



**EGI Council Participant: BELSPO** 

# Participating in EGI Impact Report: Belgium

## Table of Contents

04

05

06

Infographic Country
Overview

**About EGI** 

O8
About
Council
Participant

02

09 Overall EGI Impact 10

EGI Contribution to the country excellence in science

**17** 

Participated Projects

24

Infrastructure Contribution

25 Methodology



# Country overview

#### 698 service users

In 2024, 698 researchers from Belgian institutions used the services provided by the EGI Federation





#### 1,606 publications

The research communities, projects and scientific collaborations from Belgium supported by the EGI led to 1,606 peer-reviewed scientific publications

#### 16 Supported communities

In 2024, the Belgian infrastructure supported 16 research communities in the following disciplines: Climate Research, Health and Medicine, Linguistics, Physics





#### **Projects**

Belgian partners participate in 25 collaboration projects.

#### **Compute Delivery**

In 2024, the infrastructure providers from Belgium federated in EGI delivered 89,484,555 HTC CPU Hours.



Number of supported publications	1,606
Number of total service users	698
Scientific Communities supported	16
Data Centres contributing to the Federation	4
Collaboration projects	25

**Total CPU hours delivered** 

egi.eu

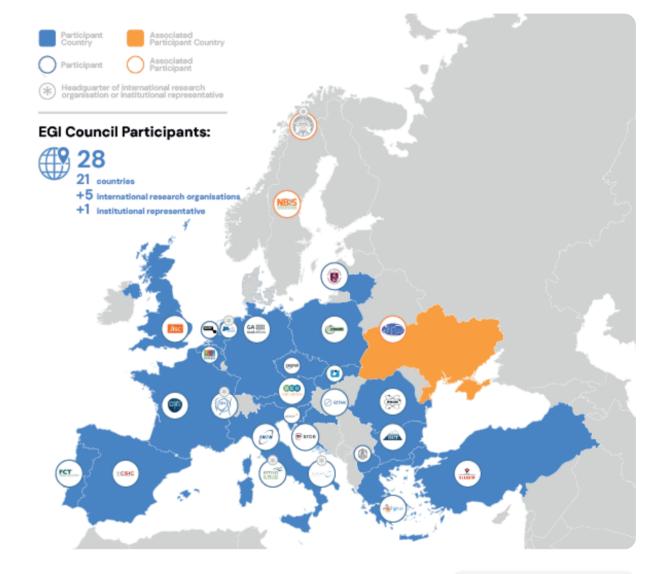
89,484,555

### **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.

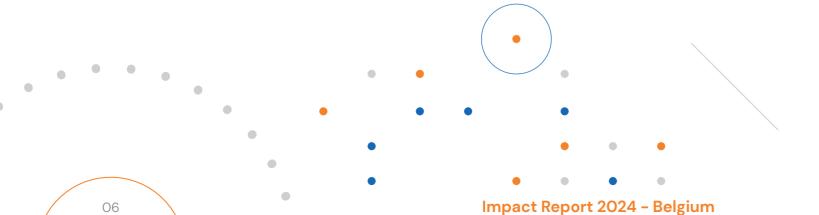
The EGI Federation believes that all researchers should have seamless access to services, resources and expertise to collaborate and conduct world-class research and innovation. The EGI Federation is coordinated by EGI Foundation, an organisation with headquarters in Amsterdam. The Foundation offers 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.



Approved EGI Council map from 2024

07



egi.eu







### About BELSPO

The Federal Science Policy coordinates the Belgian participation to European research programmes with the Communities and Regions. It undertakes also a number of initiatives to inform the researchers on the presented opportunities. Through the major research programmes we manage, we also offer the government reliable, validated data, allowing it to take decisions with full knowledge of the facts in areas such as sustainable development, the fi ght against climate change, biodiversity, energy, health, mobility and the information society.

The Federal Science Policy also co-ordinates the research effort lead by all the country's authorities and is responsible for introducing our researchers into international research networks. In this sense, it lies at the heart of the Belgian research space and represents a major centre in the European Research Area.

The Federal Science Policy alone represents almost 30% of the entire Belgian public budget in terms of research.

