



EGI Council Participant: MARIS

# Participating in EGI Impact Report: Maris

# 2023

[egi.eu](http://egi.eu)

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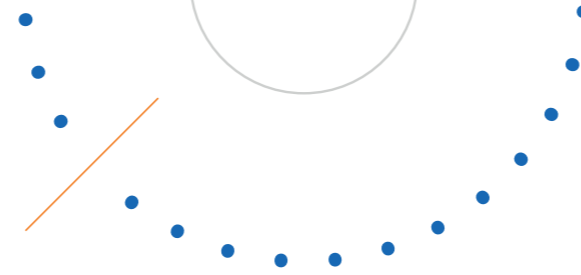
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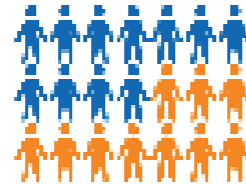
28 National institutional members of  
supported research communities (table 2)

# Infographic



## +680 service users

In 2023, 680 new users from Belgian institutions used the services provided by the EGI website.



## +630 publications

The research community supports and achieves collaborations and from Belgium supported by the EGI led to more than 630 peer-reviewed scientific publications.

## 17 Supported communities

In 2023, the Belgian infrastructure supported 17 research communities, with the leading disciplines of Life Sciences, Health and Medicine, Engineering, Physics.



## Projects

Belgian partners participated in 20 collaborative projects – EGI-ACF and Hugin.



# Country overview

Number of supported publications 37

Number of total service users 4

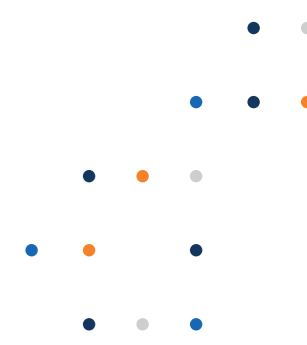
Scientific Communities supported -

Data Centres contributing to the Federation -

Collaboration projects -

Total CPU hours delivered -

Unified Middleware Distribution updates pulled -



# 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

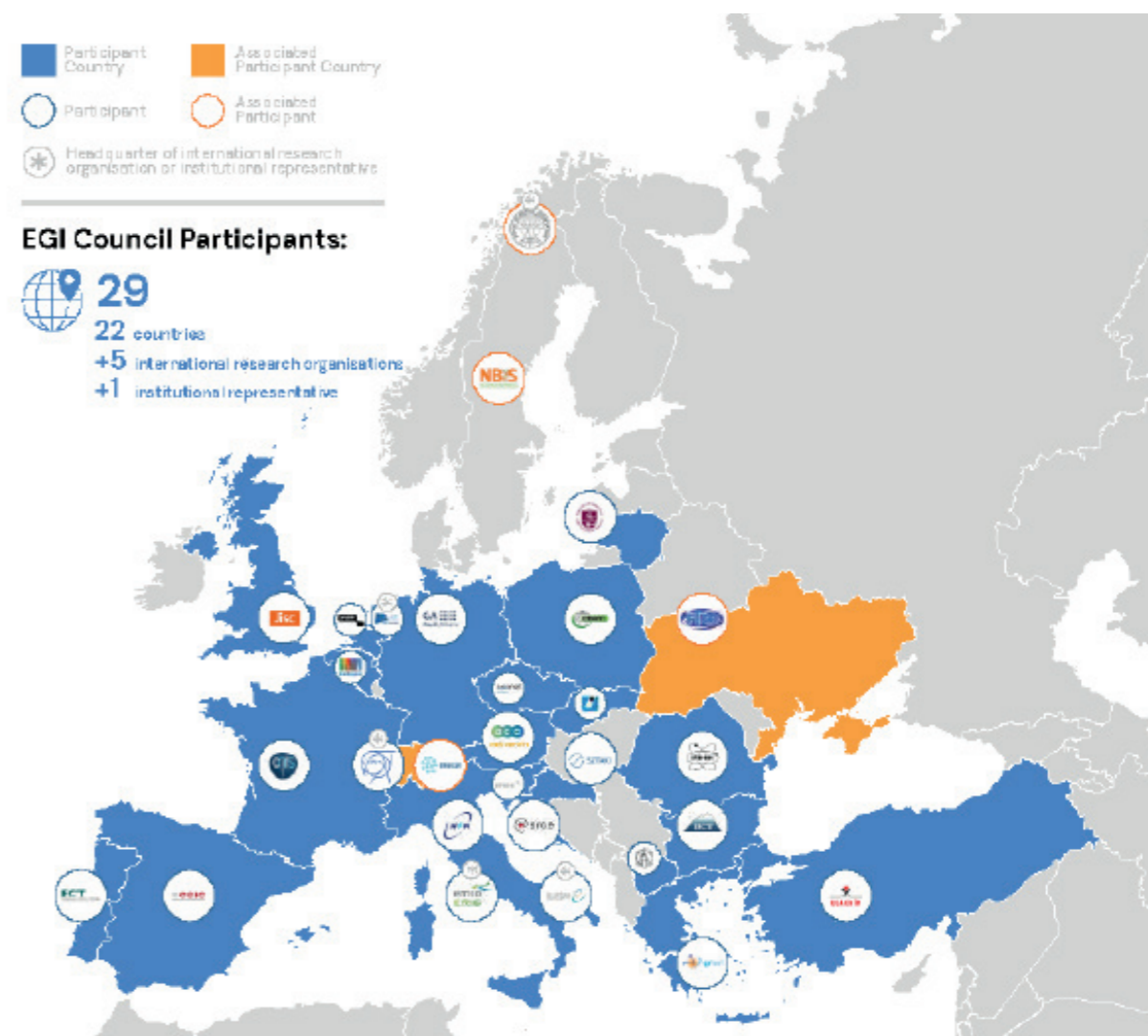
both the public and private sectors in Europe to develop, integrate and deliver digital services for compute and data-intensive research and innovation. As an open initiative with a global outlook, the EGI Federation also connects service providers beyond Europe, following the collaboration needs of the served communities.

