



SURF

Project Charter

**EOSC Node**

**SURF The Netherlands**

**Version 1.0**

**30 June 2026**

## 1. Project Summary

SURF is the national ICT cooperative of Dutch education and research institutions. Members (100+) are all universities, universities of applied sciences, UMCs, and a lot of the research institutions. SURF provides IT services like identity & access management, procurement & contracting, security, network connectivity, storage and data management, publishing and compute. SURF innovates, among other things, in the area of quantum compute and AI fabrics.

SURF is part of the first wave Nodes of the EOSC build-up phase and signed in november 2025 the Memorandum of Understanding on preparing operational integration within the envisaged EOSC Federation.

As EOSC-A MO, SURF brings key stakeholders together in a national working group to build a national node offering a wide range of services to EOSC Federation, from compute, data and networking services to services in support, consultancy, training and contracting.

As a national organisation, collaborating with Dutch Large Scale Research Infrastructures (LSRI), some of those being members of European Research Infrastructures and/or Science Clusters, SURF will explore how services and resources can be offered through Thematic EOSC Nodes.

As a member of e-Infrastructures like GEANT, EGI and EUDAT, SURF will explore how services and resources can be offered through e-Infrastructure EOSC Nodes.

During 2025 SURF developed a EOSC Node – SURF The Netherlands. With other nodes SURF contributed to the development of a couple of scientific use cases. During 2026 SURF will expand this node to a minimal viable national EOSC Node. EOSC Node – The Netherlands.

## 2. Value Proposition

SURF is an IT cooperative serving the needs of its members. In this capacity, SURF fulfils 3 roles.

1. An **association** in which members work together across the boundaries of their sector/campus and, together with the SURF organisation, develop, combine and share knowledge about the optimal use of IT in education and research.
2. A **service provider**, in which the SURF organisation provides a reliable, state-of-the-art range of services that has been created in consultation with the members.
3. An **innovation workspace**, where SURF creates an environment in which members can collaborate on complex innovation issues with each other and with the SURF organisation in an optimal way. We choose to tackle these issues with an **ecosystem approach** that brings together various parties, agreements, and technologies to achieve a solution.

In contributing to the EOSC Federation and participating as a national node, SURF sees added value in all these roles:

As an **association** and as mandated organisation within the EOSC-Association SURF has a coordinating role, bridging EOSC contributions from the Netherlands (at institutional (e.g., RPOs) and national level) with the European level. In the coming years, SURF is seen, by its Scientific Advisory Board, as a neutral ICT organisation to take the lead in realising a new data-oriented infrastructure together with its members

and partners.

SURF has taken the initiative in the Netherlands to set up a EOSC National Working Group that investigates how the technical and social-human elements can be integrated into a junction.

As a **service** provider, SURF offers a rich portfolio of services to its members to support research and education in the Netherlands. The services range from a variety of computing, data and networking services to human services in support, consultancy, training and contracting. Through the EOSC Federation and through the pilot nodes, SURF will assess offering these services cross-border to the wider EOSC community.

As an **innovator**, SURF will bring together key stakeholders to build a national node and contribute to the development of the EOSC federation as an EOSC pilot node. These activities will bring together resources and capacity with the aim of making them available to the EOSC Federation and will assess how resources from other nodes can be made available to the research community in the Netherlands.

### 3. Use Case(s)

In these tables, SURF lists the use cases currently in progress and the potential new use cases to work on.

The final selection of the use cases depends on the use cases/ available capabilities of the other nodes during the Federation build-up phase, internal available resources and alignment in planning with ongoing activities.

