Notice of the Ministry of Science and Technology on Application Guidelines for the 1st Batch of Projects for year 2019 under the "Key Project on Intergovernmental International Science, Technology and Innovation (STI) Cooperation/STI Cooperation with Hong Kong, Macao and Taiwan" of National Key R&D Programme[1]

In accordance with the overall arrangements of the Reform of the National S&T Funding Programmes of the State Council (Guo Fa [2014] No. 64) and relevant requirements laid out for the National Key R&D Programme (NKP), the Application Guidelines for the 1st batch of projects for year 2019 are hereby published under the NKP Key Project on Intergovernmental International STI Cooperation/STI Cooperation with Hong Kong, Macao and Taiwan. Please organise project applications based on the requirements set out in the Guidelines. Relevant issues are notified as the following.

I. Procedures of project applications

1. Applicants will submit proposals in the forms of projects in line with the research areas provided in the Guidelines. No tasks (or topics) to be established within projects, proposals should be submitted as projects covering all the indicators provided in the Guidelines. Project application entities should nominate one researcher as Principal Investigator.

2. Evaluation of proposals for NKP projects will be conducted in two stages including pre-applications and formal applications. Detailed procedures are as follows:

   - In line with relevant requirements provided in the Guidelines, applicants shall fill up and submit the pre-application forms via the portal of National S&T Information System. The pre-application within the limit of about 3000 characters should provide detailed explanations on the objectives and indicators of the proposed projects, brief introduction on the innovative ideas, technology roadmaps and basis of research, and attach relevant annexes as requested. The duration from the date of guideline publication to the deadline of pre-application submission shall not be less than 50 days.

   - Applicant entities should sign joint application agreements with all participating entities with indication on dates of signature. Application entities should sign commitment letters of integrity with Principal Investigators. Project applicants and all participating entities should fulfil the requirements set forth in the Several Opinions on Further Strengthening Scientific Research Integrity, reinforce checks on applications, and eliminate exaggerations, inaccuracies and falsifications.

   - Recommending entities should strengthen checks on the project applications to be recommended and submit projects at their recommendation timely via the portal of National S&T Information System.

   - After receipt of project pre-applications, China S&T Exchange Centre (CSTEC) will organise administrative checks and first round of review. No proposal presentation by Principal Investigators is requested for the first round of review. Based on the results of expert review and external consultation, 3 to 4 times of the number of projects to be funded will be selected for the next stage of review. Review results will be notified to those applications that fail to enter the next stage review.

[1] Unofficial translation for reference only, please refer to the website of MOST for call details: http://www.most.gov.cn/mostinfo/xinxifenlei/fgzc/gfxwj/gfxwj2019/201904/t20190423_146203.htm

- Applicants notified by CSTEC of defense reviews shall fill up and submit formal applications via the National S&T Information System within the duration of 30 days.

- CSTEC will organise administrative checks and defense reviews for formal applications. Principal Investigators of project applications will give defense presentations through web video. Projects will be selected based on the results of expert review taking into account external consultations.

II Recommending entities

1. S&T departments and bureaus of relevant administrations of the State Council;
2. S&T administrations of provinces, autonomous regions, municipalities and cities;
3. Industrial associations transformed from industrial administrations;
4. Strategic industrial technology innovation alliances of A type listed as pilots by Ministry of Science and Technology (MOST), and pilots of S&T service alliances listed by MOST and Ministry of Finance

Recommending entities should propose application proposals within their mandates and should be responsible for the authenticity of the recommended projects. Relevant administrations of the State Council will recommend those entities of their professional affiliates. Industrial associations, strategic industrial technology innovation alliances and pilot alliances of S&T services will recommend their member entities. Provincial S&T administrations recommend entities within their administrative scope. The list of recommending entities is published at the National S&T Information System Public Service Platform.

III Application eligibility requirements

1. Lead applicants and participating entities should be research institutes, universities and enterprises registered in Chinese mainland with independent legal person status before 31 March 2018, with competent R&D capacities, solid foundation for international cooperation, and sound operational management. State organs cannot lead or participate in applications.

