MOST (Ministry of Science and Technology) and

Business Finland Joint Funding Call

I. AGREEMENT

- 1. Memorandum of Understanding for China-Finland Science & Technology Innovation Cooperation between the Department of International Cooperation of the Ministry of Science and Technology of the People's Republic of China, and Business Finland (formerly Tekes, the Finnish Funding Agency for Innovation) of the Republic of Finland.
- 2. Strategic Flagship Initiative for Sino-Finnish Science, Technology and Innovation Cooperation 2019-2023.

II. PRIORITIES

Energy

For example including but not limited to cooperation areas such as:

- 1. Smart Grid technologies
 - a. Flexible power systems incl. flexible generation and energy storage to increase the share of renewable energy integration in the power system
 - b. Power-to-X technologies and energy storages for distributed power generation
 - c. CHP (Combined Heat and Power) technologies
 - d. Advanced DHC hybrid networks (incl. sources like waste water, other water resources, data center excess heat, renewables) and technologies to optimize heating and cooling energy generation, storage and distribution in cities (residential, commercial, offices)
 - e. Digitalization of energy sector allowing increased optimization and flexibility of energy systems and implementation of enabling country-level policies
- 2. Clean technologies for energy production
 - Industrial renewal in paper and pulp industry, steel industry, food industry incl. poultry production for utilizing side and waste streams and renewable energy; improving energy efficiency
 - b. More environmental friendly coal-fired powerplants: multifuel boilers, emission reduction,

flue gas cleaning and utilization, process efficiency

- 3. Resource and energy efficient production processes
 - a. Waste to energy and waste to value (W2fuel, W2electricity, etc.)
 - Especially W2liquid fuels (methanol, ethanol)
 - b. Improved usage of energy, water and other resources in a sustainable manner, while minimizing environmental impact
 - e.g. in DHC networks digitalization

Health

For example including but not limited to cooperation areas such as:

- 1. Data and analysis
 - a. Al for prediction, diagnosis, algorithm development to use data (coronavirus data, cancer data) to solve the problem
- 2. Epidemiology/pandemic related research
 - a. E.g., how to use people movement info into prediction for the virus spread and development, and in children's allergic diseases, what's the mechanism of molecular immune response to environmental exposures
- Life science area
 - a. Genomics, precision medicine, medicine research and development, disease treatment etc.

Sustainable Manufacturing

For example including but not limited to cooperation areas such as:

- 1. Research on process optimization methods and production technologies for sustainable manufacturing.
- 2. Research on energy efficiency measurement and evaluation methods for sustainable manufacturing.
- 3. Research on energy efficiency information management system for sustainable manufacturing, and improve energy control throughout the manufacturing process.
- 4. Develop new service-oriented business models and build a sustainable manufacturing ecology for product life cycle.

Smart Mobility

For example including but not limited to cooperation areas such as:

- 1. Mobility as a Service (MaaS), including e.g.
 - exploration of the multi-party service solutions (interfaces/APIs and applications),

- research on the solution integration platforms, and
- commercialization of the MaaS concept.
- 2. Smart urban traffic solutions, including e.g.
 - research on large-scale, real-time, intelligent and high-reliability traffic monitoring and control optimization technologies,
 - research on road side connection technologies, and
 - developing intelligent gateways for smart city system integration.
- 3. Smart urban traffic system integration, including e.g.
 - systemic analysis of the smart urban traffic needs and opportunities,
 - simulation methods for enhanced city traffic solutions taking into account the people's travel needs, and
 - utilization of the MaaS and smart urban traffic solutions.

III. NUMBER OF PROJECTS TO BE FUNDED

Areas:

- Energy: max 5 projects
- Health, Sustainable Manufacturing and Smart Mobility: max 10 projects

IV. FUNDING AVAILABLE

Funding for Chinese partners:

MoST is to provide the following funding for Chinese consortium partners.

- Energy: max 5M RMB per project for 3 years
- Health, Sustainable Manufacturing and Smart Mobility: max 3M RMB per project

Company partners in a project are required to provide at least the same amount of funding to that of MoST's grant.

Funding for Finnish partners:

Business Finland funding is intended for Finnish companies and applicants are expected to focus on larger scale cooperation projects. In certain cases, also co-innovation or co-creation projects including research organizations can be considered – please consult Business Finland in advance. Business Finland funding is not fixed and depends on the number of qualified applications. Normal Business

Finland funding principles are applied: Maximum funding percentage of the project costs for SME's is generally 50 % grant or 70 % loan and for large companies 40 % grant or 50 % loan depending on the type of project. Project costs are not limited, but must be in line with the resources and targets of the company. Typically projects range from 100 k€ to 1 M€. Maximum funding percentage of the project costs for research organizations is 60%. In co-creation projects, the maximum budget is limited to 100 k€.

For more information, see https://www.businessfinland.fi/en/for-finnish-customers/services/fund-ing/in-brief/.

V. ELIGIBILITY, SUBMISSIONS AND DEADLINES

Eligibility:

- 1. Project consortia must include at least one Finnish company (in exceptional cases also only a research organization, if they are preparing forthcoming company collaboration on a new area) and one Chinese partner.
- 2. This call encourages academia-industry cooperation. Business Finland accepts applications from companies operating in Finland as well as from co-innovation consortia including both companies and research organizations (again, in exceptional cases also from a research organization, if they are preparing forthcoming company collaboration on a new area). On the Finnish side, research organizations (including academia) may act as subcontractors.
- 3. This call encourages enterprises to participate, especially joint (co-innovation) applications by multiple companies and research organizations.
- 4. Chinese/Finnish partners are asked to collaborate based on complementarity, equality and mutual benefit. Both sides should have balanced inputs and work packages in the projects.
- 5. China/Finland partners need to have a clear IPR agreement ready before applying.
- 6. In principle, the implementation period of the project shall not exceed 3 years. Personnel exchanges are encouraged within a project.

Submissions and deaadlines:

Chinese partners need to submit their application to MOST and Finnish ones to Business Finland. Applications submitted only to one side are not regarded. Applications must include a joint project plan where the work of each consortium partner is clearly described.

Finnish partners should submit their application through the Business Finland submission system:

https://www.businessfinland.fi/suomalaisille-asiakkaille/asiointipalvelu/. (Huom! Hakuilmoituksessa pyydetty viitetieto: MOST-haku). **Deadline for applications is 15 November 2020.**

Chinese partners should submit their application to https://service.most.gov.cn/.

Opening date for applications is around the end of September 2020.

VI. CONTACTS

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