



Program Management Unit for Competitiveness (PMUC)

Invitation for Full Project Proposal

Project Plan for Developing a Global Partnership Network to Enhance the Country's Competitiveness

[N48 (S4P23) Develop Global Partnership Network

For fiscal year 2024

1. Principles and Rationale

Establishing partnerships with various global networks is one mechanism to enhance the country's competitiveness. This can be done in many ways, such as a process for importing technology from abroad or transferring technology developed in the country to other countries presenting demand. Importing technology from abroad facilitates learning, leading to further development and deployment of research and innovation that are suitable for the development direction of the country, as well as expanding the results to be commercially sustainable. On the other hand, the transfer of technology developed within the country to other countries with existing demand creates opportunities for investment and expansion of research and innovation to be commercialized in international markets. Ultimately, increasing the country's ability to export products and innovations to international markets can be achieved by establishing collaborative networks with joint investment between the public and private sectors, both within and outside the country. Such collaborative research work should ideally involve participation from research professionals, both from inside and outside the country, who possess readiness in research and innovation within the science, research, and innovation framework (SRI).

The Global partnership network development plan to enhance the country's competitiveness aims to build the international competitiveness of Thailand's private sector through the process of cooperation in the form of a network that works with foreign countries. Such a network must have participation from the academic or research institutions, as well as from public and private sectors of both Thailand and foreign countries. The key function of such international initiative is to facilitate cooperation in research and innovation that

increases the country's competitiveness through collaboration between global cooperative networks in the form of a process of adopting technology from abroad and/or transferring locally developed science and technology to foreign countries with existing demand. Strengthening the Thai private sector in bringing research and innovation to the international market will lead to an increase in the country's overall competitiveness at the international level, while helping to reduce dependence efficiently and sustainably on foreign technology, providing benefits to both the economy and the general population. The primary focus of such developmental efforts will be on agriculture, food, medicine, energy, and high-value chemicals, digital metaverse, high-value materials, creative economy, circular economy, future mobility, as well as robotics and automation.

The Program Management Unit for Competitiveness (PMUC), operating under the National Science and Technology Development Agency (NSTDA), was appointed by the Office of Thailand Science, Research, and Innovation (TSRI) to be the main agency responsible for managing research funding, project plans, and development of international cooperation networks to increase the country's competitiveness. According to the National Plan, Strategy 4 which is about developing human resources and scientific institutions to promote research and innovation as a base to drive the country's economic and social development rapidly and sustainably. There is a program within this strategy called "Program 23" which scopes on enhancing research, collaboration, technology development and innovation and establishing research institutes/centers with international networks. The aim is to become the center of high-skill workforce for the ASEAN economic region. To accomplish the objectives, the PMUC has prepared an open invitation to submit full project proposals and project plans for developing a Global Partnership network to enhance the Country's Competitiveness for the fiscal year 2024.

2. Objectives

- 2.1 To build the competitiveness of the Thai private sector through research and innovation processes in collaboration with global partners and increase the ability to promote research and innovation towards commercialization both within the country and abroad.
- 2.2 To develop personnel capabilities for developing and commercializing technologies through global partnerships.

2.3 To encourage cooperation and networking between the agencies in the science, research, and innovation network and the private sectors from both within and outside the country leading to the transfer of technology and the commercialization in foreign markets.

3. Scope of work

Strategy 4: Develop human resources and scientific institutions to promote research and innovation as a base to drive the country's economic and social development rapidly and sustainably.

Program 23: Enhancing research, collaboration, technology development, and innovation and establishing research institutes/centers with international networks.

Objectives: O

O1 P23: Research institutes/centers in higher education institutions, government agencies, and the private sector with research results and/or technology and/or innovation in collaboration with global or regional cooperative networks to create products and outputs that benefit Thailand.

4. Criteria for supported projects

4.1 It must be a single project, or a series of research projects cooperated through global partnership networks. The submitted project should align with the following types of partnership:

- i) Technology partnership: such as technology transfer, opportunity study, and technology searching.
- ii) Market development partnership: such as Growing current market, moving into new market segments, and expanding into new geographical markets.
- iii) Investment partnership: such as Angel, VC, CVC global network, Deep-tech fundraising, Mergers & Acquisition (M&A).

iv) Entrepreneur & talented partnership: such as in tech start ups, SMEs and IDEs (scale up).

- 4.2 It must be a joint research project between government agencies and private sectors from Thailand and abroad, which leads to the development of science, research, and innovation to be commercialized.
- 4.3 Must present documents showing cooperation and/or joint budgetary support from foreign public agencies and private sectors.
- 4.4 Must present documents as evidence of joint budgetary support from the private sector(s), which indicates the budgetary support of at least 10% in cash and 10% in kind. (See attached form in NRIIS).
- 4.5 The technology must be at TRL or SRL Level 4 or above.
- 4.6 Special consideration will be given to project proposals which include plans to organize networking forums/workshop events with financial support from partners in the project. The networking and workshop should create a network of international cooperation, leading to the adoption and transfer of knowledge and technology to improve the country's competitiveness, or promoting the commercialization.
- 4.7 Departments/institutions/team should be knowledgeable and have experience in research management and operation. The team should be able to work on the project throughout the entire period of receiving the funding.