   Project lead applicants, participating entities and project team members should have good integrity status, and have no records of severe research dishonesty under punishment nor relevant social credit "black list" records.

   The proposal should be recommended by one recommending entity only and should not be submitted through multiple or duplicate channels.

2. Principal investigators should hold senior professional titles or PhD degrees, born after 1 January 1959, with at least 6 months of working time dedicated to projects.

3. Principal investigators should in principle be the proposers of the main research ideas of the proposed projects and the scientists who lead practical research activities. Public service staff (including those undertaking S&T programme administration functions) in central and local state organs cannot apply for projects.

4. Principal Investigators can only submit for one project. Principal Investigators of ongoing projects (including tasks or topics) under the National Key Basic Research Programme (973 Programme, including Large Science Projects), National High Tech R&D Programme (863 Programme), National S&T Support Programme, National International S&T Cooperation Programme, National Large Science Facility Project, and sectorial non-profit research projects (all referred to as "Programmes prior to reform") as well as National Major S&T Projects and National Key R&D Programmes cannot lead project applications. Principal

Investigators of ongoing projects (excluding leaders for tasks or topics) under the National Key R&D Programmes, cannot participate in project applications either.

The total numbers of projects applied for and ongoing projects undertaken by core project participants under the Programmes prior to reform, National Major S&T Projects or National Key R&D Programmes, should not exceed two. Principal Investigators of ongoing projects (including tasks or topics) under the Programmes prior to reform, National Major S&T Projects or National Key R&D Programmes, should not withdraw from projects (including tasks or topics) currently undertaken due to applications for projects under the National Key R&D Programmes.

In principle, principal investigators and core project participants of ongoing projects (including tasks or topics) of the National key R&D Programmes cannot lead or participate in the applications for new projects under the National Key R&D Programmes after withdrawing from the project R&D teams.

Ongoing projects (including tasks or topics) with implementation durations (including those renewed) until 31 December 2019 are not covered by the project number limit.

5. Members of Advisory Committee cannot apply for projects. Experts that participated in the formulation of Key Project implementation plans or application guidelines of the current year cannot apply for the specific key projects.

6. Scientists of foreign nationalities recruited by Chinese mainland entities and scientists from Hong Kong, Macao and Taiwan can be Principal Investigators. Employees under full recruitment conditions should provide valid full recruitment documentation issued by Chinese mainland employers, while employees under non-full recruitment conditions should provide valid recruitment documentation issued by both the Chinese mainland employers and overseas entities, which should be submitted together with the hard copies of project pre-applications.

7. In principle, once project proposals are received, applicant entities and principal investigators cannot be changed.

8. Detailed application requirements are provided in the project application guidelines.

   Applicants can search for information on the ongoing projects (including tasks or topics) undertaken by relevant researchers in the programmes prior to reform, National Major S&T Projects or National Key R&D Programmes, via the National S&T Information System Public Services Public Service Platform so as to avoid duplicate applications.

IV Specific application methods

1. Online submission. Applicant entities are requested to fill up and submit applications online via the National S&T Information System Public Service Platform. CSTEC will organise administrative checks and project reviews on the basis of the application forms submitted online. Templates of pre-application forms and annexes can be downloaded from the National S&T Information System Public Service Platform.

   Online submission of pre-applications will be open from 15 May 08:00 to 12 June 2019 16:00. Applicants that pass first round reviews will fill up formal applications as per request and submit online via the National S&T Information System. Specific timing and relevant requirements will be notified separately.

National S&T Information System Public Service Platform: http://service.most.gov.cn

For technical assistance: Tel: 010-58882999; Email: program@istic.ac.cn

2. Recommending organisation: Recommending entities are requested to send the recommendation letters with official stamps (in two hard copies) and the lists of recommended projects (in two hard copies) to the Institute of Scientific and Technical Information of China by postal services before 14 June 2019 (date of delivery prevails). List of recommended projects should be printed directly from the system.

