EGI Council Participant: SURF

Participating in EGI Impact Report: Netherlands

2024

egi.eu

Table of Contents

Infographic

2,065 service users

In 2024, 2,065 researchers from Dutch institutions used the services provided by the EGI Federation

1,761 publications

The research communities, projects and scientific collaborations from the Netherlands supported by the EGI led to 1,761 peer-reviewed scientific publications

22 Supported communities

In 2024, the Dutch infrastructure supported 22 research communities in the following disciplines: Agriculture, Climate Research, Health and Medicine, Linguistics, Physics

Projects

Dutch partners participate in 34 collaboration projects.

Compute Delivery

In 2024, the infrastructure providers from the Netherlands federated in EGI delivered 142,035,051 HTC CPU Hours.

Country overview

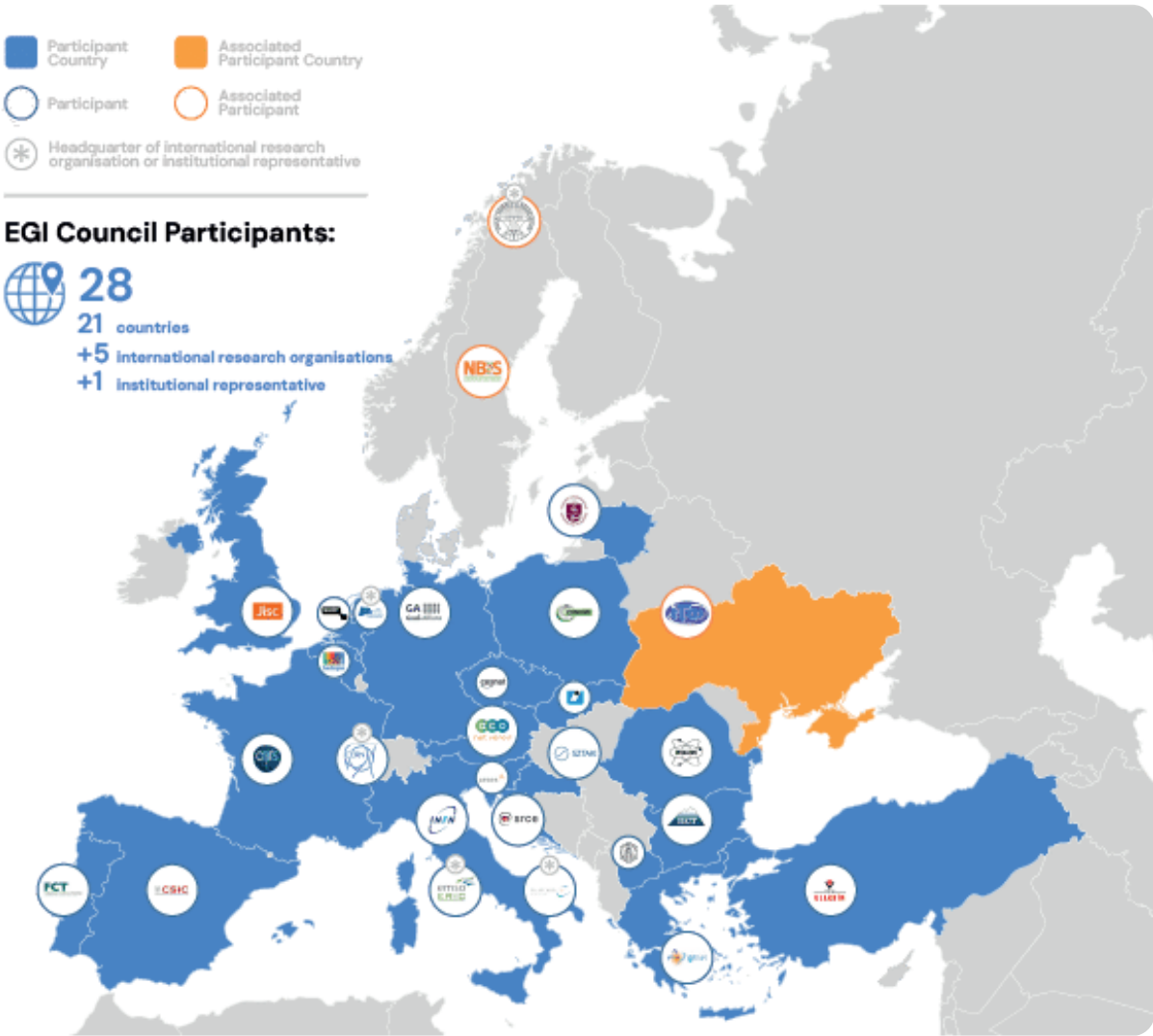|	
Number of supported publications	1,761
Number of total service users	2,065
Scientific Communities supported	22
Data Centres contributing to the Federation	2
Collaboration projects	34
Total HTC CPU hours delivered	142,035,051

About EGI

EGI is the federation of computing and storage resource providers united by a mission of delivering advanced computing and data analytics services for research and innovation.

