

# Science, Research and Innovation: Co-operation between the European Union, Member States and China

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Compiled by the Delegation of the European Union to China  
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## FOREWORD

### **Research and innovate with Europe**

Science, technology and innovation form an important part of the EU-China relationship. Collaborations are underway between two sides on global challenges such as climate change, new and renewable energies, and health. With new ideas and innovative solutions, our societies can become more prosperous and inclusive. EU and Chinese scientists should continue and strengthen their collaborations to tackle issues of common interest and mutual benefit, help share the risks involved, and make science, research and innovation proceed more rapidly and more cost-effectively.

Science and innovation are now high on the European and Chinese agendas, in the EU 2020 strategy and the 12<sup>th</sup> Five-Year Plan respectively, offering many opportunities to work together even more. We are already making good progress: The EU and China agreed at their 14<sup>th</sup> Summit in February 2012, to broaden our exchange in science and technology towards innovation. The recent establishment of an EU-China 'High-Level People-to-people Dialogue' is also expected to foster more connections between our students and young-people, as well as our scientists for the longer term. And, our 'Partnership on Urbanisation' will channel our co-operation in this mega-trend taking place in China.

In Europe, we believe that research and innovation hold the key to economic growth. To achieve our goals for smart, sustainable and inclusive growth, international co-operation, including with China, will remain a priority in the EU's 'Horizon 2020' (2014 to 2020) Programme for Research and Innovation. Moreover, with the majority of European research funding being at the Member State level, the breadth of the bilateral engagement with China is evident in research collaborations, joint laboratories, innovation activities, as well as scientific exchanges in key priority areas. And there is scope in the coming years to do more in a more co-ordinated and unified way as Europe with China to achieve greater scale and impact.

I welcome this brochure as an illustration of the richness of our scientific and innovation ties with China. It is my hope that it will serve not only as a reference resource but encourage more EU-China scientific relations as China grows into a major science power. China and the EU are now more interconnected than ever and, as we focus on the future and work together, this can only benefit the prosperity and wellbeing of our societies.

#### **Markus Ederer**

Ambassador, Delegation of the  
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## INTRODUCTION

China is making tremendous efforts to advance in science, technology and innovation and places this at the heart of its economic development strategy. In 2011, R&D intensity in China reached 1.83%. Europe is a key partner for China in science, technology and innovation: Europe's tradition and excellence in sciences as well as its education systems attract many scholars and research collaborations between both sides. For the years to come, more targeted co-operation with China, as equal partners will be sought based on experiences gained to date in this longstanding relationship. Joint EU (Commission) plus EU Member States Science, Technology and Innovation activities vis-à-vis China should also be developed.

### Synthesis: Member State and Commission co-operation with China

This brochure represents information received by the EU Delegation S&T Section during spring 2012 from a majority of EU Member State embassies. It is meant to provide a general overview of activities and perspectives for the future. It is a non-exhaustive picture but should nevertheless provide useful insights. Information was requested on the following points:

- **Co-operation Framework (e.g. bilateral agreements):** Bilateral agreements (e.g. new agreements/focus)? Who are the Chinese/European counterparts? How often are any steering committees held?
- **Priorities:** Is there a national strategy to S&T with China? What are the priority fields of bilateral cooperation?
- **Joint Institutes/laboratories:** Are there new joint institutes and/or laboratories? If yes, in which research fields?
- **Innovation-related activities:** Is there a bilateral innovation dialogue or exchange mechanisms? Are there specific programmes and joint funding? Are there priority fields?
- **Mechanisms: initiatives and programmes:** Mechanisms for co-operation or innovation activities (e.g. joint calls, programme-level cooperation, etc.)? Are there any future plans to indicate?
- **Trilateral or multilateral joint initiatives:** Is this approach used? Or do you see scope for this, in which areas?
- **Further information on Science, research and innovation:** useful websites or contact details

The main conclusions that we can draw from the information gathered are that the vast majority of Member States (MS) have signed a **bilateral S&T agreement** with the Chinese Ministry of Science and Technology (MoST) that frames the relationship. **Joint committees** take place on a regular basis to define priorities, usually every two years. There are also a number of agreements or activities carried out with other Chinese S&T governmental ministries or agencies, including the National Science Foundation of China (NSFC) the Chinese Academy of Sciences (CAS) the Chinese Academy of Agricultural Sciences (CAAS) and also the Ministry of Education (MoE). While much collaboration is through national level institutions, many scientific activities are also carried out between research organizations in a more decentralised way.

There are many synergies in the priorities for co-operation with China. Of the collaborative research areas in the EU's 7<sup>th</sup> Framework Programme (FP7), the majority are also the subject of co-operation at bilateral level. The table shows the priorities indicated by MS, although these areas may also be those in which bottom-up collaboration is also intensive. Three MS have indicated they have a national **strategy** for S&T with China (Denmark, France and Sweden).



**Table: Indicated priority areas of co-operation<sup>1</sup>**

	Energy	Environment	Health	ICT	Food, Biotech Agriculture	Materials	Space	Social Sciences	Transport
BE					■		■		
CR		■			■	■			
DK	■	■	■	■	■	■			
DE	■	■	■	■	■	■	■	■	■
EE			■			■		■	
EL	■	■	■		■				■
ES	■	■	■	■	■	■			■
FR	■	■	■	■	■	■	■	■	■
IT	■	■	■		■	■	■	■	■
LT	■	■		■					
HU		■	■		■	■			
NL	■		■		■			■	
A	■	■	■	■	■	■			■
PL	■				■			■	
SI	■	■	■	■	■			■	
FI	■	■	■	■	■	■		■	
SE	■	■	■	■	■	■	■	■	■
UK	■	■	■	■	■	■	■	■	■
EC	■	■	■	■	■	■	■	■	■
<b>Total</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>11</b>	<b>17</b>	<b>13</b>	<b>7</b>	<b>11</b>	<b>9</b>

**Joint institutes** / laboratories are an important feature of EU-China S&T co-operation at EU MS level. Some 12 MS have established joint laboratories in some form or another (Belgium, Denmark, Germany, Spain, France, Italy, Lithuania, Hungary, Netherlands, Austria, Finland, and the UK). These joint structures may take different forms, are concentrated on a range of specific fields of research and are mostly located in second-tier cities at specialised research centres. **Innovation co-operation** takes different forms between European countries and China. There are some recent examples of formal dialogues on innovation at the ministry-level (MoST) such as Germany and the UK, and there are other MS who have undertaken co-operation in this area through co-operation in science parks (Belgium, France), mutual learning, conferences (Sweden), or project-level actions (EC). In total, innovation activities were indicated by 11 MS, including Denmark, Spain, Italy, Lithuania, Netherlands, Finland, and the UK.

There are a range of **mechanisms for co-operation**: joint projects being the most common (some 17 MS). The interlocutors include MoST, NSFC and CAS as well as CAAS. Other mechanisms for co-operation are scientific exchanges, conferences, workshops and researcher mobility<sup>2</sup>. There is interesting evidence of **trilateral co-operation** with China: Spain and Denmark have established a relationship in energy and Germany and Finland have a successful mechanism for trilateral projects in basic research. The European Commissions (EC) INCO-LAB project is a new initiative to broaden European participation in an existing laboratory. There is scope for more co-ordination and synergies and the prospects for this kind of activity can be supported through a variety of mechanisms.

<sup>1</sup> This table may reflect not only national R&D priorities, but also those of specific research institutions.

<sup>2</sup> Brochure on EU-China mobility schemes is available here (copy-paste the link):

[http://eeas.europa.eu/delegations/china/documents/eu\\_china/science\\_tech\\_environment/funding\\_guide\\_for\\_european\\_researchers\\_in\\_china.pdf](http://eeas.europa.eu/delegations/china/documents/eu_china/science_tech_environment/funding_guide_for_european_researchers_in_china.pdf)



**INFORMATION ON BILATERAL AGREEMENTS**

- Belgium has a very decentralised scientific co-operation with China. Most projects do not fall under any federal-level framework. Three bilateral agreements between Belgium (at Federal and Community level) and MOST have been renegotiated in June 2010 during the China-Belgium Joint Commission. Joint Commissions at different levels will take place in June and December 2012.

**PRIORITY FIELDS OF CO-OPERATION**

- Polar research
- Food safety
- Animal pandemic
- Climate change and biodiversity (Federal level)
- Biotechnology
- Microelectronics (Flanders and French-Speaking Community)

**JOINT INSTITUTES**

1. IMEC/Zhangjiang Hi-tech Park/Huali on Nanoelectronics
2. Scientific park level cooperation between Dong Hu Scientific Park (Wuhan) and SPOW.

**MAIN INITIATIVES AND PROGRAMMES**

The main actors on Belgian side are BELSPO (Belgian Federal Science Policy Office), FWO (Research Foundation – Flanders), FNRS (Fonds de la Recherche Scientifique), WBI (Wallonie-Bruxelles International), VITO (Flemish Institute for Technological Research; independent technology institute), VLM (Flemish Land Agency)

**1. Polar research**

- A number of MOUs have been signed between Belgium (BELSPO, Fondation Polaire Internationale) and China (China Arctic & Antarctic Administration, State Oceanic Administration), most recently in 2011, to strengthen scientific and logistic cooperation in polar research topics. Mechanisms of cooperation will be further defined in 2012, during which a workshop and a meeting of the parties will take place. Main fields of activity: climate, marine biodiversity, terrestrial biodiversity, glaciology and climate, marine climate.

**2. Scientific cooperation with the National Natural Science Foundation of China**

- The FWO and the National Natural Science Foundation (NNSF) of China work together in order to promote scientific collaboration between Flanders and China. The part of the research funding financed by FWO can be applied for by researchers from postdoctoral level upwards who are affiliated to a Flemish university. The research must be fundamental in nature. These exchange projects usually run for two years.
- FNRS also has developed cooperation programmes with NNSF.

**3. Bilateral Scientific Cooperation with the Chinese Ministry of Science and Technology**

- MOST cooperates with FWO and WBI on new research projects in biotechnology, microelectronics and agronomy. Researchers at the level of a professorship are eligible for



project funding. An annual budget of 300,000 EURO is made available for these joint projects on the FWO side.

- MOST cooperates with BELSPO on food safety, climate change and biodiversity (2011-2013 programme).

#### **4. Air quality Modeling Projects**

**VITO** has led a number of projects on air quality modeling over the last few years, including monitoring air quality for Beijing Olympic Games. Partners where Yangzhou Environmental Protection Bureau, ESA, Shenyang Environmental Monitoring Center and many others.

BELSPO cooperates with MOST, the Institute of Atmospheric Physics, CAS and the Belgian Institute for Space Aeronomy (BIRA) on the evaluation of the role of biogenic VOC emissions on air quality in China. Period: 2011-2013.

#### **5. Remote sensing projects**

Vito develops remote sensing projects, notably on design of monitoring tools for desertification and land cover changes in North West China, agri-environmental monitoring using satellite data in Harbin, crop growth monitoring in Hubei, integrated water resources management in Xinjiang.

#### **6. Land development and management projects**

- Since 2004 the Flemish Land Agency (VLM) started a cooperation with the Land Consolidation and Rehabilitation Centre (LCRC), Ministry of Land and Resources (MLR) in Beijing. Supported by the University of Ghent (UGent) and China Agriculture University(CAU) the VLM elaborated a project on the technological exchange of integrated land use planning supported by land evaluation and land rehabilitation. In the frame of the United Nations Development Programme the VLM recently participated, together with LCRC - MLR; LCRC Hainan and LCRC Guizhou, Environment & Sustainability European Foundation (ESEF), in the EU – China biodiversity programme “Integration of biodiversity into China’s land use planning and land consolidation”.
- Together with LCRC the VLM established in Belgium a training program in land consolidation and rural development.
- Currently the VLM, UGent, CAU, LCRC, Institut für Gemüse – und Tierpflanzenbau, Germany (IGZ), Sol Agro et hydrosystèmes Spatialisation, France (INRA), Nanjing Agricultural University, China (NAU), Northwest Agriculture and Forestry University, China (NWFU) & Warwick Crop Centre, United Kingdom (WCC) have submitted the proposal soilnet concerning the establishment of a network of international knowledge exchange in sustainable and integrated soil management.
- The VLM has also agreements with the province of Hebei, Henan and Xining city (Qinghai province), in the field of land consolidation, land management, land use and farmland protection with integration of biodiversity.

#### **7. Cooperation with the Chinese Scholarship Council (CSC) and higher education institutions**

- CSC has agreements with the Flemish region, the French-speaking Community of Belgium (WBI) and the FNRS.



