

# **Case study from China**



**CATTC - China-ASEAN Technology Transfer Center** 



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# **Country case study: China-ASEAN Technology Transfer Center**

#### **Abstract:**

CATTC is the only ASEAN-oriented technology transfer agency on national level in China. Its activities involve various actors, such as public research institutes, government authorities and agencies, with distinctive approaches. This case study provides detailed information on the stakeholders, management strategy, the evaluation process, contributions to digital innovation and AI of CATTC, and at last, explores the policy context of the initiative.

# **Executive summary:**

At present, global Science Technology and Innovation (STI) cooperation has become unprecedentedly intensive and active. Developing countries have increasingly become an important pole in the global innovation landscape. In order to promote STI cooperation with developing countries, drive economic and social development and people's livelihood of ASEAN countries (Thailand, Laos, Cambodia, Myanmar, Vietnam, Brunei, Indonesia, Malaysia, Philippines), contribute to the achievement of the SDGs, China and ASEAN member states jointly launched the China-ASEAN Science and Technology Partnership Program (China-ASEAN STEP), and established China-ASEAN Technology Transfer Center (CATTC) under the framework of China-ASEAN STEP. Formally established in 2013, CATTC is the only ASEAN-oriented technology transfer agency on national level in China, and is devoted to forging China-ASEAN Technology Transfer Cluster Area by integrating technology transfer, jointly research, S&T exhibition, incubator, technology training as a whole.CATTC is not only an initiative, it is also a public institution, so it will provide continuous services for STI cooperation between China and ASEAN countries.

The partners of CATTC include the Science and Technology authorities of China and ASEAN member states, as well as some designated agencies. Ministry of Science and Technology of China (MOST China) and the People's Government of Guangxi Zhuang Autonomous Region are responsible for the construction of the CATTC. Guangxi Science and Technology Department and Guangxi-ASEAN Technology Transfer Center are responsible for daily management and daily work of CATTC. The Science and Technology authorities of ASEAN member states and the designated agencies are responsible to dig for and share information about technology supply and demand, co-organize such activities as technology matchmakings, S&T exhibitions, on-site visits in S&T parks and technical trainings, and provide relevant consultation and facilitation services.

CATTC has a distinctive operation mode of one bilateral working mechanism, one innovation cooperation conference, one collaborative network, and various matchmaking activities. These activities have become a highlight of S&T cooperation between China and ASEAN countries. Under this model, CATTC has set up bilateral technology transfer centers with 9 ASEAN member states, attracting around 2400 members in the "China-ASEAN Technology Transfer Network", successfully held seven China-ASEAN technology transfer and innovation cooperation conferences, organized more than 70 domestic and foreign technology transfer activities, providing matchmaking information for more than 1,900 projects, and facilitated the signing of 491 cooperation agreements. Led by CATTC, China and ASEAN member states have carried out a number of STI cooperation practices, including joint research, technology demonstration, technology transfer, joint laboratory, technical training, and S&T personnel exchanges, thereby improving the livelihood of ASEAN countries and enhancing their capacity for independent innovation.

The digitization and AI expression of CATTC is mainly the China-ASEAN technology transfer information platform, which could provide supply and demand projects, project docking, supporting services, as well as release conference and activity information and so on.

## 1. GENERAL CHARACTERISTICS OF THE CO-CREATION INITIATIVE

Name of the initiative\*: China-ASEAN Technology Transfer Center (CATTC)

Start date\*:2013

Expected end date\*:—

Country/ies where partners are based\*: China, Thailand, Laos, Cambodia, Myanmar, Vietnam, Brunei, Indonesia, Malaysia, Philippines

Project budget\*: Approximately RMB 50 million since initiated (equivalent to about USD 7 million). In addition to the construction funding, the CATTC has an annual funding funded by the finance department.

Share of budget co-funded by partners: 0

Share of public funding (please provide details of the public authorities providing support): RMB 50 million, funded by MOST China and the People's Government of Guangxi Zhuang Autonomous Region.