The EGI Federation believes that all researchers should have seamless access to services, resources and expertise to collaborate and conduct world-class research and innovation. The EGI Federation is coordinated by EGI Foundation, an organisation with headquarters in Amsterdam. The Foundation offers a service federation and management platform, enabling the data centres to harmonise and integrate their services by connecting to a common hub. Moreover, it engages with international research communities using these services in order to understand and satisfy their demands for advanced computing for research.

The mission of EGI is pursued by coordinating and provisioning an international federated infrastructure that pools together service providers from both the public and private sectors in Europe to develop, integrate and deliver digital services for compute and data-intensive research and innovation. As an open initiative with a global outlook, the EGI Federation also connects service providers beyond Europe, following the collaboration needs of the served communities.

The latest Annual Report provides an extensive overview of the results that have been achieved through our collaborative efforts in 2024.

Approved EGI Council map from 2024

About SURF

SURF is a cooperative association of Dutch educational and research institutions in which the members combine their strengths. Within SURF, we work together to acquire or develop the best possible digital services, and to encourage knowledge sharing through continuous innovation. The members are the owners of SURF.

Overall EGI impact

The EGI Federation is composed of e-infrastructure providers from national and community initiatives, forming one of the largest distributed computing infrastructures for researchers in the world, integrating about 1,243,400 CPU cores and over 1,4 Exabyte of storage space from hundreds of data centres.

In 2024, the EGI Federation served around 116,000 users (+23%). EGI users consumed 7,4 Billion HTC CPU hours (+5.7%), 62,7 Million Cloud CPU hours (−23,5%), ran over 402 M computational jobs (+8%) and published over 2,560 open access publications.

As of the previous year, the research community with the largest number of users is Medical and Health Sciences, while the community with most extensive HTC CPU/h consumption is CMS.

From the scientific communities engaged in 2024, the one with most extensive Cloud CPU/h consumption is WeNMR.

Moreover, EGI engaged with a total of 249 scientific communities; 11 SMEs and business pilots, and 2 additional Research Infrastructure included in the ESFRI Roadmap, raising the total of number of ESFRI partners/users of EGI to 25.

EGI contribution to excellence in science in the Netherlands

SURF coordinates the Dutch participation to the EGI Federation. SURF promotes the building and operation of a multidisciplinary national Distributed Computing Infrastructure open to all sciences and to developing countries in Netherlands. This report provides an overview of the activities of SURF in EGI, and the impact that was achieved thanks to this participation. The annual membership fee contributed by SURF to the EGI Foundation in 2024 was 75,000 EUR.

EGI federates hundreds of resource centres that are located at participant countries, organizations and at collaborating e-Infrastructures worldwide. This federated infrastructure supports data- and compute-intensive research across Europe and the world. In 2024, our federation was used by over 260 scientific communities, and has been accessed by around 116.000 users.

Research Infrastructures and multi-national research collaborations are the largest adopters of EGI Services, the main contributors of thematic portals, and operate community-specific compute, storage and data systems based on EGI federation capabilities.

The services of the EGI federation have been used by 2,065 researchers from The Netherlands in 2023. The estimated annual scientific output in 2024 produced by research communities, projects and scientific collaborations from the Netherlands and supported by the EGI Federation is estimated to amount to over 1,610 peer reviewed scientific publications. The EGI Federation is currently working with over 40 Research Infrastructures, 33 of which include Dutch partners. These EGI-enabled research infrastructures, their Dutch members and their 2023 scientific output (publications) are detailed in the following pages of the report.

Dutch research collaborations in EGI

AMS-02 (Particle Physics)
- University of Groningen

ALICE (High-Energy Physics)
- NIKHEF
- Rijksuniversiteit Utrecht

EGI supported activities and services

The AMS-02 experiment on the International Space Station has been using compute resources from EGI for more than a decade. The services from the EGI federation that AMS-02 uses include:

- EGI HTC services from sites in Italy and CERN
- Software distribution services (UMC, CMD, operations documentation)
- Operations coordination (middleware deployment campaigns, procedures, innovation of tools)
- Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)

ALICE has been supported since 2012 as part of the EGI WLCG collaboration, formally agreed in an MoU. Federated services delivered in the context of the WLCG MoU, including:

- Software support (consultancy to users and system administrators, (software maintenance and validation)
- Infrastructure and operations Services (infrastructure catalogue, accounting repository and portal, helpdesk, monitoring, operations portal, AAI)
- Software distribution services (UMC, CMD, operations documentation)
- Operations coordination (middleware deployment campaigns, procedures, innovation of tools)
- Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)
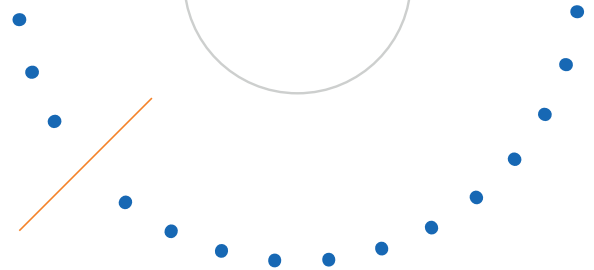
Number of scientific papers published in 2024

