

# People's Republic of China - Country Page

## 1. Available local programs or funds that could provide support to Chinese Horizon 2020 participants

Horizon 2020 is fully open to international participation in all fields and areas. Chinese researchers, enterprises, research institutions and universities will be able to team up with their European partners to participate in projects under Horizon 2020 and make best use of Europe's excellent opportunities in research and innovation. Through participation in Horizon 2020 beneficiaries can gain great benefits from access to excellent knowledge, access to research data and access and connection to world-leading scientific networks and research teams.

### EU-China general Co-Funding Mechanism (MOST)

The China-EU Co-Funding Mechanism on research and innovation (CFM) cooperation has played a significant role in supporting win-win STI cooperation since its launch in December 2015. The European Commission and Chinese Ministry of Science and Technology (MOST) agreed the renewal of the CFM for the period 2018-2020 to support joint projects between European and Chinese universities, research institutions and companies.

Under the CFM, MOST will provide financial support on a competitive basis to China-based entities that will participate in joint projects with European partners under Horizon 2020. For the period 2018-2020, MOST intends to reserve an annual budget of up to 200 Million CNY, and the EC intends to reserve a budget of up to 100 Million Euro in Horizon 2020 calls targeting cooperation with China.

The CFM will be primarily used for EU-China Flagship initiatives and other Horizon 2020 topics targeting China (see list of Horizon WP 2018-20 topics targeting China below) but it will also be open other areas of Horizon 2020. The exact terms and conditions of the MOST CFM call are published by MOST in their website.

On 26 March 2018, MOST published the first call for proposals for 2018 under the Intergovernmental International Science, Technology and Innovation (STI) Collaboration Key Project of China's National Key R&D Programme (NKP). With the deadline for submission of proposals 15 May 2018, this call includes two parts when seeking applications by China-based partners in Horizon 2020 Work Programme 2018 proposals: 1) a first part targeting three joint topics under the food, agriculture and biotechnologies, sustainable urbanisation and surface transport EU-China flagship initiatives for which 4-5 projects are expected to be funded for a total budget of CNY60 million, and 2) a second part inviting proposals addressing nine broad areas for which around 15 projects are expected to be funded for a total budget of CNY50 million. Chinese applicants are encouraged to contact MOST to seek support for their participation in Horizon 2020.

Please find the details of the call at the MOST website:

[http://www.most.gov.cn/mostinfo/xinxifenlei/fqzc/gfxwj/gfxwj2018/201803/t20180326\\_138789.htm](http://www.most.gov.cn/mostinfo/xinxifenlei/fqzc/gfxwj/gfxwj2018/201803/t20180326_138789.htm)

#### **MOST:**

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#### **China Science and Technology Exchange Center (CSTEC)**

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### Co-funding from National Natural Science Foundation of China (NSFC)

NSFC will provide co-funding for the flagship initiative on biotechnology for the environment and human health. For the three topics listed below NSFC will run calls in parallel with Horizon 2020 and provide funding to the selected

Chinese projects and their Chinese partner organisations.

Environmental Biotechnology:

- i. New biotechnologies for environmental remediation (2018)
- ii. Microorganism communities for plastics biodegradation (2019)

Technologies for Global Health Care:

- iii. Custom-made biological scaffolds for specific tissue regeneration and repair (2020)

On 3 January 2018, NSFC published its call for the first joint topic "New Biotechnologies for Environmental Remediation" with a deadline for submission of proposals on 12 April 2018. Two projects, each with three interrelated sub-topics, will be supported. The ceiling of fund scale per project will not exceed 15 million RMB (direct cost) to cover the cost of research and international cooperation and exchanges.

For further information please visit the NSFC call website:

<http://www.nsf.gov.cn/publish/portal0/tab434/info72596.htm>

#### **NSFC**

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#### **Directorate-General for Research and Innovation (DG RTD) of the European Commission**

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## **Co-funding from Chinese Ministry of Industry and Information Technology (MIIT)**

MIIT will provide co-funding for the topic "LC-MG-1-6-2019: Aviation operations impact on climate change". On 17 January 2018, MIIT published the notice announcing the call for proposals on the following specific research topics. Proposals should be sent to MIIT Department of Equipment Manufacturing Industries during the period from 4 December 2018 to 24 April 2019. Chinese participants in joint projects under Horizon 2020 are expected to apply to MIIT for co-funding.

