



EGI Council Participant: ACONET

Participating in EGI Impact Report: Austria

2024

egi.eu



Table of Contents

04

Infographic

05

Country
Overview

06

About EGI

10

EGI Contribution to the
country excellence in
science

15

Participated
Projects

08

About
Council
Participant

09

Overall EGI
Impact

20

Infrastructure
Contribution

21

Methodology

Infographic

2024

776 Service Users

In 2024, 776 researchers from Austrian institutions used the services provided by the EGI Federation



1,234 Publications

The research communities, projects and scientific collaborations from Austria supported by the EGI led to 1,234 peer-reviewed scientific publications

6 Supported Communities

In 2024, the infrastructure providers from Austria federated in EGI supported 6 research communities in the following disciplines: Agriculture, Health and Medicine, Physics



Projects

Austrian partners participate in 16 collaboration projects

Compute Delivery

In 2024, the infrastructure providers from Austria federated in EGI delivered 11,257,147 HTC CPU Hours and 32,664 Cloud CPU Hours.



Country overview

Number of supported users 776

Number of supported publications 1,234

Scientific Communities supported 6 (Agriculture, Health and Medicine, Physics)

Data Centres contributing to the Federation 3

HTC CPU hours delivered 11,257,147

Cloud CPU hours delivered 32,664

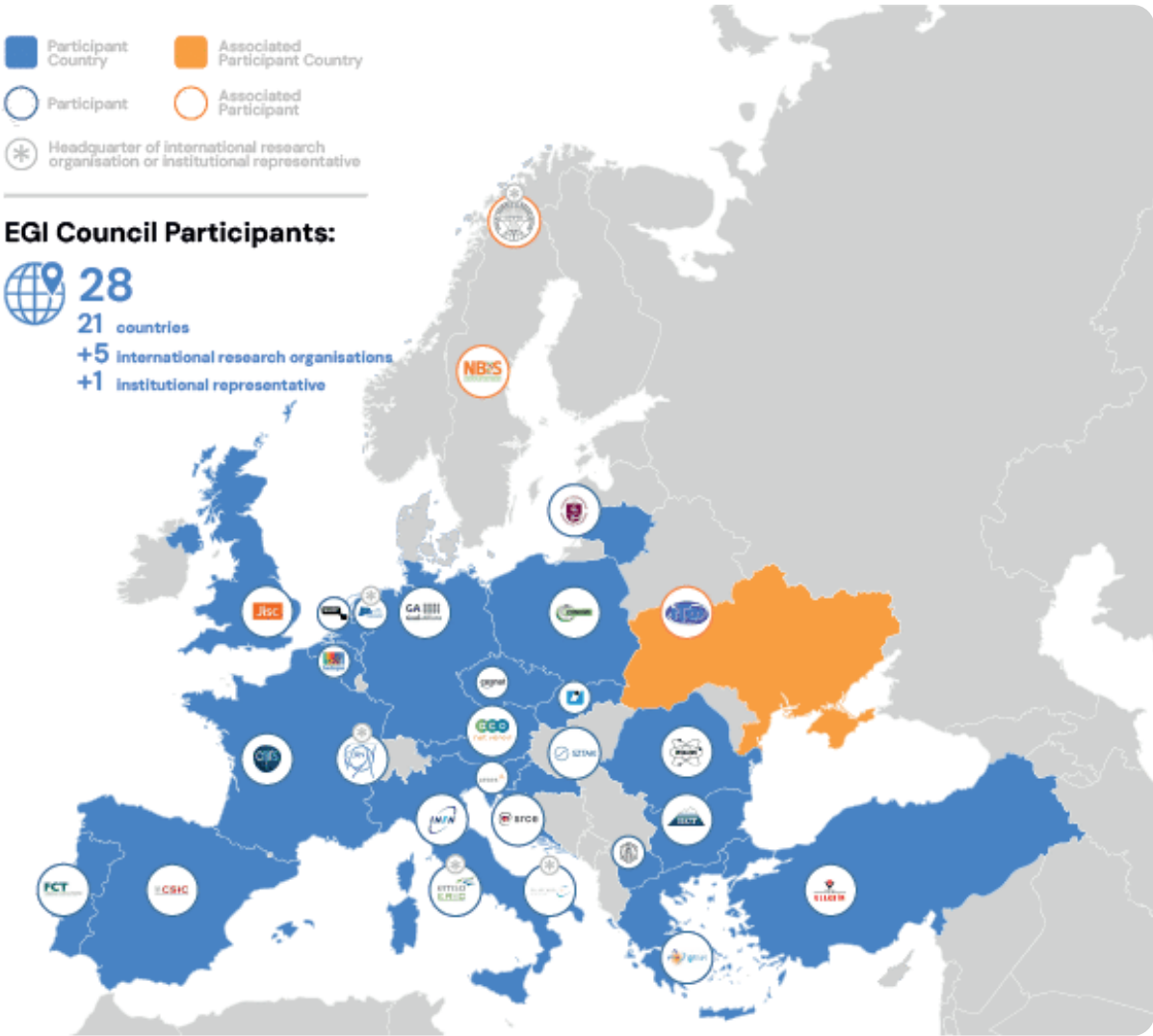
About EGI

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 ACONET

The ACONET Association represents a consortium of Austrian universities and research organisations. With a combination of a powerful backbone and services highly focussed on customers' needs, ACONet (the Austrian NREN) provides its participants many possibilities for scientific, innovative communication, cooperation and further development at a national and international level. The ACONET Association supports the forming of communities of participants with similar needs and goals. Community building is the basis for mutual trust, which again is a prerequisite for secure and efficient communication as well as for the implementation of services. The ACONET Association, as a neutral and non-commercial expert institution, offers its know-how to the community and cooperates with relevant organisations and institutions in Austria and beyond.

Overall EGI impact

The ACONET Association coordinates the Austrian participation to the EGI Federation. It supports Austrian universities and research organisations according to their demands regarding national and international data networking and services.

The annual membership fee contributed by the ACONET Association to the EGI Foundation in 2024 was 55,000 EUR.

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's contribution to Austrian excellence in science

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 776 researchers from Austria in 2024. The estimated annual scientific output in 2024 produced by research communities, projects and scientific collaborations from Austria and supported by the EGI Federation is estimated to amount to 1,240 peer reviewed scientific publications.