- Those agreements aim at promoting and encouraging cooperation in the fields of research and higher education between university level institutions.
- For WBI, the following fields are prioritized: Chinese studies, French language and French-speaking cultures, law, european studies, economics and management, ICT, agriculture, life sciences and health, new materials, nanotechnology, energy, environment, aeronautics, aerospace, logistics and transport
- More than 50 agreements, conventions or joined collaborations have been made or reiterated between the 5 most important Walloon and Brussels's Universities and more than 40 Universities around the People's Republic of China, in 2011.

#### **8. Other various agreements and cooperation schemes**

- BELSPO has a post-doc fellowship mobility programme open to Chinese experienced experts (yearly call for submissions).
- FWO launched a new postdoc programme (incoming mobility) called "Pegasus" in 2011.
- There are numerous other cooperations by FNRS, FWO and the other Belgian institutions, amongst others with the CAS, CASS, CAMS and others.
- In 2011, BioWin the Walloon Competitiveness Cluster in life sciences has signed an agreement with the Juke Biotech Park (Shanghai)
- Since 2010, the Wallonia Foreign Trade and Investment agency (AWEX) has an agreement with the Wuhan International Business Incubator which hosts the Welcome Belgium Office
- A new public service called "Platform for Innovation China-Wallonia" has been launched and aims at promoting Wallonia technological innovations in China through technology transfer partnerships



**INFORMATION ON BILATERAL AGREEMENTS**

- The Czech-Chinese bilateral R&D cooperation is developed within the framework of the Agreement between the Government of the Czech Republic and the Government of the People's Republic of China on Scientific and Technological Cooperation, signed in Prague on June 1<sup>st</sup>, 1995.
- The implementation bodies of the Agreement are the Ministry of Education, Youth and Sports on the Czech side and the Ministry of Science and Technology on the Chinese side.
- The Czech-Chinese Joint Committee for Scientific and Technological Cooperation meets every 2 years. Its forthcoming meeting will be held in Prague in April 2012.

**PRIORITY FIELDS OF CO-OPERATION**

- There is no specific national strategy for Czech-Chinese R&D cooperation. However, most of the joint research projects supported from the funds of the Ministry of Education, Youth and Sports and the Ministry of Science and Technology are natural and technical sciences oriented.

**JOINT INSTITUTES**

- There are no Czech-Chinese joint research institutes or laboratories financed from the funds of the Ministry of Education, Youth and Sports.

**MAIN INITIATIVES AND PROGRAMMES**

- The Ministry of Education, Youth and Sports and the Ministry of Science and Technology announce the call for Czech-Chinese joint research project proposals every 2 years. Joint projects developed in the fields of fundamental and applied research with the implementation period of 2 years are being supported.
- The eligible applicants in the Czech Republic are public universities, public research institutes, other entities that can be classified as research organizations, and small and medium sized enterprises.

**INFORMATION ON BILATERAL AGREEMENTS**

- In May 2009 DASTI and Innovation and Technology Commission, Hong Kong signed a Memorandum of Understanding. The focus is primarily on natural science disciplines and public private cooperation. The MoU is a result of the activities at the Danish Innovation Center in Shanghai. It aims at strengthening the strategy for China and already existing contacts with Universities and Science parks by increased focus on China's southern provinces.
- Bilateral meeting with MOST in spring 2012.

**PRIORITY FIELDS OF CO-OPERATION**

- In September 2007 a Memorandum of Understanding (MoU) was signed between the Danish Ministry for Science, Technology and Innovation (MSTI) and the Ministry of Science and Technology of the People's Republic of China (MOST) on scientific and technological cooperation. The principal objective of the MoU is to facilitate broad opportunities for scientific and technological cooperation between the two countries, thereby promoting areas of research of mutual benefit.
- More specifically, priority is given to collaboration that can advance science and technology, notably within the research areas of mutual interest, such as a) biotechnology and -medicine, b) agricultural and food technology, c) clean and renewable energy, d) nanoscience and -technology, e) health and traditional Chinese medicine application and f) information and communication technology. Also in September 2007, the Danish Ministry for Science, Technology and Innovation and the Danish Ministry for Foreign Affairs opened *Innovation Center Denmark* in Shanghai. As is the case for the Innovation Center Denmark in Silicon Valley and in Munich, Innovation Center Denmark in Shanghai is one of the direct results of the globalization strategy designed by the Danish government in 2006 to help achieve the ambitious objective of becoming one of the leading knowledge-based nations in the world by 2015.
- The mission of the center is to build bridges between research institutions and companies in Denmark and in China and thereby to strengthen the access to a foreign knowledge centre of high quality. Innovation Center Denmark in Shanghai is furthermore appointed to the task of assisting in filling out the framework of the bilateral agreement on science and technology between China and Denmark.
- In February 2008, the Danish Ministry for Science, Technology and Innovation furthermore published a strategy for knowledge-based collaboration between Denmark and China. With the launch of the strategy, Denmark intends to facilitate Sino-Danish collaboration and to encourage individual universities and companies in Denmark and China to use the framework of the bilateral agreement to conclude concrete agreements on projects and talent exchange. In addition to targeting the existing lines of action and block grants, the Danish Ministry for Science, Technology and Innovation therefore aims to contribute to a number of new initiatives to support the cooperation within the prioritized areas.



## FORMS OF COLLABORATION

- In order to secure the optimal implementation and the progress of cooperative activities within the framework of the MoU, the parties have agreed to set up a *Joint Coordinating Committee (JCC)* consisting of an equal number of representatives from each country. The responsibility of the JCC is to promote, develop and review cooperative activities within the framework of the MoU and furthermore to advise the MSTI and the MOST on ways to enhance the scientific cooperation between China and Denmark – also as regards scientific and technological collaboration between Denmark and China.
- It is the intention that the JCC replaces the existing Sino-Danish Committee for Scientific and Technological Cooperation (cf. below). As goes for the Danish part of the JCC, the representatives will also be responsible for the promotion, the development and the monitoring of cooperative activities within the framework of the China-strategy.
- The following forms of collaboration are accordingly initiated:

### **1. Open call for the cultivation of new research collaboration initiatives between Denmark and China.**

The Ministry of Science, Technology and Innovation will focus on the cultivation and support of new possibilities of bilateral collaboration. Thus it is intended to support smaller-scale initiatives seeking to establish contact and to identify the potential for collaboration between public and private researchers in Denmark and China. Through a call open to Danish scientist wishing to establish or enhance their collaboration with Chinese partners, financial support will specifically be granted to thematic workshops, symposia, conferences etc. that facilitate the interaction between researchers in Denmark and China.

### **2. Innovation Center Denmark as a promoter of Sino-Danish knowledge-based collaboration between companies and research institutions**

The mission of the Innovation Center Denmark in Shanghai is to build bridges between research institutions and companies in Denmark and in China and thereby to strengthen the access to a foreign knowledge centre of high quality. Limited funding is accordingly provided to network activities.

### **3. Establishment of a Sino-Danish Center for Advanced Education and Research in China**

In order to enhance the visibility of Danish research-based advanced education in China, the Ministry of Science, Technology and Innovation is, in collaboration with Danish universities, exploring the possibilities for establishing a Sino-Danish Center for Advanced Education and Research in China. The center could function as visible and accessible platform for interaction with Chinese knowledge institutions and authorities. The center could be organized, for instance, as a joint venture between the eight Danish universities, a Chinese university as well as a number of research institutions and approved technological service institutes. Such collaboration would generate the necessary critical mass while combining the positions of strength of the various institutions. In addition to the actors mentioned, Danish and Chinese industry could make contributions to the center in the form of funding and offer internships and collaboration with regard to the contents of the program.

## FUNDING



- The MoU is a framework agreement encouraging individual research institutions in China and Denmark to develop scientific collaboration. Within the framework of the MoU earmarked funding has not been set aside by the MSTI and the MOST. Rather, expenses related to the activities undertaken within the framework will be borne by the individual participating research institutions. It is, however, the aim of the Danish Ministry for Science, Technology and Innovation to increase the amount of earmarked funding for international and bilateral cooperation, hereunder the collaboration with China.
- In 2008 and in order to facilitate and support the initiatives for a strengthened collaboration between Danish and Chinese research institution, the Danish side expects to initiate initiatives that can be financed via funds earmarked for international collaboration as part of the block grant for globalisation. The relatively modest means will be targeted at network activities organised in cooperation with Innovation Center Denmark in Shanghai and the Joint Coordinating Committee. In the years 2009-12 the lines of action of the China-strategy are expected to be financed through the establishment of a fund earmarked for bilateral cooperation. Following negotiations with the parties in the Danish Parliament, this appropriation is expected to come out of the unallocated reserve of the globalization fund for the period 2009-12.
- In addition to abovementioned ongoing initiatives and based on the MoU and the China strategy, the Danish side of the JCC wishes to emphasise the following priorities and activities to be carried out in 2008-2010:

## **MAIN INITIATIVES AND PROGRAMMES**

### **1. Block grants to promote joint research collaboration between strong research and innovation environments in Denmark and China.**

- Strong relationships between researchers constitute another cornerstone of increased knowledge-driven collaboration between Denmark and China. Research collaboration creates a critical mass of infrastructure and talents and lays the foundation for exchange of knowledge and know-how. The Ministry of Science, Technology and Innovation have provide earmarked subsidies of 2,5 million Euro in each year from 2009 to 2011 for collaboration, joint professorships and networking between powerful public and private research environments in Denmark and China within prioritized fields.
- These subsidies will be allocated as block grants to existing groups of researchers and innovation networks in the two countries that are already subsidized as far as the domestic part of their activities is concerned. Thus the funds will be targeted on the costs of the groups' mutual cooperation only, and this will create a good basis for quickly achieving concrete results from their collaboration.

### **2. Collaboration between the Danish Council for Strategic Research and MOST**

- In 2009 the Danish Council for Strategic Research, in association with MOST, launched and implemented a joint research programme within sustainable and renewable energy.
- The initiative is directly in line with the Danish strategy for knowledge-based collaboration between Denmark and China and was set up in order to increase the Sino-Danish research collaboration to mutual benefit of the parties.



- In 2009 DKK 19 mio was allocated to the initiative from the Danish side, DKK 15 mio of which came from the Danish Council for Strategic Research's Programme Commission for Sustainable Energy and Environment. DKK 4 mio comes from the Danish Ministry of Science's internationalisation pool with MOST having allocated a corresponding amount.

### **3. Collaboration between the Danish National Research Foundation and the National Natural Science Foundation of China**

- In January 2008, a Memorandum of Understanding (MoU) was signed between the Danish National Research Foundation (DNRF) and the National Natural Science Foundation of China (NSFC) on scientific cooperation within the fields of life sciences, natural sciences and engineering. The guiding principal of the MoU is to promote cooperation in the area of joint research where this seems desirable and where the available resources permit.
- Within the framework of the MoU, the DNRF and the NSFC establish joint calls for research projects between Danish and Chinese partners within thematically and jointly prioritised scientific fields. The aim is to launch a call each year. Within each call (the first call on *Nano Research Collaboration* was published in spring 2008) the two foundations will support 1-3 project proposals for a 3 year period with the possibility of extension for up to 3 years. The DNRF will fund the Danish groups and the NSFC will fund the Chinese groups. The DNRF is willing to grant the selected projects 10-15 million DKK each (1.3 million – 2.0 million EUR, conversion rate 2008), including overhead.
- Furthermore and ahead of the joint call, the two foundations arrange a symposium on the thematically and jointly prioritised scientific field.



**INFORMATION ON BILATERAL AGREEMENTS****1. Bilateral agreement between the Federal Republic of Germany and the People's Republic of China on Scientific and Technological Co-operation (WTZ) was signed in 1978.**

- The S&T commission meets at intervals of generally two years and coordinates the scientific and technological co-operation. The next meeting is planned for the second half of 2012.
- Beside the S&T commission there are nine steering committees for the coordination of specific fields of the scientific and technological co-operation. The committees hold their meetings on average every two years either in China or Germany.

**2. First intergovernmental consultations between Germany and China were held in June 2011. In the framework of the consultations five agreements were signed between BMBF and MoST/MoE:**

- **Innovation Platform for Innovation (MoST):** Participants of the platform include leading scientists, institutions and companies of both countries who/which are engaged in the respective innovation systems. The core thematic areas of the platform cover innovation research, innovation consultancy, foresight projects, innovation policy and state innovation promotion through successful mechanisms.
- **Innovation Platform for Life Sciences (MoST):** This platform shall provide a comprehensive, stable and sustainable coordination mechanism for the promotion of bilateral cooperation in the field of life sciences. The platform shall serve as a solid foundation for important actors in life sciences both in China and Germany to coordinate their activities. Furthermore, the platform shall engage in new and innovative topics in life sciences and their further development both in theoretical, scientific and technological innovation and production innovation.
- **Research and innovation programme Clean Water (MoST):** BMBF and MoST in cooperation with additional partners intend to develop sustainable water management systems for China. This initiative shall establish a long-term partnership to promote scientific excellence and training opportunities within scientific and innovative projects. In the meantime, a network for future scientific and research cooperation shall be developed.
- **Vocational training (MoE):** The Sino-German Alliance for Vocational Training was established to promote and coordinate cooperation and to increase the cooperation capacity. The alliance shall serve as an open and overarching platform for various sectors and industries.
- **Strategic partnership in higher education (MoE):** The partnership aims to promote the Sino-German cooperation between higher education institutions and to expand the exchange of scientists and students.

