



Organisation

Project Charter

EGI Node

1. PROJECT SUMMARY

The EGI infrastructure federates research data centres across Europe and beyond, integrating large-scale compute and storage capacity with research data holdings into a single distributed system. It leverages IT infrastructure operated by research-performing organisations and national e-infrastructure providers, and represents one of the world's largest distributed computing infrastructure in terms of geographic coverage and number of federated data centres.

The primary purpose of EGI's participation in the EOSC Federation is to act as a **Node for data-intensive computing and large-scale research data exploitation**, enabling seamless, cross-border access to FAIR data, advanced analytics, and interoperable digital research services. Through the EGI Node, research communities and other EOSC Nodes will be able to access scalable compute and storage resources, cloud and container platforms, workflows, and research data repositories. The offering will be complemented by research environments and repositories integrated with the EGI infrastructure provided by EGI members ([NGIs](#)), research infrastructures and scientific communities at the national and European levels.

EGI will contribute to the development and operation of the EOSC Interoperability Framework and the EOSC Federating Capabilities, building on its long-standing experience in operating its large federation of service and resource providers. This includes contributing to the federating capabilities defined in the [Handbook](#) and delivering additional capabilities for scalable data analysis, workflow execution, and service orchestration in highly distributed environments. Where appropriate, the EGI Node may operate selected federating capabilities in a federator role, complementing the EU Node and improving scalability and reliability of the EOSC Federation.

Through these contributions, the EGI Node will provide key building blocks for establishing EOSC as the European Research Commons in line with the [RDA GORC model](#). By delivering compute and data infrastructure, interoperable services, and community support, EGI will address the needs of data-intensive research communities and enable more efficient collaboration, significantly advancing Open Science.

2. VALUE PROPOSITION

The EGI Node will be operated by the EGI Foundation on behalf of the [EGI Federation](#). Its implementation is cofunded by the **EOSC Mesh** project awarded in the call topic HORIZON-INFRA-2025-01-EOSC-01.

It will address key gaps in the EOSC ecosystem related to advanced computing access, large-scale data hosting and federating capabilities for cross-disciplinary research. In particular, it will support the EOSC Federation in increasing the valorisation and reuse of research data by enabling interdisciplinary and multidisciplinary data exploitation through access to large datasets, AI/ML models, tools, applications, and scalable HTC, HPC, and cloud resources made available by EU Member States.

The beneficiaries of EGI's participation include research institutions and universities, large European research infrastructures, public sector research organisations, and interdisciplinary research communities, as well as society at large through increased reuse of publicly funded research outputs.

Research communities requiring high-throughput, high-performance, and specialised computing to process large and complex datasets will be the primary beneficiaries. Through standards-based interfaces, they will be able to integrate their thematic research environments and data analysis platforms with the EGI infrastructure; store and process data in trusted facilities; and access a rich catalogue of software, workflows, and services. The EGI Node can also onboard services for communities that currently lack a reference EOSC Node, lowering entry barriers and broadening participation in EOSC, acting as a catch-all Node for NGIs and research infrastructures integrated with the EGI infrastructure.

By acting as a federator/hub within the EOSC Federation, the EGI Node will deliver and operate Core federating capabilities (including AAI, Service Catalogue, Helpdesk, Monitoring, Accounting, Order Management, and Application Deployment Management) as well as specialised capabilities for large-scale data processing. This will complement and replicate the EU Node role, thereby improving the scalability, resilience, and fault tolerance of the EOSC Federation. These contributions build on (1) EGI's long-standing experience in operating one of the largest distributed e-infrastructures worldwide, (2) its experience in delivering EOSC EU Node services, and (3) its leading role in developing the EOSC Technical Architecture and the next-generation of EOSC Core services through EOSC Beyond.

For the EGI Federation, offering resources through an EOSC Node will increase the discoverability and use of its services and resources, raising the value derived from them through increased exploitation and return on investment in e-Infrastructure resources across Europe. Furthermore, integration of the EGI Node with the EOSC Federation will enable EGI users to access a rich set of data and services from research organisations federated with EOSC. This will allow research communities to expand their databases with resources from adjacent domains, facilitating and fostering multidisciplinary.

EGI will also facilitate collaborations and interoperability between EOSC and other EC Data Spaces. EGI is leading the operational deployment of the [Green Deal Data Space](#) (GDDS) in the SAGE project, establishing synergies between infrastructure and service providers, interoperability frameworks of the GDDS and those for the research community. EGI strategically supports the establishment of EOSC as a data space for R&I and will play a role in the forthcoming [Data Space Support Centre](#) to represent the research community.