The EGI Federation is currently working with over 40 Research Infrastructures, 7 of which include Austrian partners. These EGI-enabled research infrastructures, their Austrian members and their 2024 scientific output (publications) are detailed in the following pages of the report.

Research Infrastructures collaborating with EGI – Austrian partners

ALICE (High-Energy Physics)

- Stephen-Meyer-Institut für Subatomare Physik, Österreichische Akademie der Wissenschaften, Wien

ATLAS (High-Energy Physics)

- Institut für Astro- und Teilchenphysik, Universität Innsbruck, Innsbruck
- Fachhochschule Wiener Neustadt, Wiener Neustadt

EGI supported activities and services

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)

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)

Number of scientific papers published in 2024

47

126

Research Infrastructures collaborating with EGI – Austrian partners

CMS (High-Energy Physics)

- Institut für Hochenergiephysik, Österreichische Akademie der Wissenschaften, Wien

EGI supported activities and services

CMS 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

109

CTA (Astronomy)

- Institut für Astro- und Teilchenphysik, Universität Innsbruck, Innsbruck

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)

0

Research Infrastructures collaborating with EGI – Austrian partners

CLARIN (Linguistics)

- CLARIAH-AT (Austrian Academy of Science; Austrian National Library; University for continuing education Krems; University of Klagenfurt; University of Salzburg; University of Vienna; University of music and performing arts Vienna; Central European University; Natural History Museum Vienna)

EGI supported activities and services

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

Number of scientific papers published in 2024

13

EMPHASIS (Agriculture)

- Vienna Biocenter Core Facilities GmbH, Wien
- Gregor Mendel Institute of Molecular Plant Biology, Austrian Academy of Sciences, Wien
- University of Vienna, Ecogenomics and Systems Biology, Wien
- University of Natural Resources and Life Sciences, Department of Crop Sciences, Wien
- University of Natural Resources and Life Sciences, Department of Forest- and Soil Sciences, Wien
- University of Innsbruck, Institute of Botany, Innsbruck
- Austrian Agency for Health and Food Safety GmbH, Wien

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

Research Infrastructures collaborating with EGI – Austrian partners

WeNMR (Structural Biology)

- Graz University of Technology, Graz
- Medical University of Innsbruck, Innsbruck
- Institute of Science and Technology Austria, Klosterneuburg
- Department of Analytical Chemistry, Johannes Kepler University Linz, Linz
- Austrian Centre of Industrial Biotechnology
- University of Natural Resources and Life Sciences, Wien
- Research Center for Molecular Medicine, Austrian Academy of Sciences, Wien
- Research Institute for Molecular Pathology, Wien
- Max Perutz Labs Support GmbH, Wien
- Medical University of Vienna
- University of Veterinary Medicine, Vienna

EGI supported activities and services

- 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.

