

Summary e-IRG workshop in Poznan

More than 120 participants attended the e-IRG workshop organized in Poznan on 12-13 October 2011, under the auspices of the Polish EU Presidency. Policy issues related to e-Infrastructures was the main theme of the first day of the workshop. The second day was devoted to technology aspects, with focus on data infrastructures and data management. All presentations are available [here](#).

Jan Weglarz, Director of PSNC, Poland warmly welcomed the participants and outlined the e-Infrastructure development in Poland. The Polish development was further described by **Maria E. Orlowska**, Secretary of State, Ministry of Science and higher education. Orlowska also highlighted the importance of involving the policy level for sustainable development.

Gudmund Høst, Chair of e-IRG, underlined in his welcome speech the need for Pan-European e-Infrastructures across multiple administrative and national domains. He also summarised the main points of the e-IRG White Paper 2011.

Kostas Glinos, Head of Unit GÉANT & e-Infrastructure



Maria E. Orlowska, Secretary of State, Ministry of Science and higher education, Poland

in DG INFSO, EC, initiated the session on “Sustainable e-Infrastructure fostering international and multidisciplinary cooperation” by describing the transition from technical to e-Infrastructure of services, where relevant governance, cost models and a proper regulatory framework have growing importance as well as the connection to the industry. Glinos also presented the draft plan of Horizon2020.

Matthew Dovey, JISC, UK, gave an overview of the policy project e-Infranet which is focusing on green ICT, cloud computing and openness and presented the new project Support Infrastructure Models for Research Data Manage-

ment (SIM4RDM).

Sverker Holmgren, Nord-Forsk, Sweden, described the Nordic eScience Globalisation initiative, as an example of regional coordination and funding of large scale research projects, mainly in the area of health and climate/environment.

“Synergies between structural funds, EU and national funding” was the topic for the next session and **Manfred Horvat**, rapporteur of Synergies Expert Group recommended for the future programming period close coordination of HORIZON 2020 and the Cohesion Policy Funds oriented towards the objectives of the Europe



2020 and Innovation Union.

Christos Vasilakos DG Research and Innovation, EC also focused on synergies and proposed that EU in the coming programming period should play a more leveraging role to help developing a framework for ERA with better industrial access to facilities.

Daniela Zaharie, West University of Timisoara, Romania, described the impact on the RTD activities due to the support from National programmes, EC Structural Funds and FP7 programmes in the case of a Romanian research team in 2002-2011.

The workshop session on “Polish feedback for sustainable and reliable local infrastructure” started with a presentation by **Artur Binczewski** PSNC, who spoke about PIONIER – the National Research and Education Network.

This was followed by a presentation of the POWIEW project, Polish High Performance Computing Infrastructure, by **Marek Niezgodka** and **Maciej Filocha**, University of Warsaw.

Lukasz Dutka, ACK Cyfronet AGH presented a Polish grid initiative, the “PL-Grid” project and **Robert Pekal**, PSNC presented the PLATON project – a service platform for eScience. The project consists of five services: Eduroam, Campus services, Archiving, Science

HDTV services and Video conference services.

Marek Niezgodka, University of Warsaw finalised the session by describing the development in Poland regarding Open Knowledge Infrastructures.

The second workshop day started with the session “Grand Challenges” and a presentation of Euro-Argo by **Giulio Notarstefano**, OGS, Italy. Euro-Argo is the European contribution to worldwide ocean monitoring and aims to be organised as an ERIC from 1 January 2012.

Pär Strand, Chalmers, Sweden, described the relation between e-Infrastructure development and the ITER project, which aims to demonstrate that it is possible to produce commercial energy from fusion.

e-IRG chair Gudmund Høst



Rosette Vandenbroucke, University of Brussels, Belgium gave a presentation on the OSIRIS project, which deals with challenges to found a sustainable e-infrastructure. Vandenbroucke suggested a mixed top-down and bottom-up, approach to include both user communities and governments.

Frank Schluenzen, DESY, Germany, opened up the session on “Data Infrastructures and Data Management” with a presentation on PANdata, which brings together eleven major world class European research infrastructures to create a fully integrated, pan-European, information infrastructure supporting the scientific process.

