

EGI – Open infrastructure and open research software for open science

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TLP: WHITE Public

05-06-2024 e-IRG Workshop, Brussels





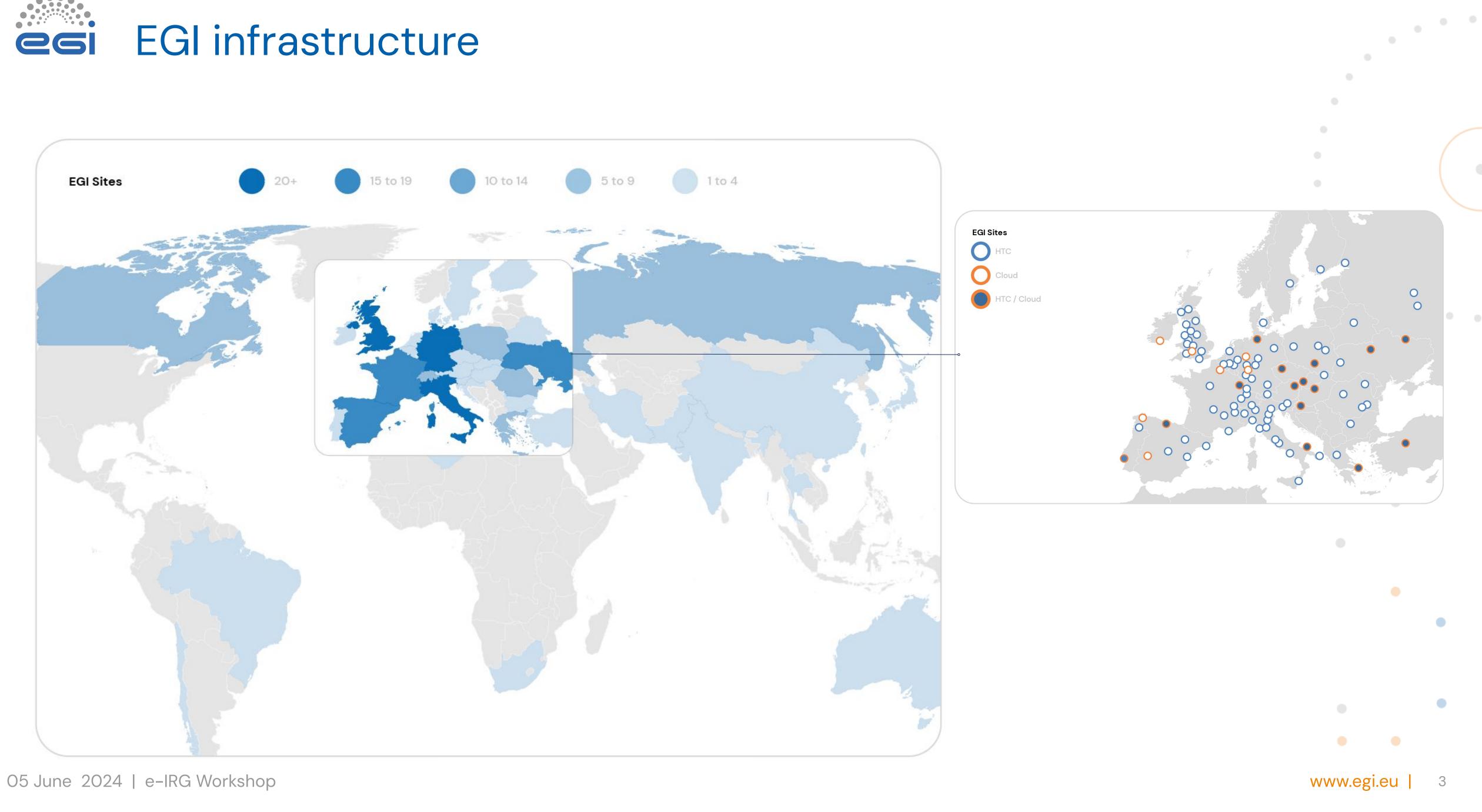
Open infrastructures

- Support science at international scale
- Build an hyperscale compute facility for research
- Invest nationally, access globally
- Bring computing to the research data











EGI in Numbers (annual statistics 2023)

