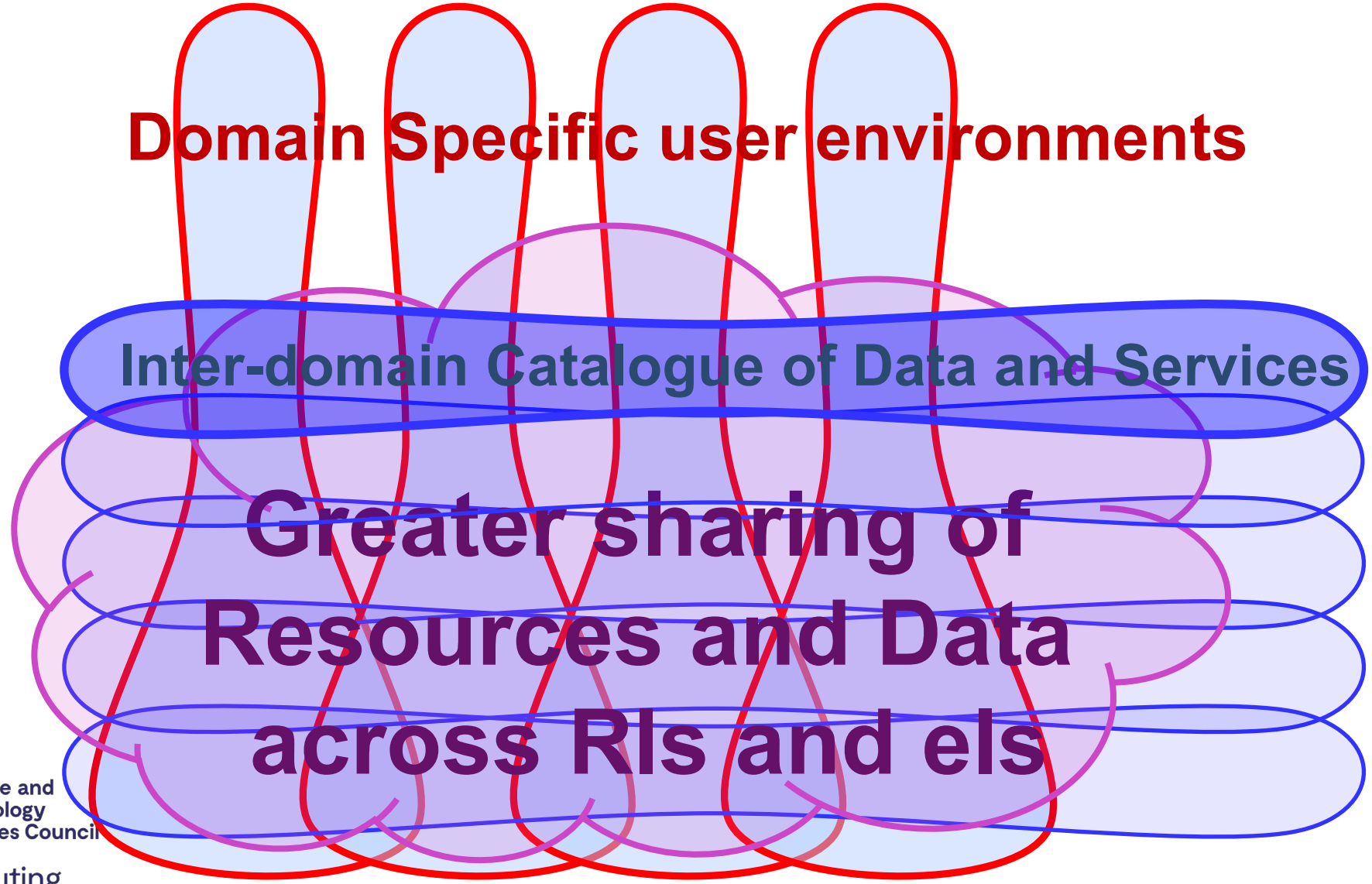


Credit: e-IRG, eInfrastructure Commons, 2013

Currently: Vertical Domain