## 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.

80



BELSPO coordinates the Belgian participation to the EGI Federation; BELSPO is represented by BEGRID in the EGI Council. BELSPO promotes the building and operation of a multidisciplinary national Distributed Computing Infrastructure open to all sciences and to developing countries in Belgium. This report provides an overview of the activities of BELSPO in EGI, and the impact that was achieved thanks to this participation. The annual membership fee contributed by BELSPO to the EGI Foundation in 2024 was 55,000 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

10

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 698 researchers from Belgium in 2024. The estimated annual scientific output in 2024 produced by research communities, projects and scientific collaborations from Belgium and supported by the EGI Federation is estimated to amount to 1,606 peer reviewed scientific publications.

The EGI Federation is currently working with over 40 Research Infrastructures, 16 of which include Belgian partners. These EGI-enabled research infrastructures, their Belgian members and their 2024 scientific output (publications) are detailed in the following pages of the report.

#### Belgian research collaborations in EGI

#### EGI supported activities and services

Number of scientific papers published in 2024

#### AUGER (Astronomy)

- Université Libre de Bruxelles (ULB)
- Vrije Universiteit Brussel

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 NI 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)

#### CMS (High-Enery Physics)

- Ghent University
- Université de Mons,
- Université Catholique de Louvain,
- Université Libre de Bruxelles,
- Universiteit Antwerpen

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)

12



#### Belgian research collaborations in EGI

#### **EGI** supported activities and services

#### Number of scientific papers published in 2024

13

#### **CLARIN (Linguistics)**

• CLARIN BE Instituut voor de Nederlandse Taal (INT), Vincent Vandeghinste

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

#### **EISCAT\_3D (Incoherent Scatter** Radar)

• National Instruments Belgium Nv

EISCAT\_3D has been supported through competence centre activities in the EGI-Engage and EOSC-hub projects. Since 2021 the EISCAT Association is member of the EGI Council. Since 2018 the EISCAT\_3D experiment is using the following services

- EGI Workload Manager
- EGI High Throughput Compute
- Technical support
- Software integration and piloting

From 2021 the EISCAT Association is working with EGI in the EGI-ACE Horizon 2020 project as an early adopter of the EOSC Compute Platform.

#### IceCube (Neutrino Observatory)

- UCLouvain
- Université libre de Bruxelles
- · Universiteit Gent

12

· Vrije Universiteit Brussel

The IceCube experiment has been using compute resources from EGI partners for more than a decade. The services from the EGI federation that IceCube uses include:

- EGI HTC services from 8 sites of 4 EGI participant countries (Belgium, Denmark, Germany 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)

EGI is currently expanding its resource pledge to IceCube with an increase of GPU capacity

45

#### 22

#### Belgian research collaborations in EGI

#### **EGI** supported activities and services

#### Number of scientific papers published in 2024

#### ILC (High-Energy Physics)

- Vrije Universiteit Brussel, 2, Brussels
- Université Libre de Bruxelles, Bruxelles
- University of Ghent, Department of Subatomic and Radiation Physics, Gent
- · Université catholique de Louvain, Center for Cosmology, Particle Physics and Phenomenology (CP3), Institute of Mathematics and Physics, Louvain-la-Neuve

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)

**72** 

75

#### INSTRUCT (Structural Biology)

- Instruct Centre BE
- Belgian Federal Science Policy Office (BELSPO)
- Nanobodies4Instruct
- Robotein for Instruct
- Vrije Universiteit Brussel

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 benefited from continual support through dedicated support activities in various EGI flagshipprojects: EGI-Engage, EOSC-hub and EGI-ACE.