3. REPOSITORIES AND SERVICES DELIVERED

The EGI Node portfolio will be composed of services of the [EGI catalogue](#) and an initial set of resources from NGIs and RIs. They are offered to all European researchers.

ID	Service Description	Access Policy	Federation Contributions & Value to Users	TRL
1	EGI Cloud Compute	EGI Access Policy	Run virtual machines on demand	9
2	EGI Cloud Container		Run Docker containers in virtualised environments	9
3	EGI HTC		Execute computational tasks to analyse datasets	9
4	EGI SW Distribution		Publish and access software across multiple sites	9
5	EGI Workload Manager		Manage computing workloads in an efficient way	9
6	EGI Infrastructure Manager		Cloud orchestrator to deploy virtual infras	9
7	EGI Online Storage		Store, share and access files and their metadata	9
8	EGI Data Transfer		Transfer large sets of data	9
9	EGI DataHub		Access key scientific datasets in a scalable way	9
10	EGI Notebooks		Interactive documents with live code and text	9
11	EGI Replay		Reproduce and share research on notebooks	9
12	EGI Check-in		Log in with your own credentials	9
13	EGI Secrets Store		Easily retrieve, manage, and rotate secrets	9
14	NGI-AT EODC Data Catalog	Open access	Data Catalogue for high-resolution EO data	9
15	NGI-DE GALAXY	Access policy	Resources to run tools, workflows and VREs	9
16	NGI-DE GWDG AI services	Costs occur	Specialised services for analysis of sensitive data	9
17	NGI-FR HAL ;	Open access	French multidisciplinary research open archive	9
18	NGI-FR VIP	Open access	Portal providing scientific apps as a service	9
19	NGI-FR Rech. Data Gouv	Open access	French platform for sharing research data	9
20	NGI-FR FAIDare API	Open access	Plant genotype and phenotype data	9
21	NGI-FR REPET-VRE	Quota access	Tools and pipelines for genomics analyses	9
22	NGI-NL WeNMR portal	Open access	Infrastructure for NMR and structural biology	9
23	NGI-ES OSCAR	Open access	Serverless platform for data-processing	8
24	NGI-ES DATAlife	Access policy	Data Space focused on OneHealth Sector	7
25	NGI-ES SQaaS platform	Open access	Provides CI/CD pipelines to check sw quality	9
26	ENES RI yProvStore	Open access	Provenance management in workflows	7
27	PITHIA e-Science	Open access	Data for ionospheric and plasmaspheric research	9

4. USE CASES

The EGI Node plans to implement several cross-Node use cases during its first years of operations. These use cases will involve different types of integration among community applications, VREs and EGI Node services, including compute and storage infrastructures, data analysis platforms, solutions for managing sensitive data, and AI-based tools. Through these efforts, the EOSC Federation will be strengthened with new capabilities to support research in Europe, clearly demonstrating its added value. In Q4 2026, the use cases presented in this section will be enriched with additional use cases supported by the EOSC Mesh project.

Some of the use cases foresee the involvement of organisations that are submitting proposals to become Nodes in the second wave ([e-INFRA CZ](#) and TÜBİTAK). The cross-Node use cases in which they are involved also include participation of other Nodes that are already part of the EOSC Federation. Furthermore, their contribution to these use cases will be delivered regardless of whether their applications are accepted. In the latter case, they will participate as providers within the EGI Federation.

Use Case ID	Use Case Description	Federation Contributions & Value to Users	List of the participating organisations	List any other Nodes involved	Timeline of realisation of the use case
UC1	Cross-Node workflows for consistent validation of sensor data from ARGO floats	Accessible, reproducible, and scalable platform to control and validate biogeochemical profiles from ARGO floats	EGI Data Terra Tubitak	Data Terra Turkish Node	Prototype: 10/2026 Production: 03/2027
UC2	AI model validation on sensitive health data	Secure access to sensitive medical data for AI models ensuring compliance with data protection regulations	EGI BBMRI e-infra CZ	BBMRI Czech Republic Node	Prototype: 10/2026 Production: 03/2027
UC3	“Encapsulated analysis tarballs” for cross-Node reproducibility of workflows	Execution of workflows across nodes in the federation, simplifying scientific reproducibility and avoiding unnecessary data transfers	EGI CERN	CERN	Prototype: 10/2026 Controlled Production: 03/2027
UC4	Cross-Node execution of Machine Learning pipelines	Execution of cross-node ML pipelines to operate a FAIR and scalable analytical service for the marine community	EGI CNR	Digital Twin of the Oceans	Prototype: 10/2026 Production: 03/2027
UC5	Cross-Node Federated LLMs	Access to advanced open source Large Language Models (LLMs) with the ability to federate across Nodes	EGI e-infra CZ SZTAKI	Czech Republic Node	Prototype: 10/2026 Production: 03/2027