Clusters and Horizontal Technology *Projects*



Next: Sharing across vertical domains



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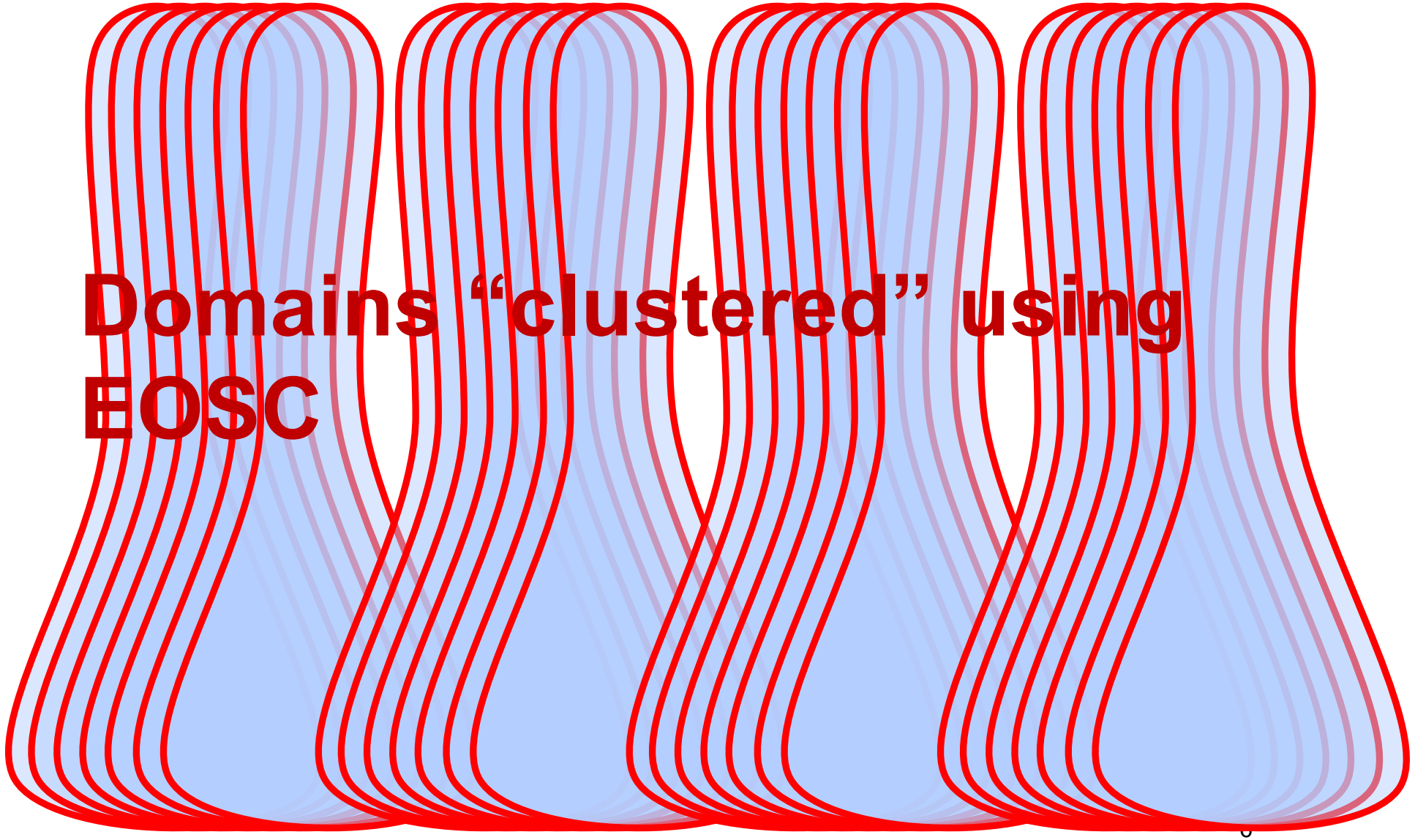
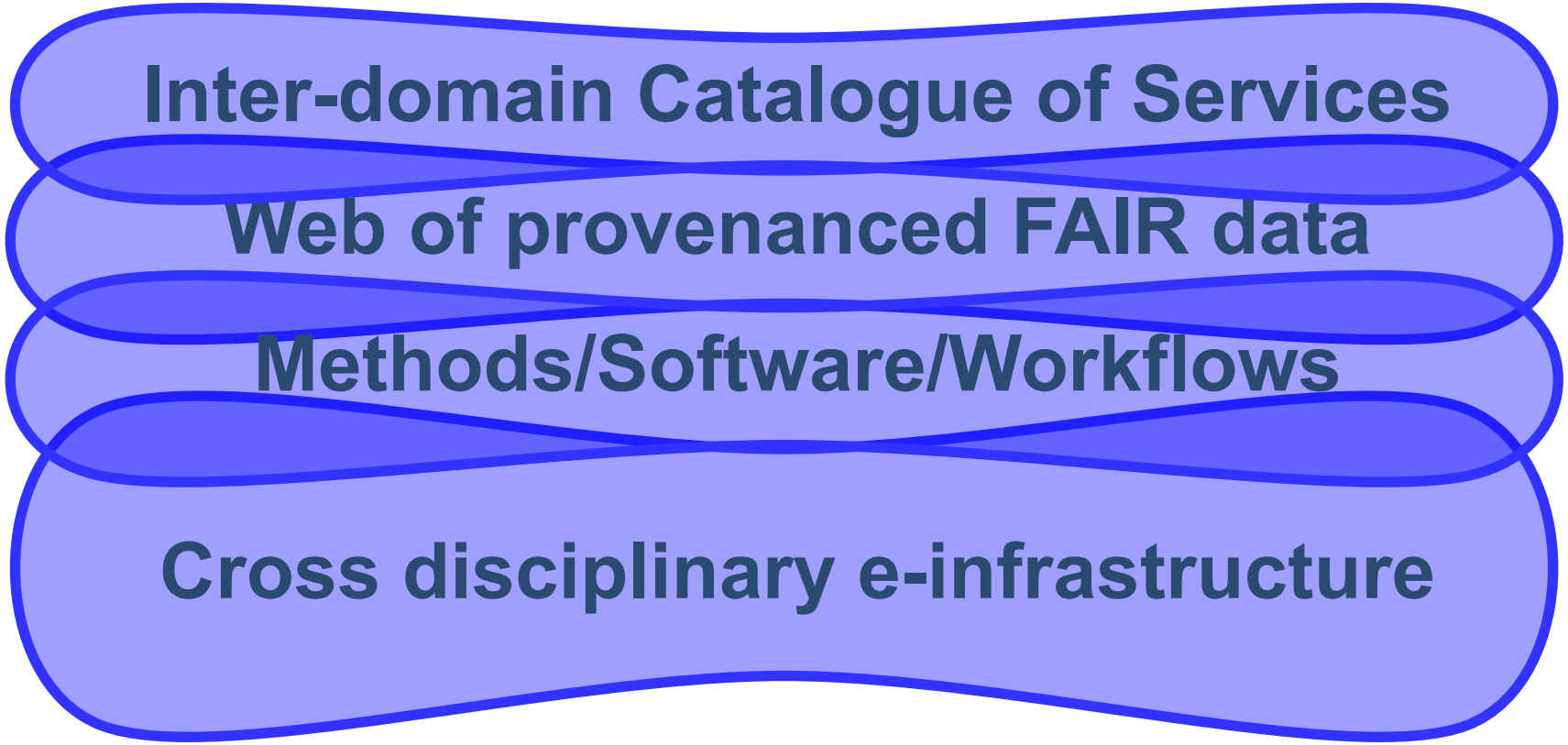
Zooming in….

