e-IRG releases White Paper 2011

The 7th White Paper of the e-Infrastructure Reflection Group is now released! It addresses some of the most interesting questions related to new and on-going e-Infrastructure challenges, such as:

-How do we deal with the increasing energy demands of computing?
-What software is needed to fully harness the power of future HPC systems?
-What are the appropriate governance models for e-Infrastructures?
-How can we facilitate access, discovery and sharing of large and diverse sources of scientific data?
-How can we further advance research networks, and adopt and implement new e-Infrastructure services?

Seven topics have been carefully chosen by the e-IRG delegates. Innovation is the common thread throughout the document and special emphasis has been put on *governance of e-Infrastructures*. The number and size of e-Infrastructures are growing. Are the governance models currently used sufficient to guarantee their future? Who should be the players in the governance model besides the service providers: the governments, the private sector, the user or a combination of these?

"Existing e-Infrastructures need to look with a critical eye at their current governance model when preparing for innovation" says **Rosette Vandenbroucke**, White Paper editor and e-IRG delegate.

The White Paper 2011 also reflects upon the future role and development of *Research networks,* which are so well established that we run the risk of forgetting to think about their future. The White Paper highlights this issue and gives recommendations for national and international policy makers for the further advancement of research networks.

Another important topic covered is the sound development of *Authentication, Authorisation and Accounting*. AAA requires the adoption of new visions to realise the interworking and sustainability of the e-Infrastructure ecosystem.

Energy and Green IT in the context of e-Infrastructures also deserves a chapter of its own. Efficient energy use, green energy, cheap energy, and energy consumption by ICT are daily topics on many management agendas - and is cheap energy compatible with green energy?

Supercomputing is not at a stand-still and continues its spearheading innovation. Countries and companies strive to own or build the most powerful supercomputer. But can we go from T-flops to P-flops and can we really and efficiently use such a computing power? Does a software revolution need to take place before supercomputing can make a leap forward?

Services are another part of e-Infrastructures of growing importance. Users might not be interested in the pure infrastructure part but rather in the services that are provided by the e-Infrastructures. Which services should be delivered and with what quality?

Finally, the intriguing topic **Data infrastructures** is addressed, with a few recommendations for the setup of European data infrastructures.

"The e-IRG White Paper 2011, especially the written recommendations in the end of every chapter, should be taken into consideration by governments, in particular ministries responsible for research, funding agencies and the European Commission. It is however also of interest to individual researchers and users of e-Infrastructures as an incentive to let their voices be heard", **Rosette Vandenbroucke** concludes.

Welcome to visit the e-IRG website http://www.e-irg.eu/publications/white-papers.html to access the e-IRG White Paper 2011. Please note that you will be redirected to a minimal survey page before downloading the document. A summary of comments gathered during the White Paper consultation phase in spring 2011 is also available on the website.

More information on e-IRG can be found on the e-IRG website www.e-irg.eu
You can also contact the e-IRG secretariat: secretariat@e-irg.eu