**PRIORITY FIELDS OF CO-OPERATION**

Apart from the areas of the governmental agreements listed above, BMBF is, among others, also actively engaged in the following thematic fields:

- Information and communication technologies
- Biotechnology, in particular Innovation Platform Life Sciences
- Protection of cultural property
- Environmental technologies and ecology (e. g. Clean Water Programme)



- Marine science and technologies
- Geo-sciences
- Innovation
- electromobility

## INNOVATION-RELATED ACTIVITIES

- **Innovation Platform for Innovation (MoST):** In the framework of the Innovation Platform for Innovation, an annual conference on innovation shall ensure the knowledge exchange between both sides. The launch of the platform and the first conference took place in September 2011 in Beijing, China. The next conference is scheduled for autumn 2012 in Berlin.
- **High level participation in Pujiang Innovation Forum:** The Pujiang Innovation Forum, established in 2008, is intended to be a top-level international forum dedicated to innovation strategy and policy research supported by the Ministry of Science and Technology and Shanghai Municipal Government. The State Secretary of BMBF, Dr. Schuette, delivered an opening speech at the forum in 2011. Germany has been invited as a guest of honour to the Pujiang Innovation Forum 2012.

## MAIN INITIATIVES AND PROGRAMMES

### Information and Communication technologies

- **Joint Institute:** Sino-German Joint Laboratory of Software Integration Technologies (SIGSIT) in Beijing is a joint institute by Fraunhofer society and CAS. The institute develops next generation software integration technologies in innovative solutions. These solutions are deployed for customers from industry and government on the intelligent Internet 3, including the fields content management, communication management, integration management and time management. The focus ranges from government, business and coordination management to people and infrastructure.
- **Sino-German Joint Institutes for Information and Communication:** The Sino-German Joint Software Institute (JSI) in Beijing and the German-Sino Mobile Communication Institute (MCI) in Berlin perform joint Chinese-German research activities. The collaboration is supported by the Ministry of Science and Technology (MoST), China and the Federal Ministry of Education and Research (BMBF), Germany.

### Biotechnology

- **Exchange programme** of post docs with Chinese Scholarship Council (CSC) based on joint financing. Till end of 2011 total 11 post docs (7 Chinese and 4 German post docs) have been supported.
- **Programme of young talents groups:** 6 bilateral young talents groups have been selected in 2010. Research fields of these young talents groups are biotechnology of foods & plants, bioinformatics, adult stem cells and regenerative medicine.
- **Joint Institute:** Chinese Academy of Science (CAS) and Max Planck Society (MPG) Partner Institute for Computational Biology, Shanghai. The institute focuses on the interface between theoretical and experimental molecular and cell biology. The Partner Institute also works closely with experimental and biomathematics research institutes in China and Germany, as well as in other countries. The institute has teaching and educational functions and exchanges students and scientists with the leading institutes in the field both in China and abroad to ensure the growth and future of the institute.



- **Innovation Platform for Life Sciences (MoST):** This platform provides a comprehensive, stable and sustainable coordination mechanism for the promotion of bilateral cooperation in the field of life sciences.

#### **Protection of cultural Property**

- **Sino-German co-operation in cultural property protection projects:** Technical University of Munich, Heidelberg Academy of Science and Roman-German Central Museum along with their Chinese partners, Museum of the Terracotta Army of the Emperor Qin Shihuang, Archeological Institute of the Province Shaanxi, Center for Restoration and Conservation of Cultural Property in Xi'an, Chinese Academy for Cultural Heritage and Museum Chengdu, focus on the development and application of new technologies for the restoration, protection and documentation of archeological cultural property.

#### **Environmental technologies and ecology**

- **BMBF funding initiative** for research and development projects in the area of "International Partnerships for Sustainable Technologies and Services for Climate Protection and the Environment" (CLIENT) under the "Research for Sustainable Development" (FONA) framework programme. The aim of the funding measure is to introduce model projects to help establish and expand international partnerships in research, development and application of environmental and climate protection technologies and services and to trigger the development of lead markets in this area. The above-mentioned research and innovation programme Clean Water is part of CLIENT.

#### **Marine science and technologies**

- **Joint Institute:** Center for Sino-German Cooperation in Marine Sciences (SGMS), Ocean University of China, Qingdao, University of Bremen, Center for Marine Tropical Ecology (Bremen), University of Kiel, Ifm-GEOMAR Kiel.

#### **Geo-sciences**

- **Central Asia - Monsoon Dynamics and Geo-Ecosystems:** The research consortium consists of the German Research Society, the University of Tübingen and the BMBF on the German side and the Chinese Academy of Sciences (CAS) with its Tibet Institute, the National Natural Science Foundation of China (NSFC) and MoST on the Chinese side. This programme focuses on research and development questions of global significance such as monsoon dynamics and climate change. It is the German contribution to the international programme „Third Pole Environment“ which was initiated by China with participation of numerous countries.

#### **Megacities**

Two cooperative projects with Chinese partners are funded by the **BMBF “The Sustainable Development of the Megacities of Tomorrow”** initiative. The goal of the Future Megacities programme is to create good or even best practice examples for sustainable urban development.

- **Urumqi:** RECAST Urumqi - Meeting the Resource Efficiency Challenge in a Climate Sensitive Dryland Megacity Environment - Urumqi as a Model City for Central Asia. The objective of the transdisciplinary project is to develop strategies and tools for the sustainable development of a rapidly expanding metropolis in arid central Asia (Urumqi/NW China), so as to promote and guarantee current and future quality of life in this urban area.
- **Hefei:** Metrasys - Mega Region Transport Systems for China. The METRASYS project concentrates on Hefei, the capital of Anhui Province, China. In close cooperation with the Chinese local partners, the German project partners aim to analyze the current planning processes for the city development and transportation and to implement up-to-date traffic management systems.



## **Sustainable Land management**

Under the **Framework Programme “Research for Sustainable Development” (FONA)** contributing to the solution of global problems, the German Federal Ministry of Education and Research (BMBF) has established the research programme **“Sustainable Land Management”**. Under this scheme two joint projects are conducted in co-operation with Chinese Partners.

- **The joint project SURUMER** is in the specific focal research point on “Interaction between land management, climate change and ecosystem services”. The different joint projects are overall coordinated and accompanied by the project GLUES (Global Assessment of Land Use Dynamics, Greenhouse Gas Emissions and Ecosystem Services) at the Helmholtz Centre for Environmental Research (UFZ) in Leipzig.
- **The joint Project SuMaRiO** with its overarching goal to support oasis management along the Tarim River under conditions of climatic and societal changes. More than 30 Chinese and German project partners are involved in this project.

## **Electromobility**

- In 2010 a MoU for scientific cooperation in the field of e-mobility has been signed between the BMBF and MoST. Furthermore the association of German Technical Universities and a group of Chinese Universities under the leadership of the Tongji University has signed a MoU in the field of basic e-mobility research. Several joint research projects in the field of basic research for e-mobility are funded by BMBF and MoST.

## **General Programmes of German Research Organisations and Institutes:**

- Mobility programmes for students, PhD-researchers, post docs and senior scientists
- Scholarship programmes
- Cooperative research projects
- Joint Institutes

## **JOINT INSTITUTES**

- Centre for Sino-German Cooperation in Marine Sciences (SGMS) at Ocean University of China, Qingdao. German projects partner are: University of Bremen, Centre for Marine Tropical Ecology (Bremen), University of Kiel, Ifm-GEOMAR Kiel.
- Chinese Academy of Sciences (CAS) and Max Planck Society (MPG): Partner Institute for Computational Biology, Shanghai.
- Fraunhofer Society and CAS: Sino-German Joint Laboratory of Software Integration Technologies (SIGSIT), Beijing.
- Sino-German Joint Institutes for Information and Communication: Sino-German Joint Software Institute (JSI) in Beijing and German-Sino Mobile Communication Institute (MCI) in Berlin
- NSFC-DFG Sino-German Centre for the Promotion of Science, Beijing.
- Chinese-German Campus (CDH), Chinesisch-Deutsches Hochschulkolleg (CDHK) and Sino-German University of Applied Sciences (CDHAW), all at Tongji University, Shanghai. Cooperation of numerous German universities with Tongji University.



## TRILATERAL OR MULTILATERAL JOINT INITIATIVES

- Co-ordination of Research between European and China (CO-REACH): Germany is part of the CO-REACH consortium which aimed to create a network of European S&T policy and funding organisations involved in promoting research co-operation with China. It was supported by the European Commission as an ERA-NET Co-ordination Action. The network was intended to improve coherence and synergy in Europe's S&T relations with China.
- FP7-Projects: Germany is among the EU-Member States with the highest number of projects with Chinese participation in context of the EU Framework Programmes for Research and Technological Development (FP5: 75/420; FP6: 420/2776; FP7 (2008): 102/660).

## FURTHER INFORMATION ON SCIENCE, RESEARCH AND INNOVATION:

- [www.research-in-germany.de](http://www.research-in-germany.de)
- [www.stipendienimpuls.de](http://www.stipendienimpuls.de)
- [www.forschungsportal.net](http://www.forschungsportal.net)
- [www.bmbf.de](http://www.bmbf.de)
- [www.kooperation-international.de](http://www.kooperation-international.de)
- [www.kompetenznetze.de](http://www.kompetenznetze.de)
- [www.fona.de](http://www.fona.de)
- [www.dcjwb.net](http://www.dcjwb.net)
- [www.kisswin.de](http://www.kisswin.de)
- <http://www.helmholtz.cn>
- <http://www.daad.org.cn>
- <http://www.fraunhofer.cn>
- <http://www.sinogermanscience.org.cn>
- <http://www.picb.ac.cn/picb-dynamic/index.htm>
- <http://www.sumario.de/de/news/-/blogs/sumario-project-launch>
- [https://surumer.uni-hohenheim.de/90712?no\\_cache=1&L=1](https://surumer.uni-hohenheim.de/90712?no_cache=1&L=1)



**INFORMATION ON BILATERAL AGREEMENTS**

- The Government of Estonia has signed an agreement with the Government of the People's Republic of China on cultural, educational and scientific cooperation in 1993. There are no regular steering committee meetings.

**PRIORITY FIELDS OF CO-OPERATION**

- Social sciences, physics condensed matter, genetic heredity, optics

**MAIN INITIATIVES AND PROGRAMMES**

- Most of the cooperation is done via the EU Framework programme. Universities are creating direct contacts with partner universities, which would include professor exchange, joint seminars and research cooperation but it is in very early stage yet.

**TRILATERAL OR MULTILATERAL JOINT INITIATIVES**

- The EU Framework programme is used, in the areas of biological and environmental sciences, sustainable development

**INFORMATION ON BILATERAL AGREEMENTS**

- S&T Agreement 2000. The Agreement provides a formal framework in which co-operation arrangements can be developed between scientific institutions, research centres, institutions of higher education and companies in Ireland and China.
- Cooperative activities envisaged include exchange of scientific and technological information and data, exchange of scientists, researchers, technicians and trainees for visits, study tours and advanced studies, organisation of bilateral scientific and technical meetings and joint research on projects of mutual interest.

**NATIONAL S&T STRATEGY WITH CHINA**

- The strategy is part of the overall economic and trade policy for international cooperation.

**PRIORITY FIELDS OF CO-OPERATION**

- The agreement covers all areas. Priority areas will be specified by agreement between the parties

**JOINT INSTITUTES**

- A number of Irish Universities and Institutes of Technology have cooperation arrangements with counterparts in China.

**INNOVATION-RELATED ACTIVITIES**

- These are under development through discussion with Chinese authorities

**TRILATERAL OR MULTILATERAL JOINT INITIATIVES**

- Opportunities in FP7/ Horizon 2020



**INFORMATION ON BILATERAL AGREEMENTS**

- Agreement on S&T Cooperation (1979) between the General Secretariat for Research and Technology (Ministry of Education, Lifelong Learning and Religious Affairs) and MOST.

**PRIORITY FIELDS OF CO-OPERATION**

- Renewable energy sources and energy saving, Agricultural Biotechnology, Environment (natural and cultural), Transport and Communication, Health Sciences (biology, biotechnology). A Joint S&T Cooperation Committee adopts and reviews the working program of the cooperation.

**NEW INITIATIVES AND PROGRAMMES**

1. A Joint Call for Proposals on S&T Projects has been launched on 19.1.2012. Programme funded by NSRF. Programme duration: 2 years. Budget: € 6 mn.
2. The Joint S&T Cooperation Committee should convene within the year and decide upon new initiatives and programmes.