The latest [Annual Report](#) provides an extensive overview of the results that have been achieved through our collaborative efforts in 2023.

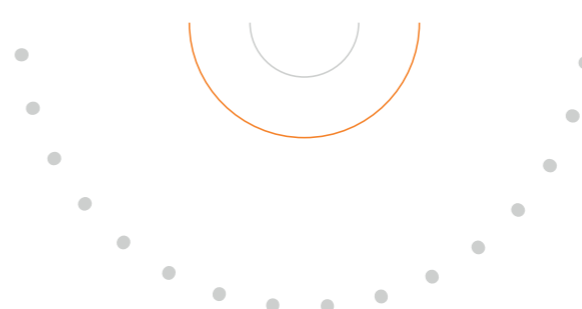
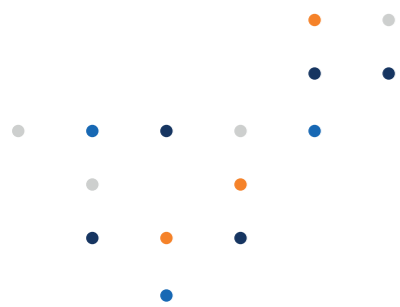
In 2023, EGI consolidated its ability to serve an expanding group of scientific collaborations. In fact, the Council also approved the participation of ACOnet (Austria) and Vilnius University

(Lithuania) starting from 2023. NBIS (Sweden) also joined as an associate participant as of November 2023, helping to provide reliable services to the life sciences community with the cloud resources provided by the EGI, and moreover, to

promote the collaboration with other European research infrastructures, especially for knowledge sharing and development of the e-infrastructure technology for research data and computing intensive science.