1

47

Dutch research collaborations in EGI	EGI supported activities and services	Number of scientific papers published in 2024
ATLAS (High-Energy Physics) • Nikhef • Radboud University	ATLAS has been supported since 2012 as part of the EGI WLCG collaboration, formally agreed in an MoU. Federated services delivered in the context of the WLCG MoU, including: • Software support (consultancy to users and system administrators, (software maintenance and validation) • Infrastructure and operations Services (infrastructure catalogue, accounting repository and portal, helpdesk, monitoring, operations portal, AAI) • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)	126
AUGER (Astronomy) • Institute for Mathematics, Astrophysics and Particle Physics (IMAPP), Radboud Universiteit, Nijmegen • KVI Center for Advanced Radiation Technology, University of Groningen • Nationaal Instituut voor Kernfysica en Hoge Energie Fysica (NIKHEF) • Stichting Astronomisch Onderzoek in Nederland (ASTRON), Dwingeloo • Universiteit van Amsterdam	The Pierre Auger Observatory has been using compute resources from EGI partners for more than a decade. The services of the EGI federation that the Auger observatory benefits from include: • EGI HTC services from 9 EGI participant countries (CZ, DE, IT, FR, ES, NL, RO, PT, SI) • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)	12

Dutch research collaborations in EGI	EGI supported activities and services	Number of scientific papers published in 2024
BIOMED (Life Sciences) • VU amsterdam • University Medical Center Groningen • UMC • Antoni van Leeuwnhoek Ziekenhuis • Eindhoven University of Technology • The Netherlands Cancer Institute • Delft University of Technology • Erasmus University Medical Center	The Life Science Grid Community is supported by EGI for more than one decade and have an Service Level Agreement since 2016. The EGI Services used by the community include: • High-Throughput + Online Storage services • EGI Cloud services • EGI Workload Manager From 2021 the community is one of the Data Space providers supported in the EGI-ACE Horizon 2020 project.	2
CLARIN (Linguistics) • CLARIAH-NL, Utrecht University	CLARIN thematic services has been supported by EGI since 2018. CLARIN has a Service Level Agreement with EGI, using the following services: EGI services: • EGI Cloud (Compute + Online Storage) for hosting the Virtual Language Observatory (VLO) • Technical support • Service integration	13
CTA (Astronomy) • Gravitation and Astroparticle Physics in Amsterdam, KVI • Center for Advanced Radiation Technology, • University of Groningen, Radboud University Nijmegen	The CTA experiment has been using compute resources from EGI partners for more than a decade. The services from the EGI federation that CTA uses include: • EGI HTC services from 9 EGI participant countries (CZ, DE, IT, FR, ES, NL, RO, PT, SI) • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)	37

Dutch research collaborations in EGI	EGI supported activities and services	Number of scientific papers published in 2024
DUNE (Astroparticle Physics) • NIKHEF	The DUNE experiment has been using compute resources from EGI partners for more than a decade. The services from the EGI federation that DUNE uses include: • EGI HTC services from 6 EGI participant countries (CH, CZ, ES, FR, NL, UK) • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution	20
EMPHASIS (Agriculture) • Wageningen University (WU) • University Utrecht • NIOO-KNAW • Nijmegen University • UvA	EMPHASIS has been supported through the establishment of a Data Space in the EGI-ACE project. Since 2017 EMPHASIS using the following services from EGI: • EGI Check-in • EGI Cloud Compute • EGI Online Storage • EGI DataHub • Technical support • Software integration and piloting	0
HESS (Astroparticle Physics) • University of Amsterdam	The HESS experiment has been using compute resources from EGI partners for more than a decade. The services from the EGI federation that HESS uses include: • EGI HTC services from 3 EGI participant countries (DE, FR, PL) • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)	6

Dutch research collaborations in EGI	EGI supported activities and services	Number of scientific papers published in 2024
ILC (High-Energy Physics) • Vrije Universiteit, • IMAPP Nijmegen • Nikhef	• The ILC experiment has been using compute resources from EGI partners since 2004. The services from the EGI federation that ILC experiments uses include: • EGI HTC services from 27 EGI federated sites from IL, DE, FR, ES, NL, PL, UK • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)	75
INSTRUCT (Structural Biology) • Instruct Centre NL • Bijvoet Centre UU • NeCEN LU • Protein facility NKI • Netherlands Organisation for Scientific Research (NWO)	The WeNMR structural biology community is supported by EGI since 2011 and have an Service Level Agreement since 2016. WeNMR is part of INSTRUCT and operates online Virtual Research Environments on top of the EGI services. The EGI Services used by the community include: • High-Throughput, Cloud + Online Storage services from 23 EGI federated data centres from the Netherlands, Italy, France, Belgiany, UK, Poland, the Asia Pacifi c region, IberGrid (Spain and Portugal), Italy, the Latin America region. • EGI Workload Manager • Trust and identity management with Check-in • Technical support: WeNMR benefi ted from continual support through dedicated support activities in various EGI flagship projects: EGI-Engage, EOSC-hub and EGI-ACE.	72