2,875

Enabled articles

372M

Computational jobs

29 EGI Council participants

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7.0B HTC CPU hours consumed

94,200

Users

82M Cloud CPU hours consumed

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EGI Annual Report 2023

Propelling Research and Innovation Through Collaboration and Support

Key Numbers 95,000 +10.200

Total number of users

WeNMR

Top HTC Communities NBIS Biomed BiolSI **ENVRI** Atlas, CMS, ALICE, LHCb, Belle II, Virgo 21K **1K** 967 1.5K 13 49 23 1 new scientific RIs from the RIs of pannew RIs engaged communities ESFRI roadmap in 2023 European scope

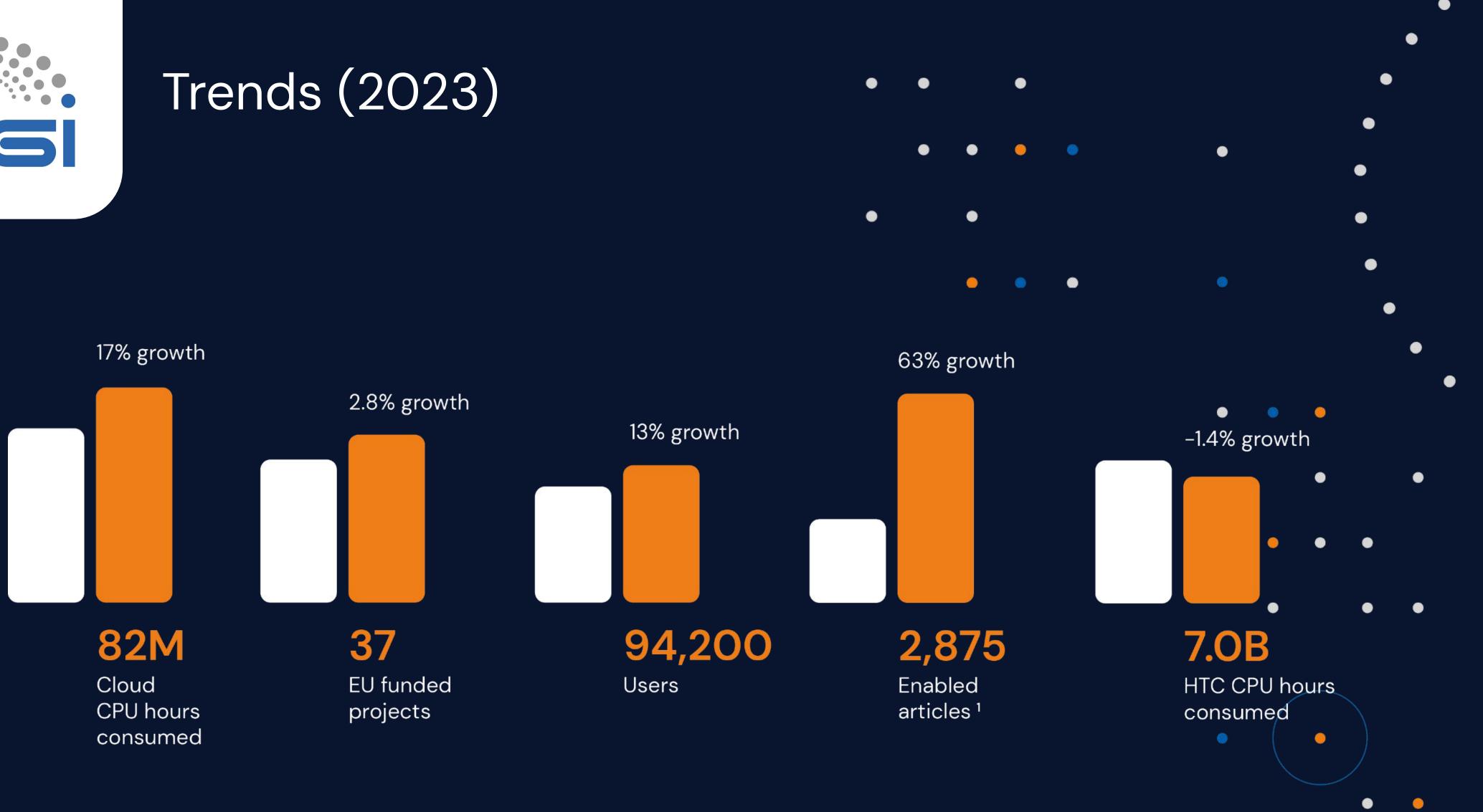
Top 5 Cloud Communities **41K** By number of registered users **Essential Partners and** the Largest Adopters Research infrastructures (RI) and research communities using our services