Share of budget co-funded by VC or other sources (please specify): 0

Main focus (please select)\*: Others (technology transfer)

## Goal and objective of the co-creation initiative

1\*. What is the vision of the co-creation initiative? (e.g., stimulating research and discourse about a new model of global governance; platform for outcomes-based innovation to save and improve lives in low-income countries)

CATTC is devoted to forging China-ASEAN Technology Transfer Cluster Area by integrating technology transfer, jointly research, S&T exhibition, incubator, technology training as a whole.

1A. What is the rationale behind the vision of the co-creation initiative?

At present, in the process of global sustainable development, mankind faces many global challenges. International scientific and technological cooperation plays an important role in this process. At the same time, the fourth S&T revolution is gathering momentum, STI has increasingly become a major driving force for the economic and social development of all countries. In order to promote STI cooperation, drive economic and social development and people's livelihood of ASEAN countries, contribute to the achievement of the SDGs, China and ASEAN member states established China-ASEAN Technology Transfer Center (CATTC) under the framework of the China-ASEAN Science and Technology Partnership Program.

1B. Was it someone's initiative or was it jointly set by all partners? Please provide details on the mechanisms implemented to co-develop the vision.

At the 1<sup>st</sup>China-ASEAN Ministerial Meeting on Science and Technology held on September 22nd, 2012, Ministry of Science and Technology of China and ASEAN member states jointly launched the China-ASEAN Science and Technology Partnership Program (China-ASEAN STEP). As proposed by China-ASEAN STEP, MOST China and ASEAN Committee on Science and Technology (ASEAN COST) have initiated to establish China-ASEAN Technology Transfer

Center (CATTC). Headquartered in Nanning, Guangxi, China, CATTC was jointly established by MOST China, the ASEAN COST and the Science and Technology authorities of ASEAN member states. Guangxi Science and Technology Department is responsible for the daily operation of CATTC.

1C. Has the vision of the initiative ever been revised? Why?

The mission remains basically the same. At the beginning of its establishment, the mission of CATTC was to promote the transfer of advanced and applicable technologies and promote the innovative regional integration development between China and ASEAN countries. The current purpose is to promote the "One Belt And One Road" initiative, promote cooperation with ASEAN countries on transfer of advanced and applicable technologies and innovation, and promote regional integration of innovation. The mission further emphasizes the driving role of STI in international cooperation, but the theme of promoting global sustainable development remains the same.

2\*. What are the main objectives of the initiative?

CATTC is one of the important initiatives to implement the Belt and Road Initiative. It is established to enhance the transfer of advanced and applicable technologies between China and ASEAN member states, as well as jointly research, technology training and personnel exchanges, thus furthering the regional innovation integration.

2A. Are there plans to commercialise the co-created products and/or services? Please explain.

CATTC provides a platform for universities, research institutions and enterprises in China and ASEAN member states by organizing innovation cooperation conference and matchmaking activities. At the same time, CATTC also charges for related activities. Generally speaking, technology training and personnel exchanges are free of charge, and even living allowances are provided to relevant personnel from ASEAN countries.

3. What are the main motivations of the different partners to collaborate in this initiative (e.g., need for finance, competences and skills, network & connections of partners, risk sharing)?

MOST China and Guangxi Science and Technology Department aim to build a diversified China-ASEAN innovation cooperation network, build a major international innovation platform and international innovation alliance, improve ASEAN countries' capacity for indigenous innovation, promote economic and social development and people's well-being of ASEAN member states through STI development. The ASEAN COST and the Science and Technology authorities of ASEAN member states aim to strengthen science and technology docking with China, form regular channels of government-to-government exchanges and cooperation, and cultivate local innovative talents.