Approved EGI Council map from 2023

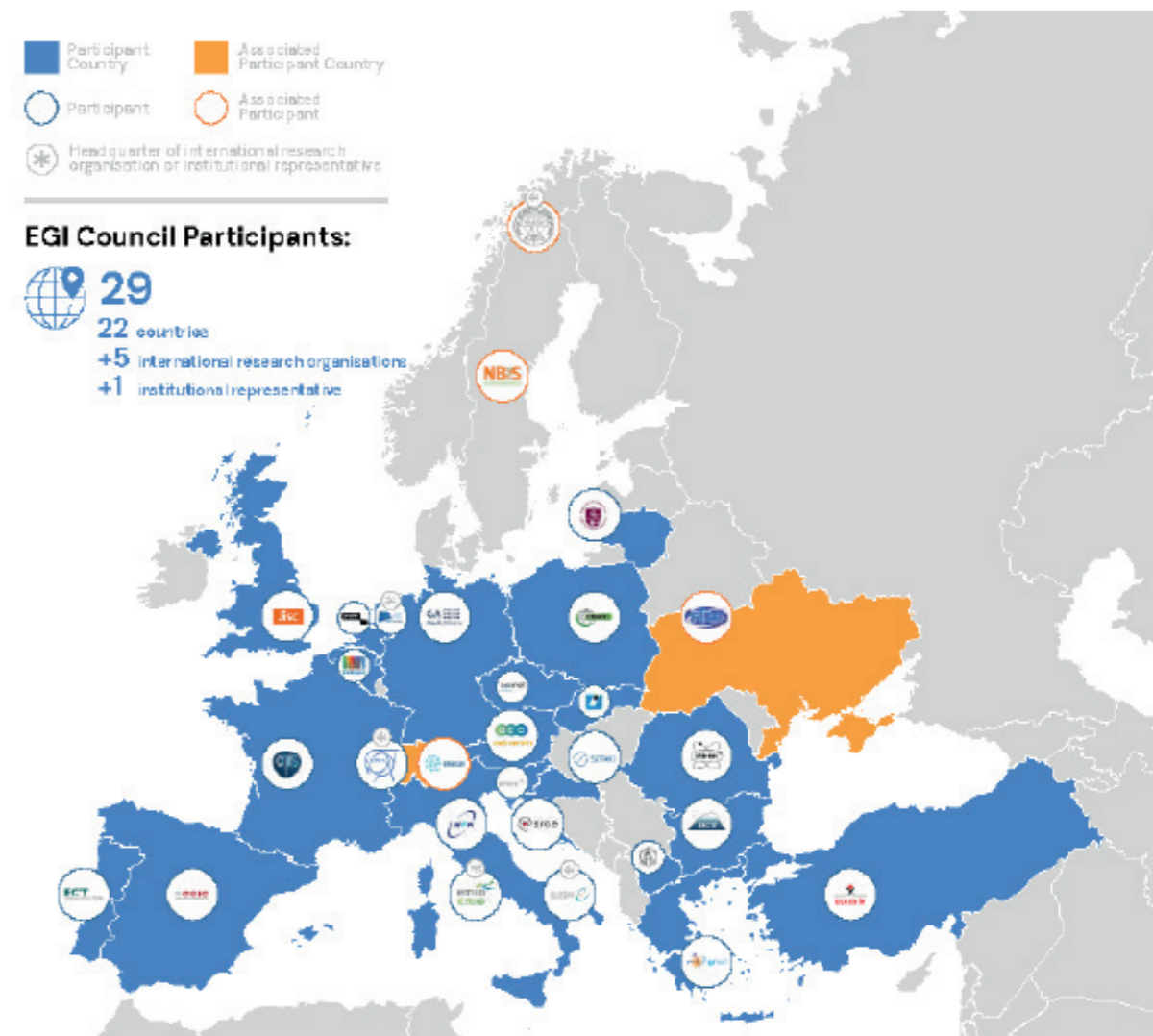


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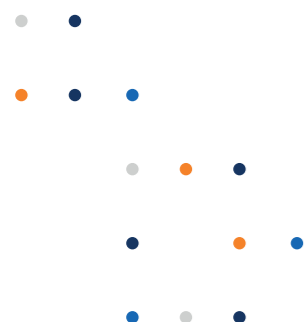
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The latest Annual Report provides an extensive overview of the results that have been achieved through our collaborative efforts in 2023.



Approved EGI Council map from 2023



# EGI's contribution to EISCAT 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 2023, our federation was used by around 200 scientific communities, and has been accessed by about 84,000 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 estimated annual scientific output in 2023 produced by research communities, projects and scientific collaborations supported by the EGI Federation is of 37 peer reviewed scientific publications

## ENES research collaborations in EGI

### EISCAT (Incoherent Scatter Radar)

- National Instruments Belgium Nv
- Rutherford Appleton Laboratory,
- British Antarctic Survey

## EGI supported activities and services

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 from EGI:

- 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.

## Number of scientific papers published in 2023

37

# Services from EGI, providers and the EOSC

The SeaDataNet community is consuming cloud compute resources through EGI from the INFN-Bari site (Italy) since early 2022. The SeaDataNet community consumed approximately 16,000 CPU-hours per month since then, over 314,000 CPU-hours in total until the end of 2023. The cloud compute delivery is secured with an EGI Service Level Agreement for SeaDataNet since November 2023.

# Participated projects

The EGI Foundation coordinated one Horizon 2020 projects, EGI ACE (January 2021-June 2023). Moreover, it leads two Horizon Europe Projects, iMagine (September 2023-December 2025) and interTwin (September 2023-August 2025).

Furthermore, the EGI Federation was involved in 8 additional projects, increasing the innovation potential of its participants.