New users in 2023

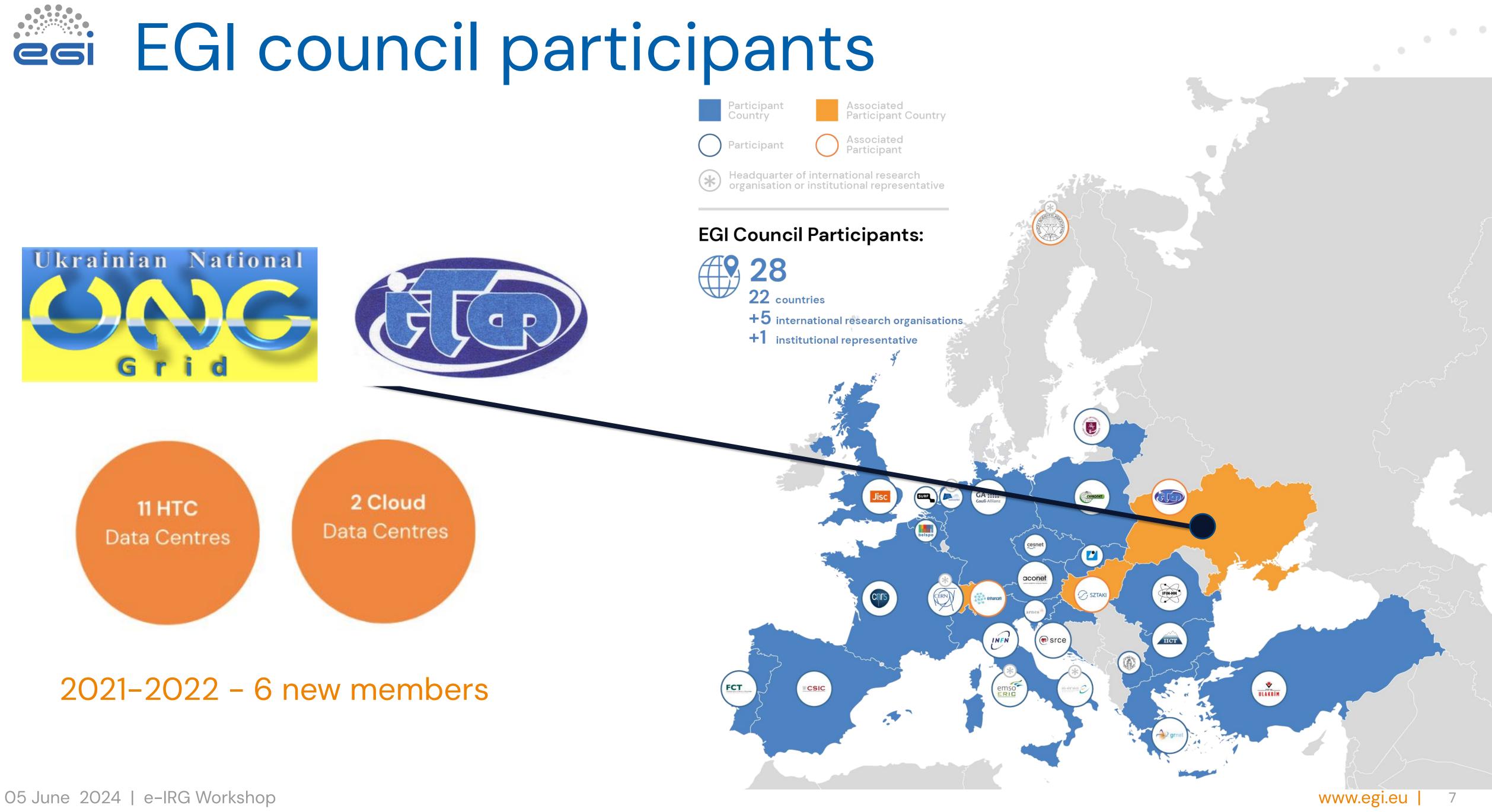


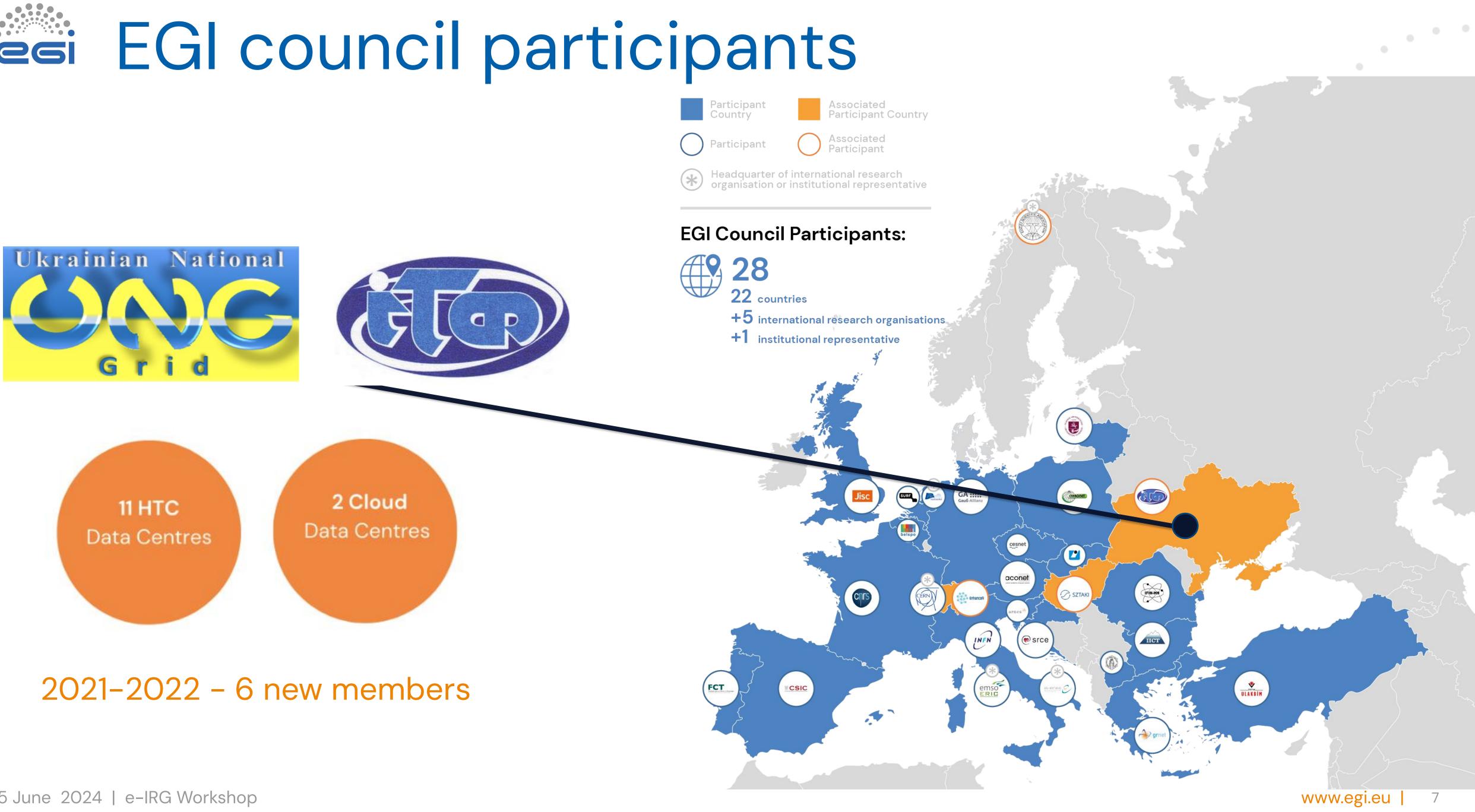














Scientific communities in Ukraine prior to the outbreak of war



+500 publications

The research communities, projects and scientific collaborations from Ukraine supported by the EGI led to