

# EGI-ACE Impact

**Smitesh Jain**

Innovation Manager, EGI-ACE

Senior Innovation Specialist, EGI Foundation

**Dissemination level:** Public

**Disclosing Party:** Project Consortium

**Recipient Party:** European Commission

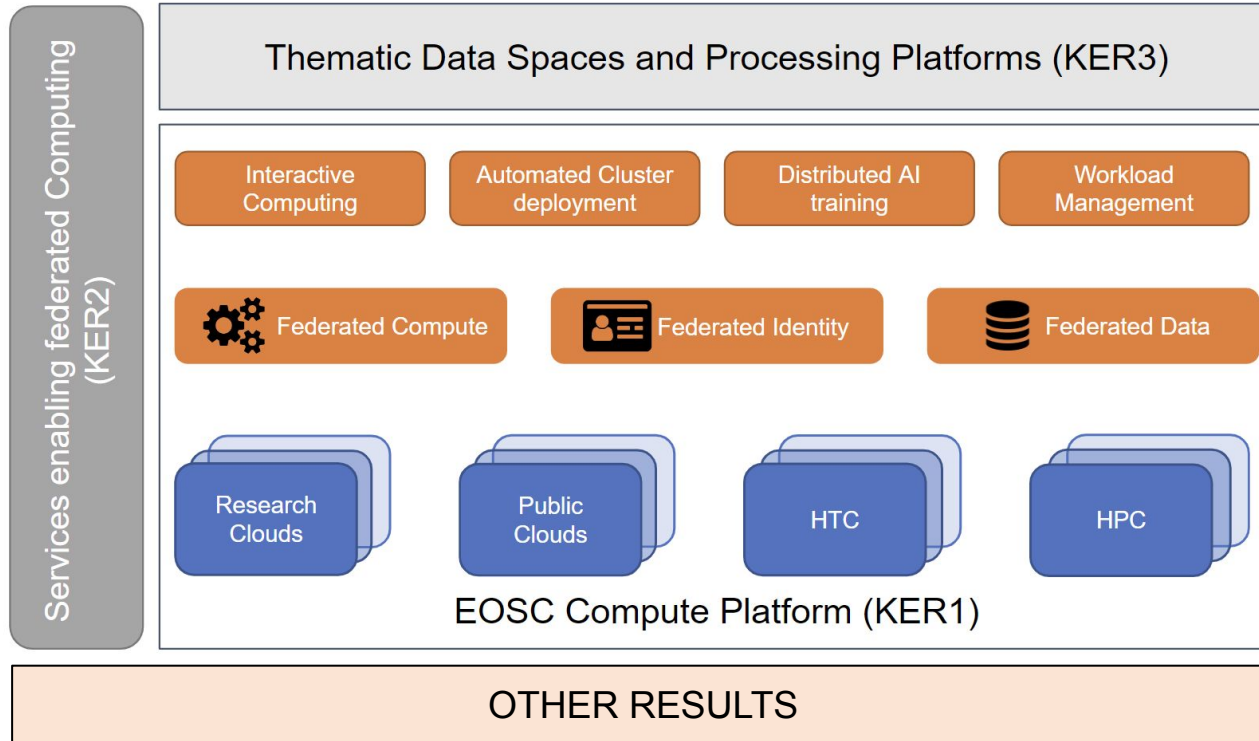


EGI-ACE receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 101017567.

# Outline



- Introduction
- Impact towards Open Science
- Impact on Research
- Impact on Collaboration
- Impact on Infrastructure
- Impact on Skills and Expertise



<https://go.egi.eu/AceImpact>



## Table of Contents

03	04	
Introduction	Key results	
05		
EGI-ACE services		
11		
EGI-ACE impact		
11	13	15
Impact on Open Science	Impact on Research	Impact on Collaboration
18	22	
Impact on Infrastructure Innovation	Impact on Skills and Expertise	
24		
User success stories		

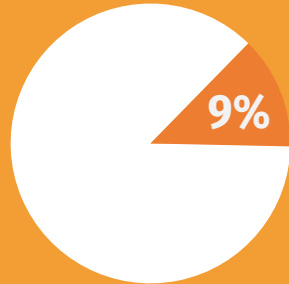
“ *...deliver integrated computing, platforms, data spaces and tools as an integrated solution that is aligned with major European cloud federation projects and HPC initiatives.* ”

## Service Delivery

The EOSC Compute Platform delivers **36 free-at-point-of-use** compute and thematic services offered to the users through the EOSC Portal.

