

11th EU-China Joint Steering Committee on Science and Technology Cooperation

Joint Summary Conclusions

The 11th meeting of the Joint Steering Committee of the EU-China Agreement on Science and Technology Cooperation took place in Brussels on 12 June 2014 under the co-chairmanship of European Commission Director General for Research and Innovation Mr. Robert-Jan Smits and Chinese Vice-Minister for Science and Technology Mr. CAO Jianlin. The meeting saw the participation of representatives from Ministry of Science and Technology, Ministry of Foreign Affairs, Chinese Mission to the EU, the Chinese Academy of Agricultural Sciences, the Natural Sciences Foundation of China, and National Remote Sensing Centre on the Chinese side, and from the European Commission Directorates General for Research and Innovation, Energy, Communications Networks, Content and Technology, Agriculture and Rural Development, Enterprise and Industry, Education and Culture, Joint Research Centre, and European Research Council, on the European side.

The two sides welcomed the strong reference to science, technology and innovation cooperation contained in the overall EU-China 2020 Strategic Agenda for Cooperation adopted at the EU-China Summit in November 2013, which provides a solid basis for future STI cooperation.

They recognised the depth and richness of EU-China STI relations and welcomed the substantial progress made to enhance EU-China cooperation in the areas of Food, Agriculture and Biotechnology, Sustainable Urbanisation including Energy, Transport, Environment and ICT, Aviation, Fusion and Fission research, and Space Technology and Earth Observation.

They stressed the importance of continuing to facilitate as much as possible the reciprocal opening up of research and innovation funding programmes. They also emphasized the need of scaling up cooperation in few selected areas with the definition of common strategies and of enhancing dissemination of information on EU-China research and innovation cooperation opportunities both in China and in Europe.

They stressed their commitment to the Innovation Cooperation Dialogue (ICD), confirmed their support for the work of the Innovation Task Force and called for the finalisation of a joint report by the Task Force with emphasis on best practices, cooperation mechanisms and framework conditions. The EU side welcomed China's continuous endeavours to improve IPR protection and enforcement.

They acknowledged that the current S&T Agreement is bound to be tacitly renewed in at its expiration date in December 2014. They also acknowledged that the tacit renewal of the agreement marking the 15th anniversary of the EU-China S&T Agreement should be recognised at the next EU-China Summit.

Innovation Cooperation Dialogue

Following the 1st high level Innovation Cooperation Dialogue of November 2013 the two sides welcomed the initial work conducted by the joint experts task force on innovation cooperation. They reiterated their commitment to promote mutual understanding and cooperation on innovation through exchange of information on respective innovation policies and good practices, improvement of framework conditions for innovation cooperation and promotion of scientific and industrial partnerships. To this end the two sides agreed to intensify dialogue on reinforcing cooperation on thematic topics, increasing interactions of academia and industry, building up platform of cooperation, strengthening talent mobility and framework conditions as well. They also intended to organise an Innovation-Cooperation conference in 2015.

Food, Agriculture and Biotechnology (FAB)

Thanks to the outcomes of EU-China experts' seminar on developing a joint initiative for cooperation in research and innovation on Food, Agriculture and Biotechnology (FAB) and the 3rd meeting of Task Force on FAB held in Beijing, 10-11 October 2013, the priorities of EU-China collaboration in the area of FAB were identified. The two sides welcomed the signature of the Letter of Intent by Commissioners Geoghegan-Quinn, Ciolos, Potočník and Borg, and by the President of the Chinese Academy of Agricultural Sciences (CAAS) and Vice Minister for agriculture [REDACTED]. The two sides valued the subsequent successful launch by the European Commission of seven topics dedicated to EU-China collaboration in Horizon 2020 work programme for 2014/15 and the commitment of the CAAS to support the participation of Chinese institutions in these projects.

The two sides also welcomed the conclusions of the Task Force meeting of 11 June 2014 and confirmed their commitment to enhancing the FAB flagship initiative in the coming years. To this end the Task Force identified the following areas where potential joint collaborative research and innovation actions could be implemented in 2016-2017: plant breeding in a view to increase global food security; soil and land resources based on the work carried out by the EU-Sino Panel on Land and Soil; urban agriculture, forestry and horticulture; food safety, authentication and traceability in agro-food products, including the possible establishment of a Joint Reference Laboratory. The two sides also agreed a joint roadmap to align their respective programming cycles and identify by end of 2014 the future joint actions of the FAB flagship initiative under Horizon 2020 work programme for 2016/17 and relevant programmes from Chinese authorities.

Aviation

The two sides reiterated the importance of the long standing cooperation in the field of aviation through the jointly co-funded coordination and support actions AEROCHINA, AEROCHINA2 and GRAIN, as well as the research cooperation projects MARS and COLTS, which has led to fruitful results notably in the areas of flow control and of casting of large Titanium structures.

Building on this positive experience and following consultation of industry and other stakeholders both sides intend to step up cooperation through regular, balanced, co-funded joint and coordinated research and innovation actions. Both sides consider the following areas of cooperation as shared priorities:

- Flow control, advanced aero-engine, innovative airframe configuration,
- Environmental aspects of aviation,
- Materials, structures and manufacturing,
- Numerical simulation and experimental validation methods,
- Efficient air transport.

