

Bridging science with society: EGI and LifeWatch

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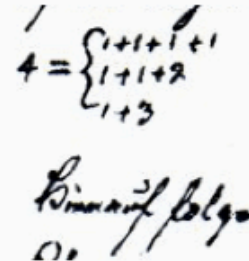


www.egi.eu

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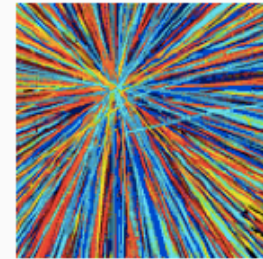


- A globally distributed ICT infrastructure that federates the digital **capabilities**, **resources** and **expertise** of national and international research communities in Europe and worldwide.
- **Mission**: empower researchers from **all disciplines** to collaborate and to carry out data- and compute-intensive science and innovation.



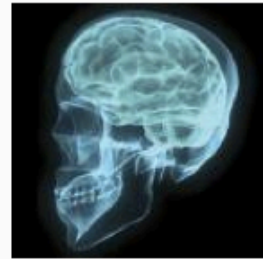
Natural Sciences

Life Sciences, Earth Sciences, Mathematics, etc



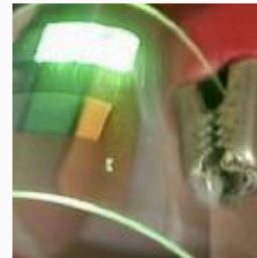
Physical Sciences

Physics, Astronomy, Chemistry etc



Medical and Health Sciences

Medicine, Clinical sciences, etc



Engineering & technology

Material science, civil and mechanical engineering, etc

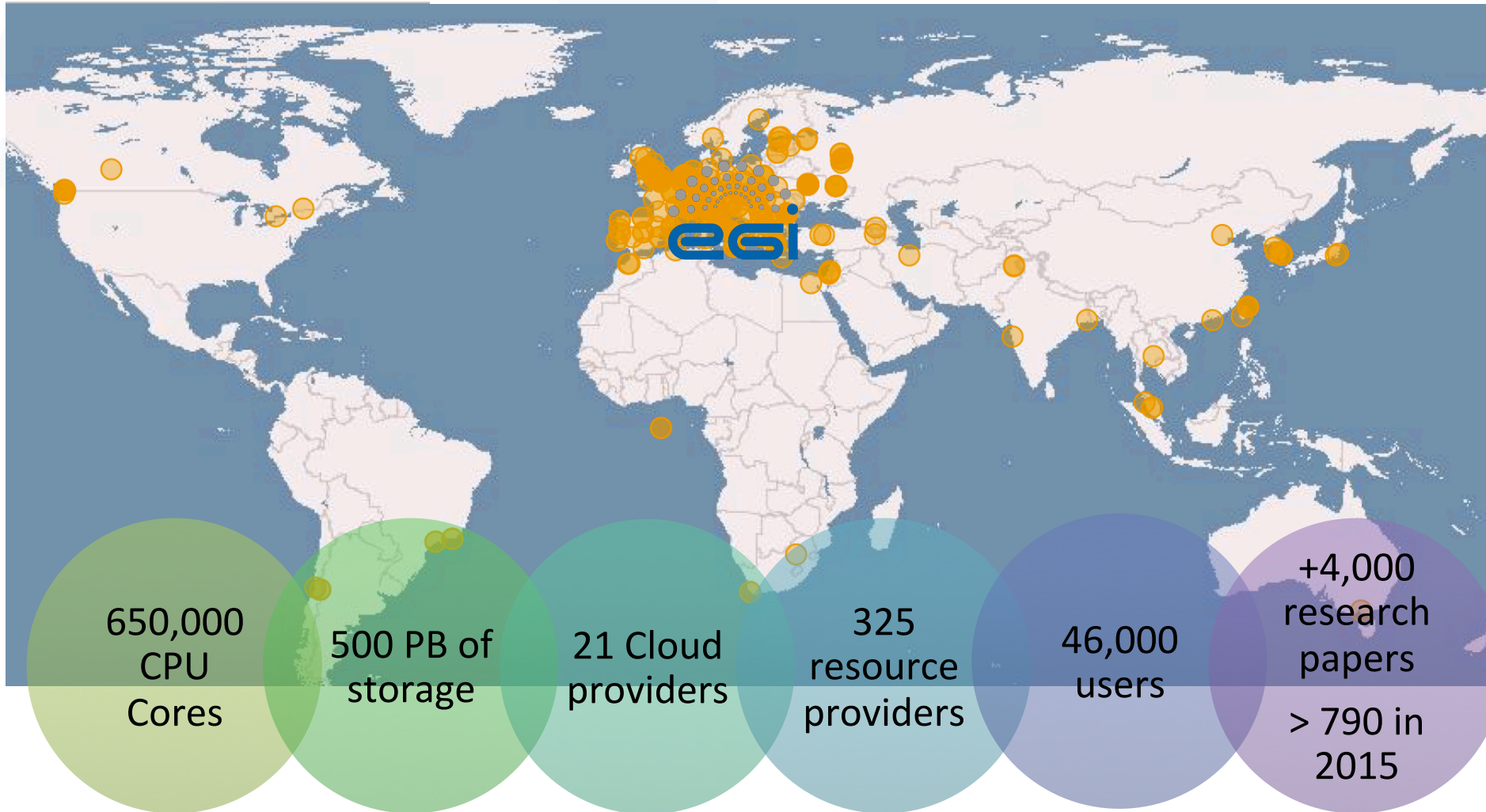


Agricultural sciences

Veterinary sciences, food technology, etc

<http://www.egi.eu/case-studies/>

EGI at a glance, 2016 QR1



Services for citizen science with LifeWatch



- Integrating multiple open data sources and providing virtual research environments
- Bringing 5,000 CPU cores and PB of data into the EGI Federated Cloud
- Supporting citizen scientists by
 - providing advanced computing capabilities for image recognition
 - Preserving uploaded images (new open data for citizen)



OpenScience Commons



With this paper, EGI proposes the **Open Science Commons** as a new approach to digital research, tackling policy challenges and embracing open science as a new paradigm for knowledge creation and collaboration.

EGI invites organisations from the research landscape to join it in this journey to develop these concepts, and through them to advance the implementation of the European Research Area.

European policy context

