

## The EGI-InSPIRE project

The EGI-InSPIRE project (Integrated Sustainable Pan-European Infrastructure for Researchers in Europe) started on 1 May 2010, co-funded by the European Commission (contract number: RI-261323) for four years, as a collaborative effort involving more than 50 institutions in over 40 countries. Its mission is to establish a sustainable European Grid Infrastructure (EGI).

EGI-InSPIRE is ideally placed to join together the new Distributed Computing Infrastructures (DCIs) such as clouds, supercomputing networks and desktop grids, for the benefit of user communities within the European Research Area. EGI-Inspire Objectives

The ultimate goal of EGI-InSPIRE is to provide European scientists and their international partners with a sustainable, reliable e-Infrastructure that can support their needs for large-scale data analysis. This is essential in order to solve the big questions facing science today, and in the decades to come.

EGI-InSPIRE will coordinate the transition from a project-based system (the EGEE series) to a sustainable pan-European e-Infrastructure. The four-year project will support grids of high-performance computing (HPC) and high-throughput computing (HTC) resources.

The project is ideally placed to integrate new Distributed Computing Infrastructures (DCIs) such as clouds, supercomputing networks and desktop grids, to benefit the user communities within the European Research Area.

EGI-InSPIRE will collect user requirements and provide support for the current and potential new user communities, for example the ESFRI projects. The project will also support the current heavy users of the infrastructure, such as high energy physics, computational chemistry and life sciences, as they move their critical services and tools from a centralised support model to one driven by their own individual communities.

EGI-InSPIRE is a consortium of 50 partners, including 37 National Grid Initiatives (NGIs), two European International Research Organisations and eight partners from the Asia Pacific region. EGI-InSPIRE partners

Country	Partner Institution	Acronym
Belgium	Stichting European Grid Initiative	EGI.eu
Netherlands	Institute for Informatics and Automation	IIAP NAS RA
Armenia	Institute for Parallel Processing of the Bulgarian Academy of Sciences	IPP-BAS
Bulgaria	United Institute of Informatics Problems of National Academy of Sciences of Belarus	UIIP NASB
Belarus	Teleinformatikdienste für Lehre und Forschung	SWITCH
Switzerland	University of Cyprus	UCY
Cyprus	Cesnet, Zajmove Sdruzeni Pravnickyh	Kit-G
Czech Republic	Cesnet	UOBLET
Germany	Univerzitet u Banjoj Luci Elektrotehnicki Fakultet	UOBL-ETF
Bosnia and Herzegovina	Agencia Estatal Consejo Superior de Investigaciones Cientificas	CSIC
Spain	Csc-Tieteen Tietotekniikan Keskus Oy	CSC
Finland	National de La Recherche Scientifique	CNRS
France	Educational Networking Association	GRENA
Georgia	Network S.A.	GRNET
Greece	Sveuciliste U Zagrebu	Sveucilisni Racunski Centar
Croatia	SRCE	MTA Kfki Reszecske-Es Magfizikai Kutatointezet
Hungary	Mta Kfki Reszecske-Es Magfizikai Kutatointezet	MTA KFKI
Ireland	The Provost, Fellows & Scholars of the College of the Holy and Undivided Trinity of Queen Elizabeth, near Dublin	TCD
Ireland	Inter University Computation Centre	IUCC
Italy	Istituto Nazionale di Fisica Nucleare	INFN
Lithuania	Research and Educational Networking Association of	RENAM
Moldova	Javna Ustanova Univerzitet Crne Gore Podgorica	UOM
Montenegro	Ss. Cyril and Methodius University in Skopje	UKIM
Former Yugoslav Republic of Macedonia	Stichting Nationale Computerfaciliteiten	NCF
Netherlands	Uninett Sigma As	SIGMA
Norway	Hutnicza Im. Stanislawia Staszica w Krakowie	ACK CYFRONET AGH
Poland	Laboratório de Instrumentação e Física Experimental de Partículas	LIP
Portugal	Institut za Fiziku	IPB
Serbia	Arnes	Arnes
Slovenia	Ustav Informatiky, Slovenska Akademia Vied	UI SAV
Slovakia	Akademik Ag Ve Bilgi Merkezi	TUBITAK ULAKBIM
Turkey	Facilities Council	STFC
United Kingdom	Denmark	Vetenskapsradet
Sweden	Latvijas Universitates	VR-SNIC
Latvia	National Association of	IMCS-UL
Research and Educational E-Infrastructures "E-Arena" Autonomous Non-Commercial Organization	E-Arena	
Russian Federation	Nordunet A/S	Nordunet A/S
Denmark		

Institutul National de Cercetare-dezvoltare In Informatica	ICI Bucuresti	Romania
European International Research Organisations	Partner Institution	Acronym
HQ	European Organization for Nuclear Research	CERN Switzerland
European Molecular Biology Laboratory	EMBL	Germany
Partner	Acronym	Country
Taiwan	Advanced Science and Technology Institute	ASTI Philippines
Institut Teknologi Bandung Bhm	ITB	Indonesia
Institute Corporation, High Energy Accelerator Research Organisation	KEK	Japan
Korea Institute of Science and Technology Information	KISTI	Republic of Korea
University of Melbourne	UNIMELB	Australia
NUS	Singapore	Universiti Putra Malaysia
National Science & Technology Development Agency	NSTDA	Thailand

#### Â Project Participants from Moldova.

Moldova participates in the project as MD-Grid JRU Consortium with RENAM as Contractor and following third parties - JRU members:

- FRT-TUM - Faculty of Radioelectronics and Telecommunications of Technical University of Moldova
- IGS ASM - Institute of Geology and Seismology of the Academy of Sciences of Moldova
- SHMS State Hydrometeorological Service of Moldova.

RENAM is responsible for NGI development and its sustainable operation, extension of the National Grid infrastructure by installation of new clusters and their inclusion into common Grid segment of Moldova and into the Pan-European EGI.eu infrastructure. RENAM assures operation of Grid sites, support of development and functioning of applications in the fields of seismology, climate modeling, ecology and mathematics. RENAM is responsible for users and Grid sites engineers training and takes part in dissemination and public relations activities.

FRT-TUM cooperates with a significant number of universities and centres from different countries, participate in project as a third party behind RENAM Association. The grid node installed at the faculty together with its grid infrastructure and specialists participate in the EGI-Inspire project offering resources for weather environment and earthquake monitoring applications development and use support in collaboration with regional neighbors from Romania, Bulgaria and Turkey.

IGS ASM provides contributions on real-time monitoring of earthquakes and development of regional monitoring capacities, implementation of real-time seismic data processing and real-time data exchange at regional and international level. Despite the territory having high earthquake hazard and risk, its seismic activity remains poorly monitored. Moreover, cross-border data exchange and regional applications for data accumulating and processing, which are essential for good quality monitoring, are very limited. As a consequence, it is constraining ability to cooperate with the international research and engineering community.

SHMS contributes by testing and deployment of a pilot application. The service infrastructure and specialists are involved into MD-Grid JRU scientific research and production grid activities in requirements definition, input data provision and interpretation of results on national, regional and international levels.