Dutch research collaborations in EGI	EGI supported activities and services	Number of scientific papers published in 2024
KM3NET (Neutrino Observatory) • NWO–I, Nikhef • KVI–CART University of Groningen • Leiden University, Leiden Institute of Physics • NIOZ • TNO, Technical Sciences • University of Amsterdam, Institute of Physics/IHEF	The Km3Net experiment has been using compute resources from EGI partners since 2013. The services from the EGI federation that Km3Net uses include: • EGI HTC services from 2 EGI federated sites from IT and PL • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)	25
Lifewatch (Biodiversity and Ecosystem Research) • University of Amsterdam (UvA) • Institute for Biodiversity and Ecosystems Dynamics	The LifeWatch experiment has been using compute resources from EGI partners since 2018. The services from the EGI federation that LifeWatch uses include: • EGI Cloud services from 2 EGI federated sites from ES and PT • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)	149

Dutch research collaborations in EGI	EGI supported activities and services	Number of scientific papers published in 2024
LHcB (High-Energy Physics) • NIKHEF • Amsterdam, Free University	LHCb has been supported since 2012 as part of the EGI WLCG collaboration, formally agreed in an MoU. Federating services delivered in the context of the WLCG MoU, including: • Software support (consultancy to users and system administrators, (software maintenance and validation) • Infrastructure and operations Services (infrastructure catalogue, accounting repository and portal, helpdesk, monitoring, operations portal, AAI) • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)	49
LOFAR (Radioastronomy) • ASTRON	LOFAR has been supported by EGI partners in the EOSC hub project in the setup and validation of a data access and transformation workfl ow on High Throughput Compute (HTC) resources. Since 2021 LOFAR (represented by ASTRON) participates in the EGI-ACE Horizon 2020 project where SURF (EGI member from NL) supports the setup, operation and promotion of the LOFAR Data Space, an online service that produces and make 'LOFAR science ready data' available in EOSC for broad uptake. The setup will rely on EGI HTC, Check-in, Helpdesk and consultancy/technical support services.	101
PANOSC (Photon and Neutron) • Stichting EGI	PaNOSC has been using compute resources from EGI partners since 2018. The services from the EGI federation that OPENCoastS uses include: • EGI Cloud services from 2 EGI federated data centres from CZ and DE • EGI AAI Check-in • EGI Notebooks • EGI DataHub	0

Dutch research collaborations in EGI	EGI supported activities and services	Number of scientific papers published in 2024
SKA (Radioastronomy) • Netherlands Organisation for Scientific Research	The Square Kilometre Array (SKA) is an intergovernmental radio telescope project being planned to be built in Australia and South Africa. 8 countries that participate in SKA are also represented in the EGI Council (France, Germany, Italy, Portugal, Spain, Switzerland, The Netherlands and the United Kingdom). Between 2017-2019 SKA worked with the EGI federation in the AENEAS Horizon 2020 project. The collaboration resulted in recommendations on how to: • organize federated service management within the SKA European Science Data Centre (ESDC) and across multiple SKA Regional Centres to address the management of the SKA community-specific services. • federate the ESDC services with existing e-Infrastructure federated services (Identity Provisioning, Authentication and Authorization, tools for federated service management) • collect SKA and e-Infrastructures requirements to federate and eventually enhance existing federation services.	**91**
SeaDataNet (Oceanography) • DELTARES • MARIS • Royal Netherlands Institute for Sea Research	SeaDataNet has been supported by EGI partners in the EOSC-hub project in the setup and validation of a data access service on federated cloud resources. Since 2021 the SeaDataNet community is represented in the EGI Council by MARIS, and works with several EGI members in the EGI-ACE Horizon 2020 project. In EGI-ACE, SeaDataNet and EGI partners from Spain are setting up and operating a WebOcean Data Analysis service in the EGI cloud federation, and deliver the service in EOSC.	**0**
XENON (Physics) • University of Utrecht • Nikhef • GRAPPA/University of Amsterdam, the Netherlands	The XENON experiment has been using compute resources from EGI partners for more than a decade. The services from the EGI federation that XENON uses include: • EGI HTC services from 4 EGI federated sites from France, Italy, the Netherlands and Israel • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution)	**11**