Each use case is listed below with more details:

Use Case 1 (UC1): Cross-Node workflows for consistent validation of sensor data from Biogeochemical ARGO floats

- Extended Use Case Description: [Argo](#) is an international programme for researching the ocean. It uses profiling floats to observe ocean carbon uptake, acidification, deoxygenation, and marine ecosystem health. However, the quality control and validation process for data generated by Argo floats remains a critical and resource-intensive step, often relying on local

scripts, heterogeneous workflows, and limited computational resources. This situation makes it difficult to ensure consistency, traceability, and reproducibility across the network.

- Value Proposition: Accessible, reproducible, and scalable platform to control and validate the biogeochemical profiles from ARGO floats.
- In Scope: (a) Stakeholder Support: UC1 will support stakeholders participating in the processing of data generated with Argo floats using Galaxy. (b) Integration: Participating Nodes will have to integrate compute and storage resources with the Galaxy platform to ensure seamless cross-node execution of workflows (including HPC resources, which are required by some analyses). Integration will also involve AAI activities to ensure SSO to the services.
- Out of Scope: (a) Excluded Activities: UC1 will focus on the implementation of the workflows but not include the development of third-party libraries. (b) Limitations: Only workflows for Galaxy will be supported. (c) Dependencies: The successful outcome of UC1 depends on the availability of data generated by Argo floats.
- Role of the involved Nodes: (a) DataTerra Node: Deliver and operate the ARGO platform. (b) EGI Node: Offer Galaxy integrated with the ARGO platform and with the EGI Infrastructure. (c) Turkish Node: Federate its HPC resources in the EGI Node (made accessible via Galaxy).

Use Case 2 (UC2): AI model validation on sensitive health data

- Extended Use Case Description: This case supports researchers seeking to validate or (re)train an AI model using sensitive patient data from different sources via a secure platform. The process involves searching for datasets and compute environments, requesting and receiving access to data from data owners, and securely uploading both data and the AI model. The platform deploys a secure, isolated processing environment where the researcher performs the validation. After the validation, the system automatically purges the environment and all associated data to maintain compliance and data privacy.
- Value Proposition: Enabling secure, privacy-preserving access to sensitive medical data for AI model validation while ensuring compliance with data protection regulations.
- In Scope: (a) Stakeholder Support: UC2 will support stakeholders dealing with AI models and sensitive data, focusing on secure access and privacy-preserving data processing. (b) Federated Access to secure compute resources: A framework will expose ISO27K-compliant compute resources from multiple EGI providers and EOSC Nodes as a unified resource set. The BBMRI Node will establish a data controller-processor agreement directly with the EGI Node. The EGI Node will establish agreements with the federated providers, shielding the BBMRI Node from heterogeneity. (c) Integration: Nodes must integrate components to ensure secure communication between the data holder and the processing platforms.
- Out of Scope: (a) Excluded Activities: UC2 will not develop new services. (b) Limitations: Require ISO27K certified providers. (c) Dependencies: UC2 depends on BBMRI AI models and data.
- Role of the involved Nodes: (a) BBMRI Node: Owner of the scientific use case. It will provide the AI models and the patient data. (b) EGI Node: It will act as a federator and broker for ISO27001-compliant compute resources. (c) Czech Republic Node: It will federate in the EGI Node its ISO27001-compliant compute resources to make them accessible to BBMRI Node.

Use Case 3 (UC3): “Encapsulated analysis tarballs” for cross-Node reproducibility of workflows

- Extended Use Case Description: A researcher performs a data analysis on Node A and wants to test its reproducibility beyond his environment. The researcher packages the analysis code, the container environment, and the input data from Node A into an “encapsulated analysis tarball” and ships it to Node B to run and verify its results and inform back.
- Value Proposition: The same workflow can be executed across Nodes in the federation, simplifying scientific reproducibility and avoiding unnecessary data transfers.
- In Scope: (a) Stakeholder Support: UC3 will primarily check the reproducibility of research workflows with REANA. Galaxy workflows may also be tested. (b) Integration: Participating Nodes will have to deploy and manage an instance of REANA. Integration will also involve authentication and authorization activities to ensure that a researcher can use the same

credentials to run the workflow across more than one node in the Federation.