more than 500 peer-reviewed scientific publications

8 Supported communities

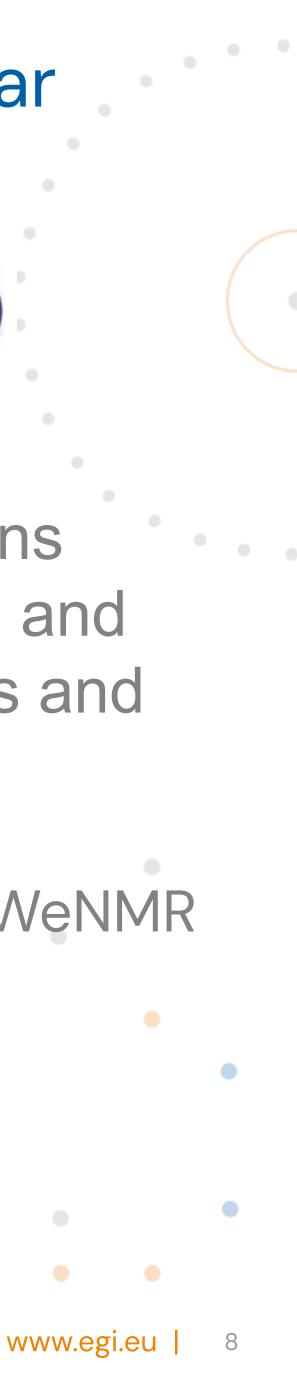
In 2021, Ukrainian infrastructure supported 8 research communities in the following disciplines: Environmental Sciences, Health and Medicine, Physics, Social Sciences and Humanities