In the short term a joint call for proposals is envisaged to be published in July 2014 under H2020 Work Programme for 2015 with co-funding from the Chinese Ministry of Industry and Information Technology (MIIT). The call is intended to support no less than three joint collaborative research projects in specific areas of mutual interest.

In addition the EU-China Aeronautics network GRAIN2 will organise a EU-China Open Short Course on greening technologies in aviation on 1-4 July 2014. This joint scientific event will be hosted by the Italian Aerospace Research Centre CIRA and will see the participation of senior experts from Europe and China in the areas of Propulsion related green technologies, Aircraft flight physics for flow control, drag and noise reduction, Environmentally friendly materials and smart structures, and Air traffic operations and management including communications, navigation and surveillance (CNS).

In the medium term cooperation will be pursued through joint and coordinated actions under Horizon 2020 Work Programme 2016/2017 and relevant MIIT programmes.

Sustainable Urbanisation

With the launching of the EU-China Sustainable Urbanisation Partnership in 2012 by President Barroso and Premier Li Keqiang the EU and China recognised the strategic importance to address sustainable urbanisation as a common challenge. Sustainable Urbanisation was confirmed as a joint priority at the EU-China High Level Innovation Cooperation Dialogue of November 2013. Sustainable Urbanisation has implications for hundreds of million of people in the two regions. The unprecedented speed of the urbanisation process in China poses huge challenges in terms of environment, efficient use of resources, waste management, transportation, provision of social services, etc. These challenges need to be addressed though the joint development and deployment of innovative solutions for the benefit of society in China and in Europe.

The two sides recognised the value of the actions taken by the Joint Programming Initiative (JPI) Urban Europe and the China Centre for Urban Development (CCUD) of the National Development and Reform Commission of China (NDRC) to set up a "Sustainable Urbanisation Cooperation Programme" aimed at bundling expertise of European and Chinese experts in joint R&I projects; supporting knowledge exchange between European and Chinese experts on urban matters through joint conferences, workshops and seminars; and establishing

a continuous dialogue between the JPI Urban Europe and the Chinese collaboration partners on strategic level that will result in development and joint execution of strategic projects.

The two sides welcomed the call in Horizon 2020 Work Programme for 2014 to support the development of strategic cooperation for water research and innovation, notably with China, as a contribution to the setting up of the EU-China Water Platform. They also recognised the importance of synergies between the EU agenda on nature-based solutions and re-naturing cities and Sustainable Urbanisation.

The two sides confirmed their commitment to continue develop the research and innovation pillar of the EU-China Sustainable Urbanisation Partnership. To this end they intend to develop a package of Sustainable Urbanisation R&I activities integrating joint actions in the areas of energy, environment, transport, ICT, and Sustainable development and urban planning to be covered by Horizon 2020 and by the relevant Chinese programmes.

Energy

The two sides will continue to reinforce cooperation on both fusion and fission research under the R&D-PUNE Agreement. The two sides welcomed the results of the R&D-PUNE Steering Committee meeting of 11 June 2014 and the specific progress reported in the three subcommittees that met on 10 June 2014. The two sides noted in particular that Euratom and China are increasing exchanges and cooperation on nuclear safety, nuclear fuel cycle, nuclear waste management and nuclear security. Euratom is also strengthening and deepening the cooperation with China in the multilateral framework of the ITER project and building up a strategic bilateral partnership on fusion energy research. In this respect, both sides agreed to further strengthen the cooperation on fusion research, in particular on the Joint European Torus (JET) and on the future China Fusion Engineering Testing Reactor (CFETR), as agreed in the updated bilateral Work Programme.

The two sides took note of the progress made in implementing the provisions of the 2010 Joint Statement between MoST and RTD on cooperation in new, renewable and energy efficient technologies, notably through organising productive twinning workshops on solar dish technologies and battery interfaces, and envisaged to develop this cooperation on new topics in 2015.

Results of joint research efforts to fight climate change through developing carbon capture and storage technologies in the 'Near Zero Emission Coal' framework were also recognised.

Further cooperation opportunities could be explored to support global energy security with the means of research and innovation.

ICT

China and the EU have been important partners in the area of ICT research and innovation as reflected by the significant involvement of Chinese organisations in the EU-funded programmes. The EU side expected that Chinese organisations will continue collaborating with their European partners on ICT under Horizon 2020 and similar Chinese research and

innovation initiatives. Key stakeholders from both sides are working towards identifying joint thematic priorities and ways to enhance future collaborative efforts.

The two sides welcomed the constructive working level meeting that took place between DG Connect and MOST on 11 June. The EU side welcomed the opening of the MOST 863 programme to European companies in the field of 5G and hoped that this model could be further extended. Building on this the two sides would envisage to develop an ICT dimension in the Sustainable Urbanisation Initiative and to further step up cooperation in such areas as Smart Cities and related key enabling technologies, the Internet of Things and 5G networks research for mutually beneficial and rewarding results. The next ICT Dialogue is planned to be held in the 2nd half of 2014 in China.