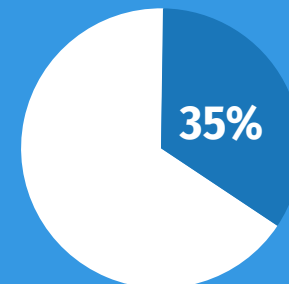
### SERVICES

EGI-ACE offers 36 services of the total services (413) are accessible in the EOSC Portal.



### ORDERS

EGI-ACE services attracted 189 access requests in the EOSC Marketplace out of the total 538 overall requests.



*Call Impact 1: Scale up the EOSC Portal through a growing catalogue to the broadest possible set of high-quality services and resources*

# IMPACT TOWARDS OPEN SCIENCE

**EGI Cloud Compute**

**EGI Notebooks**

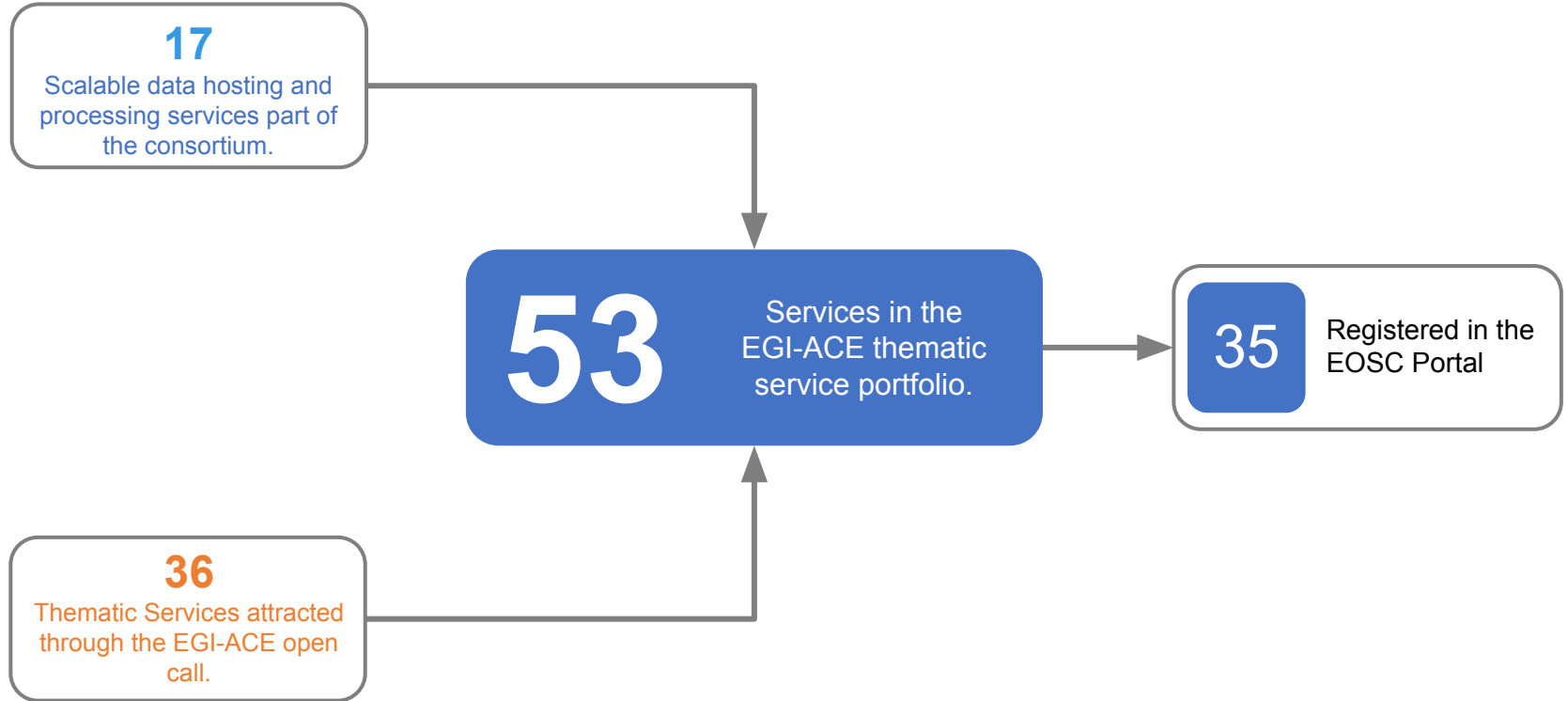
**Other Services**

**10**

EGI-ACE services are among  
the 'most ordered top 20'  
services of EOSC

*Call Impact 3: Facilitate Open Science practices across the research community in Europe with services to connect, share and re-use diverse research outputs, fostering collaboration and enhancing scientific discovery.*

# FUELLING THEMATIC SERVICES



*Call Impact 2: More scientific communities across Europe are equipped and have access to state-of-the-art services for their research*

# THEMATIC SERVICES



Humanities

OPERAS

OPERAS metrics and certification service

WeNMR (structural biology)

Virtual Imaging Platform (medical imaging)

Health and medicine

OpenRiskNet

UseGalaxy.eu (bioinformatics)

Galaxy