# Functional roles of co-creation partners

- 4\*. Please fill in the table below with the following information:
  - 4A\*. Specify all partners involved in the co-creation process (specifying the number of partners per type)
  - 4B\*. Choose the co-creation process project initiator(s)
  - 4C\*. Specify where partners are located

 $4D^*$ . Specify what are the main activities and responsibilities of partners

	A.	B.	C.Location		D. Main activities							
	Partners for co-creation	Project initiator(s)	Local/regional	National	International	Priorities setting	Research	Designing products	Experimentation and development	commercialization / Suppo (marketing, consultancy, etc.)	Product launch	Financial engagement (share of funding, %)
Firms:	1			,	,			1			r	
Service	0											
Manufacturing	0											
Research organizations:	Į.			ı	ı	•	•	I.			l .	
Public research institutes	2				1					$\sqrt{}$		0
Universities	0											
Civil society:												
Non-governmental organisations (NGOs)	0											
Personal engagement	0											
Government:												
Public authorities	12	V	V	V	V	$\sqrt{}$						100
Government agencies	5		V		1					$\sqrt{}$		0
Transnational organizations												

Notes:

- 5\*. Were there any conditions to participate the co-creation initiative? (e.g. amount of funding provided, data sharing conditions, type of expertise, etc.)
- Q5A. If there were any criteria for selecting partners, please, name them

The partners involved in the organization and management of CATTC must be the Science and Technology authorities of ASEAN member states, and the designated agencies. But the members of the "China-ASEAN Technology Transfer Network" could be universities, enterprises, scientific research institutes, industry associations and so on.

For each co-creation partner, please, provide the following information:

- 6\*. Name of organization and its scope of activities (local/regional/national/international) and website (if available)
- 7\*. Please explain the rationale of involving this partner in the co-creation project
- 8\*. Please explain the role and main responsibilities of this partner in the co-creation project
- 9\*. What is the financial engagement of this partner in the co-creation initiative (i.e. what is the share of funding they provide overall and for each of the activities of the co-creation project)?

Answer to Q6-Q9:

name	Scope of activities	websit e	rationale	Role and main responsibilities	Financial engagemen t
MOST China	national international	http:// www. most.g ov.cn/	promote STI cooperation, drive economic and social	Funding and supervision	RMB 11 million since established
the People's Government of Guangxi Zhuang Autonomous Region	national international	http:// www.g xzf.gov .cn/.	development and people's livelihood of ASEAN countries, contribute to the achievement of the SDGs	Funding and supervision	approximate ly RMB 39 million since established
Guangxi Science and Technology Department	national international	http://k jt.gxzf. gov.cn/ gxkjt/	promote technology	Regularly supervision on CATTC.	/
Guangxi- ASEAN Technology Transfer Center	national international	http:// www.c attc.org .cn/.	transfer and STI cooperation	Responsible for daily management and daily work of CATTC.	/
Ministry of Science and Technology of Thailand	national international	/	promote technology transfer and STI cooperation between	guidance and support	/
Thailand National	national international	/	China and Thailand,	implementation of the bilateral	/

Science and Technology Development Agency			drive economic and social development and people's livelihood	technology transfer working mechanism	
Ministry of Science and Technology of Lao PDR	national international	/	promote technology transfer and STI cooperation between China and Lao PDR, drive economic and social development and people's livelihood	implementation of the bilateral technology transfer working mechanism	/
the Ministry of Industry and Handicrafts of Cambodia	national international	/	promote technology transfer and STI cooperation between	guidance and support	/
Cambodia- ASEAN Committee on Science and Technology Cooperation	national international	/	China and Cambodia, drive economic and social development and people's livelihood	implementation of the bilateral technology transfer working mechanism	/
Ministry of Education of Myanmar	national international	/	promote technology transfer and STI cooperation between	guidance and support	/
Myanmar Scientific and Technological Research Department	national international	/	cooperation between China and Myanmar, drive economic and social development and people's livelihood	implementation of the bilateral technology transfer working mechanism	/
Ministry of Science and Technology of Vietnam	national international	/	promote technology transfer and STI cooperation between China and Vietnam,	guidance and support	/
Vietnam Technology Transfer Center	national international	/	drive economic and social development and people's livelihood	implementation of the bilateral technology transfer working mechanism	/
Ministry of Transport And Information of Brunei	national international	/	promote technology transfer and STI cooperation between China and Brunei, drive economic and social development and people's livelihood	implementation of the bilateral technology transfer working mechanism	/
Ministry of Research Technology and Higher	national international	/	promote technology transfer and STI cooperation between China and Indonesia,	guidance and support	/