5. Time period

1 year (fiscal budget year 2024). However, the proposal can be set up to 3 years of operation with clear annual milestone goals and objectives.

6. Qualifications of funding recipient and conditions for receiving funding.

- 6.1 Thai academic (public and private)/research institutes/government agencies/non-profit organizations with budgetary contributions from the private sector. The contribution should be no less than 20% (divided into “in cash” contributions of no less than 10% of the “project budget” and “in kind” contributions of no less than 10% of the “project budget”). However, “in cash” contribution can be more than 10% depending on the TRL level and the industrial risk.

6.2 Registered Thai private sector Person or entity. Must be ready to conduct research, have financial stewardship, and is ready for inspection, including contracts or agreements for the allocation of benefits to researchers of the agency (in accordance with Section 14, paragraph one and paragraph five of the Thailand Research and Innovation Utilization Promotion Act, 2021) and must be ready to contribute support as follows:

- Startups must contribute in cash and/or in kind accounting for no less than 10% of the “project budget” and must own a technology which has been proven to be effective for practical use, or must have taken other existing technologies (with the freedom to operate) and further developed the technologies until they were able to obtain their own intellectual property rights. Special emphasis is given to startups that bring research results in Thailand to further develop commercially.
- **Small enterprises** must contribute budgetary support no less than 20% (divided into “in cash” contribution of not less than 10% of the “project budget” and “in kind” contribution of not less than 10% of the “project budget”).
- **Medium-sized enterprises** must contribute budgetary support no less than 30% (divided into “in cash” contribution of not less than 15% of the “project budget” and “in kind” contribution of not less than 15% of the “project budget”).
- **Large enterprises** must contribute budgetary support no less than 50% of “project budget”, with not specific requirements for “in kind” contribution.

*Criteria for classifying the size of enterprises shall be in accordance with the Ministerial Regulation on Determining Characteristics of Small and Medium-Sized Enterprises, 2019, as detailed in Appendix 1.

Remarks: “Project budget” means in-cash funding that are jointly contributed by the PMUC and the private sector entities.

7. Criteria for preliminary consideration of the full project proposals

There are 2 steps in the consideration of project proposals, with the following criteria:

7.1 Criteria for preliminary consideration of project proposals: following the checklist and executive summary in a proposal's form attached in NRIIS.

7.2 Criteria for in-depth consideration of project proposals: in terms of technical and business feasibility by giving scores based on the evaluation of project proposal documents. The scores are given by no fewer than 3 experts and proposed to the relevant subcommittee/executive committee for consideration.

8. Submission of full project proposals.

Proposals should be submitted via the National Research and Innovation Information System (NRIIS) at: <http://nriis.nrct.go.th/>. Please note that all required documents mentioned in the relevant checklist must be uploaded in Word and/or PDF format for the application to be processed.

The online application portal will open on **Monday, 21st August 2023**. The final deadline for submission is **Thursday, 21st September 2023, no later than 5.00 pm Thai time**. Please see the PMUC project proposal submission handbook before submitting.

The authorized representative of the institution/organization must click to submit the project proposals via the NRIIS system **by Thursday, 28th September 2023, by 17:00**.

9. Contact for additional information.

Program Management Unit for Competitiveness (PMUC)

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Appendix 1 *Criteria for classifying the size of enterprises shall be in accordance with the Ministerial Regulation on Determining Characteristics of Small and Medium Sized Enterprises, 2019

New definitions for Medium Enterprise, Small Enterprise, and Micro Enterprise.

Reference sources for new definitions:

- (1) Ministerial Regulation on Determining Characteristics of Small and Medium Sized Enterprises, 2019
- (2) Announcement by Office of Small and Medium Enterprise Promotion on Determining Characteristics of Micro Enterprises.

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According to the new definitions established for Medium Enterprise, Small Enterprise and Micro Enterprises in accordance with the Ministerial Regulation on Determining Characteristics of Small and Medium Sized Enterprises, 2019 and the Announcement by Office of Small and Medium Enterprise Promotion on Determining Characteristics of Micro Enterprises, dated 21st January 2020, which categorized businesses by size based on number of employees and annual revenues, the new definitions for enterprises can be summarized as follows:

Business Sector	Small Enterprise				Medium Enterprise	
	Micro Enterprise		Small Enterprise		Number of employees	Income
	Number of employees	Income	Number of employees	Income		
Manufacturing sector	No more than 5	No more than 1.8 MB	No more than 50	No more than 100 MB	No more than 200	No more than 500 MB
Trade and service sector	No more than 5	No more than 1.8 MB	No more than 30	No more than 50 MB	No more than 100	No more than 300 MB

Notes:

- 1) In the event that an entity has the number of employees that is characteristic of one type of enterprise but generates revenue that is characteristic of another type of enterprise, the consideration shall be based on the revenue.

- 2) Revenue shall be considered from the total income specified in the financial statements prepared in accordance with the law on accounting or income statement.
- 3) Number of employees shall be considered based on documentation showing the number of employees, which has been prepared as required by law.