**TRILATERAL OR MULTILATERAL JOINT INITIATIVES**

- Opportunities in FP7/ Horizon 2020

**INFORMATION ON BILATERAL AGREEMENTS**

- Agreement on S&T Cooperation between the Kingdom of Spain and the People's Republic of China, signed in 1985
- Joint declaration on industrial, technological cooperation and cooperation in the fields of telecommunication and Information Society, signed in 2002.
- Joint declaration on facing new challenges in the bilateral relationship which includes promoting further S&T cooperation, signed in 2005
- MoU between China's TORCH and Spain's CDTI signed in 2003, to develop technological cooperation between companies in Spain and China, through projects commonly led to promote the competitiveness of Spanish and Chinese companies.
- MoU between the Ministry of Science and Technology of China (MOST) and the former Ministry of Science and Innovation (Spain) on scientific and technological cooperation, signed in 2011. From December 2011, the responsibilities in science, technology and innovation in Spain have been taken over by the Secretariat of State for Research, Development and Innovation of the Ministry of Economy and Competitiveness.
- MoUs between different research and technology Institutions from Spain and China (National Research Council- CSIC), several Universities and Technology Centers) Governmental Agreement on renewable energies signed by the Spanish Ministry of Industry, Energy and Tourism (MINETUR)

**PRIORITY FIELDS OF CO-OPERATION**

1. Climate change & environmental sciences, low carbon emission industries and the new energy vehicles.
2. New materials, energy research, high-tech manufactures
3. Aviation
4. Pharmaceutical & medicine manufacturing
5. LED Technologies
6. Projects to improve quality of living
7. Human resources, fostering the training of R&D experts, the return to their home country of famous scientists of Chinese origin and the attraction of foreign experts.
8. Market needs analysis to foster investment.

**INSTRUMENTS AND MECHANISMS FOR CO-OPERATION**

- Innovation program established by the Spanish Centre for the Development of industrial Technology (CDTI) and the Chinese institute for High Industrial Technology (TORCH), both organizations stemming from their respective Ministries with responsibilities in science and technology in each country. A CDTI office was opened in Shanghai in 2002.
- Cooperation agreements for joint research and expert's mobility between the Spanish National Research Council (CSIC) and the Chinese CAS and NSFC.



- A MoU has been signed in 2011 between the Academy of Mathematics and Systems Science, the Beijing International Center of Mathematical Research, the Chern Institute of Mathematics and the Instituto de Ciencias Matemáticas (ICMAT-CSIC) for cooperation in the field of Mathematics and its Applications.
- Under an agreement signed by the Spanish Ministry of Industry, Energy and Tourism (MINETUR), the IDAE (Institute for the Diversification and Energy Saving, depending on MINETUR) has signed the Sino-Spanish Cooperation Working Plan on Renewable Energies with the Energy Research Institute of China (ERI), involving the IDAE, the CENER (linked to the MINECO through CIEMAT) and the Spanish Electric Network.
- In 2011 two Forums were celebrated in Beijing: the Sino-Spanish Forum on Renewable Energy, as a joint activity of CIEMAT and the MOST, and the Forum on Technological Cooperation, under the agreement TORCH-CDTI, on biotechnology, food, and tool-machinery.
- Important agreements have been signed to mutually recognize the academic degrees and diplomas issued by the Education ministries of both countries, this measure can help in fostering expert mobility and educational exchanges between research institutions, universities and enterprises.
- Through high level encounters, both countries are trying to design a road map on which to base their S&T cooperation.

In their bilateral relationship with Spain, China is especially interested in joint projects related to renewable energies, and in learning about Spanish renewable energies facilities.

Spain's priorities include fostering exchanges between young scientists and researchers through joint research projects; giving financial support to Spanish organizations which are currently collaborating with China; and fostering and expanding the innovation programme by CDTI.

## **JOINT INSTITUTES**

- More than forty Spanish universities have developed bilateral relations with key Chinese universities and organizations, among them the most active ones in S&T cooperation are: Universidad Politécnica de Valencia, Universidad Politécnica de Madrid y Universidad Politécnica de Cataluña.
- The Spanish CIEMAT and the Chinese Institute for Electrical Research, belonging to the Chinese Academy of Sciences, have an agreement of cooperation for solar energy facilities in Dahan.
- CIEMAT and a Chinese company have made an agreement for the use of a solar application developed by CIEMAT (anti reflex glass).
- The Sino-Spanish Center for the Promotion of the Renewable Energies created with the participation of the Chinese Renewable Energy Society (CRES) and the Association for Sino-Spanish cooperation in Technology and Innovation (CSETI) has received the support of the MINECO in 2011.



- The International Centre for Numerical Methods in Engineering (CIMNE, based in Barcelona, Spain) has created an extension office in Beijing, with the support of the Ministry of Economy and Competitiveness.
- The Spanish National Research Council (CSIC) has made and installed a robotic telescope in the Lijiang Astronomical Observatory (Yunnan), in 2011.
- Spain also has active collaboration in the field of veterinary research, animal health and epidemiology.

#### **TRILATERAL OR MULTILATERAL INITIATIVES**

- Spain cooperated with China in 79 projects within the 6th Europe's Research Framework Programme (FP6), 29 of which are related to information society technologies.
- Opportunities in FP7/ Horizon 2020
- The Spanish National Center for Renewable Energies CENER (Centro Nacional de Energías Renovables) took part in the feasibility study, carried out under the leadership of RISO Denmark, on the creation of the National Center for Renewable Energy of China (CNREC), CENER being a member of the International Advisory Committee, together with Denmark and USA.
- CENER takes part in the Sino-Spanish Cooperation Working Plan on Renewable Energies, an agreement signed between IDEA and ERI.



**INFORMATION ON BILATERAL AGREEMENTS**

- **21<sup>st</sup> January 1978**  
Agreement on scientific and technical cooperation (joint scientific committee)
- **24<sup>th</sup> September 1998**  
Agreement on intellectual property
- **9<sup>th</sup> October 2004**  
Agreement on emerging infectious diseases - MAEE/MOST (meeting every year)
- **1st March 2007**  
Cooperation agreement on Traditional Chinese Medicine - MAEE/SATCM (meeting every year)
- 26 November 2007** (visit of President Sarkozy to China)  
Agreement (between ministries) on sustainable development  
Joint declaration on climate change (between countries, at presidential level)  
Agreement between MOST and French Ministry of economy about the French competitiveness clusters and the Chinese High tech Parks (meeting every year)
- **23 January 2008**  
Agreement between the French funding agency ANR (Agence nationale de la recherche) and the NFSC (one joint call for proposal per year)
- **12 November 2009**  
Memorandum of Understanding between ANR and MOST about green technologies and more specifically water (one joint call for proposal per year)
- **18 November 2009**  
Signature of the agreement for the implementation of Cai Yuanpei, a program created by the French ministries of Foreign and European affairs and for Higher education and research and the Chinese ministry for Education (meeting and joint call for proposal every year)
- **27 September 2011**  
Agreement between Oséo, the French innovation agency, and the Chinese Ministry of Science and Technology (to support joint call for proposals).

**PRIORITY FIELDS OF CO-OPERATION**

- France and China decided in the last joint committee meeting (Paris, 30 May 2011) to reinforce their S&T cooperation on following topics:
  1. Sustainable development, biodiversity and water management;
  2. Green chemistry and green technologies;
  3. Energy;
  4. Life sciences, among them infectious and emerging diseases;
  5. ICT and smart cities,



- 6. Advanced materials.
- A bilateral workshop will be organized for each topic to identify detailed cooperation perspectives and plan actions on the period 2011 - 2014.

## **JOINT INSTITUTES**

- The Joint Institutes cover more or less all fields. French joint labs are “bottom-up”.
- There are also 37 joint labs gathering several French and Chinese labs in all scientific fields (among them 4 in SSH).

### **Joint labs and networks in Life sciences:**

- Sino-French research center in life science and genomics (Shanghai)
- Pasteur Institute – IPS (Shanghai)
- Sino-French oriental center of urology (Shanghai)
- Christophe Mérieux Laboratory – CML (Beijing)
- Sino-French research center for biomedical information - CRIBs (Nanjing)
- Fudan University Shanghai cancer center – Institut Mérieux Laboratory – FDUSCC-IM Lab (Shanghai)
- Sino-French physiology & pathology laboratory (Shanghai)
- Biology laboratory of mammals embryonic cells – LABIOCEM (Beijing)
- Sino-French laboratory of molecular pathology (Shanghai)
- Post-translational modifications in cancer – LIA PMC (Shanghai)

### **Joint labs and networks in Chemistry:**

- LIA XiamENS : NanoBioChem (Xiamen)
- Sino-French joint laboratory: functional organophosphorus material – LIA MOF (Zhangzhou)
- New approaches for water control and sustainable energy by electrochemical biosensors and biofuel cells – GDRI CEEBIO (Changchun)
- GDRI PHENICS (Beijing)
- Eco-efficient products & processes laboratory – UMI E2P2L (Shanghai) (New)
- Joint research institute for science and society – JoRISS (Shanghai)
- Lehn institute of functional materials – LIFM (Guangzhou)

### **Joint labs and networks in Physics:**

- France china particle physics laboratory – LIA FCPPL (Beijing)
- Quantum manipulation of atoms and photons – GDRI QMAP (Shanghai) (New)
- Absorption spectroscopy of molecules of interest for atmospheric sciences and planetology – SAMIA (Hefei)
- Associated international laboratory for material, mechanics, control and information science – LIA 2MCIS (Beijing)

### **Joint labs in Mathematics:**

- Sun Yat Sen University-Ecole Normale Supérieure – SYSU-ENS (Guangzhou)
- Sino-French institute for applied mathematics – ISFMA (Shanghai)
- Sino-French laboratory of mathematics (Beijing)



**Joint labs in ICT:**

- Sino-French laboratory for computer science, automation and applied mathematics – LIAMA (Beijing)
- Sino-French institute for engineering education and research – IEER (Guangzhou)
- Mechatronics laboratory: methods, models and crafts – M3M (Xi'an) (New)
- Cooperation platform “Complexcity” in Shanghai (UTSEUS)

**Others (Environment/Energy/Astronomy/Biotechnology):**

- Monsoon, ocean and climate laboratory – LIA MONOCL (Beijing)
- Laboratory for sustainable energy – LIA LSE (Dalian)
- Laboratory of genomics of cereals and biotechnology (Beijing)
- France-china bio-mineralization and nano-structures laboratory – LIA BioMNSL (Beijing)
- Sino-French joint lab in astronomy – LIA ORIGINS (Beijing)

**Joint labs in SSH :**

- Sino-French center for research and innovation (Chengdu)
- Sino-French center in sociology of organisations (Guangzhou)
- “Centre franco-chinois” (CFC) at Tsinghua University (Beijing)
- Sino-French institute Renmin (Pékin)

**INNOVATION-RELATED ACTIVITIES**

- No specific innovation dialogue, but included in the Sino-French S&T dialogue (joint scientific committee) (established 1978) under which innovation cooperation has been conducted since 2005.
- Agreement between the French competitive clusters (DGCIS – Ministry of Economy, Finances and Industry) and the Chinese science parks (2007)
- Agreement between the French funding agency for innovation (Oséo) and the Torch Center (2010) to support joint projects
- Agreement between Oséo and the MOST (2011) for funding innovative Sino- French projects (ongoing call for projects)
- Sino-French Innovation Forum held every year, alternately in France and China
  - Chengdu in 2010 and Montpellier in 2011
  - Interlocutors: DGCIS – French Ministry of Economy, Finance and Industry and Chinese Ministry of Science and Technology
  - Mains topics: Competitive clusters cooperation, innovative SMEs and Technology transfer
- Priority fields: line above + topics identified during the last joint scientific committee
- More than 50 French companies settled a R&D&I center in China. Others cooperate with Chinese labs. The French Embassy is organizing meetings involving French companies involved in R&D&I in Shanghai, Beijing and Guangzhou (Clubs R&D).



## MAIN INITIATIVES AND PROGRAMMES

- IFCEN (Sino French Institute on Nuclear Energy) located in Zhuhai for training 100-150 engineers every year in the field of nuclear energy
- ECPK (Ecole Centrale de Pékin) located in Beihang University for training 100 engineers every year.
- SIAE de Tianjin for training 80 – 100 students in the field of propulsion, materials and structure, avionics and systems.