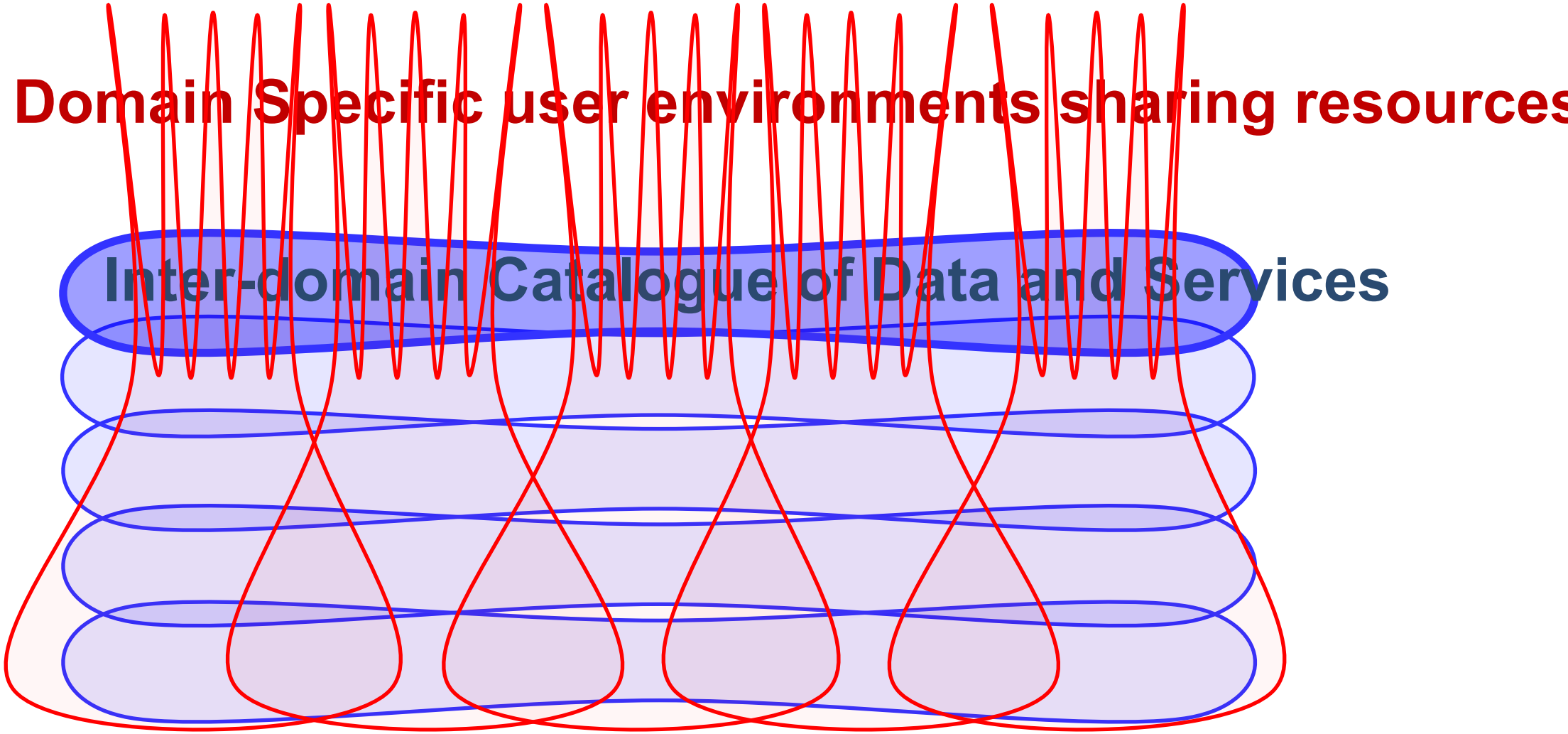


Zooming in:

Horizontals Cooperating and Integrating



Eventually: shared data and services with domain focused portals



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EOSCpilot (2017-18)

Three types of challenges:

Scientific Challenges are really *Opportunities*

- **Scientific Challenges:** deploying the EOSC to deliver Open Science

Technical Challenges are *Barriers to overcome*

- **Technical Challenges:** developing technical solutions that meet the scientific needs