#### ***Scientific Use cases in progress with contributions from SURF***

- [Federating CERN's REANA pipelines](#)
- [Imaging data workflows on Galaxy](#)
- [Multi-centric validation of AI models for prostate-cancer screening](#)

#### ***Use cases in Progress***

| Use Case ID | Use Case Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Federation Contributions & Value to Users                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | <p>Federating Enterprise File Sync and Share (EFSS) services</p> <p>Multiple EOSC nodes are offering an EFSS service for their users to collaborate with fellow researchers and to share data and research outputs.</p> <p>In this use case we are federating EFSS services within the EOSC Federation. We focus on services supporting the OpenCloudMesh (OCM) API.</p> <p>This use case will be demonstrated by researchers working on EFSS services from different EOSC nodes sharing and collaborating research</p> | <p>This use case enables researchers to easily share research data and outputs across research communities and within the EOSC Federation. It avoids the need for researchers to access the different EFSS services where the data resides or to use a shared Big Tech EFSS service to share the data.</p> <p>Sharing data through EFSS services provides a researcher with easy access to shared data, analysis tools, and services to which he or she has access, whether they are located on a local node or through services offered through another node. For example, running an analysis workflow on a shared data set in a VRE environment</p> |

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|  | <p>data and outputs.</p> <p>A potential scientific cross-domain use-case can be based on the use case being developed in Data Terra and ELIXIR.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>and sharing the analysis outputs again in a similar way as the data set has been shared. This method could even be part of a TRE workflow.</p> <p>To build up the EOSC federation of EFSS services the EFSS services need to support, and have the OCM API enabled, and to allow sharing of each other's account directories.</p>                                                                                                                                                                                                                                                                              |
|  | <p>Processing and Analysis of Sensitive data within EOSC SURF Research Cloud (SRC) is a service through which cloud computing resources from different providers are made available to run VM, Containers, Notebooks, including the SANE Trusted Research Environment for processing and analysing sensitive data.</p> <p>This use case is focusing on integrating the cloud computing resources from the EOSC EU Node within SRC and to run the SANE Trusted Research Environment (TRE) on cloud resources provided through the EOSC EU node.</p> <p>In this use case we are planning to collaborate with the ELIXIR node to allow processing and analysis of sensitive data made available through ELIXIR node on the SANE TRE.</p> <p>The focus will be on providing the researcher with access to the sensitive data while the data provider remains in control of who has access to the data and of how the data is being used.</p> <p>This will be done by using secure data upload methods through which the data provider prepares the data for the researcher (user).</p> <p>In this use case, we leverage the guidelines provided through the EOSC-ENTRUST project.</p> | <p>Sensitive data is, by default, not open and accessible and is therefore limited available/accessible. Access can only be provided in safe and controlled environments. For creating the safe and controlled environments it would also be possible to use the EESSI software. In this case we can combine some of the work from use case 1 into this use case.</p> <p>Trusted Research Environments (TREs) offer such safe and controlled environments. By offering TREs within the EOSC Federation it opens the federation to data providers and offers value to researchers working with sensitive data.</p> |

## New potential use cases

| Use Case ID                                              | Use Case Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Federation Contributions & Value to Users                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1</p> <p><b>Tools to the data</b></p>                 | <p>In this use case, we will promote the adoption and usage of <u>EESSI</u> within the EOSC federation.</p> <p>This use case would consist of three activities:</p> <ul style="list-style-type: none"> <li>• Deploy and operate a CVMFS Stratum 1 server for the EESSI project, coordinating with other EOSC nodes to enable multinode collaborations.</li> <li>• Assist EOSC nodes in installing, configuring, and integrating the EESSI software stack (e.g., with SLURM, Kubernetes, Jupyter, RStudio) and later provide performance-optimisation guides such as additional caching or local Stratum 1 servers.</li> <li>• Support research communities (life sciences, hydraulic engineering, radio-astronomy, etc.) in adopting EESSI, helping users contribute new software recipes via EasyBuild and incorporate EESSI tools into their scientific workflows.</li> </ul> | <p>This use case provides a uniform software stack which is available at each EOSC node, helps users develop and execute federated workflows more easily, as they can assume each node provides software in the same way. The software provided by EESSI is optimized for a large selection of (micro)architectures, so this use case will also benefit the energy consumption within the EOSC federation, as well as the time it takes to run analyses.</p> |
| <p>2.</p> <p>Federated Trusted Research Environments</p> | <p><b>TRELLIS</b> (Horizon Europe proposal submission planned for Q3 2026 and coordinated by ODISSEI) aim to implement the EOSC ENTRUST architecture for federated Trusted Research Environments. Several social science use cases will be implemented based on SANE, the Secure ANalysis Environment on national supercomputer Snellius.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>This use case will contribute to the federation of Trusted Research Environments involving partners from Norway, Ireland, and Germany. This initiative illustrates how Dutch expertise can contribute to emerging EOSC capabilities in sensitive and secure research environments.</p>                                                                                                                                                                    |

## **Links to Second Wave Nodes**

EOSC-CH, GEANT, EOSC-CZ, METROFOOD, EOSC-SE, OpenAire, EOSC-HR.

