

Brussels, 28 April 2006

EU and China to link up high-speed electronic networks for an open exchange among their best researchers and students

Communication and collaboration among 45 million researchers and students across Europe and China will be greatly facilitated by a new Sino-European high-speed network connection announced today. Co-funded by the European Union, China and European National Research and Education Networks, the €4.15 million ORIENT (Oriental Research Infrastructure to European NeTworks) project will benefit all Sino-European research, including radio astronomy, sustainable development, meteorology, and grid computing, by helping to step up the flow of information between Europe and China. The ORIENT project is supported by the EU's 6th Research Framework Programme.

"ORIENT enables truly international research co-operation, by making geographic location almost irrelevant", commented Information Society and Media Commissioner Viviane Reding. "Access to applications such as telemedicine, digital libraries and e-learning will help the general public, as well as the research community, to build academic and cultural links between Europe and China and an open exchange of opinions and expertise between Chinese and European researchers. And at the same time, ORIENT will bring together the world's best minds to tackle global challenges such as climate change and sustainable development."

ORIENT will connect Europe's GÉANT2, the world's most advanced international research and education network (see [IP/05/722](#)) and the Chinese research networks CERNET and CSTNET on an overland route via Siberia. Scheduled to go live later in 2006 it will link over 200 Chinese universities and research institutions, at speeds of up to 2.5 Gbps. It will be co-ordinated by research networking organisation DANTE in Europe and the CERNET network in China.

The ORIENT launch follows Commissioner Reding's meeting with Mr Xu Guanhua, Minister of Science and Technology of the People's Republic of China, in Beijing in January 2006. At the meeting both sides agreed that e-infrastructure (advanced networking and Grid technologies) and its applications would play a key role in economic and social development and acknowledged the high importance of bilateral cooperation. Commissioner Reding, during her visit in China, had emphasised the importance of cooperation among researchers and students for the development of open societies.

The project began on 1 March 2006 and will run for three years. Funding of the link will come from 3 sources: 50% of the project cost will be provided by CERNET (from the Chinese Ministries of Education, and Science and Technology respectively), 25% from the European Commission and the final 25% contributed by Europe's National Research and Education Networks (NRENs).

A number of Sino-European research projects have already been established and are looking forward to use the ORIENT connection. EUChinaGrid will extend the European grid infrastructure for e-Science to China, supporting the international extension of the European Research Area (ERA). The EXPReS radio-astronomy project will see European radio telescopes connected to partners in China.

ORIENT will provide a complementary service to TEIN2, the Asia-Pacific research network which went live in December 2005. TEIN2 links ten countries, including China, at speeds of up to 622 Mbps, fostering regional collaboration. Each network will benefit from the connectivity provided by the other, increasing capacity and providing backup links in the event of failure.

In addition to DANTE and CERNET, the project is supported by several European NRENs, namely GARR (Italy), DFN-Verein (Germany), RENATER (France), UKERNA (UK), GRNET (Greece) and CESNET (Czech Republic).

About CERNET

CERNET provides Internet services for Chinese universities, institutes, schools and other non-profit organisations, reaching over 200 sites in 31 provinces in mainland China. CERNET also has several other global connections to North America, Asia and the Pacific, encompassing about 1,300 universities and institutions and about 15 million end users. CERNET provides a national network platform on which many large national network technology projects are carried out and also supports many applications, including on-line recruiting for over 1,500 universities, distance learning, digital libraries, grid computing, video conferencing and voice over IP solutions.

About DANTE

DANTE is a non-profit organisation whose primary mission is to plan, build and manage research and education networks on behalf of Europe's National Research and Education Networks. Established in 1993, DANTE has been fundamental to the success of pan-European research and education networking. DANTE operates GÉANT2, which provides the data communications infrastructure essential to the success of many research projects across Europe.

DANTE is involved in initiatives worldwide to interconnect countries in other regions to one another and to GÉANT2. DANTE is currently managing initiatives focused on the Mediterranean, Latin American and Asia-Pacific regions through the EUMEDCONNECT, ALICE and TEIN2 projects respectively. For more information please visit: www.dante.net/orient

Further information on GÉANT 2 :

<http://www.geant2.net>

<http://www.geant2.net/media>

http://europa.eu.int/information_society/research/index_en.htm

See also [MEMO/05/205](#)