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Press release1

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European Union and China to cooperate on material sciences

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On 22 October, the EU Research Commissioner, Philippe Busquin, and the Chinese Minister for Science and Technology, Xu Guanhua, will sign a cooperation agreement² in the field of material sciences. This agreement will facilitate the participation of Chinese research organisations, including companies, in European research projects with Chinese funding and vice versa.

The impact of this agreement will go beyond the current European research programmes as it is preparing the ground for greater cooperation under the next Framework Programme 2002-2006. Indeed, it aims at:

- promoting Chinese participation in European projects on material sciences;
- promoting European participation in Chinese projects in the same area;
- supporting training and information activities (conferences, workshops, etc);
- exchanging scientific and technological information in this field.

Material sciences are key to the evolution towards the next generation of products and production processes. In the future materials will be 'intelligent' and serve several functions, leading to more efficient products and services.

On 22 October, Mr Busquin and Mr Xu Guanhua will also discuss the future of China-EU scientific cooperation within the context of the European Research Area and the New Framework Programme 2002-2006, and the preparation of a China-EU Science and Technology Forum that is due to take place in Beijing in 2002.

A political objective

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From a technical point of view the agreement is in fact an 'implementing arrangement' within the framework of the scientific cooperation agreement signed by the two parties on 22 December 1998 which entered into force on 14 December 2000.

International scientific cooperation, in particular with Europe, is one of the major priorities for China (see attachment). It contributes to the necessary opening of the country to the outside world and to its integration in the world. From the EU's point of view, the agreement provides access to a high-level scientific and technological expertise and should create markets for the research to be carried out.

However, despite the agreement which entered into force nearly two years ago, the current degree of cooperation does not reflect the real potential existing on both sides. Today, less than a dozen European projects involve Chinese partners while only one Chinese project, which is in the area of nanotechnologies with German and Dutch participation, involves EU partners.

Nevertheless, under the 'Research for development' programme, which is part of the Fifth Framework Programme, 6 new projects with Chinese participation were selected last year and 17 new contracts with Chinese partners are to be signed soon

To publicise information on European programmes, a China-EU science and technology office (CECO) has been set up in Beijing, financed partly by the Chinese Ministry of Science and Technology (MOST) and partly by the Commission. Conferences and workshops are being organised, and MOST will automatically finance the participation of any Chinese scientist in an EU-funded project.

China is today interested in cooperation in both material sciences (it has huge resources of raw materials and is one of the biggest producers of materials in the world), and production technologies, in particular traditional and transport technologies. On the other side, Europe has a technological leadership in material sciences and many development possibilities in this sector.

Research areas covered by the agreement include basic generic material technologies, improvement of the limits and the durability of materials, advanced functional materials, sustainable production in the chemical industry and nanotechnologies.

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Science and technology in China

- The Chinese research potential includes 515 000 researchers (compared with 700 000 in Europe), of whom 37% work in research centres (7 000 in total), 26% in the production industry and 31% in higher education institutions.
- Within the national plan for mid- and long-term development of science and technology (1990-2000-2020), two major programmes have been implemented to promote cutting-edge research.
- Given the state-of-the-art of science in China and Europe, sectors particularly suitable for cooperation include: environment, new materials, measurements and standardisation, energy, telematics, life sciences, communication technologies and services, audio-visual, satellite applications, activities of the Joint Research Centre, information technologies.
- At the second meeting of the committee responsible for the implementation of the scientific and technological agreement, which was held in June 2001, and thanks to a more targeted and strategic dialogue, four thematic priorities were identified for greater China-EU cooperation: environment, biotechnology - including science and society issues - nanotechnologies and information technologies.