Leif Laaksonen, CSC, Finland told the audience about the newly launched EUDAT project with the main objective to build the generic data infrastructure layer of the e-Infra vision (see article in this newsletter).

Paolo Manghi, CNR, Italy presented the OpenAIREPlus project, which aims to deliver technology, developing an open access data infrastructure for scientific information that includes publications, datasets, funding and to interlink all of them.

An overview of the plans for a data infrastructure for digital cultural heritage was made by **Antonella Fresa**, Ministry of Culture, Italy. Fresa



Panel discussion in the e-IRG workshop

described a new approach based on national and regional interoperable systems using existing resources.

Andrew Lyall, ELIXIR Project Manager, Hinxton, Cambridge, UK presented the BioMedBridges, a cluster project which will start in January 2012, with the aim to build bridges between the ESFRI BMS RIs, clustering them together and linking basic biological research data to date in the other domains.

Birger Jerlehag, SND, Sweden, introduced the audience to the DASISH project, which harmonizes five ESFRI Infrastructures within Social Sciences and Humanities. These projects are dealing with same kind of data such as personal data and registries and have common challenges.

The last part of the e-IRG workshop in Poznan was devoted to panel discussions on how to integrate the data infrastructure with the existing grid and HPC infrastructures and “Users and infrastructure

providers—demands vs. offers.” The panel consisted of **Peter Wittenburg**, MPI, NL (User community representative), **Richard Kenway**, Chair of the PRACE Scientific Board, UK (HPC e-Infra provider), **Steven Newhouse**, EGI.eu Director, NL (Grid e-Infra provider), **Leif Laaksonen**, CSC, FI (Data e-Infra provider) and **Lars Börjesson**, ESFRI vice chair, SE.

Peter Wittenburg claimed that no technical solution can solve all issues the user communities cope with in this heterogeneous world regarding data.

Richard Kenway described the transition of PRACE from a TIER-0 resource provider to an integrated infrastructure provider spanning the range TIER-0 and TIER-1 resources.

Steven Newhouse mentioned three challenges of the integration of data infrastructures into existing HPC and grid infrastructures: Governance, Technical services and the operation infrastructure of those technical services. Newhouse

also commented that the users rarely have demands on how they expect the infrastructure to be and they need to provide collaboration, recognition and endorsement of the infrastructure that they are using.

Leif Laaksonen underlined that the e-Infrastructure providers should work closely together to build complementing solutions and not fall into a competition.

Lars Börjesson stated that there is a demand from ESFRI on a larger degree for cross-disciplinary data integration. These issues should be addressed by the research infrastructures joint program initiative.

The workshop ended with some concluding remarks by **Gudmund Høst**, who saw an emerging theme on the role of the e-IRG: Action instead of Reflection! He reminded about the next e-IRG workshop which will be organised in Copenhagen under the Danish presidency in June 2012.



2nd GRDI 2020 Workshop

“Global Research Data Infrastructures: The Big Data Challenges”

The GRDI2020 Project organised its second workshop "Global Research Data Infrastructures, The Big data Challenges" on 18-19 October 2011 in Brussels. The objective of this workshop was to debate and discuss the future of Research Data Infrastructures, in light of the GRDI2020 roadmap preliminary findings and recommendations and next EC Common Strategic Framework - Horizon 2020, as well as to showcase RDI initiatives on a global level.

The first version of the GRDI2020 roadmap was published in January 2011 and its main purpose was to launch some new ideas and address mainly technological challenges and a limited number of system, application, and organization challenges. The final version of the roadmap will be published in January 2012 and will serve as a strategy and input for future research directions on a national, EU & International level.

The workshop was attended by over 70 people with different backgrounds spanning both computer and domain scientists, as well as policy makers, funding agencies and users. Presentations were given from global representatives (Africa, Asia,

Australia, Canada, Latin America, US) on their policies for Research Data Infrastructures, representatives from other global initiatives (e-IRG, ESFRI, ICSU), selected organisations (Istituto Nazionale di Geofisica e Vulcanologia, Microsoft Research, Oxford e-Research Centre) and initiatives covering new challenges in Horizon 2020 for which Research Data Infrastructures are imperative.