Dutch research collaborations in EGI	EGI supported activities and services	Number of scientific papers published in 2024
VIRGO (Astrophysics) • Delta Institute for Theoretical Physics • Department of Astrophysics/IMAPP, Radboud University Nijmegen • Eindhoven University of Technology • GRAPPA, Anton Pannekoek Institute for Astronomy and Institute for High-Energy Physics, University of Amsterdam • Institute for Gravitational and Subatomic Physics (GRASP), Utrecht University • Institute for High-Energy Physics, University of Amsterdam • Lorentz Institute, Leiden University • Maastricht University • Nikhef • Van Swinderen Institute for Particle Physics and Gravity, University of Groningen • Vrije Universiteit Amsterdam	The Virgo experiment has been using compute resources from EGI partners for more than a decade. The services from the EGI federation that VIRGO uses include: • EGI HTC services from 8 data centres from France, Italy, The Netherlands, Spain and UK • Software distribution services (UMC, CMD, operations documentation) • Operations coordination (middleware deployment campaigns, procedures, innovation of tools) • Security services and activities (CSIRT, Software vulnerability group, international security coordination, policies, IGTF distribution) • Since 2021 Virgo works with EGI in the EGI-ACE Horizon 2020 project to evaluate and adopt data analysis, federated authentication-authorisation and data management services for thematic applications.	**5**
WeNMR (Structural Biology) • UTRECHT UNIVERSITY • BONVIN LAB • Leiden University • University of Groningen • WAGENINGEN UNIVERSITY • Department of Biochemistry – Cardiovascular Research Institute Maastricht • Radboud Institute for Molecular Life Sciences • Eindhoven University of Technology • AMSTERDAM MEDICAL CENTRE • UNIVERSITY VAN AMSTERDAM • DELFT UNIVERSITY OF TECHNOLOGY (TU DELFT) • Netherlands Cancer Institute • TU DELFT • MAASTRICHT UNIVERSITY • Universitar Medische Centra • UNIVERSITY OF TWENTE • BROUNS LAB • NETHERLANDS ESCIENCE CENTER	WeNMR is supported by EGI since 2011 and has a Service Level Agreement since 2016. The EGI Services used by the community include: • High-Throughput, Cloud + Online Storage services from 23 EGI federated sites from the Netherlands, Italy, France, Germany, UK, Poland, the Asia Pacific region, IberGrid (Spain and Portugal), Italy, the Latin America region. • EGI Workload Manager • Trust and identity management with Check-in • Technical support: WeNMR benefited from continual support through dedicated support activities in various EGI flagship projects: EGI-Engage, EOSC-hub and EGI-ACE.	**939**

Service Level Agreements

During 2024, SARA-MATRIX and Nikhef supported 1 Service Level Agreement for international scientific communities via EGI, delivering Cloud Computing and Online Storage services.
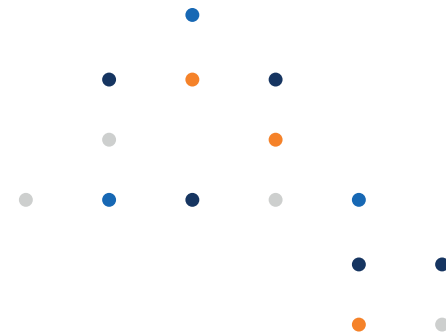
Participated projects

The EGI Foundation leads five Horizon Europe Projects, three of which started in 2024:

- iMagine (September 2022–December 2025)
- interTwin (September 2022–August 2025)
- ENVRI-Hub NEXT (February 2024–January 2027)
- EOSC Beyond (April 2024–March 2027)
- SPECTRUM (January 2024–June 2026)

Furthermore, the EGI Federation was involved in 3 additional projects, increasing the innovation potential of its participants.

The EGI Federation participates in Horizon 2020 and Horizon Europe projects together with Austrian institutions to facilitate the uptake and use of e-infrastructure services for science. A summary of these projects, the involved institutes and the scope of the collaboration is provided in the next table.

Project title	Scope of collaboration	Participating beneficiaries from the country
AI4EUROPE Supporting A RD Ecosystem	EGI is contributing to the architectural design and implementation of open distributed software to ensure that AI4Europe evolves as a distributed ecosystem. EGI is also providing its expertise on physical resources, usability, development of systems, distributed systems and new technologies to develop mechanisms for the AI tools to deploy/make use of private/public Cloud and HPC resources.	• Stichting EGI • TECHNISCHE UNIVERSITEIT EINDHOVEN • UNIVERSITEIT LEIDEN
AI4PublicPolicy	EGI is involved in the activities around Cloud-based AI Tools for Citizen Centric & Autonomous Policy, in particular with the Dynamic provisioning of Cloud and HPC. Moreover, it leads the integration of Validated AI-based Applications and Tools, contributes to dissemination and communication, and leads the the business modelling and sustainability planning.	• Stichting EGI • Arthur's Legal Bv
ANERIS	EGI contributes with the services Cloud computing, Notebooks and Applications on demand, FTS, data archiving. It participates to the EOSC Integration processes and the sustainability business plan.	• Stichting EGI • CytoBuoy
AARC	EGI leads the activities on Communication Dissemination and Exploitation Management and significantly contributes to the technical guidance and architecture definition, trust policy harmonisation and interoperability, validation activities, and to the preparation of the Compendium and recommendations.	• Stichting EGI • NWO-I • GEANT • SURF BV • MARIS
BD4NRG Big Data for Next Generation Energy	The EGI Foundation delivers a reference architecture for Smart Energy and extend COSMAG specification to enable B2B multi-party data exchange, while providing full interoperability of leading-edge big data technologies with smart grid standards and operational frameworks; evolve and upscale a number of TRL 5-6 technology enablers; delivers a TRL8 open modular big data analytic toolbox as front-end for one-stop-shop analytics services development by orchestrating legacy and/or third party assets (data, computing resources, models, algorithms); validates such framework through the delivery of predictive and prescriptive edge AI-based big data analytics on 13 large scale pilots, deployed by different energy stakeholders.	• Stichting EGI • TNO