## PROGRAMMES CARRIED OUT BY FRENCH EMBASSY

- COOPOL Innovation: This program has been established in 2008 by the Service of Science and Technology (SST) of the French Embassy in China after the signature in 2007 of the agreement between the French competitiveness clusters and the Chinese science parks. Its goal is to facilitate the cooperations between French innovative SMEs of the competitiveness clusters and their research partners with their Chinese counterparts. The program has two parts:
  1. an exploration mission of one week organized by the SST, for two persons (one from the SME, one from the partner research institution), to meet potential collaborators, both academics and industrials ;
  2. a subvention to a R&D collaborative project. This program has been made to support R&D projects and not only commercial projects.
- Cai Yuanpei: Created by the Chinese Ministry of Education and the French Ministries of Foreign and European Affairs and of Higher Education and Research, the Cai Yuanpei program aims at fostering the exchanges of PhD students and their supervisors and related post-docs between the 2 countries. Research cooperation projects between French and Chinese research teams will be selected and financial supports for the travels and stays in the partner country will be provided for 2 full years. All the disciplinary fields are eligible, (Science and Humanities). About 20 new projects are expected to be supported each year.
- Programmes to promote and to prepare new scientific collaborations between France and China (FTI-France Lab, Zhang Heng and Xu Guangqi).
- FTI-France Lab: Programme of identification and follow up of Chinese scientific talents towards public or private french network of research. It grants young Chinese scientists for a short customised trip in French labs.
- Zhang Heng: Programme of identification and follow-up of French scientific talents towards public Chinese network of research. It grants young French scientists for a short customised trip in Chinese labs.
- Xu Guangqi: The goal of the Xu Guangqi programme is to develop collaborations between Chinese and French researchers working in laboratories of both countries by supporting them in their initial phase of launching and development. Mobility of young researchers within the collaborations is particularly appreciated. The program lasts 1 full year. All the disciplinary fields are eligible. It supports more than 40 projects.



- France Excellence: Programme of scholarships for Chinese students going to France for a master.
- SSHN (Séjour Scientifique de Haut Niveau): this program is dedicated to Chinese researchers. It lasts 1 to 3 months in general and enables the beneficiaries to visit French laboratories; meanwhile, it reinforces the co-operation between French and Chinese research teams.
- Aurore program: platform enabling the networking of French and Chinese researchers.

#### **OTHER PROGRAMMES**

- ANR/NSFC: one call for proposal launch per year to support new Sino-French projects. Open international programme but with priorities for 2012 on ICT and Green and Sustainable Chemistry.
- ANR/MOST: ECOTECH, last call for proposal launch in 2011 on Environment technologies.
- A list of funding schemes between France and China is available here: [http://media.enseignementsup-recherche.gouv.fr/file/Travaux\\_rapports/30/7/meneractivitechine\\_191307.pdf](http://media.enseignementsup-recherche.gouv.fr/file/Travaux_rapports/30/7/meneractivitechine_191307.pdf)

#### **TRILATERAL OR MULTILATERAL JOINT INITIATIVES**

- For multilateral, some but they take place in Europe (FAIR, ITER...)
- Regional (Asia) programs between France and Asia, about ICT (ICT Asia) and biological sciences (BIO Asia).

#### **WEBSITES MANAGED BY THE FRENCH EMBASSY**

<http://www.ambafrance-cn.org>  
<http://weibo.com/sciencefrance>

#### **WEBSITE MANAGED BY THE FRENCH MINISTRY OF HIGHER EDUCATION AND RESEARCH**

<http://www.enseignementsup-recherche.gouv.fr/cid56282/les-partenaires-scientifiques-de-la-france.html#asie>



**INFORMATION ON BILATERAL AGREEMENTS**

- The Executive Program on Scientific and Technological Cooperation between Italy and China for the years 2010-2012 is actually in course. The Program includes 10 projects in 6 main fields: Agriculture and Food Safety; Aerospace Activities and Physics; Energy and Environment; Medicine and Traditional Chinese Medicine; Natural Risks Prevention; Technologies for Cultural Heritage Preservation.
- During 2012 will be negotiated and signed the new Executive Program for the next three years period, 2013-2015.
- An agreement between the Italian Committee for Research in Agriculture (CRA) and Chinese Academy of Agricultural Sciences (CAAS) has been renewed on 2011.
- The CNR (Consiglio Nazionale delle Ricerche) has various agreements with Chinese Institutions.
- On 2011 has been signed the bilateral agreement between the Ministry of Innovation and MOST on Sino-Italian Technology Transfer Center in Beijing and Milan, and Sino Italian Design Center in Shanghai.
- On June 2011 has been signed a Memorandum of Understanding on bilateral scientific projects of high relevance between the Ministry of Science and Technology (MOST) and the Italian Ministry for Education, University and Research
- On June 2011 has been renewed the framework agreement between Istituto Nazionale di Fisica Nucleare (INFN, National Institute of Nuclear Physics) and the Chinese Academy of Sciences.
- On December 2011 it has been signed the Framework Agreement between the Italian Space Agency and the China National Space Agency.

**PRIORITY FIELDS OF CO-OPERATION**

- The priority fields are for bilateral cooperation are Agriculture and Food Safety; Aerospace Activities and Physics; Energy and Environment; Medicine and Traditional Chinese Medicine; Natural Risks Prevention; Technologies for Cultural Heritage Preservation.?

**JOINT INSTITUTES**

- A Joint Laboratory for observing cosmic rays has been set up and is operating in Yangbajing (Tibet Aut. Region) between INFN and Institute of High Energy Physics of CAS.
- It is under negotiation the establishment of new joint research centers: joint laboratory on smart grids, joint laboratory on nanotechnologies



#### **INNOVATION-RELATED ACTIVITIES**

- There is a quite strong interaction in the field of innovation which is driven by the Italian Agency for Innovation under the new frame of Italian Ministry of Education, University and Research which manages for the Italian side the Sino-Italian Centers for technological transfer.

#### **TRILATERAL OR MULTILATERAL JOINT INITIATIVES**

- Multilateral initiatives are under the frame of European Union. The EC2 center is part of an important multilateral project on environment which is managed by the Politecnico di Torino. Italian research groups participate also to the INCO-LAB EU programme.



**INFORMATION ON BILATERAL AGREEMENTS**

- Agreement between the Government of the Republic of Lithuania and the Government of the People's Republic of China on scientific-technological cooperation, signed in April, 1992
- Agreement between the Government of the Republic of Lithuania and the Government of the People's Republic of China on Co-operation in the Field of Culture signed in November, 1993

**INSTRUMENTS AND MECHANISMS FOR CO-OPERATION**

- 1. The agreement on scientific-technological cooperation includes following measures:**
  - Exchange of scientific delegations, individual scientists and specialists;
  - Exchange of scientific-technological information and documentation, samples of the materials and products, know-how and licences;
  - Organization of scientific-technological symposiums and scientific conferences;
  - Implementation of joint projects and scientific works, as well as Exchange of the results of researches and scientific works;
  - Other scientific-technological cooperation methods, mutually agreed.
  
- 2. The agreement on cooperation in the field of culture includes the following measures:**
  - Exchange of scientists, teachers, specialists for lectures or study visits;
  - Granting scholarships according to the needs and possibilities of the other side;
  - Support of the direct contacts and cooperation between the universities of both countries;
  - Support and promotion of the participation of scientists and specialists participation in the science conferences held in both countries.

**NEW INITIATIVES**

- Lithuania 's mobile operator *Omnitel*, University of Vilnius (Lithuania) and China's *Huawei Technologies* and the University of Vilnius set up a joint research laboratory in autumn 2011 by signing a cooperation agreement. The laboratory focuses on speech recognition, cloud computing, designing applications and other issues.
  
- Lithuania's NORTHTOWN technology park signed a cooperation agreement with the EU Innovation Center Chengdu EUPIC and Chengdu high-tech industrial park. The main cooperation fields are energy sector, IT, high-tech industries and environmental protection in technologies. Main objectives are active communication, cooperation in innovations, trade and investment and other bilateral cooperation.

**INFORMATION ON BILATERAL AGREEMENTS**

- Bilateral agreement for cultural cooperation signed in 1979 between the People's Republic of China and the Grand Duchy of Luxembourg on co-operation in the fields of culture, arts, science, education and sports. The last five-year executive programme was signed in Beijing on 29 November 2005.

**INSTRUMENTS AND MECHANISMS FOR CO-OPERATION**

- Under this agreement, several agreements have been signed between the University of Luxembourg and Beijing Renmin University, Shanghai Tongji University as well as Shandong University to provide for students' and researchers' exchanges.

**TRILATERAL OR MULTILATERAL INITIATIVES**

- Academic cooperation schemes, not limited to China, all coordinated by the Fonds National de la Recherche (FNR) in Luxembourg
- EURAXESS Luxembourg: Provides research positions & fellowships in Luxembourg; advice & support on mobility to the country <http://www.euraxess.lu/eng/>
- ATTRACT: The ATTRACT programme aims to attract young researchers with a high level of ability in science or technology and proven experience in a professional research context. <http://www.fnr.lu/en/Grants-Activities/Research-Programmes/ATTRACT-Programme>
- PEARL: With the PEARL programme, the FNR wishes to provide the institutions with a proactive means to attract internationally recognised senior researchers who will transfer and establish their research programme in Luxembourg in order to accelerate the development of and to strengthen the national research priorities.
- INTER: The objective of the INTER programme is to develop new international partnerships. The programme aims to facilitate participation in international initiatives for cooperative funding of projects with partners from several countries. <http://www.fnr.lu/en/Research-Programmes/Research-Programmes/INTER-Programme>
- AFR: The 'Aides à la Formation-Recherche' (AFR) scheme provides grants for PhD and postdoctoral research training. <http://www.afr.lu>
- AM2c: The measure "Mobility of Researcher" AM2c allows foreign researchers to come to Luxembourg and researchers from Luxembourg to go abroad for a period of support from 1 month up to 1 year. The stay must be in connection with a research project in collaboration with a Luxembourg research institution or public body and a research institution from abroad. <http://www.fnr.lu/en/Grants-Activities/Accompanying-Measures/AM2c-Mobility-of-Researchers>

**INFORMATION ON BILATERAL AGREEMENTS**

- There is an Agreement on Scientific and Technological Cooperation between the Government of the Republic of Hungary and the Government of the People's Republic of China signed in 2002. For the purpose of implementation of the Agreement, Joint Commission for Scientific and Technological Cooperation is established, which consist of government representatives and experts designated by each party.
- The Joint Commission has a meeting in every two years, last time it was in Budapest in 2010. Its next (6<sup>th</sup>) session is planned to be held in the 2<sup>nd</sup> half of 2012.

**PRIORITY FIELDS OF CO-OPERATION**

- The fields of priority for the bilateral cooperation: natural-, medical-, life-, engineering, agricultural and environmental sciences.

**JOINT INSTITUTES**

- Sino-Hungarian Joint Laboratory of Environmental Science (China University of Geosciences, Wuhan – Eotvos Lorand University, Budapest).

**NEW INITIATIVES AND PROGRAMMES**

- Hoping to develop sizable projects.

**TRILATERAL OR MULTILATERAL JOINT INITIATIVES**

- Working on networking with other EU partners.



**INFORMATION ON BILATERAL AGREEMENTS**

- The following bilateral agreements between the national governments of China and the Netherlands have been signed in the field of science and innovation.
  1. MoU on scientific cooperation and exchange between the Ministry of Education, Culture and Science of the Netherlands with the Chinese Ministry of Science and Technology (2011)
  2. MoU on educational and scientific cooperation and exchange between the Ministry of Education, Culture and Science of the Netherlands with the Chinese Ministry of Education (2011)
  3. MoU on scientific cooperation and exchange between the Ministry of Education, Culture and Science of the Netherlands with the Chinese Academy of Sciences (2011)
  4. MoU on scientific cooperation and exchange between the Ministry of Education, Culture and Science of the Netherlands with the Chinese Academy of Social Sciences (2011)
  5. MoU on cooperation in the field of innovation between the Ministry of Economic Affairs, Agriculture and Innovation of the Netherlands with the Chinese Ministry of Science and Technology (2012)

**JOINT INSTITUTES**

- The following Sino-Dutch research structures have been established in China.

<b>Sino-Dutch Institute</b>	<b>Dutch partner</b>	<b>Chinese partner</b>
Joint Initiative on Internet of Things	IMEC HOLST Center	SIMIT
Dutch Studies Center	Groningen University	Fudan University
ECN Centre for Wind Energy Technology	Energy research Centre of the Netherlands	CAS Institute of Engineering Thermophysics
Sino-Dutch Biomedical and Information Engineering School (BMIE)	Eindhoven University of Technology	Northeastern University
Sino-Dutch Centre for Preventive and Personalized Medicine	Leiden University, Metabolomics Centre	CAS Dalian Institute of Chemical Physics
Sino-Dutch Joint lab of Horticultural Genomics	Wageningen University & Research centre	CAAS Institute of Vegetables and Flowers
TU Delft Beijing Research Centre	Delft University of Technology	CAS Institute of Semiconductors
Tsinghua-Groningen Research Centre for China-EU Relations	Groningen University	Tsinghua University

**MAIN INITIATIVES AND PROGRAMMES:**



1. Joint Scientific Thematic Research Programme (JSTP): supports joint research projects and dialogue seminars between China and the Netherlands.
2. Programme Strategic Scientific Alliances (PSA): supports joint research projects to form long-term strategic scientific alliances between China and the Netherlands.
3. China Exchange Programme (CEP): supports exchanges of senior researchers and joint research projects.
4. NFSC-NWO Joint Research Programme: supports the mobility of Chinese and Dutch researchers and helps to fund joint seminars held in China or the Netherlands.
5. Program of Innovation Cooperation (PoIC): Sino-Dutch partnership in research and innovation - Hé Programme. This pilot programme supports joint research projects between Dutch and Chinese companies and academic research institutions.