### **4. External Dependencies & Key Risks**

| <b>External Dependencies &amp; Risks</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Actions</b>                                                                                                                                                                                                                                                                                                                                                               | <b>Deadline</b>                                                                    |
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| The basic components for building up the node platform are available as per the Handbook. With these components we are able to implement the use cases. How these components are being offered to the federation depends on the requirements of the policies and procedures of the Federation.                                                                                                                                                                                                                       | The creation of the node platform and the integration of the separate components within the node platform is one of the activities planned during build up phase. An assessment of the requirements will be made to assess the efforts for required developments. Internally a strategic discussion is required to transition from individual components to a node platform. | A Minimal Viable Product (in production) planned for end 2026                      |
| Technical alignment of the node capabilities with the federating capabilities.                                                                                                                                                                                                                                                                                                                                                                                                                                       | An assessment of the requirements will be made to assess the efforts for required developments.                                                                                                                                                                                                                                                                              | The node capabilities are aligned with the EOSC Federation Federating Capabilities |
| Aligning SURF policies and processes (e.g. contracting, access provisioning, accounting, billing, reporting) with the EOSC Federation policies and processes is a risk because the EOSC Federation policies and processes are not yet defined in sufficient details. Planning strongly depends on the outcome of the discussions during build up phase, the established EOSC Federation policies and processes, discussions within the National working group and the required changes within the SURF organisation. | <p>SURF contributes to defining and detailing the EOSC Federation policies and processes. This activity is part of the build up phase of the EOSC Federation.</p> <p>We expect significant time to be spend on aligning the federation and SURF AAI solutions in the early stages of the project in order to be able to provide the DRE environment in production.</p>       | A business model for the Minimal Viable Product planned for end 2026.              |

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| One of the main challenges for SURF as a public-funded organisation is cross-border service provisioning in a sustainable way. This is due to how SURF is funded.                                                                                                                                                                                                                                                                                         | By participating as a node in the development of the EOSC Federation, SURF wants to co-create the procedures and conditions under which nationally funded services can be offered cross-border to the wider EOSC community. | End 2027                                                       |
| Implementing the cross node end-to-end use cases. This strongly depends on the use cases and available capabilities of the other nodes during the Federation build-up phase. The initial use cases will be set up between 2 or a few nodes. Converting a use case into a federating capability requires additional discussions and agreements at the federation level. This is an external dependency and is out-of-scope for implementing the use cases. | Develop a joint work plan with the nodes involved in the use-cases.                                                                                                                                                         | At least one new use case with impact for the users early 2027 |

## 5. Contributions

| ID | Deliverable Name                       | Deliverable Description                                                                                                                                                                                                                                                                                                                                                                                                                                            | Deliverable Owner<br>(the partner within the organisation responsible for producing the deliverable, if applicable) |
|----|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 1  | Project Charter EOSC pilot node SURF   | Project_Charter EOSC pilot node SURF (this document)                                                                                                                                                                                                                                                                                                                                                                                                               | SURF                                                                                                                |
| 2  | Target Operating Mode                  | <p>Defines how the Dutch EOSC Node would operate, including governance, participation,</p> <ul style="list-style-type: none"> <li>- operational responsibilities, and service scope.</li> </ul> <p>Minimal Viable Dutch EOSC Node Concept;</p> <ul style="list-style-type: none"> <li>- Governance and Participation Model;</li> <li>- Operational Model;</li> <li>- Service Scope and Onboarding Model;</li> <li>- Thematic Cluster Integration Model.</li> </ul> | SURF                                                                                                                |
| 3  | Business Case and Sustainability Model | <p>Assesses the expected benefits, costs, risks, funding options, and long-term sustainability of the Dutch EOSC Node.</p> <ul style="list-style-type: none"> <li>- Funding Model;</li> <li>- Cost Estimates;</li> <li>- Benefits Assessment;</li> <li>- Risk Assessment.</li> </ul>                                                                                                                                                                               | SURF                                                                                                                |
| 4  | Implementation Roadmap                 | <p>Describes the proposed path from planning to implementation, including phases,</p> <ul style="list-style-type: none"> <li>- milestones, dependencies, and next steps.</li> <li>- Implementation Concept;</li> <li>- Phasing and Milestones;</li> <li>- Next-step recommendations</li> </ul>                                                                                                                                                                     | SURF                                                                                                                |