Project title	Scope of collaboration	Participating beneficiaries from the country
eosc Blue-Cloud2026	EGI contributes with the services Cloud computing, Notebooks and Applications on demand, FTS, data archiving. It participates to the EOSC Integration processes and the sustainability business plan.	• MARIS BV • Stichting EGI • KNMI • UNIVERSITEIT VAN AMSTERDAM
CRAFT-OA eosc	EGI coordinates the task dedicated to the Single Sign-On access with the EGI Check-in service.	• Stichting EGI
dji	EGI is involved in developing a detailed roadmap, analyzing state-of-the-art technology, and designing a modular architecture framework. Morever, It works to improve data monetization strategies for EU companies and define KPIs for fair dataset valuation. EGI will help develop business cases for data sharing platforms, explore non-monetary data value dimensions, and prepare pilots for framework deployment. Demonstration and validation tests will be conducted at pilot sites. Additionally, EGI contributes to disseminating results, managing innovation and sustainability, participating in standardization activities, and coordinating with the Data Spaces Support Centre.	• Stichting EGI
DATA SPACES SUPPORT CENTRE	EGI, as a very active player in the Data Space landscape in Europe, joined the project as Associated and collaboration Partner and participates in the Strategic Stakeholder Group (SSG) that will act as a think-and-do-tank to support the project in delivering to the policy objectives.	• Stichting EGI • TNO • Stichting ISHARE • ILVO
echoes	EGI works on integrating datasets, tools, and workflows from the broader landscape into ECHOES. It supports the technical framework and infrastructure with a scalable, secure storage and compute infrastructure. Also, EGI provides an authentication and authorisation infrastructure (AAI) for the single entry point in the cloud environment. Last but not least, EGI contributes to the project's long-term sustainability, leverages ECCCH's advocacy and open innovation by engaging with the private sector.	• Stichting EGI • TNO • Stichting ISHARE • ILVO

Project title	Scope of collaboration	Participating beneficiaries from the country
EOSC Focus	EGI works on the activities related to the SRIA update and technical development, in particular, interacting with the EOSC task forces and liaising with European partnerships and other initiatives. Moreover, EGI works on the sustainability of the EOSC, with specific actitvities towards the definition of the EOSC rules of participation, the collaboration expansion.	• Stichting EGI • CLARIN ERIC
EOSC Future	EGI contributed to the design, operation and interoperability of EOSC Core services, to running the EOSC Digital Innovation Hub, as well as to resource strategy and the processes for onboarding new groups to EOSC. EGI was responsible for requirements collection and analysis for both the EOSC Back Office and Front Office. It also leads all operational aspects of the EOSC Portal. Finally, EGI played a leading role in developing the EOSC SMS.	• Stichting EGI • CLARIN ERIC • EATRIS ERIC • GEANT VERENIGING • MARIENE INFORMATIE SERVICE MARIS BV • UNIVERSITEIT VAN AMSTERDAM
EUCAIM	Within EUCAIM, EGI works on the development of the platform core services in addition to supporting the creation of the platform central storage and infrastructure. Moreover, EGI leads the activities around the design and implementation of a federated learning and data analysis infrastructure, and ensures access to HPC/Cloud resources across Europe.	• EATRIS • The EGI Foundation • Erasmus University Medical Center • Health-RI • Maastricht University • Philips • Radboud University Medical Center • The Netherlands Cancer Institute
EUH4D	EGI contributes to the Federation sustainability model and the expansion of the DIH ecosystem. Moreover, it collaborates to the development and maintenance of the service catalogue, to the training programme, and to the dissemination and outreach of the project activities and results.	• Stichting EGI • TNO
EUREKA3D	EGI Foundation collaborates to the definition of the technical requirements, to the authentication and authorisation infrastructure of the project, and will support the project services onboarding to the EOSC Marketplace.	• Stichting EGI • Europeana Foundation
eosc EuroScienceGateway	EGI leads the development of new functionality to bring support for new computing and storage systems and to deliver meta scheduling of computing jobs in a distributed infrastructure delivered by EOSC providers and beyond. EGI also leads the activities for the development of a sustainability model to maximize the project and collaborates in the activities to integrate EuroScienceGateway in EOSC.	• Stichting EGI • Europeana Foundation