- hundreds peer reviewed publications
- 8 (Environmental Sciences, Health and Medicine, Physics, Social Sciences and Humanities)

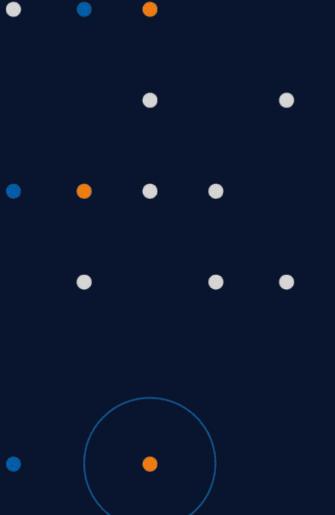
CTA, DUNE, ELI–NP, LHC, SeaDataNet, WeNMR (Structural biology)





Open software







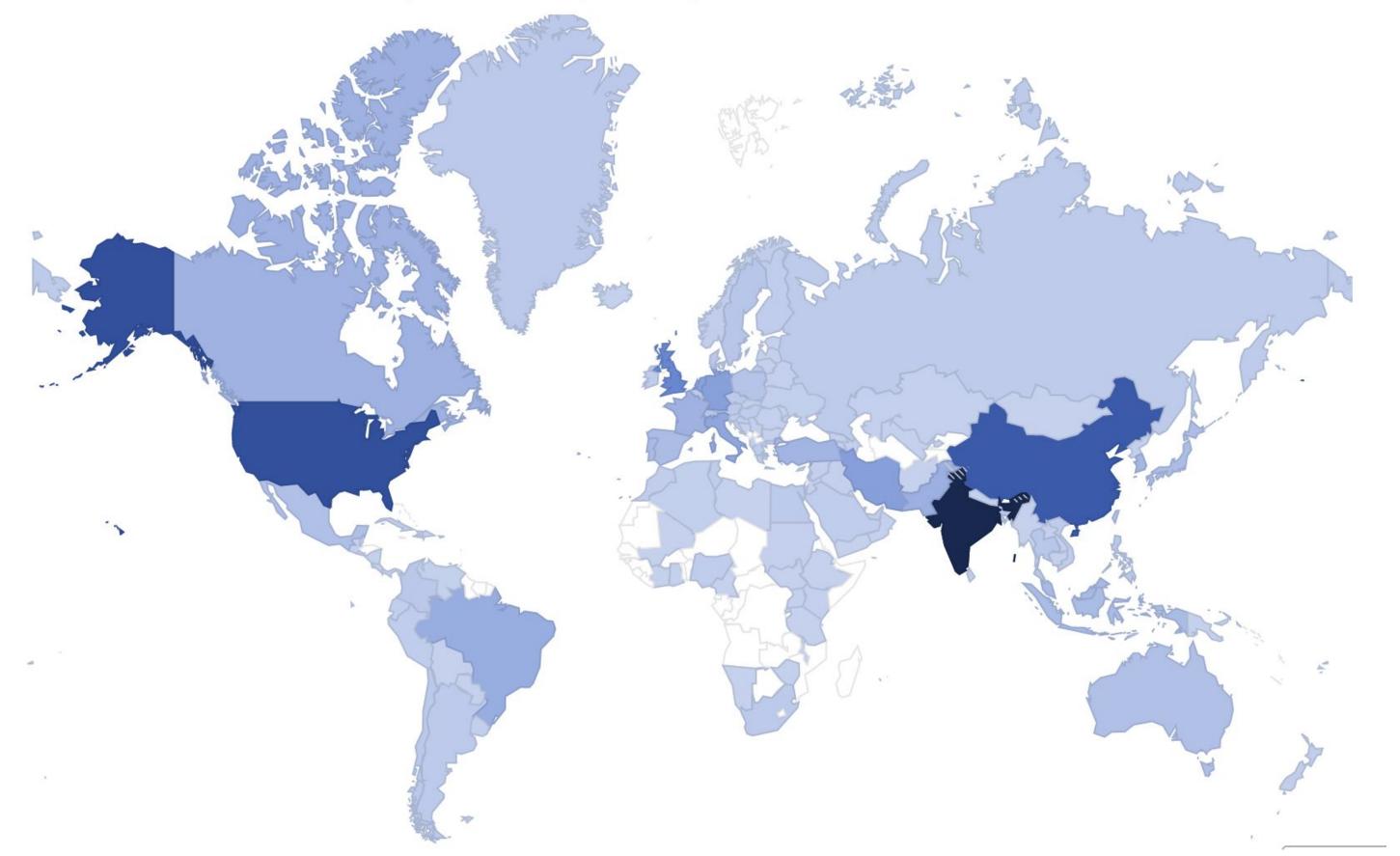
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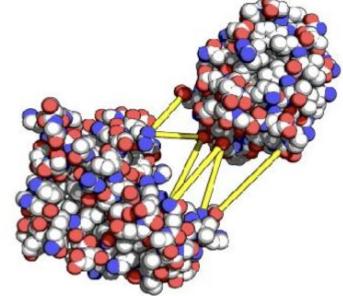