1. Safer and More Efficient Certification of Green Aviation Alternative Fuel (AAF)
2. 4D Trajectory Based Greener Air Traffic Operations

For further information please visit MIIT website:

<http://xxgk.miit.gov.cn/gdnps/wjfbContent.jsp?id=6017273>

#### **MIIT**

Ms. Luo Jie, Email: [luojie@miit.gov.cn](mailto:luojie@miit.gov.cn); Tel: +86.10-68205645

## **ERC-NSFC Implementing arrangement**

At researchers' level, in order to promote the mobility of researchers between the EU and China, the European Research Council (ERC) and the National Natural Science Foundation of China (NSFC) agreed on the Implementing Arrangement in June 2015 to stimulate excellence-based, bottom-up collaboration in frontier research by facilitating that high-calibre Chinese researchers come to Europe to join ERC-funded research teams. The scheme is targeted at the Chinese researchers who are active holders of the competitive grants of NSFC. Selected researchers will be incorporated in the research teams of the European Principal Investigators who are already supported through the ERC grants and who have expressed an interest in hosting Chinese researchers in their research teams. Potential Chinese participants are encouraged to contact NSFC to seek support for their participation in Horizon 2020:

**NSFC**, Ms. Fan Yingjie, Email: [fanji@nsfc.gov.cn](mailto:fanji@nsfc.gov.cn), Tel: +86.10.62325309

## **2. Flagship initiatives and priority areas for EU-China S&T cooperation**

In line with the priority set in the roadmap for research and innovation cooperation with China a number of joint R&I

flagship initiatives were agreed by the European Commission and the Government of China for the period 2018-20 with co-funding from Horizon 2020 and from the Chinese government. The objective of the flagship initiatives is to promote more substantial, coordinated and balanced research and innovation cooperation in particular in the areas of Food, Agriculture and Bioeconomy, Environment and Sustainable Urbanisation, Surface Transport, Safer and Greener aviation, and Biotechnologies for environment and human health.

### **Food, Agriculture and Biotechnologies (FAB)**

The EU China research and innovation flagship initiative on food, agriculture and biotechnologies (FAB) is a comprehensive research and innovation cooperation programme launched in 2014 to tackle sustainable agriculture, food security and safety in the EU and China. This has translated so far into 12 Horizon WP 2020 topics dedicated to cooperation with China with a total EU budget of 94 million euro. Common priorities and WP topics have been jointly identified and co-funded by the EC with CAAS and MOST. As a result 13 joint projects have been launched involving 63 Chinese partner organisations.

For third phase of the FAB Flagship (Work Programme 2018-20) a more balanced EU-China cooperation is envisaged with emphasis on integrated approaches to food safety in agri-food chain, high-efficient management of soil quality and land resources, healthy soils for healthy food production, and use of biogas digestate for high-quality organic fertilisers, fertilisers and other topics with common interests when it is appropriate;

Four topics are planned to be published as follows:

<b>Topic Title</b> ( <i>click topic name to follow link</i> ):	<b>Deadline stage 1</b>	<b>Final Deadline</b>
SFS-37-2019: Integrated approaches to food safety controls across the agri-food chain	23 Jan 2019	04 Sep 2019
SFS-38-2018: Highly efficient management of soil quality and land resources	13 Feb 2018	11 Sep 2018
CE-SFS-39-2019: High-quality organic fertilisers from biogas digestate	NA	23 Jan 2019
SFS-40-2020 - Healthy soils for healthy food production	2020	2020

These topics are intended to promote balanced and substantial cooperation between European and Chinese partners. China based participants in projects selected under Horizon 2020 are invited to apply for co-funding from MOST.

### **Environment and Sustainable Urbanisation**

Strategic joint EU-China research and innovation cooperation in environment and sustainable urbanisation is a long standing priority for both regions and it has been pursued with a number joint projects in FP7 and no less than 8 topics in Horizon 2020 so far. For the period 2018-20 cooperation will target green urban mobility and sustainable electrification in large urban areas, and reduction of transport impact on urban air quality with the two topics below. These topics are intended to promote balanced and substantial cooperation between European and Chinese partners. China-based participants in projects selected under Horizon 2020 are invited to apply for co-funding from MOST.