**FURTHER INFORMATION ON SCIENCE, RESEARCH AND INNOVATION:**

Ministry of Education, Culture and Science of the Netherlands:

<http://english.minocw.nl/english/science/index.html>

Ministry of Economic Affairs, Agriculture and Innovation:

<http://www.government.nl/issues/entrepreneurship-and-innovation>

Royal Netherlands Academy of Arts and Sciences (KNAW):

<http://www.knaw.nl/Pages/DEF/27/257.bGFuZz1FTkc.html>

Netherlands Organisation for Scientific Research (NWO):

[http://www.nwo.nl/nwohome.nsf/pages/NWOA\\_7Q3RJS\\_Eng](http://www.nwo.nl/nwohome.nsf/pages/NWOA_7Q3RJS_Eng)

Associations of Universities in the Netherlands (VSNU):

<http://www.vsnu.nl/Home-english.htm>

Inventory of Dutch-Chinese Scientific Cooperation:

<http://dcc.nwo.nl/>



**INFORMATION ON BILATERAL AGREEMENTS****1. Bilateral agreement between the Republic of Austria and the People's Republic of China on scientific and technological co-operation (WTZ), was signed 1984.**

- The mixed commission meets every 3 years. The meetings are devoted to an exchange of information on developments in science and technology policies and to the decision on the selection of bi-lateral research projects. The next meeting will be 2012.
- The Austrian Delegation is chaired by the Federal Ministry of European and International Affairs (BMEIA) and the agreement is managed by the Federal Ministry of Science and Research (BMWF). The Chinese counterpart is the Ministry of Science and Technology (MOST).

**2. Cooperation and Memoranda of Understanding between the Federal Ministry of Transport, Innovation and Technology (BMVIT) of the Republic of Austria and the respective counterparts of the People's Republic of China, such as:**

- National Development and Reform Commission (NDRC) on technology-related Cooperation in the Field of Infrastructure, signed 2010
- Ministry for Transport (MOT) on the technology-specific Cooperation in the Fields of Road, Civil Aviation, Coastal and Inland Waterway Transport and Related Infrastructure Development, signed 2011
- Ministry of Railways (MOR) on the Cooperation in the Field of Railways, signed 2004
- Furthermore during the visit of minister Doris Bures in Oktober 2011 one more protocol with the Ministry of Science and Technology (MOST) were signed establishing a working group for further and deeper co-operation especially in the green technology field.
- Currently, there are six bilateral agreements between the Austrian Federal Ministry of Transport, Innovation and Technology or appertaining organizations (e.g. Austrian Institute of Technology) and respective Chinese counterparts (e.g. MOST, CASTED).

**3. Memoranda of Understanding between AustriaTech - Federal Agency for Technological Measures Ltd. and Chinese City People's Government on cooperation in the Field of "Low-Carbon-City" planning**

- Currently, there are two bilateral agreements with the People's Government of the City of Nanchang and the Huangqiao People's Government of the City of Taixing.

#### **4. Austrian Science Fund (FWF) – Chinese Scholarship Council (CSC): CSF-FWF Scholarship Programme**

- The programme is operated jointly by the China Scholarship Council (CSC) and the Austrian Science Fund (FWF) and aims at enabling excellent Chinese PhD students to stay at an Austrian research institution in order to pursue their PhD studies fully or partly in Austria in the excellent research environment of selected research groups. Depending on the goal of the stay (complete doctorate in Austria or sandwich doctorate Austria-China) the duration of the stay is between 6 and 48 months.

#### **5. Austrian Science Fund (FWF) – National Natural Science Foundation of China (NSFC)**

- Based on a long-term MoU joint research projects and joint seminars are the two possible instruments of cooperation.

#### **6. The Confucius-Institute at the University of Vienna**

- The Institute was founded in September 2006 as a cooperation between the Office of Chinese Language Council International (Hanban), the Beijing Foreign Studies University and the University of Vienna. The Institute is devoted to introducing the Chinese language and culture and promoting the dialogue and exchange between different societies and cultures.
- With its expertise in the Chinese language teaching and holding more than 100 events, the Confucius Institute at the University of Vienna has become a meeting place and platform for many joint projects.

#### **7. Confucius Institute at the University of Graz**

- In October 2010, the Confucius Institute of Graz was officially established at the University of Graz, Austria. Co-founded by the Jiangsu University of China and the University of Graz, it is the second Confucius Institute in Austria. It represents a further achievement in the field of education exchanges and cooperation between China and Austria.

### **PRIORITY FIELDS OF CO-OPERATION**

**In the frame of the WTZ there are the following priority fields of cooperation**

- Renewable energies
- Health
- and other scientific fields of common interest

**The priority areas of the bi-lateral cooperation between the BMVIT and Chinese partner authorities and institutions are:**

- Railway Technology



- Infrastructure Technology (esp. technology based mobility concepts for the road, railway, rivers and air transport)
- Health Technology
- Science Policy (esp. FORESIGHT)
- “Green Technology” (Austrian participation in the Nanchang and Taixing Low-Carbon City project)

**The 2011 Joint Call between the National Natural Science Foundation of China (NSFC) and the Austrian Science Fund (FWF) focused on medical sciences in the following areas:**

- Cardio-cerebrovascular diseases
- Nutrition metabolism and the pathogens of related diseases
- Kidney disease
- Aging related disease
- Mental diseases and psychological health
- Stem cell and diseases
- Regeneration medicine
- Medical imaging and biomedical engineering
- Epidemiology and precaution strategies for major diseases
- Food hygiene
- Drug genomics and metabonomics
- New technologies and methodologies for diagnosis and Treatment

**INSTRUMENTS AND MECHANISMS FOR CO-OPERATION**

1. Under the WTZ small bi-lateral mobility projects are funded following tri-annual calls for proposals. Besides the scientific quality of the proposals and additional selection criterion is the potential of the project to be extended towards a collaborative EU-project or action.
2. Collaborative co-funded projects are developed following the identification of topics of common interest as mentioned above.
3. Scholarships for Chinese PhD students funded by CSC in the first year, and in the following months or years by the Austrian host organisation.
4. Joint research projects or Joint seminars, national funding by FWF and NSFC.

In addition, there are a number of fellowship programmes funded by different Austrian institutions for Chinese and Austrian researchers and students. More information can be found under <http://www.grants.at/>

**JOINT INSTITUTES**

In the frame of the EURASIA-PACIFIC UNINET the following joint institutes have been established:

- Sino-Austrian Diagnosis, Treatment and Research Center of Cardiovascular Diseases, Nanjing Medical University



- China-Austria Center for Research and Innovation in Logistics, Supply Chain management and Material Flow, Beijing Jiaotong University
- Austria-China Research Center on Tunnel and Underground Engineering, Tongji University, Shanghai
- Sino-Austrian Collaborating Center for Chinese Medical Sciences, China Academy of Chinese Medical Sciences, Beijing
- Sino-Austrian Research Centre for Environmental Protection, Northwest Agriculture and Forestry University, Yangling
- Sino-Austrian Biomarker Research Centre, Peking University Health Science Centre, Beijing
- Sino-Austrian Center for Media and Marketing, Fudan University, Shanghai

## NETWORKS

### EURASIA-PACIFIC UNINET

- A network which aims at establishing contacts and scientific partnerships between Austrian universities, universities of applied sciences, other research institutions and member institutions in East Asia, Central Asia, South Asia and the Pacific region. With a total of 140 member institutions, 56 of them with the Peoples Republic of China, the network promotes multilateral scientific cooperation, joint research projects, joint labs, conferences and summer schools as well as faculty and student exchange. EURASIA-PACIFIC UNINET supports the concept of Austrian higher education and research policy with its focus on excellence.

### **Sino-Austrian Collaborative Programme “TCM and Age related diseases”, TCM-Research Cluster Austria and Sino-Austrian Collaborating Center for Chinese Medical Sciences, China Academy of Chinese Medical Sciences, Beijing**

- The programme is based on a Memorandum of Understanding between the EURASIA-PACIFIC-UNINET and the Chinese Academy of Chinese Medical Sciences. It is funded on the Austrian side by the Federal Ministry of Health and the Federal Ministry of Science and Research and in China by the Ministry of science and Technology and the Chinese Academy of Chinese Medical Science.
- The programme is implemented through collaborative projects within the thematic field of “TCM and Age Related Diseases” with Chinese scientists working in Austrian partner labs and Austrian scientists working in Chinese partner labs. In addition there are regular seminars and evaluation meetings in Austria and in China.
- The cooperation partners on the Austrian side are universities and on the Chinese side the China Academy of Chinese Medical Sciences and universities. This programme has been finished at the end of 2011 and will be continued by the



Joint Research Project of the TCM Research Cluster Austria together with the Sino-Austrian Collaborating Centre for Chinese Medical Sciences “Prevention and early intervention of chronic diseases by TCM: Evaluation of immunomodulatory, anti-inflammatory and neuroprotective effects”. The project will start probably in June 2012.

#### COOPERATION BETWEEN AUSTRIA AND CHINA IN EU FRAMEWORK PROGRAMMES

- FP6: Networking and cooperation with Chinese partners and other EU partners in FP6 projects (53 projects with 76 Austrian and 87 Chinese participations);
- FP7: by March 2012: 27 projects with 43 AT and 35 CN participations;

**ERA Net CO-REACH: 2002 the Federal Ministry of Science and Research of Austria became partner of CO-REACH; Signing of a Memorandum of Understanding between 11 European countries and the Chinese Academy of Social Sciences (CASS) for the funding and management of the 2008 Call for Proposals “Social Science Collaborative Research between Europe and China (CO-REACH-SSR)”, 113 project proposals had been submitted and 14 projects were approved. Austria participated in one project with the title „Intellectual Property Rights in the New Media Environment“. Austria’s partnership started in January 2008.**





#### **INFORMATION ON BILATERAL AGREEMENTS**

- Agreement on S&T Cooperation between Ministry of Science of the Republic of Poland and Ministry of Science and Technology of the People's Republic of China signed in 1995.
- Agreement between the Minister of Science and Higher Education of the Republic of Poland and the Ministry of Education of the People's Republic of China on cooperation in the area of higher education signed in 2011.

#### **PRIORITY FIELDS OF CO-OPERATION**

- Specific fields of priority have not been determined. The most significant areas of cooperation: biotechnology, agriculture, clean energy.

#### **INSTRUMENTS AND MECHANISMS FOR CO-OPERATION**

- The China –Poland Scientific and Technological Cooperation Committee convenes every two year. The last 34<sup>th</sup> Session was held in Warsaw in June 2010.

#### **NEW INITIATIVES**

- On the 20th of December 2011, the Polish-Chinese University Rector Forum took place at the Beijing Foreign Studies University with the participation of over 100 representatives from Polish and Chinese institutions of higher education.
- During the Forum, President of the Republic of Poland Mr. Bronisław Komorowski lead the ceremonial unveiling of a plaque commemorating the newly created Center for Polish Studies (which will expand beyond the philological studies supported by the existing BFSU Polish Chair). Cooperation agreements were also signed between the BOYM Universities Consortium and the China Education Association for International Exchange.

**INFORMATION ON BILATERAL AGREEMENTS**

- The legal basis for the cooperation between Slovenia and China in the field of science and technology is the “Agreement on Scientific and Technological Cooperation between the Government of the Republic of Slovenia and the Government of the People’s Republic of China” signed in 1993.
- The joint Chinese-Slovenian Scientific and Technological Cooperation Committee convenes every two years and is responsible for approving jointly funded projects for the following two years (biannual cooperation program). The funding in most cases covers only the exchange of personnel for up to 14 days. The last, 9<sup>th</sup> meeting of the joint committee was held in Beijing in June 2011<sup>3</sup>. The counterparts on both sides are the Ministry of Economic Development and Technology of the Republic of Slovenia and Ministry of Education, Science, Culture and Sports of the Republic of Slovenia and the Ministry of Science and Technology of the People’s Republic of China.
- In 2003, the Slovenian Academy of Sciences and Arts and the Chinese Academy of Social Sciences signed an “Agreement on Scientific Cooperation”. The cooperation covers mostly the exchange of visits and is open to all scientists in all research institutes under CASS and to all scientists in all research institutes and universities in Slovenia.