The EGI Federation participates in Horizon 2020 and Horizon Europe projects together with CMCC and ENES 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 institutions**



EGI contributes with the services Cloud computing, Notebooks and Applications on demand, FTS, data archiving. It participates to the EOOSC Integration processes and the sustainability business plan.

- MARIS BV



EGI contributed to the design, operation and interoperability of EOOSC Core services, to running the EOOSC Digital Innovation Hub, as well as to resource strategy and the processes for onboarding new groups to EOOSC. EGI was responsible for requirements collection and analysis for both the EOOSC Back Office and Front Office. It also leads all operational aspects of the EOOSC Portal. Finally, EGI played a leading role in developing the EOOSC SMS.

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# Methodology

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

- Infrastructure contributions, infrastructure usage by research communities: [EGI Accounting System](#)
- List of research publications by supported research communities (table 1)

**AMS-02**  
<https://ams02.space/publications>

**ILC**  
[https://inspirehep.net/literature?sort=mostrecent&size=25&page=1&q=international%20Linear%20Collider%20&earliest\\_date=2021--2021](https://inspirehep.net/literature?sort=mostrecent&size=25&page=1&q=international%20Linear%20Collider%20&earliest_date=2021--2021)

**ALICE**  
<https://alice-publications.web.cern.ch/publications>

**INSTRUCT**  
<https://instruct-eric.eu/content/publications-list>

**ATLAS**  
<https://cds.cern.ch/collection/ATLAS%20Papers?ln=en>

**JUNO**  
<https://inspirehep.net/>

**AUGER**  
<https://www.auger.org/science/publications/journal-articles>

**KM3NET**  
<https://www.km3net.org/about-km3net/publications/publication/>  
[https://inspirehep.net/literature?q=collaboration:KM3NeT\\_year:2021](https://inspirehep.net/literature?q=collaboration:KM3NeT_year:2021)

**BELLE**  
<https://belle.kek.jp/belle/publications.html>; [https://inspirehep.net/literature?q=collaboration:belle\\_year:2021](https://inspirehep.net/literature?q=collaboration:belle_year:2021)

**LifeWatch**  
<https://www.lifewatch.eu/catalogue-of-virtual-labs/medobis/publications/>



### BIOMED

<https://vip.creatis.insa-lyon.fr/documentation/>

### LOFAR

<http://old.astron.nl/radio-observatory/lofar-science/lofar-papers/lofar-papers>; <https://lofar-surveys.org/publications.html>, or [https://ui.adsabs.harvard.edu/search?q=full%3A\(%22designed%20and%20constructed%20by%20ASTRON%22\)%20OR%20title%3A%22LOFAR%22%20year%3A2021-2021%20property%3Arefereed%20-bibstem%3A\(%22AN%22%20OR%20%22MNRAS.tmp%22\)&sort=date%20desc%2C%20bibcode%20desc&p\\_0](https://ui.adsabs.harvard.edu/search?q=full%3A(%22designed%20and%20constructed%20by%20ASTRON%22)%20OR%20title%3A%22LOFAR%22%20year%3A2021-2021%20property%3Arefereed%20-bibstem%3A(%22AN%22%20OR%20%22MNRAS.tmp%22)&sort=date%20desc%2C%20bibcode%20desc&p_0)

### CTA

<https://www.cta-observatory.org/science/library/>

### LCHb

<https://cds.cern.ch/collection/LHCb%20Papers?ln=en>

### CLARIN

<https://beta.clarin.openaire.eu/search/advanced/research-outcomes?sortBy=resultdateofacceptance,descending&type=publications&year=range2021:2021>

### LSST

<https://ui.adsabs.harvard.edu/> with year:2021 author:("LSST\*" OR "Vera C. Rubin\*") collection:astronomy property:refereed

### CMS

<http://cms-results.web.cern.ch/cms-results/public-results/publications/CMS/index.html>

### NA62

<https://cds.cern.ch/collection/NA62%20Papers?ln=en>

### DUNE

<https://inspirehep.net/literature?q=collaboration:DUNE year:2021>

### OPENCOASTS

[http://opencoasts.inec.pt/index\\_en.php](http://opencoasts.inec.pt/index_en.php)

### EISCAT\_3D

<https://eiscat.se/scientist/publications/>

### PANOSC

<https://www.panosc.eu/publications/>

### ELI-BEAM

<https://www.eli-beams.eu/publikace/>

### SeaDataNet

<https://www.seadatanet.org/Publications/Scientific-publications>

### ELI-NP

[https://www.eli-np.ro/scientific\\_papers.php](https://www.eli-np.ro/scientific_papers.php)