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| 5 | Dutch EOSC Node Implementation Proposal | Integrates the Target Operating Model, Business Case and Sustainability Model, and Implementation Roadmap into a consolidated and decision-ready proposal for participating organisations, funders and ministries | SURF |
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## Repositories and Services delivered

| Service ID                                                           | Service Description                                  | Access Policies to the Service                                      | Federation Contributions & Value to Users                                          | TRL                        |
|----------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------|
| SURF Research Cloud                                                  | Digital Research Environment                         | Conform the access policies of SRC. EOSC node specific policies TBD | Secure, on-demand (high-performance) computing for researchers.                    | Service 9<br>In node: 4-6  |
| SURF Research Drive                                                  | File sync-and-share                                  | Conform the access policies of SRD EOSC node specific policies TBD  | Secure cloud storage for researcher                                                | Service 9<br>In node: 4-6  |
| SURF filesender                                                      | Large files transfer                                 | Conform the access policies of SFS EOSC node specific policies TBD  | Simple and secure way to send large files to collaborators                         | Service 9<br>In node: 4-6  |
| Resource catalog                                                     | NL Research portal                                   | Read: Open accessible EOSC node specific TBD                        | Single searchable catalog to discover available datasets, tools and services       | Service 9<br>In node: 4-6  |
| SURF data archive & SURF object store                                | Compute & Storage                                    | Conform its access policies EOSC node specific policies TBD         | Long <sup>(OBI)</sup> term, trusted storage for preserving valuable research data. | Service 9<br>In node: 4-6  |
| SURF FAIR data repository                                            | Data Repository                                      | Read: Open accessible EOSC node specific TBD                        | Single searchable catalog to discover available datasets                           | Service 9<br>In node: 4-6  |
| Federating Services<br>1. AAI<br>2. Resource Catalogues and Registry | Federating services conform EOSC federation Handbook | Supporting services. No additional access policies or EOSC node     | Supporting services to enable usage of the EOSC node                               | Services 9<br>In node: 4-6 |

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| service<br>3. Helpdesk<br>4. Service<br>monitoring<br>5. Service<br>Management<br>System | 2026 | specific TBD |  |  |
|------------------------------------------------------------------------------------------|------|--------------|--|--|

## 6. Compliance with Technical Requirements

SURF will in its node comply with the mandatory technical specifications of the federation as mentioned in the EOSC Federation handbook.

### Technical Requirements

- FC-1 AAI  
SURF utilizes its existing AAI infrastructure SURF Research Access Management (SRAM), an AARC BPA compatible service, as its core AAI component for the node.
- FC-2 Resource Catalogues and Registry services  
Implemented as part of EOSC EU node where SURF provides the information
- FC-3 Helpdesk  
The helpdesk capabilities will be extended from the existing helpdesk service and capabilities within SURF
- FC-4 Service monitoring  
Exploration on extending the existing service monitoring capabilities within SURF toward the EOSC federation
- FC-5 Service management system  
Exploration on extending the existing service monitoring capabilities within SURF toward the EOSC federation

### Node governance

SURF has assigned people and manpower to fill the core governance roles and actively contributes to the EOSC federation working groups.