- Out of Scope: (a) Excluded Activities: UC3 will focus on the implementation of the workflows (no development of third-party libraries). (b) Limitations: Reproducibility of workflows written for workflow management systems other than REANA and/or Galaxy will not be supported. (c) Dependencies: Participant Nodes need to operate a REANA instance.
- Role of the involved Nodes: Both CERN and EGI Nodes operate REANA to execute the data analysis and, in turn, reproduce it and verify the results.

Use Case 4 (UC4): Cross-Node execution of machine learning pipelines

- Use case description: The DTO Node supports the Ocean biological carbon sequestration pipeline, a use case demonstrating how integrating EOSC Node services enables robust ecological modelling and carbon cycle assessment. The pipeline relies on the DTO Node Modelling service, where ML models are used to link biological functions with environmental context, enabling the assessment of ecosystem responses and impacts on the marine biological carbon pump. It requires access to EGI high-end GPUs to process high-dimensional, multi-year biomolecular and environmental datasets efficiently.
- Value proposition: Enabling execution of cross-node pipelines to operate a FAIR and scalable service for the marine research community with access to EGI high-end GPUs.
- In Scope: (a) Stakeholder Support: UC4 will support stakeholders dealing with off-loading computational workloads from the DTO Node to the EGI Node supported by Jupyter Notebooks and cloud providers. (b) Integration: The DTO Node will federate EGI computing resources into the Knowledge Base service, scaling the available capacity to process larger datasets.
- Out of Scope: (a) Excluded Activities: the development of the Knowledge Base (KB) required by the Modelling Service. (b) Limitations: The computational resources will be made available through SLAs between the DTO and EGI Nodes. (c) Dependencies: UC4 depends on the availability of a coherent KB of microbial functions relevant to carbon sequestration.
- Role of the involved Nodes: (a) EGI Node: Act as a provider of computing services that can be federated into other Nodes. (b) EOSC DTO Node: Deliver the Modelling service.

Use Case 5: Cross-Node Federated LLMs

- Use case description: UC5 provides secure access to LLMs through a web interface and an OpenAI-compatible API. The service enables researchers to integrate LLM capabilities into scientific workflows. It supports Single Sign-On through existing federated identity systems.
- Value proposition: UC5 offers transparent and secure access to LLM services in a federated environment, ensuring control over data processing and compliance with data sovereignty. It enables the creation and deployment of domain-specific AI assistants.
- In Scope: (a) Stakeholder Support: UC5 supports stakeholders in integrating LLM capabilities into their workflows by providing documentation, reference implementations, and support. (b) Integration: Nodes will integrate LLM inference frameworks into the service to enable seamless cross-Node operation. Integration will also involve AAI to ensure SSO.
- Out of Scope: (a) Excluded Activities: Development, training or fine-tuning of LLMs or inference frameworks. (b) Dependencies: UC5 depends on open-source or license-permissive LLMs remaining at a frontier-state.
- Role of the involved Nodes: (a) EGI Node: Act as a federator of LLMs delivered by Nodes and EGI providers and expose a unified interface to EOSC users. (b) Czech Republic Node: Federate its LLM service with the EGI Federated LLMs service.

In addition to these 5 use cases, the EGI Node will support 5 additional cases within the context of the EOSC Mesh project. Support for these use cases will begin in Q4 2026, and they are expected to reach the pre-operational phase by Q4 2027.