   Mail address: Room 170, Institute of Scientific and Technical Information of China, No. 15 Fuxing Road, Haidian District, Beijing 100038

   Tel: 010. 58882171

3. Inquiries on documentation delivery and advices: Applicants are required to send pre-application forms with official stamps (in two hard copies) to CSTEC by postal service before 14 June 2019 (date of delivery prevails). Pre-application forms should be printed directly from the system.

   Mail address: Room 600, No. 54 Sanlihe Road, Xicheng District, Beijing 100045
   Tel: 010-68598010

Annex:

Application Guidelines for the 1st Batch of Projects for year 2019 under the "Key Project on Intergovernmental International Science, Technology and Innovation (STI) Cooperation/STI Cooperation with Hong Kong, Macao and Taiwan" of the National Key R&D Programme

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Application Guidelines for the 1st Batch of Projects for year 2019 under the "Key Project on Intergovernmental International Science, Technology and Innovation (STI) Cooperation/STI Cooperation with Hong Kong, Macao and Taiwan" of National Key R&D Programme

A Summary for Reference[2]

The list below is a summary of the projects called under the application guidelines, with indication of the countries/regions, areas, number of projects to be funded and budget to be allocated as provided in the Application Guidelines. The first call of 2019 will support S&T cooperation with 14 countries, regions, international organisations and multilateral cooperation mechanisms. 160~162 projects will be supported, with duration per project of 2 to 3 years.

Cooperation with	Areas	Number of projects to be funded	Budget to be allocated (RMB)
US	Energy saving in buildings, clean vehicle technology, cleaner use of coal (including carbon capture and storage technology)	3	150 million
EU[3]	**Flagship Initiative: food, agriculture and biotechnology**	**2~3**	**40 million**
	Other areas: New generation information network; intelligent and green manufacturing; safe, clean and efficient energy; advanced, effective, safe and convenient health technologies; marine equipment; space; new materials; large scientific research infrastructures; public security	**20**	**60 million**
Sweden	Life science, transport safety, applied information and communication technology (ICT)	5~6	20 million
Norway	Energy innovation centre: Intelligent operation control technology for offshore wind farm; low-carbon community, combined cooling heating and power (CCHP) technology and demonstration for clean energy in buildings, new energy vehicles	3	60 million
	Digital area: digital-based technology; collaborative innovation involving cultural, societal and legal aspects; R&D of products, services and processes to promote social and economic development	10	60 million
Austria	Quantum information science; ICT; medical and health research (including TCM); intelligent manufacturing technology; renewable energy and low-carbon technology; food, agriculture and biotechnology; environment, smart cities and sustainable urbanisation	14	28 million
ROK	Large joint research projects by industries, universities and research institutes: Biotechnology, information communication, renewable energy	2	18 million
	Joint research projects: biotechnology, information communication, renewable energy, medical medicine, aviation and space	6	6 million

[2] Unofficial translation summary based on the Application Guidelines for reference only, please refer to the website of MOST for details of the call notice and application guidelines: http://www.most.gov.cn/mostinfo/xinxifenlei/fgzc/gfxwj/gfxwj2019/201904/t20190423_146203.htm

[3] Reference translation of the detailed requirements in the Application Guidelines is provided in the next annex.

Japan (RIKEN)	No limit	10	30 million
Myanmar	Agriculture, drinking water safety, new energy, traditional medicine, environment protection, disaster reduction and prevention, metrology and standards capacity building	10	15 million
Croatia	ICT, environment protection, biomedicine	3	4.5 million
Malta	Maritime services, maritime technology and aquaculture research; transport research	2	2.8 million
IEA	Fossil energy clean technology; enhanced oil recovery; R&D and application of renewable energies; improved energy efficiency; hydrogen and fuel cells; fusion energy technology; building energy optimisation; advanced materials for transport	20	60 million
Mainland and HK joint R&D	Biotechnology, artificial intelligence	25	50 million
Mainland and Macao joint R&D	Electronic information, biomedicine, energy saving and environment protection, new material science, aviation and space, marine science	10	16 million
Mainland and Taiwan joint R&D	5G and biomedicine	15	15 million