## 7. Timing and Milestones

| ID | Dutch EOSC Node Implementation Project (July 2026 – Onwards)                                                                                                                                                                                                                                                                      | Target Delivery Date |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 1  | Phase 1: Setup and alignment <ul style="list-style-type: none"><li>- Establish project structure;</li><li>- Confirm participation;</li><li>- Refine scope and deliverables.</li></ul>                                                                                                                                             | July 2026            |
| 2  | Phase 2: Co-Design <ul style="list-style-type: none"><li>- Develop and validate the Target Operating Model, Business Case and Sustainability Model, and initial implementation approach;</li><li>- Stakeholder consultation and validation.</li></ul>                                                                             | September 2026       |
| 3  | Phase 3: Consolidation and Validation <ul style="list-style-type: none"><li>- Consolidate the Target Operating Model, Business Case and Sustainability Model, and Implementation Roadmap;</li><li>- Validate recommendations and implementation approach;</li><li>- Prepare the Dutch EOSC Node Implementation Proposal</li></ul> | November 2026        |
| 4  | Final milestone <ul style="list-style-type: none"><li>- Finalisation of the Dutch EOSC Node Implementation Proposal and presentation during the Fourth National Tripartite Event (January 2027).</li></ul>                                                                                                                        | December 2026        |

## 8. Contact & Submission

During the initiation phase of constructing the project charter the coordinator will be the link to the security officer and legal advisor.

| Role                                      | Name               | Email                      |
|-------------------------------------------|--------------------|----------------------------|
| Coordinator                               | Laurents Sesink    | Laurents.sesink@surf.nl    |
| Co-Operation Manager & Deputy Coordinator | Maarten Kremers    | Maarten.kremers@surf.nl    |
| Co-Operation Manager                      | Ivar Janmaat       | Ivar.janmaat@surf.nl       |
| Communication                             | Iza Witkowska      | Iza.witkowska@surf.nl      |
| Security Officer                          | Niek Bosch         | Niek.bosch@surf.nl         |
| Node architect                            | Maarten Hoogerwerf | Maarten.hoogerwerf@surf.nl |

## 9. Community Engagement

For the community engagement with the Netherlands EOSC node SURF defined an overall aim, with guiding principles and 3 stakeholder groups.

### Overall aim

Support a careful transition from EOSC construction to early operation by gathering user requirements, strengthening national coordination (moving from advice to action), translating European developments to the Dutch context, and preparing targeted uptake where services are mature.

### Guiding principles

- Involving users – diverse perspectives, higher buyin, solutions that meet real needs.
- Creating shared ownership – stakeholders feel responsible for success, not just participants.
- Learning<sup>[08]</sup>by<sup>[08]</sup>doing – practical application drives adaptability and continuous improvement.
- Work plan 2026

### Group A – Stakeholders building the EOSC node

- Convert the EOSC Node Federation Working Group into a national project/implementation group with a broader stakeholder base
- Develop a Dutch EOSC node proposal covering scope, governance, a first business/sustainability model, and dependencies on European EOSC developments
- Continue building and operating the EOSC pilot node; use its lessons to inform national design choices without treating it as a fixed blueprint.\
- Participate in EOSC-INFRA0101 projects to shape policy, governance and technical frameworks, feeding results back into the national proposal.

### Group B – Stakeholders interested in governance and policy

- Organise preparatory consultations before EOSC General Assemblies so Dutch

- members can exchange information and align positions
- Share EOSC timelines, milestones and upcoming decision points with national stakeholders.\
- Maintain the Mandated Organisation role: regular participation in EOSC A MO consultations, a Dutch tripartite event by end2026, updates to the EOSC A national page, and planning for 2027 activities.

#### **Group C – Stakeholders focused on services and uptake**

- Identify EOSC services ready for early, limited uptake (based on scientific use cases and user requirements).
- Provide guidance on when to use national versus European services.
- Communicate clearly which services are ready, promising or not yet ready; postpone broad training and large scale roll out until evidence justifies it.

### **10. EOSC related projects**

**EOSC-CONNECT** focuses on the establishment and consolidation of National EOSC Nodes, supporting organizations that are nationally endorsed to represent and coordinate EOSC activities within their countries. The consortium includes leading national organisations from thirteen European countries.

**EOSC4ALL** aims to lower technical and organizational barriers to participation in the EOSC Federation by providing federating capabilities, tools, and guidance that enable organizations to deploy and operate EOSC Nodes more easily. The consortium includes 18 leading organisations.