**PRIORITY FIELDS OF CO-OPERATION**

- The “Research and Innovation Strategy of Slovenia 2011-2020” aims to exceed mere mobility in the framework of bilateral cooperation and upgrade it by 2020, with special regards to the priority countries defined in Slovenia’s foreign policy. It as well explicitly states that bilateral cooperation will be directed towards BRIC countries (Brazil, Russia, India and China), that are becoming new world centres of R&D.
- Slovenia strongly supports the set priorities of the Strategic Forum for International S&T Cooperation- SFIC (Configuration of EU Council) which defines a strategic way to approach China in the domain of R&D.
- In recent years there was a relatively successful bilateral cooperation in the area of Karst (limestone region) research – recultivation of the karst regions in Chinese provinces of Yunnan, Guangxi and Guizhou.

**TRILATERAL OR MULTILATERAL JOINT INITIATIVES:**

- Slovenian and Chinese researchers are jointly collaborating in 13 projects of the EU 7<sup>th</sup> Framework programme for RTD. The projects include the following domains: Environment (3), ICT (3), KBBE (3), Energy (2), Health (1) and SSH (1).

<sup>3</sup> The list of approved projects is available at [http://www.arrs.gov.si/sl/medn/dvostr/drzave/Kitajska/rezultati/11/inc/Kitajska\\_PROTOCOL\\_ang.pdf](http://www.arrs.gov.si/sl/medn/dvostr/drzave/Kitajska/rezultati/11/inc/Kitajska_PROTOCOL_ang.pdf)



- Although China is not a member of the EU programme COST (European Cooperation in Science and Technology), Slovenian and Chinese researchers are presently collaborating in 4 COST actions and in an additional 3 concluded COST actions.

**FURTHER INFORMATION ON SCIENCE, RESEARCH AND INNOVATION:**

The Research and Innovation Strategy of Slovenia 2011-2020:

[http://www.mvzt.gov.si/fileadmin/mvzt.gov.si/pageuploads/pdf/odnosi\\_z\\_javnostmi/01.06.2011\\_dalje/01.06\\_RISSdz\\_ENG.pdf](http://www.mvzt.gov.si/fileadmin/mvzt.gov.si/pageuploads/pdf/odnosi_z_javnostmi/01.06.2011_dalje/01.06_RISSdz_ENG.pdf)

The Slovenia research agency – bilateral cooperation with China (in Slovenian):

<http://www.arrs.gov.si/sl/medn/dvostr/drzave/Kitajska/>



**INFORMATION ON BILATERAL AGREEMENTS**

- On government level, an important basis for S&T co-operation between Finland and China is provided by the Science and Technology Cooperation Agreement between the two countries. The cooperation that takes place under the auspices of this agreement is administered by the Ministry of Employment and the Economy of Finland (MEE) and Ministry of Science and Technology of China. In the context of this cooperation, a full meeting of a joint committee for S&T co-operation is organized biannually with interim meetings taking place between the full meetings as necessary. The specific focus of this cooperation has been updated a number of times, most recently in a MoU on Nanotechnology cooperation between the two ministries signed in 2011.
- As the Ministry of Employment and the Economy of Finland is responsible for the Finnish national innovation strategy this co-operation has been more focused on applied research and technology. On operational level this co-operation is looked after by the Finnish Funding Agency for Technology and Innovation Tekes, an agency reporting to MEE which has two offices in China operating as parts of the Embassy of Finland and the Consulate-General of Finland in Shanghai respectively.
- Tekes mostly operates via thematic programmes which it uses to provide information, contacting and funding services. It also contributes to the mobility of senior researchers in co-operation with the Academy of Finland (via the FiDiPro programme) and has launched joint calls with MoST. Tekes has also cooperation agreements with a number of local Science and Technology Commissions.
- In Finland, basic research is administered by the Ministry of Education and Culture, which has in 2010 signed a MoU with the Chinese Ministry for Education on i.a. co-operation in the field of science. The provisions in this separate MoU complement the existing S&T co-operation between MEE and MoST. The Ministry of Education and Culture has also signed a Letter of Intent with MoST in 2011 to further promote cooperation in the field of research and science between the two countries.
- In practice, funding co-operation in the field of basic research is administered at national level by the Academy of Finland, which operates under the Ministry of Education and Culture. The Academy of Finland organises joint calls and joint seminars and also administers mobility programmes for senior researchers. The longstanding partners of the Academy of Finland in China are CAS, CASS and NSFC. The Academy has a close relationship and has conducted joint activities also with the Shanghai Academy of Social Sciences (SASS).
- International mobility of students and professionals is mostly supported by the Finnish Center for International Mobility CIMO, which also reports to the Ministry of Education and Culture.
- In addition to bilateral national level arrangements, Finnish universities engage in a wide range of co-operation with various partners in China, both independently and jointly. Also the VTT Technical Research Centre of Finland has a presence in China, too.

## PRIORITY FIELDS OF CO-OPERATION

- The focal areas of S&T cooperation between Finland and China are agreed upon via bilateral consultation and updated regularly. These focal areas reflect the programme portfolios of the key national agencies doing S&T co-operation, Tekes and Academy of Finland. Work on a more comprehensive national cooperation strategy has been started.
- Currently, active areas for cooperation at national level include, among others, global climate and environmental issues and related fields, such as cleantech and clean energy; Nanotechnology; ICT; and various fields of basic research. These areas are complemented by cooperation in a variety of fields conducted e.g. directly between universities.
- A further goal of Finland's S&T co-operation is the improving of mutual understanding between Finland and China as well as enhancing China-related competencies and awareness in Finland and Finland-related competencies and awareness in China.

## JOINT INSTITUTES

- Key national level partners for operational S&T co-operation in China are MOST, CAS, CASS, NSFC and China Scholarship Council. In addition there is co-operation with and between various universities.
- There are various joint programmes/institutes such as:
  1. The Sino-Finnish Center at Shanghai Tongji-university, incorporating the Aalto Design Factory (Shanghai Tongji University and Aalto-University)
  2. The Sino-Finnish Joint Biomedical Research and Development Center at the Zhongshan hospital of Fudan University (Shanghai Fudan University and various Finnish Universities coordinated by University of Turku)
  3. Sino-Finnish Environmental Research Center at Nanjing University (Nanjing University and the University of Eastern Finland)
  4. Fudan Nordic Centre at Fudan University (various universities from Finland participating)
  5. Sino-Finland Life Sciences Centre at Wuhan University (various Chinese institutes and universities, particularly Wuhan University, and University of Helsinki)
  6. ICT Alliance between Tivit Ltd. and Shanghai Research Center for Wireless Communications (WICO)
- The scope of joint operations is set to expand with plans for new centers well underway.

## INNOVATION-RELATED ACTIVITIES

- The Finchi Innovation Center in Shanghai and the Golden Bridge Innovation Center in Helsinki provide support services for i.a. R&D co-operation between Finnish and Chinese companies. There are plans to further expand these activities. A FinNode network connects all the essential national actors of Finnish innovation system in China and provides foresight of the changes in the global innovation environment.



## TRILATERAL OR MULTILATERAL JOINT INITIATIVES

- The Academy of Finland has launched joint calls for proposals with the NSFC and the German DFG. It has also participated in trilateral funding cooperation between Finland, Canada, and China.

### Further information on Science, research and innovation, including new initiatives

- Both Tekes and the Academy of Finland have ongoing calls for proposals and programmes both independently and jointly with their Chinese cooperation partners. Tekes has several new national technology programmes in preparation every year. The Academy of Finland launches new calls for proposals annually.
- Further information on current Tekes and Academy of Finland national programmes can be found on their respective webpages. This includes inter alia various thematic Tekes programmes, Academy of Finland joint calls as well as the Finnish Distinguished Professor Programme. Not all of these are necessarily relevant for China.
- [www.tekes.fi](http://www.tekes.fi)
- [www.aka.fi](http://www.aka.fi)
- [www.cimo.fi](http://www.cimo.fi)



**INFORMATION ON BILATERAL AGREEMENTS**

- In December 2012 two new agreements were signed between the Government of Sweden (represented by the Ministry for Education and Research) and the Chinese Ministry of Science and Technology (MOST). The agreements will not replace the existing agreements, but add focus two thematic areas: Sustainable Development, and Life Sciences.
- Steering committee meetings are to be held biannually, with interim Joint Committee meetings to be held in the years in between.

**PRIORITY FIELDS OF CO-OPERATION**

- On 16 February 2012 the Government adopted a new strategy on research and innovation cooperation with China. The strategy aims to increase and deepen the collaboration with China, identifies areas of priority and tasks Government Agencies with implementing different parts of the objectives. The strategy is not (yet) published.

**INNOVATION-RELATED ACTIVITIES**

- There is no specific innovation dialogue in place, but innovation is included in the S&T dialogue. The Swedish Governmental Agency for Innovation Systems (VINNOVA) is one of the actors in implementing the S&T Agreements between Sweden and China. The Swedish Agency for Growth Policy Analysis has an MoU and well-established co-operation with the Chinese Development Research Centre (DRC).
- Thematic events on the topic of innovation and innovation policy are recurring. They include the following:
  - A Sino-Swedish Innovation Forum held in May 2010 in Beijing, with participation of inter alia Chinese Vice Premier Li Keqiang, Swedish Vice Premier Maud Olofsson and HM King Carl XVI Gustaf of Sweden.
  - The theme of the Swedish Pavillion at the Shanghai World Expo was “The Spirit of Innovation”. During the Expo a number of events on innovation were held.
  - A major exhibition on innovative SMEs, coupled with events, seminars etc. on innovation policy will be held in Beijing and Shanghai during the autumn of 2012.

**FURTHER INFORMATION ON SCIENCE, RESEARCH AND INNOVATION:**

The Ministry of Education and Research  
<http://www.sweden.gov.se/sb/d/2063>

The Swedish Agency for Growth Policy Analysis  
<http://www.growthanalysis.se/en/>

The Swedish Agency for Innovation Systems (VINNOVA)  
<http://www.vinnova.se/en/>



**INFORMATION ON BILATERAL AGREEMENTS**

- The Biennial UK/China Science and Innovation Joint Commission agrees shared priorities and actions. The formal UK-China science and technology agreement dates from 1978. The UK's Department for Business, Innovation and Skills and China's Ministry of Science and Technology take the lead, but other key research and innovation organisations play a role, attend meetings and implement the outcomes
- The annual Innovation Dialogue provides a high level forum to discuss innovation policy between the UK's Department for Business, Innovation and Skills and China's Ministry of Science and Technology
- A new, high-level annual People to People dialogue will cover a wide range of issues, including culture, education and science and innovation. Chaired at State Councillor level it will also involve UK and Chinese ministries responsible for those areas
- The annual UK-China Energy Dialogue where China and the UK have agreed to co-operate on energy security policy; oil and gas; nuclear power; renewable energy, and in particular offshore wind power and clean coal (efficient generation and carbon dioxide capture, utilisation and storage). Co-operation might include but is not limited to government, business, academic institutions and NGOs. The UK's Department for Energy and Climate Change and China's Ministry of Energy lead discussions
- The UK/China Economic and Financial Dialogue provides a platform for engaging on market-related issues , such as IP enforcement and is led by HM Treasury and the Ministry of Finance
- The Research Councils UK office in Beijing leads on developing agency to agency collaboration and joint research co-operation with several MoUs between Research Councils UK and Chinese agencies and the Ministry of Science and Technology
- The Sustainable Agriculture Innovation Network between relevant UK and Chinese Ministries supports policy relevant research and was initiated under the UK-China Sustainable Development Dialogue. The bilateral Food Security Action Plan agreed by Ministers also informs relevant co-operation
- There has been rapid development of science and innovation co-operation since the launch of China/UK Partners in Science following the China-UK Joint Statement of 2004. This initiative enhanced science and innovation co-operation in both countries.
- The China Science and Innovation team based in the British Embassy and consulate Generals work with RCUK and Chinese partners to deliver new partnerships and collaborative programmes.

**PRIORITY FIELDS OF CO-OPERATION**

- In the June 2011 Joint Commission, UK and China Ministers' discussed further opportunities to collaborate and exchanged views on a number of issues, including cooperation between enterprises, education and research, the linkage between science and technology and finance, research excellence, knowledge transfer and intellectual property management, industrial changes and the role of Government. Ministers agreed immediate priorities in the



areas of energy, including renewable energy, healthy populations and food security and safety. They also agreed to support research co-operation in a range of priority areas, including frontier science disciplines, environment, applied sciences, space science and innovation and policy engagement.

