



**National Federated
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Bridging the Gap: Findings So Far

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The Access Problem

Research projects are approved long before infrastructure access is usable

- Key project information already exists but is not reused
- IT and infrastructure teams recreate decisions manually, often under time pressure

Result:

Delays, duplicated effort and inconsistent outcomes



What We Looked At

Discovery and engagement

Interviews across:

- Research administration
- IT and infrastructure teams
- Governance and compliance roles

Focused on:

- How access decisions are made
- Where information is lost or re-entered
- What currently blocks automation

Followed by a cross-role workshop



Common Issues Across Institutions

- Manual re-entry of the same project metadata in multiple systems
- Slow account and resource provisioning driven by human workflows
- Weak linkage between administrative approval and technical enforcement
- Difficulty answering “who has access, why, and for how long”
- Off-boarding and access expiry handled late or inconsistently



A Key Insight from the Interviews

The gap is structural, not technical

Most institutions already have:

- Approval workflows
- Identity systems
- Access control mechanisms

The problem is that:

- These systems do not talk to each other
- Policy decisions are not expressed in machine-readable ways

As a result, trust boundaries stop automation before it starts



Defining the “Ideal” System

Consistent themes from stakeholders

- Reuse existing project metadata to trigger access decisions
- Federated or single sign-on across services where possible
- Clear ownership of who approves what, and when
- Better auditability without increasing admin burden
- Automation that respects policy and compliance constraints



Constraints We Can't Ignore

Regulatory and contractual requirements vary widely

Legacy and heterogeneous infrastructure is the norm

Some checks must remain human controlled

Institutions differ in risk tolerance and maturity



What Changed After the Workshop

The gap is not capability – It is connection and visibility

Strong feedback that:

- Many digital research infrastructure provisioning actions already exist in open-source tools

Pivot from:

Designing new systems

To:

Connecting and extending
what already exists



Current Areas of Focus

Three clear areas of effort

1. Making existing software visible

- Especially outside traditional HPC communities

2. Building connectors

- APIs, plugins, and integration patterns

3. Filling the gaps

- Particularly at the start and end of the lifecycle:
- Taking inputs from research admin systems
- Handling expiry, review and data off-boarding



Designing for a Messy Reality

Project data does not arrive in one format

We are designing for:

- Spreadsheets
- Structured exports
- APIs and webhooks
- Email hand-offs that can be caught and automated

The goal is progressive improvement, not perfection



The Roadmap Taking Shape

A modular approach

- Institutions can adopt pieces independently

Clear boundaries

- Policy decisions
- Technical enforcement

Provides

- Integration patterns
- Decision points
- Responsibilities

Grounded in existing tools and workflows



The Next Phase of the Project

Refine integration patterns based on feedback

Map where admin metadata can realistically flow today

Document:

- What is already possible
- Where extension is required and how it can be achieved
- What must remain manual (for now)

Continue validating as we iterate



Join Us for Our Final Workshop

When: 25th June

Where: Harwell Campus