Opening tools for molecular docking simulations addressing the COVID-19 pandemic

Worldwide User Map

The HADDOCK web portal is being used by 46298 users accross 146 countries!





A joint effort of WeNMR, EGI Federation (Europe), **Open Science Grid** (USA) and many other international partners

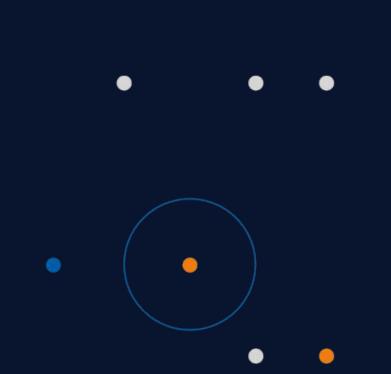
www.egi.eu





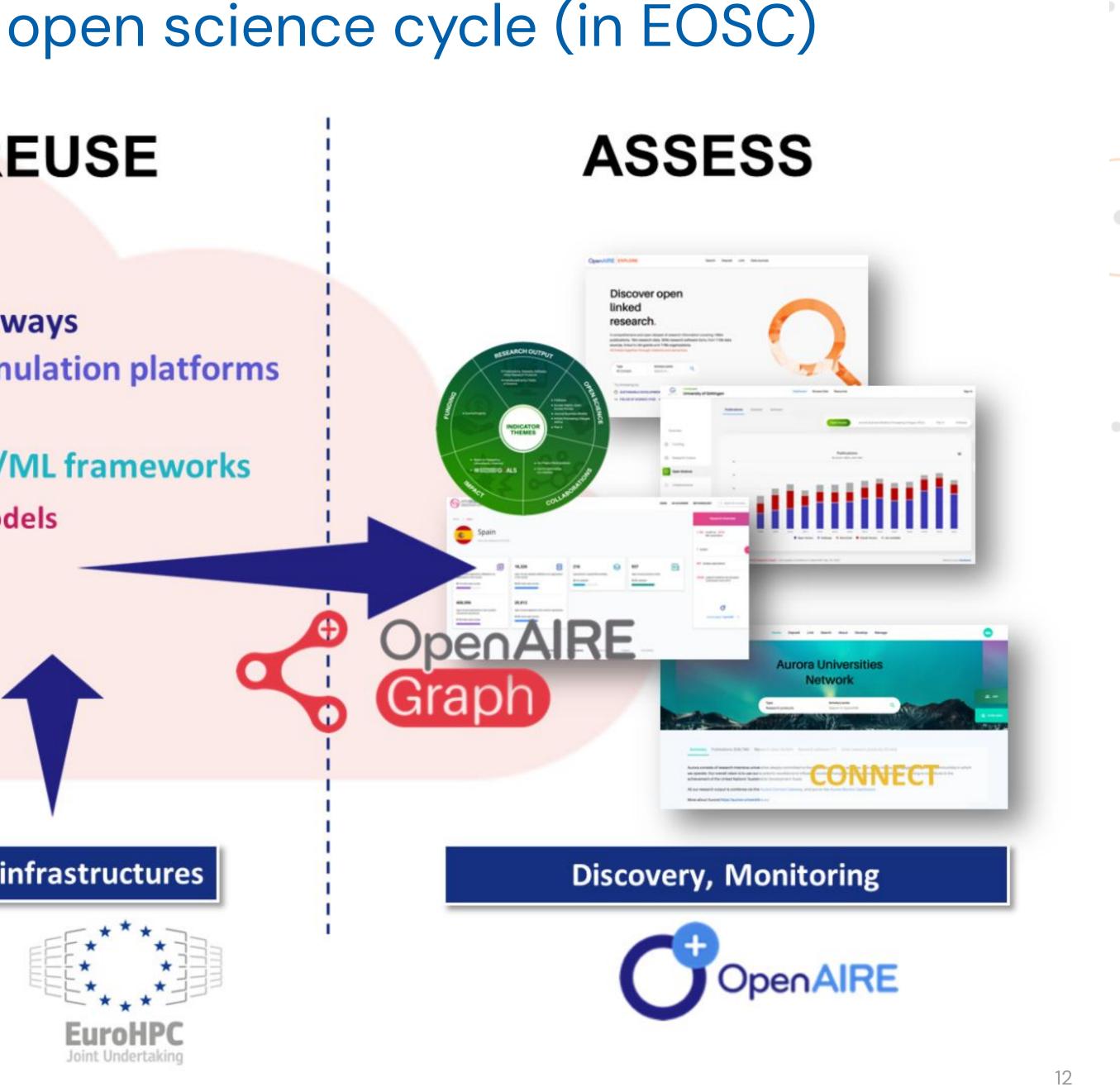
What about open data?