### SKA

[https://ui.adsabs.harvard.edu/search/fq=%7B!type%3Daqp%20v%3D%24fq\\_database%7D&fq\\_database=database%3A%20astronomy&q=pubdate%3A%5B2021-01%20TO%202021-12%5D%20title%3A\(SKA\)&sort=date%20desc%2C%20bibcode%20desc&p\\_0](https://ui.adsabs.harvard.edu/search/fq=%7B!type%3Daqp%20v%3D%24fq_database%7D&fq_database=database%3A%20astronomy&q=pubdate%3A%5B2021-01%20TO%202021-12%5D%20title%3A(SKA)&sort=date%20desc%2C%20bibcode%20desc&p_0)

### EMSO-ERIC

from the community representative; SLA <https://documents.egi.eu/document/3539>

### SNO+

<https://snoplus.phy.queensu.ca/results/collaboration-papers.html>

### FUSION

<https://documents.egi.eu/public/ShowDocument?docid=3484>

### VIRGO

<https://pnp.ligo.org/ppcomm/Papers.html>

### HESS

<https://www.mpi-hd.mpg.de/hfm/HESS/pages/publications/>

### WeNMR

<https://explore.openaire.eu/> advanced search project outcomes. field to search "project" enter project name; Citation of HADDOCK web server: [https://scholar.google.nl/scholar?hl=en&as\\_sdt=2005&cites=10355645612647046441&scipsc=&as\\_ylo=2021&as\\_yhi=2021](https://scholar.google.nl/scholar?hl=en&as_sdt=2005&cites=10355645612647046441&scipsc=&as_ylo=2021&as_yhi=2021); Citations of the AMBER web portal publication: [https://scholar.google.com/scholar?as\\_ylo=2021&hl=en&as\\_sdt=0.5&scioldt=0.5&cites=6696812766870837905&scipsc=](https://scholar.google.com/scholar?as_ylo=2021&hl=en&as_sdt=0.5&scioldt=0.5&cites=6696812766870837905&scipsc=); Citations of the FANTEN web portal publication: [https://scholar.google.com/scholar?as\\_ylo=2021&hl=en&as\\_sdt=0.5&scioldt=0.5&cites=10578718345045994565&scipsc=](https://scholar.google.com/scholar?as_ylo=2021&hl=en&as_sdt=0.5&scioldt=0.5&cites=10578718345045994565&scipsc=); Citations of the DISVIS/POWERFIT web portals publication: [https://scholar.google.com/scholar?as\\_ylo=2021&hl=en&as\\_sdt=2005&cites=6482114501244947208&scipsc=](https://scholar.google.com/scholar?as_ylo=2021&hl=en&as_sdt=2005&cites=6482114501244947208&scipsc=); Citations of the SpotON web portal: [https://scholar.google.com/scholar?as\\_ylo=2021&hl=en&as\\_](https://scholar.google.com/scholar?as_ylo=2021&hl=en&as_)