Number of scientific papers published in 2024

939

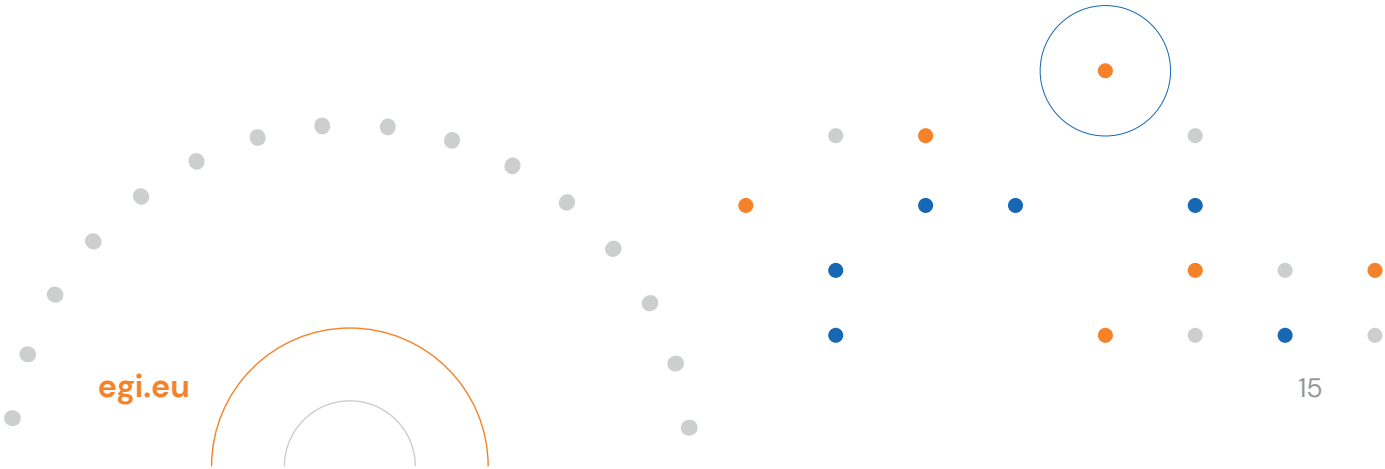
Participated projects

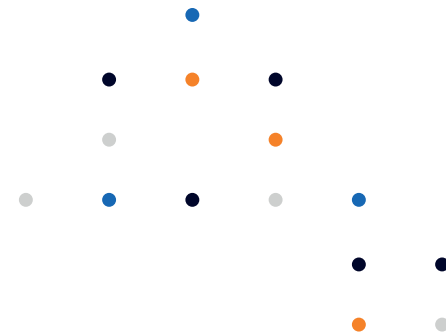
The EGI Foundation leads five Horizon Europe Projects, three of which started in 2024:

- 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
---------------	------------------------	--



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

- CEU Gmbh



EGI's role in the project spans from the activities related to market analysis and business modeling, to those about the definition of the strategy and impact of the RI. EGI leads the service provision activities and the creation of the service portfolio and catalogue.

- CEU Gmbh



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.

- KNOW Center



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.

- Medizinische Universität Wien
- FH JOANNEUM Gesellschaft mbH



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.

- UBIMET GmbH

Project title	Scope of collaboration	Participating beneficiaries from the country
---------------	------------------------	--



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 activities towards the definition of the EOSC rules of participation, the collaboration expansion.

- TU Graz
- TU Wien



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.

- VIB VZW



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.

- BBMRI-ERIC
- Österreichische Akademie der Wissenschaften
- Universität Wien



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.