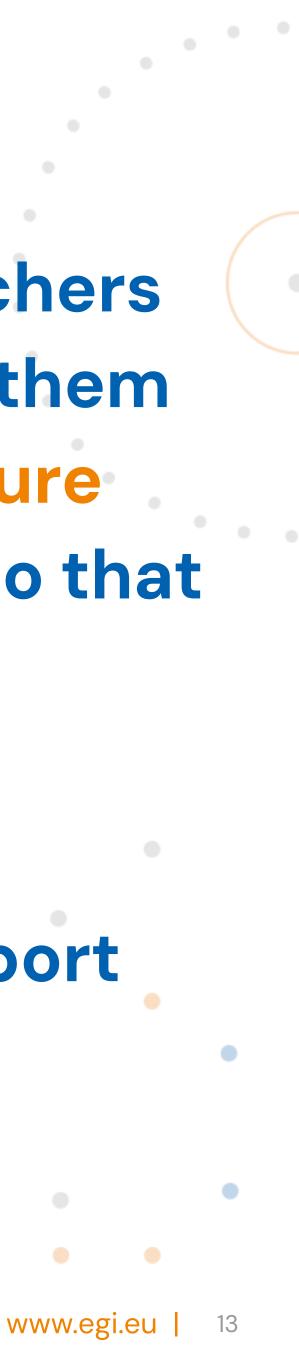


Supporting the entire open science cycle (in EOSC) SHARE REUSE ASSESS Discover open linked **Science gateways** esearch **Simulation platforms** Visualisers **OA** Journals AI/ML frameworks Al models Science data Repositories OpenAIRE euro CRIS Register Graph Validate zenodo **Compute infrastructures** Compliance Research 1 Infrastructures $\bigcirc \bigcirc \bigcirc \bigcirc$ ENVRI-Hub NEXT **ESFRI** 26