## **JOINT INSTITUTES**

- Many UK universities and research organizations arrange joint institutes with Chinese counterparts. For example in the last year:
  - A new joint laboratory between University College London and China's Tianguan Group opened in November 2011
  - A biotech programme for Bradford University, with £2m funding from Guangzhou government has been agreed
  - A Sino-UK centre between the University of Nottingham and the China Academy of Survey and Mapping opened in 2011, and
  - Birmingham University opened a collaborative research centre in Guangzhou.

## **INNOVATION-RELATED ACTIVITIES**

- A UK-China Innovation dialogue was initiated in June 2010 under an MoU to stimulate sharing and discussion of policy development. This high level Dialogue seeks to understand more of each country's innovation policies and especially exchange information on latest thinking and policy developments.
- It is underpinned by an agreement to keep each other informed of policies being developed; to exchange ideas, problems and solutions in encouraging enterprise innovation; and conduct field studies during visits.
- The Dialogue gives us a mechanism to discuss the wide range of science and innovation issues, including intellectual property issues and encouraging enterprise innovation, and to do this successfully should involve all agencies with an interest and ability to influence policy development and its application.

## **OPPORTUNITIES HAVE BEEN CREATED FROM UK SUPPORTED ACTIVITIES**

- The £5m HeFCE funded ICUK programme established a wide pool of technology collaborations, worked on breaking down barriers to collaboration and innovation, and promoted the UK as a commercial partner of choice
- RCUKs £4m UK/China Science Bridge projects to exploit research in mobile communications, urbanisation, drought resistant agriculture and Traditional Chinese Medicine
- UK Trade & Investment (UKTI) is promoting inward research investment, high technology exports and the UK's capability in supporting high technology value chains
- The UK's Intellectual Property Office (UKIPO) work on streamlining and simplifying research agreements
- Collaboration on commercial relations around standards, accreditation and metrology

## **MAIN INITIATIVES AND PROGRAMMES:**

- UK Research Councils have agreed a number of joint calls on research, with the Natural Science Foundation of China and Chinese Academy of Sciences. The Research Councils have recently announced two joint calls with Natural Science Foundation of China, one on Smart Grids (£3m and matched NSFC effort) and the other on Stem Cells. This forms part of a series



of calls for collaborative research and forms part of an ongoing collaborative programme with China.

- Previous calls have been in areas such as renewable energy generation, carbon capture and storage and cleaner fossil fuels. As a result of these the energy programme currently has 24 joint research projects with China, five of which are jointly funded with NSFC.
- The UK Research Councils aim to extend relations and engagement with Ministry of Science and Technology in a jointly funded pilot initiative to support bilateral research projects in key areas of mutual interest aiming to develop mechanisms to support larger and long-term research partnership
- There is a lot of bottom-up activity to celebrate, such as:
  - A total of £80m of active UK Research Council programmes include a Chinese partner
  - A joint venture on low carbon commercialisation has been agreed between the Carbon Trust and China Clean Energy Investment Corporation
  - The UK Research Council has also funded four Science Bridges projects while HeFCE funded a £5m ICUK innovation programme
  - Discussions on future activity include synthetic biology, internet of things, venture capital and renewable energy

#### **TRILATERAL OR MULTILATERAL JOINT INITIATIVES:**

- The UK is happy to consider trilateral and multilateral activities. At the moment there are two areas the UK are involved in:
  - The UK-funded Eco-Systems Services for Poverty Alleviation (ESPA) programme can support research in relevant aspects of international development, with Chinese and/ or third country partners.
  - The UK and China are members of the Global Alliance for Chronic Diseases.

#### **FURTHER INFORMATION ON SCIENCE, RESEARCH AND INNOVATION:**

- The British Embassy S&I team works closely with a number of UK partner organisations here in China. Our key partner is [RCUK China](#). Please see their website for a wealth of information about the UK Research Council's and their activities. We also work closely with the Embassy's [Trade and Investment](#) and [Climate Change and Energy](#) teams, along with colleagues at the [British Council](#) and [International Development](#).
- Many UK organisations engage in science and technology. These include government departments, science funders, universities, charities and professional bodies and learned societies. Each provides information and guidance that may be helpful in learning more about developments in UK science or looking for opportunities to develop collaborations. Links to these can be found at: [ukinchina - science and innovation](#)





## AGREEMENTS

- The EU-China **S&T Agreement** was signed in 1998. An annual steering committee is held between MoST and DG Research and Innovation.
- MoST and DG Research and Innovation signed the Agreement on implementing the **S&T Partnership Scheme** (CESTYS) in May 2010. This provides for joint co-decided, co-selected and co-funded research projects in common priority areas.
- A **joint statement** between MoST and DG Research and Innovation on new and renewable energy research was signed in December 2010. It aims to support the twinning of projects, joint programmes or joint calls based on mutual interest and equal partnership.
- The National Natural Sciences Foundation of China and DG Research and Innovation signed an **Administrative Arrangement** in spring 2010. It provides a framework for coordinated research projects in areas of common interest.
- EURATOM-China **Peaceful Use of Nuclear Energy** (PUNE) agreement was signed in 2008. It is implemented by a steering committee co-chaired by the Commission and MoST.

## PRIORITY FIELDS OF CO-OPERATION

- The joint **S&T agreement** steering committee of 22 March 2011, endorsed the establishment of EU-China task-forces on topics of common concern. It was decided:
  - to create a task-force on "Food Agriculture and Biotechnologies" under the responsibility the Chinese Academy of Agricultural Sciences (CAAS), and the "Biotechnologies, Agriculture, Food" Directorate in DG Research and Innovation; and,
  - to support the ongoing collaboration on non-nuclear energy research, particularly under the Joint Statement signed in December 2010.
- The **PUNE agreement** steering committee, 21 March 2011, approved the following implementing structure of the Agreement:
  - Subcommittee on "Nuclear Security and Safeguards" between the Chinese Atomic Energy Authority (CAEA) and the Joint Research Centre (JRC). Rules of Procedure adopted.
  - Subcommittee on "Fission Coordinated Actions" between CAEA and the EC DG for Research and Innovation (RTD). Rules of Procedure adopted.
  - Subcommittee on "Fusion Energy Research" between the MOST and RTD.
  - Subcommittee on "Nuclear Safety" between the National Nuclear Safety Administration (NNSA) of the Chinese Ministry of Environmental Protection, and Joint Research Centre.
- The **ICT Dialogue** is under the responsibility of DG Information Society and MOST. It is implemented by a joint steering committee with MOST. In 2008, it was agreed to split the Dialogue into two: a meeting with the Ministry of Industry and Information Technology (MIIT) on policy and regulatory issues (last held on December 17<sup>th</sup>, 2010), and a meeting on research with MOST (last held on 21 March 2011).



- The majority of EU-China scientific co-operation takes place through the **EU's 7<sup>th</sup> Framework Programme (FP7)**. Chinese research organisations are involved in EU projects in almost all thematic priority areas (e.g. space, ICT, health, transport, etc.). China is third, after the US and Russia in terms of global participation.
- Jointly-funded projects:
  - Projects are underway in **aeronautics** with the Ministry of Industry and Information Technology (**MIIT**) - total budget €6M (3+3) - and on **nuclear fission** security and training with the Chinese Atomic Energy Authority (**CAEA**) - total budget €10M (5+5).
  - The National Natural Sciences Foundation of China (NSFC) and DG Research and Innovation are preparing a joint call in biomaterials, expected to launch in summer 2012.
  - **MoST** and DG RTD are supporting the twinning of projects in new and renewable energies, a second twinning action is under preparation for this year.
- DG Education and Culture and the Chinese Ministry of Education (MoE) are responsible for the High-Level People to People Dialogue. It covers education, culture, youth, languages, and also **mobility of researchers**. The mobility of researchers in China is under the responsibility of the MoST. The first HPPD meeting was held 18 April 2012 in Brussels.
- DG Energy and the National Development and Reform Commission (NDRC) are responsible for the implementation of the "**EU-China Partnership on Sustainable Urbanisation**" Joint Declaration signed the 3 May 2012 in Brussels. A significant body of pan-European collaborative research on urban-related issues has been carried out under FP7. The research Joint Programming Initiative JPI Urban Europe has elaborated a strategic research frame for responding to the urbanisation challenges, and the strategic research agenda will be completed by 2014. DG RTD has a strong and valuable knowledge-base to share in the context of the EU-China Urbanisation Partnership.

## JOINT INSTITUTES

- No EU-China joint research institutes can be funded by the Framework Programme. The '**INCO-Lab**' scheme can support broader Member State co-operation in an existing joint laboratory. The only on-going project involves the Fudan University Shanghai Cancer Center (China) and Transgene (part of Institut Mérieux, France), expanding EU involvement with partner organizations from Denmark, Italy and Germany.
- Initiatives funded under the DCI (Development and Cooperation Instrument) have established joint centres with a research component. Two major ongoing initiatives are the **Europe-China Clean Energy Center (EC2), Beijing** that provides a platform to support the clean energy sector in China, through the use of clean energy technologies and the promotion of regulations and the **EU-China Institute of Clean and Renewable Energies (ICARE), Wuhan** which provides a Masters degree and acts as a research platform.

## INNOVATION-RELATED ACTIVITIES

The High Level Economic Dialogue and a number of sectoral dialogues, including on IPR issues cover some innovation-related issues. A number of EU programmes and activities to support innovation co-operation, such as the Enterprise Europe Network, the IPR-SME helpdesk, and the EU-SME centre provide support and services to science and business activities in China.



## **TRILATERAL OR MULTILATERAL INITIATIVES:**

Within the FP7 and EURATOM Programmes. Horizon 2020 under development.

## **FURTHER INFORMATION ON SCIENCE, RESEARCH AND INNOVATION:**

EU Delegation S&T:

[http://eeas.europa.eu/delegations/china/eu\\_china/science\\_tech\\_environment/science\\_technology/index\\_en.htm](http://eeas.europa.eu/delegations/china/eu_china/science_tech_environment/science_technology/index_en.htm)

Brochure on R&D funding with China:

[http://eeas.europa.eu/delegations/china/documents/eu\\_china/science\\_tech\\_environment/funding\\_guide\\_for\\_european\\_researchers\\_in\\_china.pdf](http://eeas.europa.eu/delegations/china/documents/eu_china/science_tech_environment/funding_guide_for_european_researchers_in_china.pdf)

Brochure: Guidance on IPR issues EU-China:

[http://eeas.europa.eu/delegations/china/documents/eu\\_china/science\\_tech\\_environment/iprbrochure.pdf](http://eeas.europa.eu/delegations/china/documents/eu_china/science_tech_environment/iprbrochure.pdf)

Euraxess Links China – a network of European researchers:

[http://ec.europa.eu/euraxess/links/china/index\\_en.htm](http://ec.europa.eu/euraxess/links/china/index_en.htm)

ERAWATCH – Overviews of EU and Member State R&D and on China:

<http://erawatch.jrc.ec.europa.eu/>

### **Policies and Programmes:**

Innovation Union: [http://ec.europa.eu/research/innovation-union/index\\_en.cfm](http://ec.europa.eu/research/innovation-union/index_en.cfm)

DG RTD: <http://ec.europa.eu/research/>

Participation in FP7: [http://ec.europa.eu/research/participants/portal/page/fp7\\_calls](http://ec.europa.eu/research/participants/portal/page/fp7_calls)

DG Education and Culture: [http://ec.europa.eu/dgs/education\\_culture/index\\_en.htm](http://ec.europa.eu/dgs/education_culture/index_en.htm)

The European Research Council: <http://erc.europa.eu/>

### **Selected Projects:**

INCO-LAB project in China: <http://www.immunocan.org>

EEN: <http://www.enterprise-europe-network.ec.europa.eu/about/branches/CN/>

EU SME Centre: <http://www.eusmecentre.org.cn/>

EC2: <http://ec2.org.cn/en>

ICARE: <http://www.master-renewable-energy.com>



## CHINESE R&D PROGRAMMES (CN)

The Access4EU programme provides information and support on participation in Chinese programmes: <http://www.access4.eu/China/>

### Chinese S&T authorities:

Ministry of Science and Technology - <http://www.most.gov.cn/eng/>

National Natural Science Foundation of China: <http://www.nsf.gov.cn/Portal0/default166.htm>

Chinese Academy of Sciences: <http://english.cas.cn>

Chinese Academy of Engineering: <http://old.cae.cn/en>

Chinese Academy of Agricultural Sciences: <http://english.caas.net.cn>

Chinese Academy of Social Sciences: <http://www.cssn.cn/english.html>

China Atomic Energy Authority: <http://www.caea.gov.cn/n360680/index.html>

China-EU Science and Technology Cooperation Promotion Office: <http://www.ceco.org.cn>

Ministry of Industry and Information Technology: <http://www.miit.gov.cn/n11293472/index.html>

Ministry of Education:

[http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/moe\\_2792/index.html](http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/moe_2792/index.html)