Use Case ID	Use Case Description	Federation Contributions & Value to Users	List of the participating organisations	List any other Nodes involved	Timeline of realisation of the use case
UC6	Extreme coastal ocean events (GlobalCoast/CMCC)	Advance both the scientific understanding and societal response to extreme coastal ocean events. The challenge requires integrating large-scale, multi-source data, from satellite observations to in-situ measurements, ocean models, and hindcasts and reanalysis products.	EGI, GlobalCoast, ENVRI, EUDAT, Scholarly Communications	GlobalCoast, ENVRI, EUDAT, Scholarly Communications	Prototype: 6/2026 Pre-operations: 12/2027
UC7	Environmental impact of volcanic eruptions	Analyse the environmental impact of volcanic eruptions by integrating multi-domain data. The scientific challenge lies in combining heterogeneous datasets — from satellites, in situ measurements, and numerical models — and making them interoperable within a unified framework in EOSC.	EGI, DataTerra, ENVRI, Scholarly Communications	DataTerra, ENVRI, Scholarly Communications	Prototype: 6/2026 Pre-operations: 12/2027
UC8	Ocean Monitoring for Risk Prevention and Biodiversity Conservation	DAS technologies enable large-scale, real-time monitoring of marine geohazards and biodiversity. The goal of the use case is to provide key information to mitigate risks such as ship-whale collisions and late warning of underwater seismic events.	EGI, EMSO, DataTerra, ENVRI, Scholarly Communications	DataTerra, ENVRI, Scholarly Communications	Prototype: 6/2026 Pre-operations: 12/2027
UC9	Data deposition and access through cross-disciplinary generalist repositories (	Offer a repository for public datasets for everyone in EOSC, able to interlink scientific data both nationally and internationally. It will be achieved with a metadata catalogue with DOI minting capabilities, a storage system, a data ingestion system and a metadata schema registry.	EGI, NFDI,, METROFOOD, Scholarly Communications	NFDI,, METROFOOD, Scholarly Communications	Prototype: 6/2026 Pre-operations: 12/2027
UC10	Discovery, access and integration of data from historical	Create workflows for the datafication and analysis of textual cultural heritage, such	EGI, CLARIN,	EGI, Scholarly Communications	Prototype: 6/2026

	newspapers	as digitised historical newspapers. The challenges lie in the discovery, access and integration of relevant data from multiple trusted repositories, selection of the appropriate analysis tools and execution environments in EOSC.	DARIAH, Scholarly Communications	ons, EOSC4SSH	Pre-operations: 12/2027
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5. COMPLIANCE WITH TECHNICAL REQUIREMENTS

The EGI Node fully agrees to comply with the mandatory technical specifications for integration in the EOSC Federation, including integration with the EOSC Federated AAI and exposure of its resources through the common EOSC catalogue(s), in accordance with the EOSC Federation Handbook and related interoperability guidelines. It is also fully committed to integrating federating capabilities prioritised for 2026 (SMS, Helpdesk and Monitoring).

Governance and Organisation Readiness: The EGI Node will operate under the established governance framework of the EGI Federation, ensuring clear accountability, transparent decision-making, and long-term sustainability. The same governing bodies that oversee the EGI Federation will supervise the EGI Node, guaranteeing policy alignment, operational oversight, and compliance with EOSC Federation rules.

EGI has over a decade of experience in operating a large-scale, distributed European e-infrastructure with defined service management processes, operational procedures, and security policies. These mature governance and operational mechanisms provide a stable and sustainable foundation for the EGI Node and ensure continuity of service delivery within the EOSC Federation.

Technical Readiness: The EGI Node builds upon an existing pan-European digital infrastructure powered by a production platform composed of TRL 9 services. These services already deliver all the Core Capabilities of the Node architecture as described in the Handbook.

The infrastructure is supported by a comprehensive and operational set of policies covering security, data protection, service management, onboarding, and operational coordination. These policies can be readily adapted to ensure full compliance with EOSC Federation policies and technical specifications.

Integration with the EOSC Federated AAI: AAI integration is provided through EGI Check-in, EGI's production AAI, implementing the [AARC Blueprint Architecture](#) and operated at scale across the EGI Federation. EGI Check-in delivers the capabilities foreseen for EOSC Node Infrastructure Proxies and Community AAIs, enabling trusted federated authentication and authorisation for services and users.

EGI brings direct operational experience from the design, deployment, and operation of the Infrastructure Proxy for Core Services of the EOSC EU Node, ensuring practical alignment with EOSC Federation integration patterns and operational requirements.

EGI Check-in supports OpenID Connect, OAuth 2.0, and SAML 2.0, as well as token-based authorisation mechanisms including OAuth 2.0 Token Introspection ([RFC 7662](#)) and Proxied Token Introspection ([AARC-G052](#)). It exchanges harmonised user claims, covering persistent identifiers, affiliations, group and role entitlements, and assurance information, consistent with the EOSC AAI attribute profile, and is OpenID Federation-ready, implementing metadata discovery and trust-establishment mechanisms to support future EOSC AAI topologies.