The workshop was opened by **Mario Campolargo**, Director DG INFSO Emerging Technologies and Infrastructures, European Commission, who addressed key related initiatives such as the Digital Agenda and the G8+05 Data Working group and illustrated the characteristics and the scientific process of GRDIs, as well as a series of key issues in the creation, preservation and access of research data.

During the policy session, the e-IRG and ESFRI chairs **Gudmund Høst** and **Beatrix Vierkorn-Rudolph** gave their views on the common ground between the two policy bodies in the data management area, and this was confirmed also during the panel discussion that followed, where the new e-IRG Blue Paper on Data Management was highlight-

ed that will try to match the requirements of the ESFRI cluster projects and the major e-Infrastructure data projects.

In the conclusions of the panel the importance of best practices such as GEOSS (The Global Earth Observation System of Systems), ICSU World Data System, International Polar Year (IPY) and PANGAEA (Data Publisher for Earth & Environmental Science) were highlighted.

Furthermore, important steps on the road towards a GRDI ecosystem were underlined such as getting all major stakeholders together, promoting and training new professional profiles on data management, providing incentives for data sharing and open access and striking a balance between a user oriented policy makers-oriented approach.

All material is available under <http://bit.ly/rsQw8G>



EUDAT - towards a collaborative data infrastructure

The EUDAT project was launched on the 1st of October 2011. Project Manager Damien Lecarpentier describes the aims of the project and reflects on the relation to e-IRG.

What is the main objective of EUDAT? The EUDAT project was launched to target a pan-European solution to the challenge of data proliferation in Europe's scientific and research communities through the deployment of a Collaborative Data Infrastructure (CDI). Although research communities from different disciplines have different ambitions, particularly with respect to data organization and content, they also share basic service requirements. This commonality makes it



Damien Lecarpentier, Project Manager EUDAT

“Through its network of high level national delegates, the e-IRG is uniquely placed to generate reliable information on what is happening in the different countries, and provide a pan-European expertise on many issues which are key for EUDAT”

possible to establish generic pan-European services designed to support multiple communities, as part of this CDI. Building this common layer of generic and cross-disciplinary data services is precisely the focus of EUDAT.

What kind of services will EUDAT deliver? EUDAT has selected nine core service areas that have been identified as essential for the different research communities, and for which corresponding services can be designed to support multiple communities: federated AAI technologies, data access and upload, long-term preservation, persistent identifier service, workspaces, web execution and workflow services, monitoring and accounting services, network services, and metadata. EUDAT will select mature technologies in each area to foster quick start-up where possible, and aims to deploy a first set of services in 2012, as part of its distributed infrastructure. We anticipate that some services will support a broad range of communities,

while others will only be of interest to a small subset of communities or disciplines. This flexibility allows an incremental approach, where initial and associate communities are taken into account step by step.

Who is involved in the project? The EUDAT consortium comprises 25 European partners, including data centers, technology providers, research communities and funding agencies from 13 countries. It includes key representatives from research communities in linguistics (CLARIN), earth sciences (EPOS), climate sciences (ENES), environmental sciences (LIFEWATCH), and biological and medical sciences (VPH), all of which have been allocated project resources to help specify their requirements and co-design related services. Other communities have joined EUDAT as associate members, representing 15 research disciplines across all major fields of science.



What is unique with the project? EUDAT is unique in many ways, but perhaps its cross-disciplinary dimension is what singles it out in the data landscape. EUDAT aims to offer generic services across disciplines, i.e. services that can be shared and used by several disciplines. The consortium also reflects this objective and is also unique because it brings together service providers and users that are directly associated in the design of services. We believe that this is the only way to achieve true cross-disciplinary services that match the needs of the communities.

What is the critical success factor? Building the CDI will require active collaboration between all actors, and in particular between the communities involved in designing specific services and the data centers willing to provide generic solutions. We must also plan, from the very beginning, the evolution and sustainability of the infrastructure. Among other things, this implies early definition of future partnership and business models for adopting, supporting and sustaining common

services developed for, and partly operated by, the different research communities. To achieve this, we first need to show that our service approach is feasible; therefore the design and deployment of the early services will be critical for the success of the project.