China-EU Research and Innovation Flagship Initiative Projects[4]

Areas: Food, agriculture and biotechnology
Number of projects to be supported: 2 to 3
Fund to be allocated: RMB 40 million

Other requirements:

1. The EU-China STI Flagship Initiative projects aim to support equal and mutually beneficial large scientific research cooperation in priority areas jointly defined. This area is targeted at the scope identified by the call in the EU's Horizon 2020 Work Programme 2019 with the call ID of SFS-37-2019：Integrated approaches to food safety controls across the agri-food chain, and CE-SFS-39-2019：High-quality organic fertilisers from biogas digestate. The EU side will support cooperation with China only.
2. Both sides in the projects should submit their proposals to the entities announcing the calls on the Chinese and European side respectively in response to the priority areas with corresponding IDs mentioned above. Proposals submitted to one side will not be eligible.
3. Each project should include at least three independent Chinese participants without affiliations in between one another. Inter-sectoral applications, cooperation among industries, education and research institutions as well as joint applications with enterprises are encouraged. Participating enterprises should provide supplementary funds at a level equivalent to government funds at minimum. Each proposal should correspond to a clearly identified Horizon 2020 project, define one Chinese lead participant and PI, and submit one Chinese application form. Chinese applicants should be formal partners in Horizon 2020 projects, i.e. listed in the "participants" of Horizon 2020 projects.
4. Chinese and European participants should conduct equal and mutually beneficial collaboration that complements their advantages. Inputs and division of tasks among project participants should be basically balanced.
5. Chinese applicants should submit a copy of their Horizon 2020 project proposal in English and the Chinese translation of project budget and the research content by the Chinese participants, and should ensure that the Horizon 2020 project overall budget includes the budget of Chinese participants, the budget included in the proposals submitted to MOST by the Chinese participants shall not exceed that included in the Horizon 2020 project, and the research content should include the part by the Chinese participants in the English proposals.
6. Project durations should in principal not exceed three years.
7. The overall arrangement of EU-China STI Co-funding Mechanism (CFM) can be accessed at: http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020_localsupp_china_en.pdf, the frequently asked questions on CFM can be accessed at: http://ec.europa.eu/research/iscp/pdf/most_faq_cfm_en.pdf; EU contact: Delegation-China-Scitech@eeas. europa.eu

Other research and innovation cooperation projects under the EU-China CFM

Areas:

1. New generation information network
   5G communication technology, optical communication technology, CPU technology, Internet-of-things technology, virtual reality technology, quantum computing, big data technology
2. Intelligent and green manufacturing
   High-end numerical control machine tools and intelligent robot, electric power equipment, next

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generation semiconductor, additive manufacturing, new energy equipment, micro-nano manufacturing, gas turbine

3. Safe, clean and efficient 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 technologies
   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 hydrates, 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 semiconductor materials, advanced light alloy materials, advanced functional and intelligent materials, catalytic materials
8. Large scientific research facilities research
9. Public security
   Disaster warning and treatment, food and pharmaceutical safety inspection

Number of projects to be supported: around 20

Fund to be allocated: RMB 60 million

Other requirements

1. EU-China Co-Funding Mechanism for STI cooperation aims to support Chinese participation in Horizon 2020 in the priority areas;

2. Applicants should have submitted joint applications with their European partners under the EU's Horizon 2020 Work Programme 2018 or 2019. Projects under other annual Work Programmes are not covered by this call for proposals;

3. Each individual Horizon 2020 project should correspond to an individual Chinese project application. Several Chinese participants in the same Horizon 2020 project should designate one lead applicant through consultations to submit one Chinese application. Chinese applicants should be full partners in Horizon 2020 projects, i.e. listed in the Horizon 2020 project "participants";

4. Both the Chinese and European participants should conduct mutually beneficial scientific research and innovation collaboration that complements their advantages;