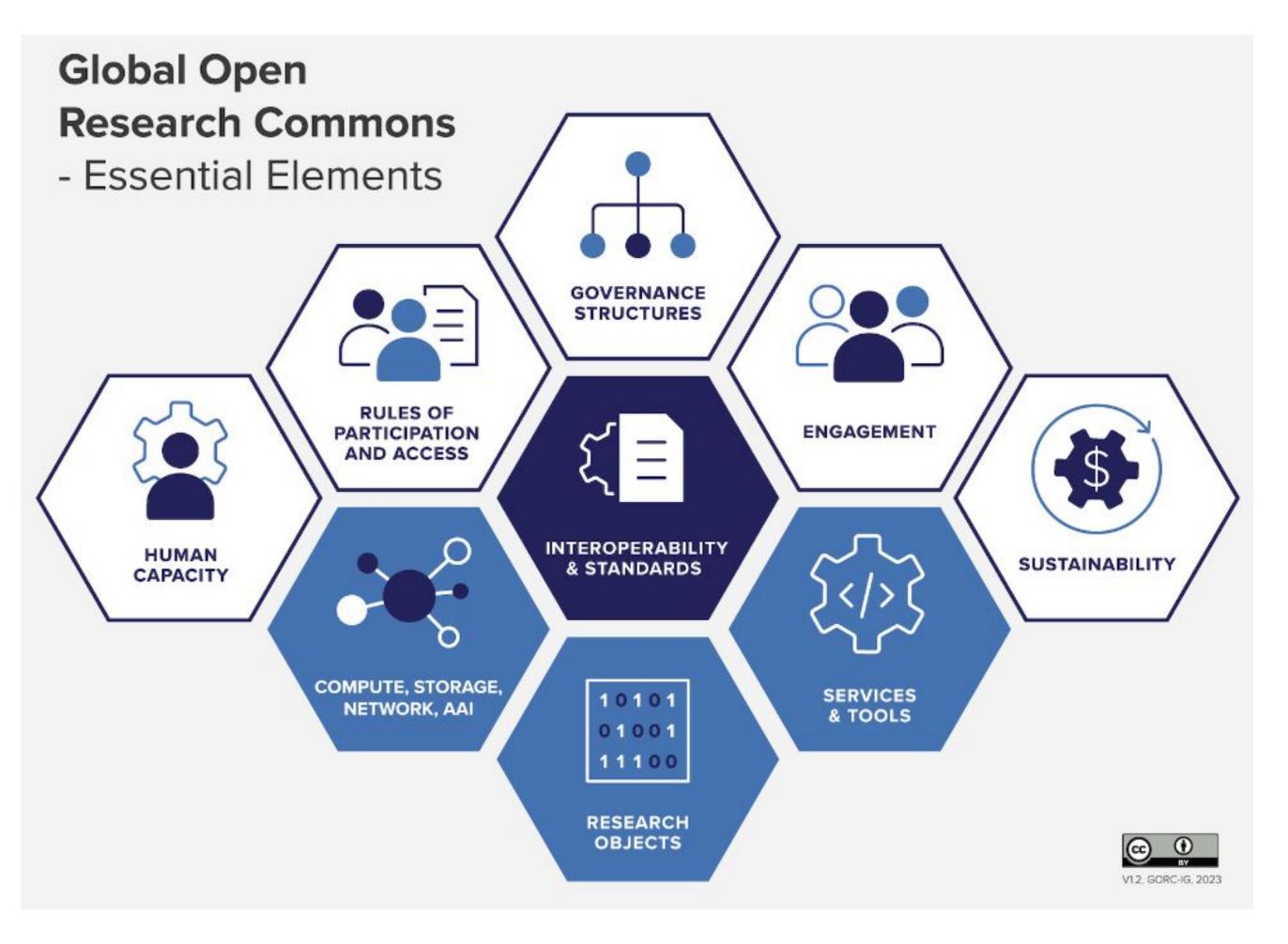




- Al democratisation puts Al into the hands of European researchers without specialised AI and technical knowledge, empowering them with open-source datasets, integrated computing infrastructure and tools which demand less knowledge of AI from the users so that they can build innovative Al software.
- EOSC nodes have the potential of addressing this need by integrating their capabilities to provide access to advanced computing, datasets, models, software, training and user support to European researchers.

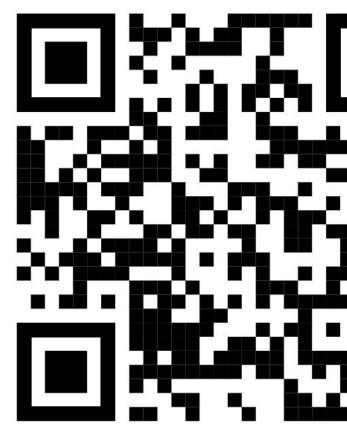






05 June 2024 | e-IRG Workshop





EGI Contribution to the EOSC Federation

Discussion paper V. 1.2 07-05-2024

Abstract

Compute, storage, research objects, services and analytics tools are integral to the Open Science Commons and the realisation of the EOSC vision. This paper describes how EGI Federation envisages their provision as a collaborative effort of Research Infrastructures and e-Infrastructures, to jointly provide compute and co-located data services for international, grand challenge applications under the EOSC Node architecture.

This discussion paper reflects the EGI Federation's current thinking on collaborative service provision within the EOSC framework. We believe a strong, collaborative approach is essential for the success of EOSC. We welcome your feedback and insights, which will inform the further development of this position.

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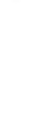
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