Climate research

15 Thematic Services

Environmental sciences

GBIF Global Biodiversity Information Facility

Disaster mitigation and agriculture

GBIF Cloud data space

emso ERIC EMSO ERIC data services

SeaDataNet WebOcean Data Analysis

SeaDataNet

LOFAR science products (astronomy)

ASTRON

PROMINENCE (fusion physics)

ENES (climate analytics)

PLACAN Plataforma Océanica de Canarias

eds ENES Data Space

Energy and physical sciences

Policy making and Multidisciplinary 2.4%

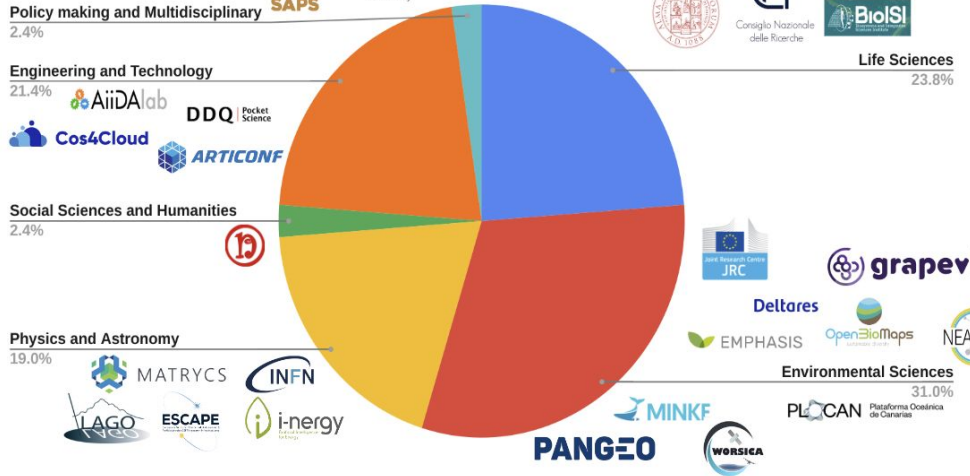
Engineering and Technology 21.4%

Social Sciences and Humanities 2.4%

Physics and Astronomy 19.0%

Life Sciences 23.8%

Environmental Sciences 31.0%



Call Impact 6: Coordinate and incentivise institutional and public actors so that they open up their services and resources to researchers across Europe



# COLLABORATIONS (PEER INFRASTRUCTURES)



IDIA

**Inter-University Institute for  
Data Intensive Astronomy,  
South Africa**

EGI and IDIA collaborated on adopting the EGI Federated Cloud approach at the ILIFU-UCT cluster, and to integrate **radio astronomy** related computational workflows with the infrastructure. The collaboration finished with successful cloud integration and application porting tests.