#### Belgian research collaborations in EGI

#### **EGI** supported activities and services

Number of scientific papers published in 2024

#### Belgian research **EGI** supported activities collaborations in EGI and services

Number of scientific papers published in 2024

#### JUNO (Neutrino Observatory)

Universite Libre de Bruxelles

The JUNO experiment has been using compute resources from EGI partners for more than a decade. The services from the EGI federation that JUNO uses include:

- EGI HTC services from 4 EGI federated data centres from France, Italy, Russia and China.
- 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)

#### LifeWatch (Biodiversity and **Ecosystem Research)**

Flanders Marine Institute (VLIZ)

- Research Institute for Nature and Forest (INBO)
- Université catholique de Louvain
- Université de Liège/Gembloux-ABT
- Royal Belgian Institute of Natural Sciences (RBINS)
- Royal Museum for Central Africa (RMCA)
- BELSPO

LOFAR (Astronomy)

· Vrije Universiteit Brussel

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 data centres 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)

#### 101

LOFAR has been supported by EGI partners in the EOSChub 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, Checkin, Helpdesk and consultancy/ technical support services.

#### NA62 (High-Energy Physics)

Universite Catholique de Louvain (UCL)

The NA62 experiment has been using compute resources from EGI partners since 2012. The services from the EGI federation that NA62 uses include:

- EGI HTC services from sites in the UK, Italy, Belgium and
- 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)

#### PANOSC (Photon and Neutron)

· Association Internationale Extreme-Light-Infrastructure Delivery Consortium PaNOSC has been using compute resources from EGI partners since 2018. The services from the EGI federation that PANOSC uses include:

- EGI Cloud services from 2 EGI federated data centres from CZ and DE
- EGI AAI Check-in
- EGI Notebooks
- EGI DataHub

#### SeaDataNet (Oceanography)

- Royal Belgian Institute of Natural Sciences
- Flanders Marine Institute
- University of Liège, GeoHydrodynamics and Environment Research (ULg-GHER)

SeaDataNet has been supported by EGI partners in the EOSChub 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.





#### Belgian research collaborations in EGI

#### EGI supported activities and services

Number of scientific papers published in 2024

#### Solid Experiment (High-Energy Physics)

- Universiteit Antwerpen
- · Vrije Universiteit Brussel
- Universiteit Gent
- SCK-CEN, Belgian Nuclear Research Centre

The collaboration with EGI started back in 2017. The services from the EGI federation that the experiment uses include:

• EGI HTC services from 2 EGI federated sites from BE 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)

#### **VIRGO (Astrophysics)**

- Katholieke Universiteit Leuven
- Université catholique de Louvain
- Université de Liège
- Université libre de Bruxelles
- Universiteit Antwerpen
- Universiteit Gent
- · Vrije Universiteit Brussel

 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
- 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.

#### WeNMR (Structural Biology)

- KU Leuven
- Vrije Universiteit Brussel

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

## Community Engagement

During 2024, 4 participants from Belgium joined the EGI2024 conference and delivered 2 talks in it.

# 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.







coeosc | BEYOND >>



#### Project title

#### Scope of collaboration

#### from the country

**Participating beneficiaries** 



EGI is contributing to the architectural design and implementation of open distributed software to ensure that Al4Europe 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.

- EIT DIGITAL
- EUROPEAN DIGITAL SME ALLIANCE



EGI co-leads the activities around technology Integration and validation on large RIs. It leads the work on the computing continuum infrastructure and contributes to the development of a Virtual Research Environment for the analysis of the genomics data, the creation of the imaging–Biooptics gateway and pipeline integration, as well as of the participatory Sciences gateway and pipeline integration. Moreover, EGI coordinates the overall integration and EOSC synergies. Last but not least, EGI leads the project's innovation management and exploitation activities.

VLIZ



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 Al-based big data analytics on 13 large scale pilots, deployed by different energy stakeholders.

- Entso-e European Network Of Transmission System Operators For Electricity
- Restore
- IMEC

meosc Blue-Cloud2026

EGI leads the task on "Blue-Cloud VRE interaction with EOSC projects" and participates in other project activities, such as the development and deployment of sub-setting services at BDIs and BlueCloud Data Lake, the DTO Taskforce for tuning Blue-Cloud data lakes with DTO developments, the Blue-Cloud VRE evolution of common services and operation, the Blue-Cloud VRE expansion by federating multiple e-infrastructures, and the Blue-Cloud VRE interoperation with EOSC core services. EGI also joins the activities around establishing a sustained community dialogue and developing an exploitation plan for Blue-Cloud's expansion.