EGI Check-in is compatible with the [EOSC AAI Architecture 2025](#) and reflects EGI's sustained involvement in AARC and AEGIS, ensuring technical robustness, policy alignment, and long-term sustainability within the EOSC Federation.

Exposure of Resources through the EOSC Federated Catalogue: The [EGI Service Catalogue](#) is currently publicly available and operational, enabling users to discover services, request access, and obtain support.

As part of the Node deployment, EGI will enhance its current catalogue with advanced Service and Research Product Registry components that: (1) Implement the standard EOSC Profiles; (2) Support onboarding of third-party resources (services, datasets, research products) from NGIs and partner organisations; (3) Provide interfaces enabling seamless federation with the EOSC EU Node Resource Hub; (4) Comply with the interoperability guidelines for [Registration of EOSC Service Catalogues](#) and [Registration of EOSC Research Product Catalogues](#) in the EU Node.

These enhancements build upon solutions developed in the EOSC Beyond project ([Service and](#)

[Research product catalogues](#), [User Space](#)) and ensure technical readiness for full catalogue federation within the EOSC Federation framework.

Other Node Core Capabilities: EGI operates a mature portfolio of production services delivering all functions required by the Node Capabilities defined in the Handbook. Often, the same technologies used to operate the EGI Infrastructure have been adopted by EU Node services.

The reuse of technologies adopted by the EOSC EU Node significantly simplifies interoperability, strengthens federation alignment, and enables the EGI Node to operate as a reliable and scalable Federating Node within the EOSC ecosystem. The EGI Node can act as a fallback for some of the Federating Capabilities operated by the EU Node or even work in parallel with the EU Node as a federator Node to improve the reliability and scalability of such capabilities.

Key Core Capabilities are implemented as follows:

Node Core Capability	EGI Services	Technology	Additional Information
Helpdesk	GGUS - https://helpdesk.egi.eu/	Zammad	Same technology adopted by the EOSC EU Node
Service Monitoring	ARGO - https://argo.egi.eu/	ARGO	Same technology adopted by the EOSC EU Node
Service and Research Product accounting	EGI Accounting - https://accounting.egi.eu	APEL	EGI also delivers EOSC Service Account of the EU Node
Configuration Management System	EGI GOCDB - https://goc.egi.eu/	GOCDB	Same technology adopted by the EOSC EU Node
User Space & Order Management	EGI Service Catalogue - https://www.egi.eu/services/	Wordpress	Catalogue in the EGI web-site
Application Deployment Mgmtt	EGI Infrastructure Manager - https://im.egi.eu/	Infrastructure Manager	Same technology adopted by the EOSC EU Node
Resource Provisioning	EGI OLA/SLA Framework EGI Check-in	Check-in	Well-established process of resources provisioning

Federating capabilities for large-scale data processing: Leveraging its long-standing experience in operating one of the largest distributed e-infrastructures worldwide for research data analysis, the EGI Node will establish specialised federating capabilities for large-scale data processing and proposes them for adoption to the EOSC Federation.

In particular, EGI is contributing to the development of the *Application Deployment Management (ADM)* federating capability (formerly Application Workflow Management), as defined in the Handbook.

Initially, the work will be focused on extending [Infrastructure Manager](#) by defining the interfaces to enable the ADM federating capability. This effort foresees the definition of a standardised interoperable API to access the ADM capability of the Federation Nodes. Through this API, end-users can programmatically discover the information needed to use ADM (e.g. resource allocations in a remote node, tool recipes they want to deploy, etc.) and carry out deployments through a homogeneous interface over the whole Federation. EOSC Nodes can benefit from the ADM federating capabilities while enforcing policies and security constraints at the level of the ADM API. The ADM federating capability will be fully distributed (no central Node), and the inclusion of a new Node will not affect the other participating Nodes. The ADM capability is under development in EOSC Beyond and will be further strengthened in EOSC Mesh.