<b>Topic Title</b> ( <i>click topic name to follow link</i> ):	<b>Deadline stage 1</b>	<b>Final Deadline</b>
SC5-13-2018-2019: Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems. a) Strengthening EU-China collaboration (2018)	27 Feb 2018	04 Sep 2018
SC5-25-2020: Strengthening EU-China cooperation on sustainable urbanisation: Enhanced natural treatment solutions for water security and ecological quality of water in cities	2020	2020

## **Surface Transport**

Cooperation with China on Surface Transport builds on past multilateral cooperation with CSA projects like "[SOLUTIONS](#)" launched in May 2013 supporting the uptake of innovative sustainable urban mobility solutions in Europe. Future cooperation will focus on transport impact on urban mobility, sustainable electrification, air quality, and freight transport systems, and will be promoted through the following topics targeting China as well as other international partner countries. China-based participants in projects selected under Horizon 2020 are invited to apply for co-funding from MOST.

<b>Topic Title</b> ( <i>click topic name to follow link</i> ):	<b>Deadline stage 1</b>	<b>Final Deadline</b>
LC-MG-1-1-2018: InCo flagship on reduction of transport impact on air quality C) Sensing and monitoring emission in urban road transportation system (China)	30 Jan 2018	19 Sep 2018

## **Biotechnologies**

Following fruitful cooperation on biomaterials under FP7, the European Commission and the National Natural Science Foundation of China (NSFC) agreed to further promote research and innovation cooperation with three new research topics on biotechnology for the environment and human health involving co-funding from both sides.

<b>Topic Title</b> ( <i>click topic name to follow link</i> ):	<b>Deadline stage 1</b>	<b>Final Deadline</b>
CE-BIOTEC-04-2018: New biotechnologies for environmental remediation		25 Apr 2018
CE-BIOTEC-05-2019: Microorganism communities for plastics bio-degradation (RIA)		24 Apr 2019
NMBP-21-2020: Custom-made biological scaffolds for specific tissue regeneration and repair (RIA)	2020	2020

Calls related to the three topics mentioned above are expected to promote substantial, coordinated and balanced cooperation between the EU and China. Separate parallel calls will be published by the European Commission under Horizon 2020 and by NSFC in China. China-based organizations are expected to apply for funding to NSFC.

## **Aviation**

Building on a long standing cooperation on aviation research the European Commission and the Ministry of Industry and Information Technology agreed to promote further cooperation with a topic on Aviation operations impact on climate change. This topic is intended to promote balanced and substantial cooperation between EU and Chinese organisations. China-based participants in applications and projects selected under Horizon 2020 are invited to apply for co-funding from MIIT

<b>Topic Title</b> ( <i>click topic name to follow link</i> ):	<b>Deadline stage 1</b>	<b>Final Deadline</b>
LC-MG-1-6-2019: Aviation operations impact on climate change C) Propose and evaluate mitigation strategies towards greener flight trajectories (ensuring complementarities with SESAR JU activities. (China) D) Propose and evaluate mitigation strategies based on changes in the use of alternative fuels (China)		24 Apr 2019

## **Other areas eligible for MOST Co-Funding Mechanism**

Chinese participation is welcomed in the great majority of Horizon 2020 calls and topics in line with existing rules. In addition to the flagship initiatives, several Horizon 2020 topics are flagged for cooperation with China. MOST Co-funding mechanism can be used to promote a strong Chinese participation in these topics as well as in other topics linked to MOST priority areas outlined below. For exact eligibility conditions Chinese participants are encouraged to contact MOST (<http://www.most.gov.cn/eng/>).