Project title	Scope of collaboration	Participating beneficiaries from the country
graspos	EGI contributes to the definition of requirements, metrics, specifications and pilots for the assessment of thematic services and platforms	• UNIVERSITEIT LEIDEN • UNIVERSITEIT UTRECHT • Stichting EGI
GREAT	EGI was involved in coordinating the Green Deal Data Space, establishing a stakeholder network, and managing dissemination and online presence. Also, EGI contributed to developing the Technical Architecture. Moreover, EGI coordinated efforts on Governance and Business Models, analyzing current governance schemes and proposing appropriate governance for the Green Deal Data Space. Additionally, EGI contributed to the implementation roadmap for the Green Deal Data Space.	• Stitching EGI • SURF • University of Utrecht • Wageningen University
GreenDIGIT	Within the project, EGI will conduct an environmental impact landscape assessment within the EGI federation and in partner ESFRIs to identify best practices and opportunities related to environmental sustainability. The project will develop an environmental metrics publication system for digital service providers and energy-aware brokering logics for scientific workflows running on EGI HTC, cloud, container and AI services. EGI will develop an environmental impact self-assessment questionnaire for Research Infrastructures. Finally, EGI will assist with project communications and will provide consultancy and training for service providers within and beyond EGI on methods and approaches to lower their environmental impact.	• Stichting EGI • University of Amsterdam
IRISCC	EGI plays a key role in IRISCC by leading communication, dissemination, engagement, and exploitation efforts (WP1), including stakeholder mapping and promotion of the service catalogue. In WP3, EGI supports knowledge exchange and user training by developing climate risk training modules and providing access to its training and computing infrastructure.. For WP6, EGI helps assess integrated knowledge services by aligning access policies, analysing AAI services, and contributing to FAIR and interoperability frameworks.	• Stichting EGI • MARIS • University of Utrecht • Royal Netherlands Meteorological Institute KNMI • Stichting Deltares
LABPLAS	EGI works on the deployment and operation of a FAIR federated data repository, promoting enhanced exploitation of project outputs (data and results). It also provides expertise in order to formulate a strategy regarding data preservation. In particular, EGI will implement a DataHub and a Data preservation service for the project.	• Stichting EGI • Open Universiteit Nederland • Stichting Radboud Universiteit
lethe	EGI Foundation is leading the design of LETHE system architecture and building a data collection and big data framework, including set-up of the LETHE big data infrastructure, set-up the authentication scheme for the LETHE project and registration of the LETHE infrastructure and services in EOSC.	• Stichting EGI • Universiteit Maastricht

Project title	Scope of collaboration	Participating beneficiaries from the country
PHENET PHENOTYPING & ENVIROTYPING SOLUTIONS FOR AG-ECOLOGY	In the project, EGI co-designs and deploys AI models on edge resources, enhancing capacity through its federation's computational and storage resources. EGI expands resource allocations, provides a two-tier e-infrastructure for validation and large-scale data processing, and ensures sustainable setups by coordinating national funding. EGI addresses data management challenges, integrates distributed storage solutions, and connects PHENET with the European Open Science Cloud.	• WAGENINGEN UNIVERSITY • Stichting EGI • STICHTING WAGENINGEN RESEARCH
PITHIA-NRF	The EGI Foundation supports the project in defining interoperability standards among the participating facilities, and with the broader landscape, including EOSC, and leads the design of sustainable services and activities that will last beyond the project. EGI members deliver a federated cloud environment with a cloud-based 'EGI Notebooks' service for the PITHIA e-science centre to offer a scalable and customisable web environment for writing workflows, exchanging workflows, accessing, analysis and sharing of data.	• NWO-I • Universiteit Twente • Stichting EGI
SoBigData Social Mining & Big Data Analytics RESEARCH INFRASTRUCTURE ++	EGI is one of the main contributors to the design and definition of the EOSC architecture and the federated service management framework, and coordinates service pilots participates by the scientific demonstrators. EGI also contributed to the definition of the governance framework and to the works on Rules of Participation. In the project EGI will enhance the SoBigData platform with two services: Jupyter Notebooks and the Workflow manager Galaxy.	• Technische Universiteit Delft • Stichting EGI • Universiteit Van Amsterdam
SOBIGDATA PREPARATORY PHASE PROJECT	EGI leads the work on Services Provision, which collects information about the services that the RI can provide and creates a plan for a unified single access point RI, including access policies for the distributed resources. EGI also contributes to the development of the financial aspect of the future RI, defines the business cases and the cost book, supports the strategy and enhance the impact of the RI, contributes to the Dissemination and Communication plans (WP5), and to the creation of the Italian central Hub for the preparation phase.	• Stichting EGI • UNIVERSITEIT VAN AMSTERDAM • TECHNISCHE UNIVERSITEIT DELFTUNIVERSITEIT UTRECHT • ERASMUS UNIVERSITEIT ROTTERDAM
TANGO	The EGI Foundation is leading the technical requirements, service layer design and integration with the platform defining and describing. Additionally, EGI Foundation participates to build Vertical Matchmaking and hardware marketplace and to Open Call Management.	• Stichting EGI • Technische Universiteit Eindhoven
Cej EUCloudEdgeIoT.eu	Unlock the potential for accelerating the deployment of the Cloud-to-Edge-IoT (CEI) computing continuum in Europe by focusing on the demand-side drivers and challenges to identify technology-driven innovation and business opportunities driving demand value chains.	• Stichting EGI