CNIC

**Computer Network  
Information Center,  
China**

Established a federated cloud compute and storage testbed, federating data centre facilities from the EGI Federation and from the CSTCloud infrastructure, using the EGI Federated Cloud approach. The setup was validated by the **EISCAT** Research Infrastructure and by **WeNMR** community

OSG

**Open Science  
Grid,  
United States of America**

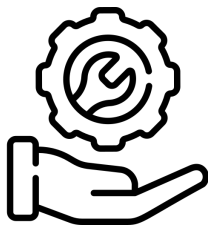
EGI and OSG focused on increasing computational power delivery for the science gateways of the **WeNMR** community. The consumption increased by ~30% due to the extra demand for COVID-related simulations. During the EGI-ACE project the HADDOCK portal of WeNMR was used by more than 30,000 researchers from over 130 countries.

*Call Impact 4: Support the collaboration in data provision and exchange across regional and national related infrastructures*

## ESFRI



*Call Impact 3: Facilitate Open Science practices across the research community in Europe with services to connect, share and re-use diverse research outputs, fostering collaboration and enhancing scientific discovery.*



**TECHNICAL  
ACTIVITIES**



**UPTAKE**



**TRAINING**

*Call Impact 3: Facilitate Open Science practices across the research community in Europe with services to connect, share and re-use diverse research outputs, fostering collaboration and enhancing scientific discovery.*

# COLLABORATIONS (INDUSTRY)



EGI DIH is a virtual space where companies and technical service providers meet to test solutions before investing.

*Call Impact 6: Coordinate and incentivise institutional and public actors so that they open up their services and resources to researchers across Europe*

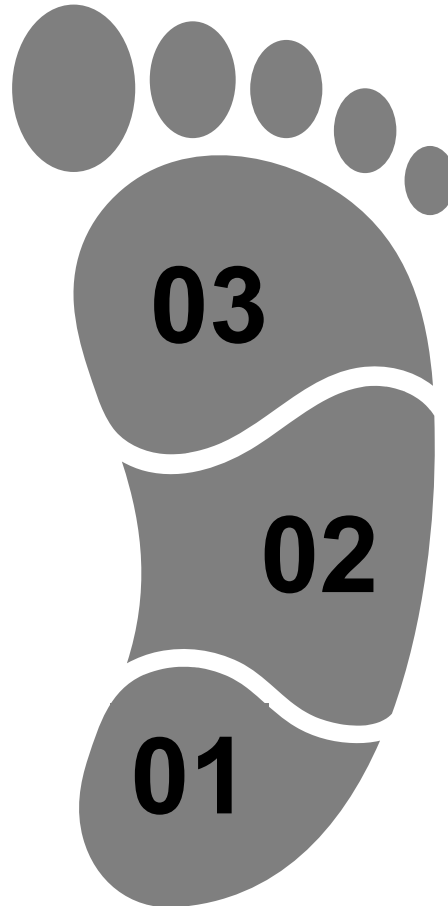
## FULL INTEGRATION

+Monitoring  
+Accounting  
+Helpdesk

OpenStack Clouds like,  
Greece (GRNET)  
Italy (INFN CNAF)  
Germany (GSI)  
Hungary (ELKH Cloud)  
Ireland (Walton Institute)  
China (CSTCloud)  
South Africa (ILIFU)

## Under Discussion

National Cloud Providers from,  
Moldova  
Latvia  
Armenia  
Georgia



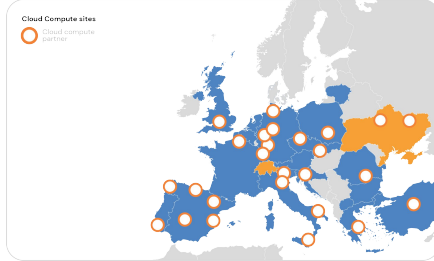
*Call Impact 4: Support the collaboration in data provision and exchange across regional and national related infrastructures*