In what way can e-IRG contribute to build this to the production of a Pan-European Collaborative Data Infrastructure? e-IRG has played a crucial role in building the case for a pan-European data infrastructure and promoting the concept of a shared infrastructure. Indeed, one of the recommendations of the e-IRG Blue Paper 2010 was to identify and promote common long term data services across research infrastructures in Europe, which is now being taken up by EUDAT.

Through its network of high level national delegates e-IRG is uniquely placed to generate reliable information on what is happening in the different countries, and provide a pan-European expertise on many issues which are key for EUDAT, such as governance and funding models for research data infrastructures, national roadmaps for research data, etc. EUDAT would be keen on collaborating further with e-IRG on these topics.

Download the e-IRG recommendations 2011

The 7th e-IRG White Paper was published in July 2011. It addresses some of the most interesting questions related to new and on-going e-Infrastructure challenges by treating seven topics carefully chosen by the e-IRG delegates. The recommendations document presents the White Paper 2011 recommendations by type of stakeholder preceded by a short description of each topic.

Five categories of stakeholders have been defined: Governments, The European Commission, e-Infrastructure Providers, Users of e-Infrastructures and ESFRI.

Download the document [here](#).



e-IRG Recommendations 2011
Based on the
e-IRG White Paper 2011



PRACE awarded 812 million core hours for Tier-0 and Tier-1 resources



PRACE, the Partnership for Advanced Computing in Europe, granted 721 million compute hours on the PRACE Tier-0 systems for twenty-four European research projects in its latest call for Project Access.

A total of 53 applications requesting 1.687 million compute core hours were received in this call, for one year resource allocations on the PRACE Research Infrastructure. The projects were chosen for their high level of scientific and technical maturity, expected impact, and demonstrated need for Tier-0 resources.

The projects are from the following scientific areas: astrophysics, chemistry and material science, medicine and life sciences, engineering and energy, fundamental physics and mathematics. All proposals underwent a peer review process governed by the PRACE Access Committee including PRACE technical assessment.

PRACE also awarded 91 million processor core

hours in the latest DECI (Distributed European Computing Initiative) call. In this call, access was granted on Tier-1 systems to thirty-five projects.

The successful DECI-projects will be led by researchers from 19 European countries with collaborators from the USA and Canada. The call was oversubscribed by more than a factor of 2.5. Due to the excellent quality of the proposals, the contributing partners increased the resources offered to the call by 11% over the original commitment; however this still meant that many good projects could not be granted resources.

A new call for PRACE Tier-0 and Tier-1 systems was opened on 2nd of November, 2011. This call is the fourth PRACE call for Project Access, inviting applications for high-end (Tier-0) computing resources

to carry out projects which have high scientific quality and impact. Allocation will be for 1 year starting from 1st of May, 2012.

The call also invites proposals for project access to Tier-1 resources, via DECI, providing single project cross-national access to national (Tier-1) HPC-resources.

The call is open until 10th of January 2012.

More information about applying for PRACE resources is available at: www.prace-ri.eu/hpc-access

Anni Jakobsson, CSC





Towards a sustainable EGI ecosystem

The digitalisation of research in all disciplines is happening at a very high speed and we are expecting a real data deluge with the advent of the new research infrastructures (e.g., see ESFRI roadmap). Providing researchers with integrated services for long-term collaboration in seamless environments is vital and e-infrastructures are key to enable this to happen.

The European Grid Infrastructure (EGI) is one of the major e-infrastructures for the ERA. EGI developed in the last decade as a partnership of widespread resource centres, thanks to a series of EU-funded projects. Ensuring its long-term presence is vital for the benefits of the e-Research in Europe, and for this reason EGI has evolved into a federation of national research providers able to

deliver distributed e-resources to users.

To guarantee sustainability, EGI needs to have a clear vision of all its stakeholders and how they interact with each other. The EGI ecosystem is composed by:

- 1) EGI.eu, the coordinating body of the infrastructure; oversees the delivery and quality of services;
- 2) Resource Centres, or sites, the providers of the actual computing resources;
- 3) Resource Infrastructure Providers (RiPs), National Grid Initiatives (NGIs) or EIROs that federate sites under their influence;
- 4) Virtual Research Communities (VRCs), structured end-user communities who access distributed resources;
- 5) End-users, consumers of EGI's e-resources;
- 6) Technology Providers, open-source or commercial software providers that deliver technology to RiPs or VRCs.