6. EXTERNAL DEPENDENCIES & KEY RISKS

External Dependencies & Risks	Actions / mitigations measures	Deadline
Evolving interoperability specifications for Federating Capabilities	Be involved and have an active role in the related EOSC Federation WGs to be up-to-date with decisions and the most recent changes	Q3 2026
Onboarded Services in the EGI Node do not meet the EOSC rules of participation requirements	The EGI Node defines onboarding procedures aligned with EOSC, periodically reviewed through continual improvement and alignment. An update to the Node internal service management processes is triggered by the external release of new EOSC official guidelines.	Q3 2026
Insufficient resources to support the use cases due to a lack of funding for resource providers	Providers from the EGI Federation have already been identified to support the cross-Node use cases with Compute and Storage resources. In case of need of additional resources, EGI will rely on its vast collaboration network to identify more interested providers.	Q3 2026
Cross-node use cases turn out to be unachievable	Monitor use case implementation to counteract any foreseeable failures and provide support when needed. However, there are multiple use cases that will show the added value of the EGI Node, even if a small number of use cases turn out to be unachievable.	Q4 2026
No clear sustainability paths for Node-level and cross-Node level delivery of services in EOSC	The EGI Node will perform a study to assess B2B and B2C service provisioning, cost-sharing and recovery models. Candidate business models will be identified and validated with representative services from the EGI Node and related use cases. A credit-based resource mgmt system will be designed and include the principles of the 'virtual credit allocation' system of the EU Node and any further development in the EOSC Federation.	Q4 2027

7. CONTRIBUTIONS [DELIVERABLES (INCLUDING DOCUMENTATION)]

Deliverable ID	Deliverable Name	Responsible	Deadline
D1.1	First release of the EGI Node	EGI Foundation	June 2026
D2.1	EGI Node v1: Policies and procedures including IT security plan	EGI Foundation	July 2026
D2.2	EGI Node v1: Operational review, verification and tests	EGI Foundation	July 2026
D1.2	Second release of the EGI Node	EGI Foundation	October 2026
D3.1	Integration with Federating Capabilities: AAI and Catalogue	EGI Foundation	October 2026
D4.1	Application Deployment Management API - First Software Release	EGI Foundation	October 2026
D2.3	EGI Node v2: Policies and procedures including IT security plan	EGI Foundation	November 2026
D2.4	EGI Node v2: Operational review, verification and tests	EGI Foundation	November 2026
D5.1	Report: Use cases - Lessons learnt and next steps v1	EGI Foundation	November 2026
D3.2	Integration with Federating Capabilities: Helpdesk, Monitoring, SMS	EGI Foundation	December 2026
D6.1	Stakeholders and communities' engagement strategy	EGI Foundation	February 2027
D5.2	EOSC Mesh Cross-Node use case analysis and implementation plan	EGI Foundation	April 2027
D4.2	Application Deployment Management API - Second Software Release	EGI Foundation	April 2027

D1.3	Third release of the EGI Node	EGI Foundation	December 2027
D2.5	EGI Node v3: Policies and procedures including IT security plan	EGI Foundation	December 2027
D2.6	EGI Node v3: Operational review, verification and tests	EGI Foundation	December 2027
D6.2	Updated Stakeholders and communities' engagement strategy	EGI Foundation	December 2027
D5.3	Report: Use cases - Lessons learnt and next steps v2 (including EOSC Mesh Cross-Node use cases)	EGI Foundation	December 2027
D7.1	Technical and financial sustainability plan	EGI Foundation	December 2027

8. COMMUNITY ENGAGEMENT

The EGI Federation has the capacity and clear plan to implement activities enabling the [EGI community](#) and the broader research landscape to engage with the EOSC Federation. Building on EGI's experience in the EOSC EU Node, EOSC Beyond, and other relevant projects and initiatives, we plan to establish recurring meetings with representatives of the EGI Federation members (NGIs) and organise knowledge exchange workshops. These fora will promote the benefits of offering resources through the EGI Node, demonstrating how increased discoverability and exploitation raise returns on national e-infrastructure investments. These activities will also promote cross-Node collaboration, such as service orchestration activities among thematic and e-infrastructure Nodes.

Lessons learnt from the first Node wave will inform streamlined onboarding packages, lightweight integration procedures adapted to diverse provider capacities, and clear governance frameworks for third-party resource contribution. We will prioritise reducing administrative and technical barriers while preserving the trusted, standards-based interfaces that characterise EGI's federation. Through these activities, we will enable NGIs and associated research communities to participate actively in the EOSC Federation as resource providers and consumers.

This approach simultaneously broadens participation for research infrastructures currently lacking their own EOSC Node, directly advancing the Federation's scalability, sustainability, and inclusivity objectives while reinforcing EGI's role as a reliable federator within the evolving EOSC landscape.