### Ice-Cube

<https://icecube.wisc.edu/science/publications/>

### XENON

<https://inspirehep.net/literature?q=collaboration:XENON year:2021>

# National institutional members of supported research communities (table 2)

<b>AMS-02</b> <a href="https://ams02.space/collaboration/institute">https://ams02.space/collaboration/institute</a>	<b>ILC</b> <a href="https://linearcollider.org/team/">https://linearcollider.org/team/</a>	<b>CMS</b> <a href="https://cms.cern/collaboration/cms-institutes">https://cms.cern/collaboration/cms-institutes</a>	<b>NA62</b> <a href="https://greybook.cern.ch/experiment/detail?id=NA62">https://greybook.cern.ch/experiment/detail?id=NA62</a>
<b>ALICE</b> <a href="https://alice-collaboration.web.cern.ch/General/Members/List_Institutes.html">https://alice-collaboration.web.cern.ch/General/Members/List_Institutes.html</a>	<b>INSTRUCT</b> <a href="https://instruct-eric.eu/countries">https://instruct-eric.eu/countries</a>	<b>DUNE</b> <a href="https://lbnf-dune.fnal.gov/about/countries-and-institutions-participating-in-dune/">https://lbnf-dune.fnal.gov/about/countries-and-institutions-participating-in-dune/</a>	<b>OPENCOASTS</b> <a href="http://opencoasts.lnec.pt/index_en.php">http://opencoasts.lnec.pt/index_en.php</a>
<b>ATLAS</b> <a href="https://atlas.cern/discover/collaboration">https://atlas.cern/discover/collaboration</a>	<b>JUNO</b> <a href="https://juno.ihep.ac.cn/collaboration.php">https://juno.ihep.ac.cn/collaboration.php</a>	<b>EISCAT_3D</b> <a href="https://eiscat.se/wp-content/uploads/2016/12/EISCAT-Organogram-202x.jpg">https://eiscat.se/wp-content/uploads/2016/12/EISCAT-Organogram-202x.jpg</a> ; <a href="https://eiscat.se/scientist/document/information/">https://eiscat.se/scientist/document/information/</a>	<b>PANOSC</b> <a href="https://www.panosc.eu/partners/">https://www.panosc.eu/partners/</a>
<b>AUGER</b> <a href="https://www.auger.org/collaboration/institutions">https://www.auger.org/collaboration/institutions</a> ; <a href="https://www.auger.org/collaboration/funding-agencies">https://www.auger.org/collaboration/funding-agencies</a>	<b>KM3NET</b> <a href="https://www.km3net.org/about-km3net/collaboration/members/">https://www.km3net.org/about-km3net/collaboration/members/</a>	<b>ELI-BEAM</b> <a href="https://www.eli-beams.eu/about/cooperation/science/">https://www.eli-beams.eu/about/cooperation/science/</a>	<b>SeaDataNet</b> <a href="https://www.seadatanet.org/About-us/SeaDataNet-AISBL/Members">https://www.seadatanet.org/About-us/SeaDataNet-AISBL/Members</a>
<b>BELLE</b> <a href="https://belle.kek.jp/bdocs/collaboration.html">https://belle.kek.jp/bdocs/collaboration.html</a>	<b>LifeWatch</b> <a href="https://www.lifewatch.eu/organisation-governance/">https://www.lifewatch.eu/organisation-governance/</a>	<b>ELI-NP</b> <a href="https://www.eli-np.ro/scientific_collaborations.php">https://www.eli-np.ro/scientific_collaborations.php</a>	<b>SKA</b> <a href="https://www.skatelescope.org/participating-countries/">https://www.skatelescope.org/participating-countries/</a>
<b>BIOMED</b> <a href="https://vip.creatis.insa-lyon.fr/">https://vip.creatis.insa-lyon.fr/</a>	<b>LOFAR</b> <a href="https://www.astron.nl/telescopes/">https://www.astron.nl/telescopes/</a>	<b>EMSO-ERIC</b> <a href="http://emso.eu/organization/">http://emso.eu/organization/</a>	<b>SNO+</b> <a href="https://snoplus.phy.queensu.ca/collaboration.html">https://snoplus.phy.queensu.ca/collaboration.html</a>
<b>CTA</b> <a href="https://www.cta-observatory.org/about/cta-consortium/">https://www.cta-observatory.org/about/cta-consortium/</a>	<b>LCHb</b> <a href="https://lhcb-public.web.cern.ch/en/collaboration/Collaboration-en.html">https://lhcb-public.web.cern.ch/en/collaboration/Collaboration-en.html</a>	<b>FUSION</b> <a href="https://documents.egi.eu/public/ShowDocument?docid=3484">https://documents.egi.eu/public/ShowDocument?docid=3484</a>	<b>VIRGO</b> <a href="https://apps.virgo-gw.eu/vmd/public/institutions">https://apps.virgo-gw.eu/vmd/public/institutions</a>
<b>CLARIN</b> <a href="https://www.clarin.eu/content/participating-consortia">https://www.clarin.eu/content/participating-consortia</a>	<b>LSST</b> <a href="https://www.lsstcorporation.org/international-contributors">https://www.lsstcorporation.org/international-contributors</a>	<b>HESS</b> <a href="https://www.mpi-hd.mpg.de/hfm/HESS/pages/collaboration/">https://www.mpi-hd.mpg.de/hfm/HESS/pages/collaboration/</a>	<b>WeNMR</b> <a href="https://documents.egi.eu/document/2751">https://documents.egi.eu/document/2751</a>
		<b>Ice-Cube</b> <a href="https://icecube.wisc.edu/collaboration/institutions/">https://icecube.wisc.edu/collaboration/institutions/</a>	<b>XENON</b> <a href="https://science.purdue.edu/xenon1t/?page_id=27">https://science.purdue.edu/xenon1t/?page_id=27</a>



# EGI Membership Impact Report

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