



[http://www.helmholtz.de/en/News/Press\\_releases\\_2007/01.18\\_Helmholtz\\_Expanding\\_university\\_networks.html](http://www.helmholtz.de/en/News/Press_releases_2007/01.18_Helmholtz_Expanding_university_networks.html)

## Expanding university networks

**18 January 2007. The Helmholtz Association of German Research Centres is strengthening its networking activities with higher education institutes by founding ten new Virtual Institutes. This new type of collaboration, not limited to a physical location, pools the expertise of partners in order to tackle key research issues. The Virtual Institutes will be funded for a period of three years, each receiving €300,000 from the President's *Impuls- und Vernetzungsfonds* (impetus and networking fund).**

"Virtual Institutes have proved to be highly successful. Some of these initiatives now form the core of large networks," explained Prof. Jürgen Mlynek, President of the Helmholtz Association. Following two calls for proposals in 2003 and 2004, 65 Virtual Institutes are now working with over 150 partners from 51 different universities. They will be supported over the next three years with a total of €46 million in funding. A large part of the money benefits the universities themselves.

"We are able to fund more Virtual Institutes thanks to the increased budget which the federal and state governments have granted us as part of the Research and Innovation Pact," says Mlynek. One of the obligations of the pact is that the Helmholtz Association continue expanding collaboration with universities. Following the success in 2006, calls for proposals will be made for ten further Virtual Institutes in both 2007 and 2008. To acquire a stronger international profile, the Association will channel its energies particularly into attracting partners from around the globe.

Scientists and academics from the participating organisations work together within a Virtual Institute on agreed projects with clearly defined research targets. One of these targets is to join forces in acquiring third-party funds, another is to promote the next generation of researchers in all departments and organisations. Every Virtual Institute develops a management structure and has a spokesperson to represent it externally. Further information is available at [www.helmholtz.de/Virtuelle\\_Institute](http://www.helmholtz.de/Virtuelle_Institute)

The following Virtual Institutes were granted funding in the last call for proposals:

### 1. Research Field - Energy: Advanced ECRH for ITER

Topic: Development of microwave heating for the ITER international fusion power reactor

Responsible Helmholtz centre: Max-Planck-Institut für Plasmaphysik, Garching

Spokesman: Prof. Hartmut Zohm

Participating universities: Stuttgart, Karlsruhe, Russian Academy of Science, Nizhny Novgorod (Russia), Institute of Plasma Physics, Milan (Italy)

### 2. Research Field - Earth and Environment: Aerosol Cloud Interactions

Topic: The role of aerosols in ice formation in clouds and climate models

Helmholtz centre: Karlsruhe Research Center

Spokesman: Prof Thomas Leisner

Universities: Mainz, Frankfurt/Main., Heidelberg, University of Hertfordshire (UK), Tel Aviv University (Israel)

### 3. Research Field - Earth and Environment: Virtual Institute for Portable NMR

Topic: The development of portable NMR spectroscopy methods for studying the



#### Contact

Thomas Gazlig,  
Dipl.-Biol./Dipl.-Journ.  
Helmholtz Association  
Communications and  
Media  
Anna-Louisa-Karsch-Straße  
2  
10178 Berlin  
Fon +49 30 206329-54  
Fax +49 30 206329-60  
thomas.gazlig [at]  
helmholtz.de

hydrological cycle and water use in ecosystems  
Helmholtz centre: Jülich Research Center  
Spokesmen: Prof. Ulrich Schnurr, Prof. Peter Blümler  
Universities: RWTH Aachen University, Universität Würzburg, Wageningen University (Netherlands)

#### **4. Research Field - Health: German Network for System Genetics**

Topic: Genetic bases for susceptibility to infection and disease  
Helmholtz centre: Helmholtz Centre for Infection Research, Brunswick  
Spokesman: Prof. Klaus Schughart  
Universities: Hanover, Munich, Lübeck, Bonn, TU München, HU Berlin, Universiteit van Amsterdam

#### **5. Research Field - Health: Helmholtz Virtual Institute of Neurodegeneration & Ageing**

Topic: The origins of neurodegenerative diseases such as Alzheimer's and Parkinson's linked to the ageing process  
Helmholtz centre: GSF- National Research Center for Environment and Health, Neuherberg  
Spokesman: Prof. Wolfgang Wurst  
Universities: Munich, TU München

#### **6. Research Field - Key Technologies: High Productivity Supercomputing**

Topic: Creating a scalable development environment for analysing performance and errors in supercomputing applications  
Helmholtz centre: Jülich Research Center  
Spokesman: Prof. Dr. Felix Wolf  
Universities: RWTH Aachen University, TU Dresden, University of Tennessee

#### **7. Research Field - Key Technologies: Improving Performance and Productivity of Integral Structures through Fundamental Understanding of Metallurgical Reactions in Metallic Joints**

Topic: Understanding and monitoring processes which have an impact on the manufacture and assembly of modern lightweight construction materials in order to develop new materials of higher standard  
Helmholtz centre: GKSS Research Center  
Spokesman: Dr.-Ing. Jorge F. dos Santos  
Universities: TU Berlin, RU Bochum, Cranfield University (UK)

#### **8. Research Field - Structure of Matter: Nano-Scale Imaging Using Coherent Hard X-rays**

Topic: Development of new methods for three-dimensional nano-scale structural analysis using hard X-ray lasers  
Helmholtz centre: German Electron Synchrotron (DESY)  
Spokesman: Prof. Tim Salditt  
Universities: Göttingen, TU Dresden

#### **9. Research Field - Structure of Matter: Spin and Strong QCD**

Topic: Investigating the strong interactions between sub-atomic particles  
Helmholtz centre: Jülich Research Center  
Spokesman: Prof Ulf-G. Meißner  
Universities: Bonn, INFN Ferrara (Italy), Cracow University of Technology (Pland), University of Turin (Italy)

#### **10. Research Field - Transport and Space: Design of Safety Critical Automotive Systems**

Topic: Developing driver assistance systems which reflect human requirements  
Helmholtz centre: German Aerospace Center  
Spokesman: Dipl.-Ing. Jürgen Rataj  
Universities: Oldenburg, TU Braunschweig

The **Helmholtz Association** contributes to solving major challenges facing society, science and the economy with top scientific achievements in six research areas: Energy, Earth and Environment, Health, Key Technologies, Structure of Matter, Transport and Space. With 25,000 employees in 15 research centres and an annual budget of approximately 2.2 billion euro, the Helmholtz Association is Germany's largest scientific organisation. Its work follows in the tradition of the great natural scientist Hermann von Helmholtz (1821-1894). [www.helmholtz.de](http://www.helmholtz.de)

[▶ Back to overview](#)

---

© 2006 Helmholtz Association