- SEASCAPE BELGIUM
- VLIZ
- UNIVERSITE DE LIEGE
- EuroGOOS



#### **Project** title

#### Scope of collaboration

#### **Participating beneficiaries** from the country



EGI coordinates the task dedicated to the Single Sign-On access with the EGI Check-in service.

OPERAS



EGI, as a very active player in the Data Space landscape in • DAIRO 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.

- CAPGEMINI
- GAIA-X
- KU Leuven
- DigitalEurope
- aNewGovernance
- Open & Agile Smart Cities

#### ළු cchocs

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.

- · Koninklijk Instituut voor het Kunstpatrimonium
- ARIADNE RI
- European Confederation of Conservator-Restorers' Organisation
- ENCACT
- MICHAEL Culture



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.

- COCIR
- KU Leuven
- Radiomics
- Sciensano



20

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.

#### **Project** title

#### Scope of collaboration



EGI contributes to EOSC-LIFE by supporting the creation and operation of a life science AAI (LS AAI) that is fully interoperable with the FOSC AAL

#### **Participating beneficiaries** from the country

- European Research Infrastructure On Highly Pathogenic Agents
- Vlaams Instituut Voor De Zee
- Universiteit Gent



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.

- Entso-e European Network of Transmission System Operators for Electricity



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.

- Katholieke Universiteit Leuven
- Data Ai And Robotics Dairo
- European Digital Sme Alliance



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

CO COSC | EuroScienceGateway

egi.eu

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

Impact Report 2024 - Belgium

#### **Project** title

#### Scope of collaboration

#### **Participating beneficiaries** from the country

eBrains



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.

EGI plays a key role in IRISCC by leading communication,

(WP1), including stakeholder mapping and promotion of

the service catalogue. In WP3, EGI supports knowledge

exchange and user training by developing climate risk

computing infrastructure.. For WP6, EGI helps assess

analysing AAI services, and contributing to FAIR and

interoperability frameworks.

the project.

training modules and providing access to its training and

integrated knowledge services by aligning access policies,

dissemination, engagement, and exploitation efforts

- Institut des Sciences naturelles
- University of Liege
- Eigen Vermogen INBO
- University of Antwerp
- University of Hasselt



ABPLAS

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

Katholieke Universiteit Leuven



22

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.

• The Lisbon Council For Economic Competitiveness

#### **Project** title

#### Scope of collaboration

#### **Participating beneficiaries** from the country



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.

- · Institut Royal d'Aeronomie Spatiale de Belgique
- Katholieke Universiteit Leuven
- · Koninklijke Sterrenwacht van Belgie
- Institut Royal Meteorologique de Belgique



EGI is one of the main contributors to the design and definition of the EOSC architecture and the federated SobioData 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

· Re-Imagine Europa



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.

Re-Imagine Europa



egi.eu

EGI contributes to the GAP analysis, User needs and requirements, Definition of System Requirements and Technical Specifications, and Security, in addition to the Self-sovereign Identity Management and Dissemination and Communication. EGI coordinates the task dedicated to Policy recommendations on Distributed Infrastructures. Secure Data Exchange & Data Spaces.

- DBC EUROPE
- SQUAREDEV
- KU Leuven
- Lisbon Council
- FLANDERS MAKE

Impact Report 2024 - Belgium

## Infrastructure contributions

The EGI Federation offers two complementary compute capabilities: the High-Throughput Compute (HTC) federation and the Cloud federation. 4 Belgian data centres contribute to these federations:

#### **HTC Federation:**

- BEgrid-BELNET
- BEgrid-ULB-VUB (Universite Libre de Bruxelles Vrije Universiteit Brussel)
- BelGrid-UCL (Universite Catholique de Louvain, Louvain-la-Neuve)
- VITO (Flemish Institute for Technological Research)

The data centres provided 4 service endpoints and delivered 89,484,555 HTC CPUhours to EGI communities in 2024. The data centres responded to 37 support tickets through the EGI Helpdesk. The most active international user groups of the Belgian compute resources were:

- CMS 97.76%
- NA62 1.51%

Storage takes into account both online and archival storage provided by the data centres.

## 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