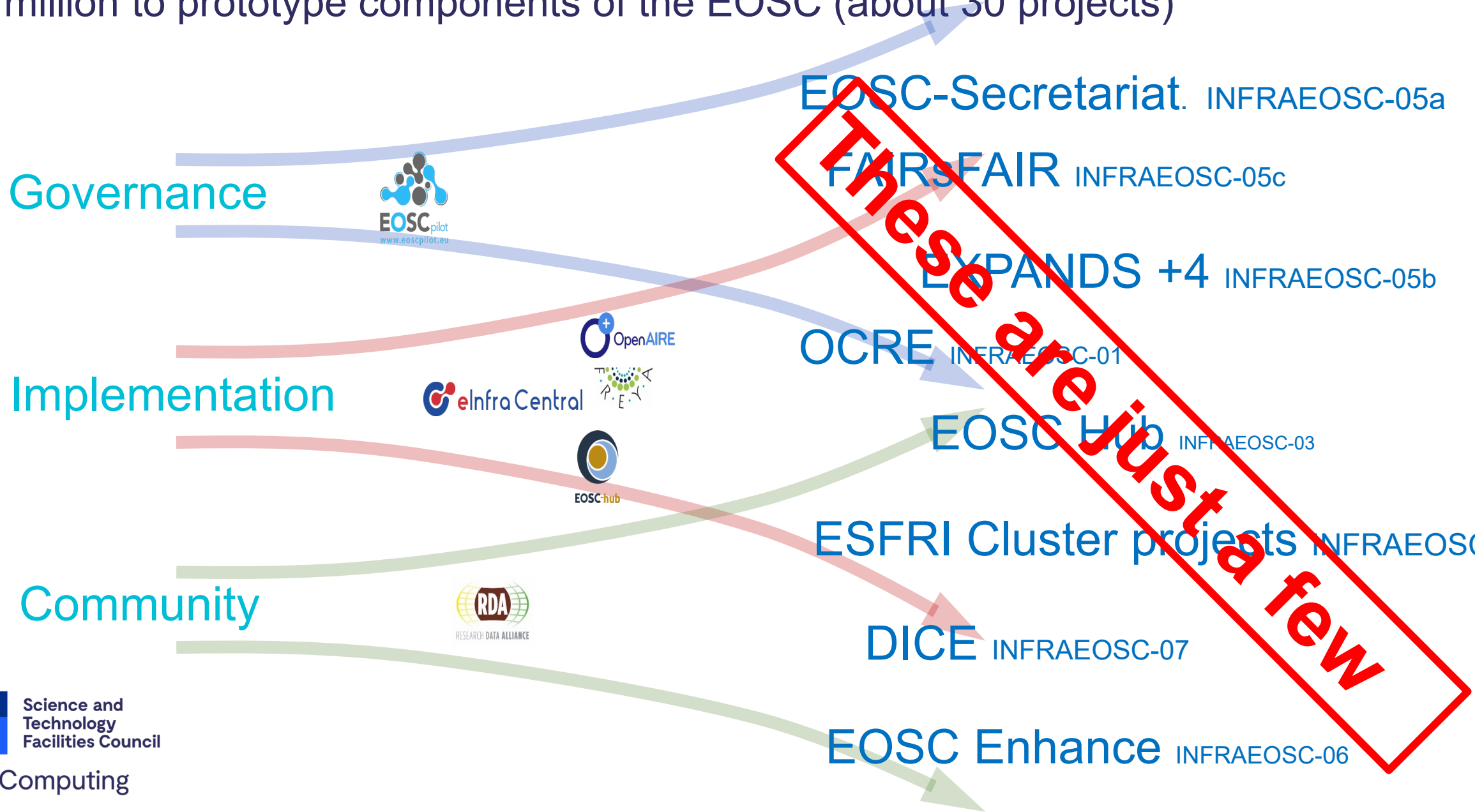
Cultural Challenges are also *Barriers*

- **Cultural Challenges:** adopting new, more open ways of working

The European Open Science Cloud for Research pilot project is funded by the European Commission, DG Research & Innovation under contract no. 739563