## AAI Integrated

### AAI Federated

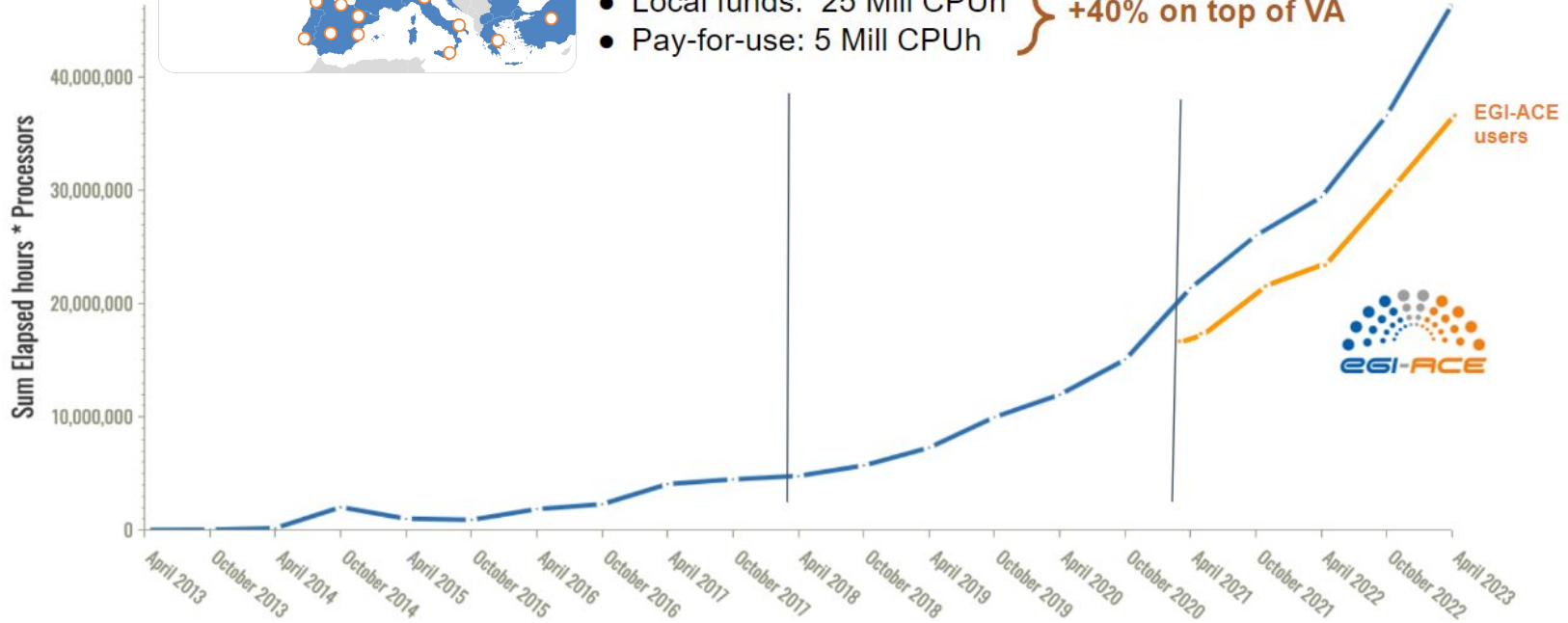
Commercial Providers like,  
T-Systems  
CloudFerro