Space Technology

The two sides welcomed the results of the Second Meeting of the EU-ESA-China Dialogue on Space Technology Cooperation in 2014, strengthening the cooperation between EU and China in a variety of fields including satellite navigation, earth observation, earth science and space exploration.

The two sides welcomed the fruitful cooperation under satellite navigation and they reiterate the importance to continue the cooperation in the field of the civil aspects of the respective Global Navigation Satellite Systems (GNSS). The two sides welcomed the progress achieved in the jointly supported China-Europe GNSS Technology Training and Cooperation Centre (CENC), and both sides agreed to continue the financial support to the CENC that will play an important role for the cooperation in space science and technology related to GNSS. The two sides agreed to explore further cooperation and to identify areas of mutual interest between EU and China. They also agreed to enhance information exchange in the fields of geo-science, space science and exploration.

They welcomed the excellent cooperation on earth observation and agreed that one concrete important deliverable is the DRAGON programme which celebrated 10 years of successful implementation and highlighted achievements made in the field of geological, meteorological observation and oceanographic missions. They stressed the need for improved access to data from Chinese Earth Observation satellites and derived products. Given the significant interest in Earth observation on both sides, together with the operationalization of Copernicus and China's Earth Observing program (HDEOS) it was suggested to better exploit the potential for cooperation and to create a joint working group with China on Copernicus/Earth observation.

Biomaterials

The two sides welcomed the successful implementation of the first joint-call on Biomaterials co-funded and co-managed by DG RTD and the National Natural Science Foundation of China (NSFC). The three recently started co-ordinated projects lie within the areas of tissue prototyping of bio scaffolds for bone regeneration, nervous system and urethra reconstruction.

The two sides recognised the opportunity to use the call on biomaterial as a model for future cooperation at a larger scale in areas of common interest.

Researchers' mobility

Both sides recognize that the mobility of researchers and academic staff is an important vehicle and catalyst for deepening EU China relations in research and innovation and welcome the various initiatives already in place.

The European Commission welcomed the strong involvement of Chinese organisations and researchers in the Marie Skłodowska-Curie actions (MSCA), the EU programme dedicated to researchers' training and career development through mobility. With 174 Chinese organisations, 837 individual Chinese researchers, as well as approximately 2 979 research staff members benefitting from MSCA China is the second most successful Third Country involved in the programme. In year 2013, the Chinese government has funded 426 EU PhD students through the China Scholarship Council (CSC)

The European Commission encourages Chinese organisation and researchers to continue taking advantage of the variety of opportunities offered by the programme and invites the Chinese authorities to set up a dedicated fund to support successful Chinese organisations in collaborative projects selected under the MSCA. In this respect, the EU side stressed that the establishment of a National Contact Point for MSCA would be an advantage not only for interested parties in China, but also for further enhancing the good cooperation in the area of researchers' training and career development.

To support the balancing of researchers flow from EU and China the two sides welcomed the new project EU China Research and Innovation Partnership which is aimed at supporting longer-term stays in China for European researchers. The project which is funded under the Instrument for Industrialised Countries (ICI+) targets research in the priority areas of urbanisation, food, agriculture, biotechnologies, water, energy and life sciences.

Both sides also welcomed the continued dialogues in the framework of the EU-China High-level People-to-People dialogue (HPPD) and the Higher Education Platform for Cooperation and Exchanges (HEPCE) which both include researchers' mobility issues.

Both sides agree to encourage further efforts and cooperation to promote the mobility of researchers and research staff between both sides and in particular the joint study by EU Delegation to the China and the Chinese Ministry of Science and Technology with funding from EU China Policy Dialogue Support Facility (PDSF). The study will examine the current state of researchers' mobility between EU and China, analyse push-pull factors influencing the mobility choice and patterns, and formulate policy recommendations to increase, improve and balance the flow of researchers between Europe and China.

China cooperation with the EU Joint Research Centre (JRC)

The two sides recognised the value of the dialogue and already well-established cooperation between the European Commission Joint Research Centre (JRC) and Chinese partners, in the

areas of Food, Agriculture and Biotechnology (FAB), Sustainable urbanisation, and Energy, including cooperation on Peaceful Use of Nuclear Energy under the R&D-PUNE Agreement, as well as on Space Applications.

Looking ahead, cooperation between the JRC and the Chinese Academy of Sciences (CAS) RADI institute is being strengthened, in particular in areas relating to remote sensing and disaster management, via Human settlements analysis, Digital earth science platforms, Land and soil degradation, Air quality, Land cover mapping, Soil mapping and Agricultural monitoring since these areas are considered of particular mutual interest for to be pursued within the framework of the EU-China Agreement for Science and Technology cooperation in close coordination with other EU-China science, technology and innovation policy initiatives.

China cooperation with the European Research Council (ERC)

The two sides welcomed the dialogue between the European Research Council (ERC) and the National Natural Sciences Foundation of China (NSFC) to enhance structured cooperation between top-level research teams funded by the two organisations.

Date of next meeting in China

The next meeting of the EU-China Joint Steering Committee for Science and Technology Cooperation will take place in China in the second half of 2015.