H2020 WP 2018-20 INFRAEOSC

€250 million to prototype components of the EOSC (about 30 projects)



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Current Horizon Europe programme

Destination INFRAEOSC: Enabling an operational, open and FAIR EOSC ecosystem

Aims:

- **Develop EOSC** in a cohesive manner and **operationalize it** realizing the vision of a web of FAIR data and services for science.
- Consolidate the role of EOSC as a **data space for science, research and innovation**, articulated with the other data spaces set forth in the European Strategy for Data.

Expected Impact:

- **Mainstream open science practices** among researchers (initially), enabling the wide and early sharing of research outputs (publications, data, software, etc.) within and across disciplines.
- Enable the **seamless access to and management of increasing volumes of data** and ensure that they are **as FAIR and as open as possible**.

Increase the **FAIRness** and **openness** of research data in Europe.

European Commission

“The ambition of EOSC is …

…to provide

European researchers, innovators, companies and citizens

with a

federated and open multi-disciplinary environment

where they can

publish, find and re-use data, tools and services

for

research, innovation and educational purposes.”

[https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science/european-open-science-cloud-eosc_en, 24/10/21]

“…a virtual environment

with

free at the point of use, open and seamless services

for

storage, management, analysis and re-use of research data,

across borders and scientific disciplines.”

[EOSC Implementation Roadmap (March 2018)]

How?

- A co-investment (with in kind and financial contributions) by the EU and non-EU partners
  - at least €1 billion is foreseen for the next 7 years.

- The EOSC Association was setup in July 2020 as an AISBL under Belgian law
  - about 150 members and 50 observers

The current phase of implementation (2021-2030), is taking place in the context of the EOSC European co-programmed partnership launched at the Research and Innovation Days 2021 and according to a Strategic Research and Innovation Agenda (SRIA) which is co-developed with the entire EOSC community.

[https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science/european-open-science-cloud-eosc_en, 24/10/21]

Current Horizon Europe programme

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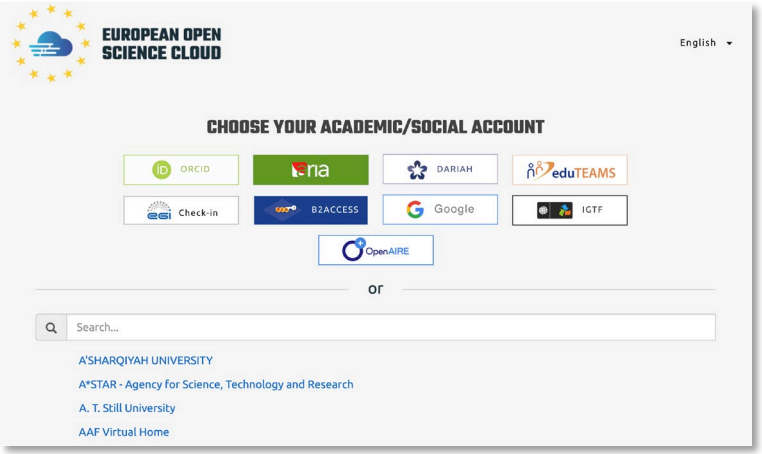
Why Get Involved?

- EOSC is a major initiative in Horizon Europe
  - €1 billion in Horizon Europe
- UK Researchers continue to collaborate internationally
  - through whatever schemes are available
- UK is developing its own Digitial Research Infrastructure
  - Will need to interoperate with other Global Research Commons
- Open Science is becoming the new normal
  - Open Access, Open Data, Open Software, ….

What can you do now?