### ***MOST Priority areas:***

- 1. New-generation information networks** - 5G communication technology, optical communication technology, CPU technology, Internet-of-things technology, virtual reality technology, quantum communication and quantum computing, big data technology
- 2. Intelligent and green manufacturing** - High-end numerical control machine and intelligent robotics, electric power equipment, next generation semi-conductor, additive manufacturing, new energy equipment, micro-nano manufacturing, gas turbine
- 3. Safe, clean and efficient modern energy** - Clean coal utilisation technology, marine wind power technology, smart grid technology, hydrogen fuel cell technology, nuclear energy utilisation and nuclear decommissioning technology
- 4 Advanced effective, safe and convenient health** – Bio-pharmaceuticals, precision medicine, high performance medical devices, prevention and treatment of major infectious diseases, antibiotic resistance, regenerative medicine, medical big data, medical robots, aging services technology, traditional Chinese medicines
- 5. Marine equipment** - Marine engineering equipment and high tech ships, deep sea oil and gas, natural gas hydrate, deep sea operation
- 6. Space** - Space equipment, space science and technology, satellite application technology (small satellite and load technology), remote sensing (deep-space exploration, satellite imaging, atmospheric observation, lunar-based observation)
- 7. New materials** - Graphene technology, nanomaterials, high performance structure and composite materials, advanced semi-conductor materials, advanced light alloy materials, advanced functional and intelligent materials, catalytic materials
- 8. Large science facilities research**
- 9. Public security** - Disaster warning and treatment, food and drug safety inspection

### ***Horizon 2020 WP 2018-20 topics targeting the participation of China:***

<b>Topic Title</b> ( <i>click topic name to follow link</i> ):	<b>Deadline stage 1</b>	<b>Final Deadline</b>
<b>Energy</b>		
CE-SC3-NZE-2-2018 Conversion of captured CO2		06 Sep 2018
LC-SC3-NZE-5-2019-2020 Low carbon industrial production using CCUS		27 Aug 2019
<b>ICT</b>		
ICT-22-2018 EU-China 5G Collaboration		31/01/2018
<b>Climate</b>		
H2020-LC-CLA-2018-2019-2020 The changing cryosphere: uncertainties, risks and opportunities	19 Feb 2019	04 Sep 2019
<b>Health</b>		
SC1-HCO-11-2018: Strategic collaboration in health research and innovation between EU and China		18 Apr 2018

SC1-HCO-01-2018-2019-2020: Actions in support of the International Consortium for Personalised Medicine		18 Apr 2018
SC1-HCC-03-2018: Support to further development of international cooperation in digital transformation of health and care		24 Apr 2018
<b>Space</b>		
SU-SPACE-22-SEC-2019 Space Weather		12 Mar 2019
<b>Research Infrastructures</b>		
INFRAIA-01-2018-2019 Integrating Activities for Advanced Communities	22 Mar 2018	20 Mar 2019
<b>Other Biotechnologies</b>		
NMBP-13-2018 Risk Governance of nanotechnology (RIA)	23/01/2018	
NMBP-14-2018 Nanoinformatics: from materials models to predictive toxicology and ecotoxicology (RIA)	23/01/2018	
NMBP-15-2019 Safe by design, from science to regulation: metrics and main sectors (RIA)	22/01/2019	
<b>Other transport</b>		
LC-GV-05-2019: InCo flagship on “Urban mobility and sustainable electrification in large urban areas in developing and emerging economies”	NA	24 Apr 2019
LC-MG-1-3-2018: Harnessing and understanding the impacts of changes in urban mobility on policy making by city-led innovation for sustainable urban mobility.	30 Jan 2018	19 Sep 2018
LC-MG-1-1-2018: InCo flagship on reduction of transport impact on air quality A) Low-emission oriented driving, management and assistance (China, CELAC)	30 Jan 2018	19 Sep 2018
MG-2-9-2019: Integrated multimodal, low-emission freight transport systems and logistics (Inco Flagship)	16 Jan 2019	12 Sep 2019

#### 4. Website of the Delegation of the EU to China and functional mailbox

Delegation of the European Union to China:

[http://eeas.europa.eu/delegations/china/eu\\_china/research\\_innovation/index\\_en.htm](http://eeas.europa.eu/delegations/china/eu_china/research_innovation/index_en.htm)

Questions may be addressed to:

Science & Technology Section at the EU Delegation in Beijing. Email [Delegation-China-Scitech@eeas.europa.eu](mailto:Delegation-China-Scitech@eeas.europa.eu)

#### 5. List and availability of local National Contact Points

EU-China Science and Technology Cooperation Promotion Office (CECO):

<http://www.cstec.org.cn/ceco/en/index.aspx>

Regional Contact Points:

<http://www.dragon-star.eu/wp-content/uploads/2014/06/China-RCP-Contact-May-2014.pdf>