The EGI Node will engage a broad range of scientific communities through the onboarding of NGI-operated services and related national and thematic user bases. In particular, services onboarded by participating NGIs will provide access to EOSC resources and capabilities to research communities operating in domains such as medical imaging, computational physics, climate and environmental sciences, bioinformatics, digital humanities, and data-intensive computing. These services are already connected to established national and international research collaborations and will act as entry points for researchers to access distributed EOSC Federation resources through the EGI Node.

As an example, the VIP platform will support researchers and scientists working on medical imaging processing and analysis workflows. In particular, VIP targets neuroimaging communities and users of the GATE simulation framework, widely adopted in medical physics and imaging research. Through the EOSC Federation, these communities will benefit from access to distributed compute and storage resources, interoperable data management capabilities, and cross-Node orchestration mechanisms. Similar engagement models will be adopted by other participating NGIs and services, leveraging their existing scientific collaborations to promote the adoption of EOSC Federation services and enable cross-border and cross-disciplinary research activities.

9. TIMING AND MILESTONES

The EGI Node will build upon an existing pan-European digital infrastructure powered by a platform composed of TRL 9 services that already deliver all the Core Capabilities of the Node architecture, as described in the Handbook. The EGI infrastructure also relies on a set of policies that can be readily adapted to ensure compliance with those of the EOSC Federation. Furthermore, the EGI Node will be governed by the same bodies as the EGI Federation.

On this basis, we plan to deploy the first release of the EGI Node already in June 2026.

The following table outlines the main technical steps required to set up the EGI Node and to further evolve it in 2026 and 2027. EGI is committed to publishing documentation for users and system administrators alongside the production release of the Node services, as indicated below.

ID	Milestone Description	Target Delivery Date
M1	First set of Node Capabilities operational: AAI, HD, Monitoring, Accounting, CMDB, User Space, ADM, Resource Provisioning	June 2026
M2	Establishment of the EGI Node Service Management System (SMS)	June 2026
M3	Onboarding of all EGI services (https://www.egi.eu/services/)	June 2026
M4	Second set of Node Capabilities operational: Resource Catalogue and Registry Service, Order Management	October 2026
M5	Integration with Federating Capabilities: AAI and Catalogues	October 2026
M6	Onboarding of the first set of NGI services	October 2026
M7	Application Deployment Management Federating Capability: a prototype version for EOSC Federation assessment is available	October 2026
M8	Prototype implementations of the five use cases (see section 4)	October 2026
M9	Integration with Fed. Capabilities: Helpdesk, Monitoring, SMS	December 2026
M10	Support for cross-Node use cases from EOSC Mesh begins	December 2026
M11	Onboarding of the second set of NGI services	March 2027
M12	The five use cases are operational in the EOSC Federation	March 2027
M13	ADM Federating Capability: a new version implementing EOSC Federation requirements is available	April 2027
M14	Integration with Federating Capabilities: 2027 priorities	December 2027
M15	EOSC Mesh Use cross-Node use cases reach pre-operations	December 2027

10. CONTACTS

EGI commits five individuals for 24 months to take over the roles of coordinator, operations officer, legal officer, cybersecurity officer and communications officer (see table below). Additional technical staff will be involved to support the activities of the EGI Node on an as-needed-basis.

EGI personnel involved in the EGI Node operations will participate and contribute to relevant EOSC Federation WGs according to their role.

Role	Name	Email	Responsibilities
Coordinator	Diego Scardaci	diego.scardaci@egi.eu	Provides overall leadership of the Node, ensuring strategic alignment with the EOSC Federation. Oversees planning, performance, reporting, and coordination with EOSC governance bodies and other Nodes.
Operations Officer	Matthew Viljoen	matthew.viljoen@egi.eu	Manages day-to-day service operations, coordinating resource providers and ensuring service reliability, onboarding compliance, and adherence to agreed service levels and EOSC requirements.
Cybersecurity Officer	David Kelsey	david.kelsey@stfc.ac.uk	Oversees security policies, risk management, and incident response. Ensures compliance with cybersecurity standards, secure federated access, and data protection requirements.
Legal Officer	Tiziana Ferrari	tiziana.ferrari@egi.eu	Ensures legal and regulatory compliance, including contracts, liability, and data protection (e.g., GDPR),

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			and advises on EOSC participation requirements.
Communications Officer	Magdalena Brus	magdalena.brus@egi.eu	Leads stakeholder engagement and dissemination activities, promoting Node services, coordinating with EOSC communication channels, and supporting community outreach and training.