The European Research Area (ERA) was endorsed by the European Council in 2000 [1] as a way to build "a unified research area open to the world based on the Internal Market, in which researchers, scientific knowledge and technology circulate freely and through which the Union and its Member States strengthen their scientific and technological bases, their competitiveness and their capacity to collectively address grand challenges" [2]. Several actions for the ERA implementation have been undertaken by many actors with the aim of increasing the performance of European research through mobility and cross-border cooperation. Examples are the establishment of the European Strategy Forum on Research Infrastructures (ESFRI) and the e-infrastructure development for connectivity, high performance, grid and cloud computing and data. These initiatives sought to unite major user communities to ensure their expansion to Research Infrastructures. The 2013 White Paper [3] released by the European e-Infrastructure Reflection Group (e-IRG)

stated that "...Europe needs a single 'e-Infrastructure Commons' for knowledge, innovation and science, as a living ecosystem, which is open and accessible and continuously adapts to the changing requirements of research", to support the ERA and the emerging ESFRI communities. Since then, the rapid growth of scientific data has highlighted the need for an open approach as a core aspect of the ERA. In its Horizon 2020 consultation report on Open Infrastructures for Open Science, the European Commission concluded that "open data e-infrastructure increase scope, depth and economies of scale of the scientific enterprise. They are catalysts of new and unexpected solutions to emerge by global and multidisciplinary research. They bridge the gap between scientists and the citizen and are enablers of trust in the scientific process" [4]. This vision implies a European dimension beyond national and regional approaches, and an increase in capacities and capabilities.

The European Grid Infrastructure (EGI) - <http://www.egi.eu>
Open Science Commons - <http://www.opensciencecommons.org>

<https://www.opensciencecommons.org/>
<http://go.egi.eu/osc>

*Researchers **and citizens** from **all disciplines** have easy, integrated and open access to the advanced **digital services**, **scientific instruments**, **data**, **knowledge** and **expertise** they need to collaborate and achieve **excellence in science**, **research** and **innovation**.*