

## **Research Councils UK: UK e-Science Programme Press Release**

### **Achievements, challenges and new opportunities: Fifth UK e-Science All Hands Meeting 18-21 September 2006, East Midlands Conference Centre, Nottingham**

The UK e-Science Programme is undergoing a transition which is reflected in the theme of this year's All Hands conference - achievements, challenges and new opportunities. Many early projects have completed and their results are now being consolidated and moving into new areas. Presentations at the event will range from completed activities to the challenges for new areas; from blue-skies research to industrial take-up of prototype technologies.

Highlights include:

- e-Science is moving into the arts and humanities. Over the summer, the Arts and Humanities Research Council held a series of seminars to explore how e-Science tools can be used in the arts and humanities. The results will be presented at a special session.
  
- Medical applications. Presentations will cover:
  1. how e-Science techniques can enable the sharing of medical data while preserving patient confidentiality and so contribute to improved treatment and research;
  2. the use of grid technology to perform very large simulations of the heart during irregular heartbeat;
  3. the use of grid technologies to marshal distributed digital resources in the fight against cancer.
  
- Building an e-infrastructure. Special sessions will highlight how the Joint Information Systems Committee (JISC) is taking forward the development of the infrastructure needed to do e-Science, building on earlier work by the e-Science Core Programme.

The conference is a forum for all e-Science researchers, developers and users, no matter what their discipline. Sessions will address key grid middleware issues, as well as scientific applications, including how to make e-Science usable, integrating data on the grid, virtual research environments, text and data mining, security, visualisation on the grid, and ontologies and the semantic web. e-Science results and achievements will be demonstrated at a major exhibition throughout the week.

Keynote speakers include:

- Malcolm Atkinson, UK e-Science Envoy “e-Science: Achievements, Challenges and new Opportunities”
- Robert Gurney, Director, Environmental Systems Science Centre “The NERC e-Science experience”
- Michael Fulford, Professor of Archaeology, University of Reading “Silchester Roman Town: the challenges, aspirations and experience of developing a Virtual Research Environment for Archaeology”
- Dan Atkins, Director of the Office of Cyberinfrastructure, National Science Foundation “The NSF vision of Cyberinfrastructure supporting e-Research, e-learning and engagement”
- Stephen Emmott, Director European Science Programme, Microsoft Research “Some brief notes on ‘Science towards 2020’”
- David de Roure, Head of Grid and Pervasive Computing in the School of Electronics and Computer Science, University of Southampton “e-Research the JISC way”

The conference is organised by the National e-Science Centre (NeSC), co-sponsored by the e-Science Core Programme and the JISC. To attend or for further information please email: Judy Redfearn [judy.redfearn@epsrc.ac.uk](mailto:judy.redfearn@epsrc.ac.uk) or Alison McCall, [alison@nesc.ac.uk](mailto:alison@nesc.ac.uk)

**Conference website <http://www.allhands.org.uk/>**

**Contacts:**

Judy Redfearn, e-Science/Research communications officer, JISC/e-Science Core Programme e-mail: [judy.redfearn@epsrc.ac.uk](mailto:judy.redfearn@epsrc.ac.uk) tel: 07768 356309

Alison McCall, NeSC Project Officer, National e-Science Centre, email: [alison@nesc.ac.uk](mailto:alison@nesc.ac.uk), tel: 0131 651 4783

**Notes for editors**

1. e-Science refers to the science that can be done when researchers have access to resources held on widely-dispersed computers as though they were on their own desktops. The resources include very large digital data collections, very large scale computing resources and high performance visualisation.
2. A computing grid allows these different resources to work together seamlessly across networks, enabling people to share resources and

form virtual organizations. The vision is to facilitate collaborative working by making computing power as easy to access over the grid as electricity is over the power grid.

3. The UK e-Science Programme is a coordinated initiative involving all the Research Councils and the Department of Trade and Industry. The Engineering and Physical Sciences Research Council manages the e-Science Core Programme, which is developing generic technologies, on behalf of all the Research Councils and the research communities they support.
4. The UK e-Science Programme as a whole is fostering the development of IT and grid technologies to enable new ways of doing faster, better or different research, with the aim of establishing a sustainable, national e-infrastructure for research and innovation which meets the aims of the government's Investment Framework for Science and Innovation 2004-2014. e-Science and the e-infrastructure are thus contributing to the economic success of the UK.
5. Further information at [www.rcuk.ac.uk/escience](http://www.rcuk.ac.uk/escience) and the individual research councils.
  - i. Arts and Humanities Research Council (AHRC)  
[www.ahrc.ac.uk](http://www.ahrc.ac.uk)
  - ii. Biotechnology and Biological Sciences Research Council (BBSRC) [www.bbsrc.ac.uk](http://www.bbsrc.ac.uk)
  - iii. Council for the Central Laboratory for the Research Councils (CCLRC) [www.cclrc.ac.uk](http://www.cclrc.ac.uk)
  - iv. Economic and Social Research Council (ESRC)  
[www.esrc.ac.uk](http://www.esrc.ac.uk)
  - v. Engineering and Physical Sciences Research Council (EPSRC) [www.epsrc.ac.uk](http://www.epsrc.ac.uk)
  - vi. Medical Research Council (MRC) [www.mrc.ac.uk](http://www.mrc.ac.uk)
  - vii. Natural Environment Research Council (NERC)  
[www.nerc.ac.uk](http://www.nerc.ac.uk)
  - viii. Particle Physics and Astronomy Research Council (PPARC)  
[www.pparc.ac.uk](http://www.pparc.ac.uk)
6. JISC is a joint committee of the UK further and higher education funding bodies and is responsible for supporting the innovative use of information and communication technology (ICT) to support learning, teaching, and research. It is best known for providing the JANET network, a range of support, content and advisory services, and a

portfolio of high-quality resources. Information about JISC, its services and programmes can be found at <http://www.jisc.ac.uk/>

7. Development of the tools and technologies for e-Science are a subset of JISC's 'e-Research' activities. In 2002, it established its Committee for Support of Research to fund projects that establish best practice and develop prototype services and tools for the research community. JISC's funding of development projects therefore complements the research councils' funding for research projects.
8. Activities jointly supported by the Research Councils and JISC include UKLight, the national switched circuit optical network, and the joint Security Task Force which is looking into e-Science security.
9. The National e-Science Centre (NeSC) delivers national services for the UK

e-Science programme. NeSC runs national and international meetings and workshops for the e-Science development community, including the annual UK

e-Science All Hands Meeting. Through the GridNet programme, NeSC provides funds for UK researchers to participate in standardisation efforts such as GGF and OASIS. NeSC is the first affiliate member of the National Grid Service (NGS) and is one node of the NGS Grid Operations and Support Centre. [www.nesc.ac.uk](http://www.nesc.ac.uk)