To sustain EGI services, all entities in the ecosystem need to be sustainable: the failure of one could mean the failure of the ecosystem as a whole. For this reason, we have started to explore possible business models to see how each entity can create,

deliver, and capture value sustainably. The EGI business models are not aiming for 'profit' - they apply known business methodologies to find a way for covering the costs of maintaining the ecosystem alive.

The first EGI Sustainability plan was published earlier this year [1] followed by a survey to NGIs and a sustainability workshop held at the last EGI Technical Forum [2]. If you are part of the EGI ecosystem or you would like to contribute to the discussion, do not miss the chance to attend the next Community Forum in Munich (26-30 March 2012) [3] and contribute to shaping the future of EGI.

[1] EGI Sustainability plan - <http://go.egi.eu/313>

[2] EGI Sustainability Workshop - <http://go.egi.eu/egitf11-sustainability-workshop>

[3] EGI Community Forum 2012 - <http://cf2012.egi.eu/>

Sergio Andreozzi, Policy Development Manager, EGI.eu





Summary EuroRis-Net workshop 11th October 2011 Athens, Greece



The final EuroRIs-Net workshop "Research infrastructures at the heart of the Innovation Union: Current challenges for national & regional stakeholders" was organized at 11th October 2011, in Athens, Greece, by the National Documentation Centre (EKT/NHRF), project coordinator. A poster session was organized at the exhibition area, offering the opportunity to disseminate information on Research Infrastructures (RIs) projects (ESFRI, networks of RIs providing transnational access opportunities and e-infrastructures).

Mr Christos Profilis, from the Research Infrastructures Unit, DG Research and Innovation, made the opening address, stating the principle goals of the workshop. During the event, the outcomes of the EuroRIs-Net project were presented, stressing the added value, as well as the emergence of new opportunities for RIs, which have been further promoted through the networking, collaboration and exchanges of good practice among national RIs NCPs. Moreover, an open dialogue

was established between RIs (including e-RIs) stakeholders on the synergistic and complementary funding of RIs as well as on international experience and the involvement of industry, through specific paradigms and round table discussions.

The Workshop's presentations are currently available from the project website; www.euroris-net.eu. The presentations will subsequently be transferred to a new website platform, with expanded functionalities.

Over 120 participants from 30 countries, the network of RIs NCPs and other FP7 NCP networks, representatives of national and regional authorities, major research institutions in Europe, international science and technology organisations and associations, research infrastructure operators, the private sector and broader scientific and engineering communities attended the event.

The EuroRIs-Net+ project will continue the capacity building activities for European National Contact Points for

Research Infrastructures and will develop activities for dialogue with the RI ecosystem in order to systematically increase awareness of RIs usage opportunities and support partnering activities.

Furthermore, the RIs NCP Network will undertake Observatory actions in relation to European Commission and national Research Infrastructures policies, programmes and initiatives. With the RIs Knowledge Repository and Stakeholders' forum due to be developed, the intensive collaboration between all the stakeholders involved is keenly expected to be a successful and fruitful experience.

Dora Farmaki, EKT/NHRF



NEWS AND UPCOMING EVENTS

Cloudscape 4, Advances on Interoperability and Cloud Computing Standards
Brussels, Belgium, 23-24 February 2012

<http://www.sienainitiative.eu>

International Symposium on Grids and Clouds (ISGC) 2012
Taipei, Taiwan, 26 February-2 March

<http://event.twgrid.org/isgc2012/>

Open Grid Forum 34,
Oxford, UK, 12-14 March 2012

<http://www.gridforum.org/OGF34/>

e-IRG delegates meeting, by invitation
Copenhagen, Denmark, 20 March 2012

<http://www.e-irg.eu>

ICRI2012, by invitation
Copenhagen, Denmark 21-23 March 2012

<http://www.icri2012.dk>

EGI Community Forum
Garching-Munich, Germany 26-30 March 2012

<http://cf2012.egi.eu/>

PRACE 4th Industrial seminar
Bologna, 16-17 April 2012

<http://www.prace-ri.eu/>

e-IRG workshop and meeting
11-13 June 2011

<http://www.e-irg.eu>

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