# CLOUD UPTAKE

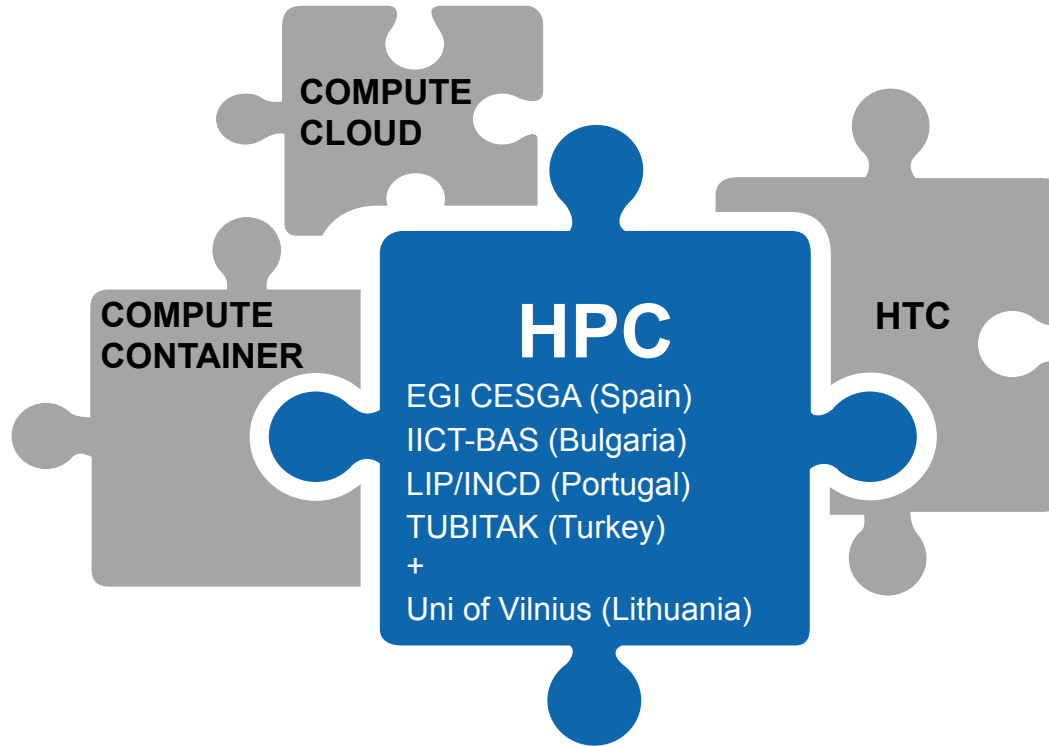


**159 Million CPU-hours delivered since Jan 2021**  
**102 Million CPU-hours for EGI-ACE users**

- Virtual Access: 72 Mill CPUh
  - Local funds: 25 Mill CPUh
  - Pay-for-use: 5 Mill CPUh
- } +40% on top of VA



*Call Impact 2: More scientific communities across Europe are equipped and have access to state-of-the-art services for their research*

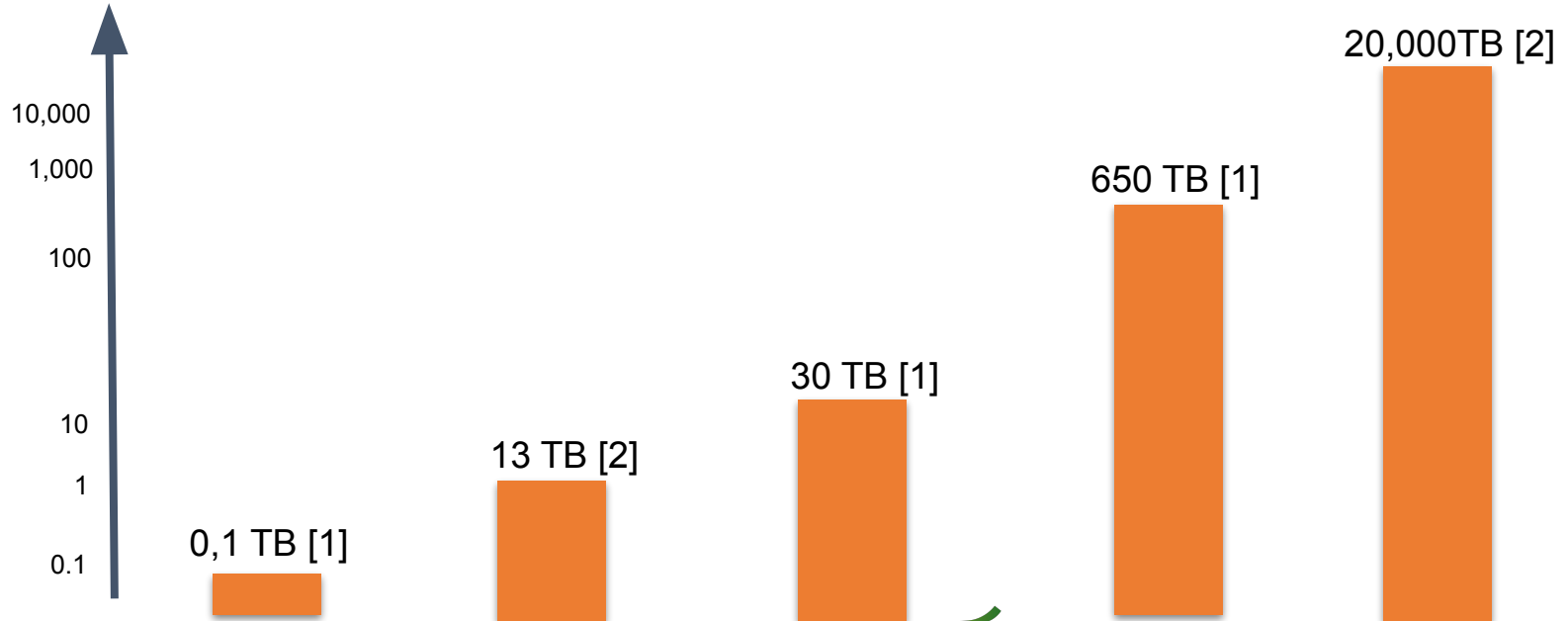


*Call Impact 2: More scientific communities across Europe are equipped and have access to state-of-the-art services for their research*