- **Have a look at the EOSC portal**
  federated sign on
- ***Sign up to*** EOSC Liaison Platform
  EOSC-Secretariat.eu ***(ending soon)***
- ***Maybe join the EOSC Association or Task Forces***
  www.eosc.eu
- ***Look up the "Destination EOSC" programme***
  HORIZON-INFRA-2022-EOSC
  4 Grants Close April 2022, more to follow

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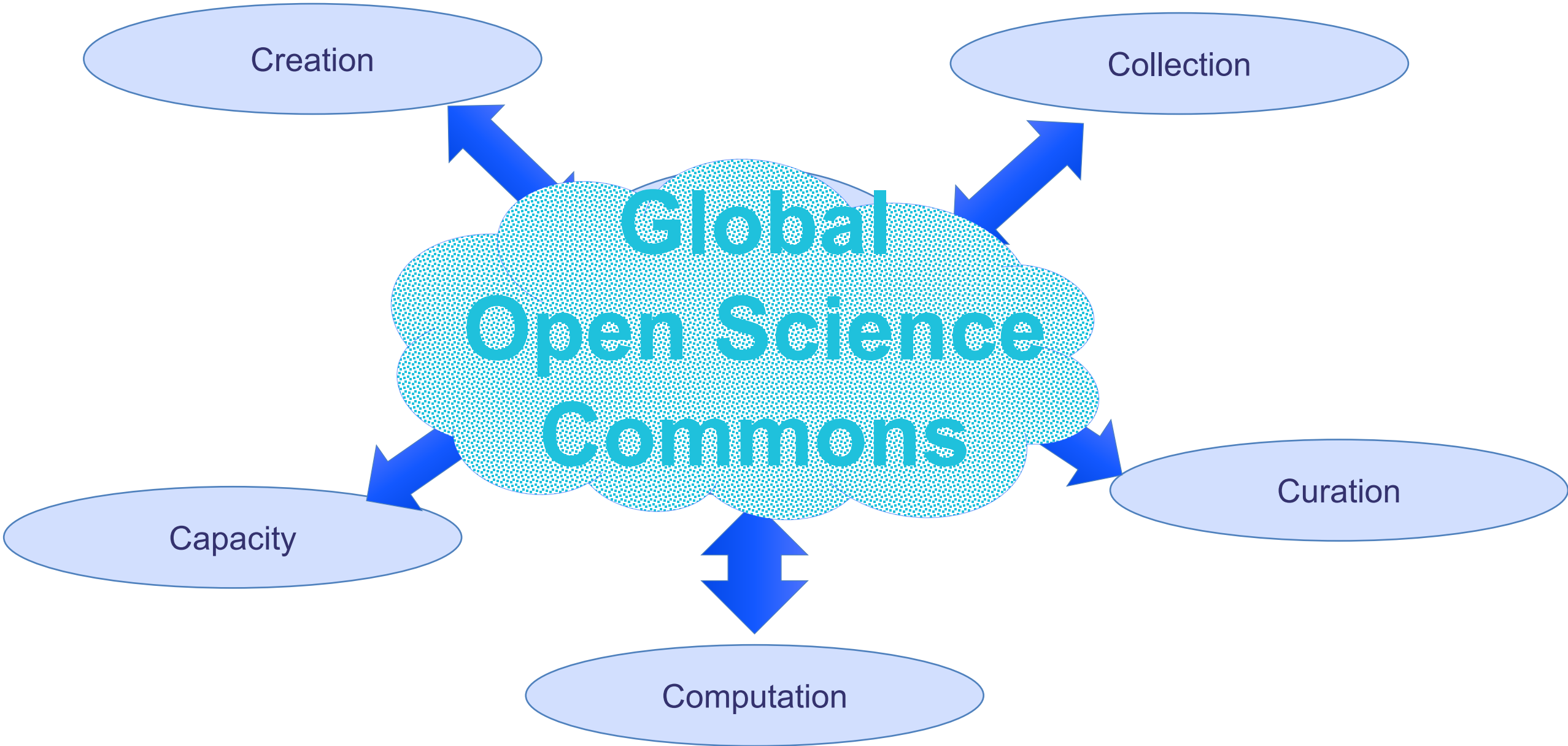
Open Science Lifecycle



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Thank you

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