Infrastructure contributions

The EGI Federation offers two complementary compute capabilities: the High-Throughput Compute (HTC) federation and the Cloud federation. 2 Dutch data centres contribute to these federations:
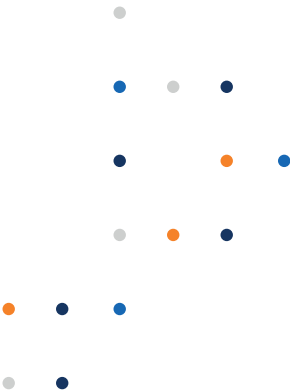
HTC Federation:
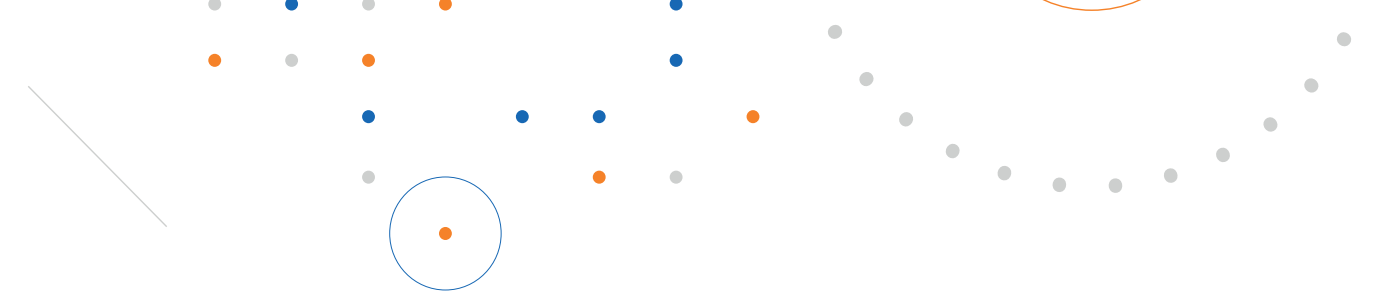• NIKHEF-ELPROD (NIKHEF)
• SARA-MATRIX (SURF)

The data centres provided 19 service endpoints and delivered 142,035,051 CPUhours in total to EGI communities in 2024. The data centres responded to 75 support tickets through the EGI Helpdesk.

The most active international user groups of the Dutch compute resources were:

• ATLAS 38.96%
• LhCB 19.09%;
• AUGER 11.26%;
• ALICE 9.44%;
• WeNMR 3.16%;
• DUNE 1.40%;

With the help of the EGI Security Vulnerability Group, the Dutch sites avoided 50 critical vulnerabilities in foundational software systems during 2024.

Methodology

Data for this impact report has been collected from the following sources.

Users

EGI uses the following methodology to capture the number of EGI users who rely on EGI services

- EGI serves users in the form of 'communities', called 'Virtual Organisations' (VO in short). A VO's members can range from one to tens of thousands. Members of a VO benefit from and use EGI services in different ways (e.g., by using Services for Federation or Services for Research).
- EGI establishes knowledge about its VOs as part of the user community support lifecycle; therefore, baseline information about VOs is collected through the Customer Relationship Management process (CRM).

At the end of 2024, there were 135 VOs in EGI.

EGI Virtual Organisations (VOs) can rely on different technical and non-technical mechanisms to manage their own members. Depending on their choice, the EGI Federation coordinator (EGI Foundation) has to follow different, corresponding approaches to know the number of members in a given VO, and to obtain additional information about these members (e.g. their 'country'). The EGI Foundation uses the following mechanisms to obtain information about the VO users:

- Obtain user number statistics from the EGI Operations Portal for VOs, where the members register personally in a 'VO membership management' system that is either operated by EGI or can be accessed by EGI.
- Obtain user number statistics from Community VRE REST APIs for VOs that operate Virtual Research Environments (VREs) on top of EGI resources. Those VREs implement a specific API to report users (e.g., WeNMR, Virtual Imaging Platform (VIP), NBIS).
- Obtain user number statistics from interviews with VO coordinators for VOs coordinated by one person.

Publications

Publications are collected from each community's public repository, if existing. Additional details are checked with the VO coordinators during the interviews to complement this information. EGI also consults OpenAIRE services to countercheck the data. You can check the list of repositories for each VO here (requires login): https://operations-portal.egi.eu/vo/#collapseVoListOther.

Institutional members supporting research communities

EGI relies on the information on each community's website to list institutions supporting research communities at the national level. Additionally, EGI appreciates the feedback from its national representatives to refine and improve those lists.

EGI Membership
Impact Report

egi_einfra   EGI Foundation   EGI

www.egi.eu