# EGI-ACE DATA SPACES



Log (TB)



[\*] Replicating the whole datasets on EGI  
[\*\*] Caching data segments on demand on EGI



# UPSKILLING EUROPE (AND THE WORLD)



**26**

Webinars

**24**

Training Events

**1000**

Participants

**18**

FITSM Trainings

**213**

Certifications Granted

# NEW KNOWLEDGE GENERATED

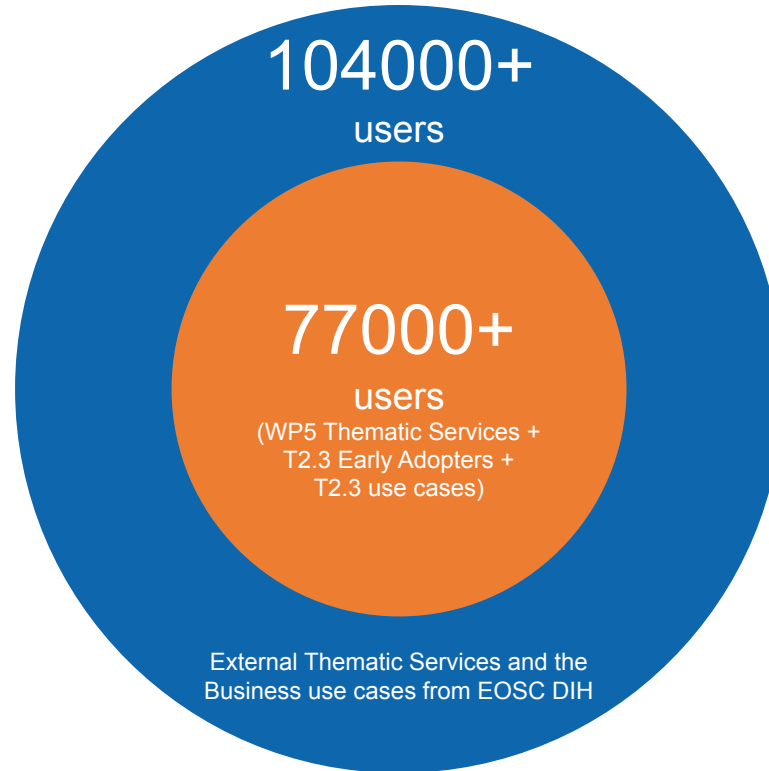


**69**

**Publications**

**35**

**Intellectual Assets**



# SUCCESS STORIES



## Environmental & Earth sciences

Cos4Cloud  
GRAPEVINE  
PANGEO  
eHoney  
Cos4Cloud  
RELIANCE  
SeaDataNet

EMPHASIS  
OBSEA  
EMSO ERIC  
EISCAT\_3D  
ENES  
OPENCoastS



## Health & Medicine

WeNMR  
NBIS  
Biomed

BioISI  
CNR Covid use  
case

24  
success  
stories



## Social Sciences and Humanities

OPERAS



## Physics

IceCube



## Engineering

DataCloud  
MATRYCS  
I-ENERGY

# SUMMARY



**36**

Services onboarded to EOSC

**53**

Thematic Services

**189**

Access requests  
from EOSC

**102**

Million CPU hours  
delivered

**4**

HPC Pilots

**15**

SMEs  
attracted

**11**

ESFRI  
Connected

**3**

Peer e-Infra  
Supported

**69**

Publications

**77000+**

Users served

# Thank you!

Contact: [egi-ace-po@mailman.egi.eu](mailto:egi-ace-po@mailman.egi.eu)  
Website: [www.egi.eu/projects/egi-ace](http://www.egi.eu/projects/egi-ace)



[EGI Foundation](#)



[@EGI\\_eInfra](#)