- SeaScape
- EARSC
- EODC GmbH



EGI the project coordination and led the activity to setup the C-SCALE Compute Federation, leveraging on its extensive experience on setup and managing large distributed infrastructures. EGI also took care of the interactions with other EOSC initiatives and projects and had a leading role on defining C-SCALE business and sustainability.

- TU Wien
- EODC GmbH

Project title	Scope of collaboration	Participating beneficiaries from the country
	EGI is involved in developing a detailed roadmap, analyzing state-of-the-art technology, and designing a modular architecture framework. Moreover, 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.	<ul style="list-style-type: none"> ZSI – Zentrum für Soziale Innovation
	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.	<ul style="list-style-type: none"> Österreichischen Nationalbibliothek
	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.	<ul style="list-style-type: none"> BBMRI-ERIC European Institute for Biomedical Imaging Research – EIBIR Medical University of Innsbruck Medical University of Vienna
	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.	<ul style="list-style-type: none"> Universität Wien Universität für Bodenkultur Wien GeoSphere Austria

Project title

Scope of collaboration

Participating beneficiaries from the country

	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, in	<ul style="list-style-type: none"> Universität für Bodenkultur Wien
--	---	--

Infrastructure contributions

The EGI Federation offers two complementary compute capabilities: the High-Throughput Compute (HTC) federation and the Cloud federation. 3 Austrian data centres contribute to these federations:

HTC Federation

- HEPHY-UIBK (University of Innsbruck, Institute for Astro- and Particle Physics)
- HEPHY-ÖAW (Institute of High Energy Physics, Austrian Academy of Sciences)

Cloud Federation:

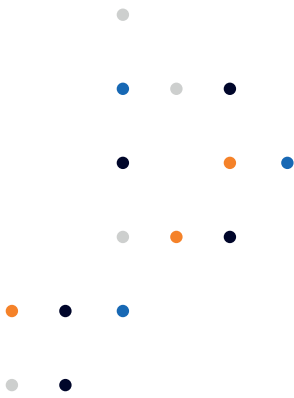
- EODC

The data centres provided 3 service endpoints and delivered 11,257,147 HTC CPUhours and 32,664Cloud CPUHours to EGI communities in 2024. The data centres responded to 17 support tickets through the EGI Helpdesk.

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

- [CMS](#) 59.43%
- [ALICE](#) 31.43%
- [BELLE](#) 9.37%

With the help of the EGI Security Vulnerability Group, the Austrian 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

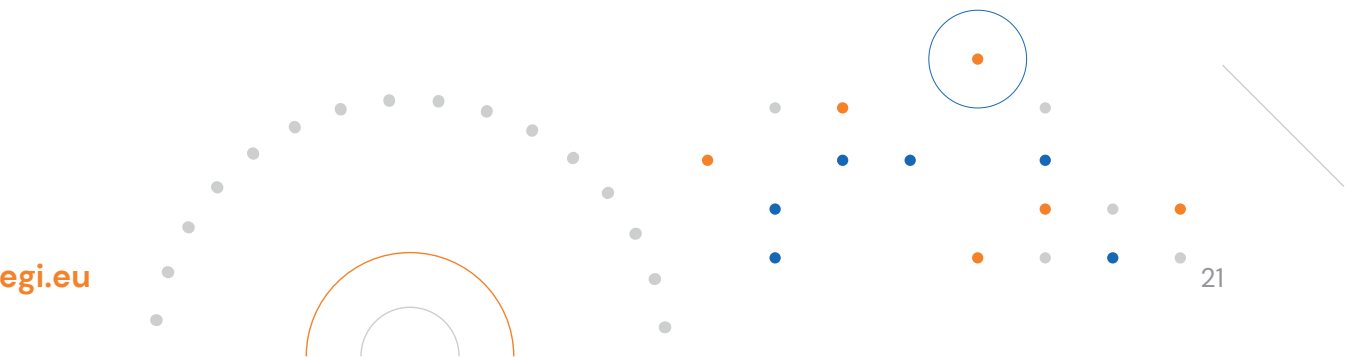
EGI uses the following methodology to capture the number of EGI users who rely on EGI services

- 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

Contact us

Science Park 140
1098 XG Amsterdam
Netherlands

Phone:
+31 (0)20 89 32 007

Email:
contact@egi.eu



egi_einfra



EGI Foundation



EGI

www.egi.eu

egi.eu