5. Chinese applicants should submit a copy of their Horizon 2020 project proposal in English and the Chinese translation of project budget and the research content by the Chinese participants, and should ensure that the Horizon 2020 project overall budget includes the budget of Chinese participants, the budget included in the proposals submitted to MOST by the Chinese participants shall not exceed that included in the Horizon 2020 project, and the research content should include the part by the Chinese participants in the English proposals;

6. The project implementation period should in principal not exceed three years;

7. Please refer to Work Programmes 2018-2020 in specific areas for detailed EU project arrangement: https://ec.europa.eu/programmes/horizon2020/en/what-work-programme;
   The corresponding Horizon 2020 calls for proposals for the above nine priority areas can be referred at: https://cloud.189.cn/t/RJVzEbNfqeie (the list is for reference only, areas other than those listed can also apply if in line with the nine areas mentioned above);
   The overall arrangement of the EU-China co-funding mechanism for research and innovation: http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020_localsupp_china_en.pdf;
   The Frequently Asked Questions in relation to the EU-China co-funding mechanism for research and innovation: http://ec.europa.eu/research/iscp/pdf/most_faq_cfm_en.pdf;

   EU contact: Delegation-China-Scitech@eeas. europa.eu

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Administrative Check Requirements[5]

Project proposals should meet the following administrative check requirements.

1. Recommendation procedures and application forms

1) Recommendation letters should be issued by the recommending entities defined in the guidelines in due time as defined.

2) The proposal of an application entity should be recommended by one recommending entity and should not be submitted through multiple or duplicate channels.

3) The content in project proposals (including pre-applications and formal applications, same for the following) should be in line with the areas provided in the guidelines.

4) Project proposals and annexes should be filled up in complete by following the template provided.

2. Eligibility conditions of applicants

1) Principal investigators should be born after 1 January 1959 and should hold senior professional titles or PhD degrees.

2) Scientists of foreign nationalities recruited by Chinese mainland entities and scientists from Hong Kong, Macao and Taiwan can be Principal Investigators. Employees under full recruitment conditions should provide valid full recruitment documentations issued by Chinese mainland employers, while employees under non-full recruitment conditions should provide valid recruitment documentations issued by both the Chinese mainland employers and overseas entities, which should be submitted together with the hard copies of project proposals.

3) Principal Investigators can only submit for one project. Principal Investigators of ongoing projects (including tasks or topics) under the National Key Basic Research Programme (973 Programme, including Large Science Projects), National High Tech R&D Programme (863 Programme), National S&T Support Programme, National International S&T Cooperation Programme, National Large Science Facility Project, and sectorial non-profit research projects (all referred to as "Programmes prior to reform") as well as National Major S&T Projects and National Key R&D Programmes cannot lead project applications.

[5] Unofficial translation for reference only, please refer to the website of MOST for details: http://www.most.gov.cn/mostinfo/xinxifenlei/fgzc/gfxwj/gfxwj2019/201904/t20190423_146203.htm

Principal Investigators of ongoing projects (excluding leaders for tasks or topics) under the National Key R&D Programmes cannot participate in project applications either.

4) Members of Advisory Committee cannot apply for projects. Experts that participated in the formulation of Key Project implementation plans or application guidelines of the current year cannot apply for the specific key projects.

5) Good integrity status, no records of severe research dishonesty under punishment nor relevant social credit "black list" records.

6) Public service staff (including those undertaking S&T programme administration functions) in central and local state organs cannot apply for projects.

3. Eligibility conditions of application entities

1) Legal person entities such as research institutes, universities and enterprises registered in Chinese mainland. State organs cannot lead or participate in applications.

2) The time of registration should be prior to 31 March 2018.

3) Good integrity status, no records of severe research dishonesty under punishment nor relevant social credit "black list" records.

4. Other administrative check requirements defined by this Key Project should be referred to in the specific guidelines for relevant countries (regions, international organisations).

Persons in charge of administrative checks: Lin Xiyan, Xin Bingqing