Education of Indonesia Indonesia Agency for Assessment and Application of Technology	national international	/	drive economic and social development and people's livelihood	implementation of the bilateral technology transfer working mechanism	/
Ministry of Science, Technology and Innovation of Malaysia	national international	/	promote technology transfer and STI cooperation between China and Malaysia, drive economic and social development and people's livelihood	implementation of the bilateral technology transfer working mechanism	/
Ministry of Science and Technology of the Philippines	national international	/	promote technology transfer and STI	guidance and support	/
Department of Technology Application and Promotion of Ministry of science and technology of the Philippines	national international	/	cooperation between China and The Philippines, drive economic and social development and people's livelihood	implementation of the bilateral technology transfer working mechanism	/

# 10. Outcomes and typical cases.

So far, CATTC has set up intergovernmental bilateral technology transfer centers with 9 ASEAN countries, namely Thailand, Laos, Cambodia, Myanmar, Vietnam, Brunei, Indonesia, Malaysia, and the Philippines, attracting more than 2400 "China-ASEAN Technology Transfer Network" members. CATTC has successfully hosted seven China-ASEAN Technology Transfer and Innovation Cooperation Conferences, organized more than 70 domestic and overseas technology transfer activities, and connected more than1900docking projects, leading to the signing of 491 cooperation agreements. Led by CATTC, China and ASEAN member states have carried out a number of STI cooperation practices, including joint research, technology demonstration, technology transfer, joint laboratory, technical training, and S&T personnel exchanges. On the one hand, these activities have promoted the transfer of China's mature and applicable technologies to ASEAN countries; on the other hand, they have also improved the livelihood of ASEAN countries and enhanced their capacity for independent innovation. Typical cases are as follows.

	cooperating countries	cooperating institutions	cooperation content
1	China	Beihai Yuanlong pearl co. LTD	The "China-Malaysia shellfish
1	Malaysia	University of Sabah	(international) joint laboratory" was jointly

			established to carry out the breeding and propagation research of the fine pearl oyster germplasm, and to screen out new lines
			(species) of pearl oyster.
	China	Guangxi medical botanical garden	Co-wrote the Lao herbal pharmacopoeia.
2	Laos	Department of food and drug and	
		institute of traditional medicine in	
		Laos	
	China	Guangxi academy of agricultural	The "China-Vietnam agricultural science and
3		sciences	technology corridor demonstration base" was
3	Vietnam	Vietnam Beijiang agriculture and	built, and grape planting was successfully
		forestry university	achieved in north Vietnam.
	China	Guangxi Haishitong food co. LTD,	Build a platform for China-Brunei fishery
		Shanghai ocean university,	technology exchange and cooperation, and
		Chinese academy of fishery	build Brunei into a fishery research and
4		sciences	development center of ASEAN.
1	Brunei	Brunei university, Brunei national	
		fisheries development centre,	
		Brunei institute of technical	
		education	
5	China	Wuhan optical valley Beidou	Thailand will introduce smart transportation
		holding group co., LTD., Kunming	and customized WeChat electronic platform
		Rongzhihuitu business consulting	for road trip to develop local transportation
3		co., LTD	and tourism.
	Thailand	Thailand's national science and	
		technology development agency	

## 2. MANAGEMENT STRATEGY

10\*. Who is responsible for co-creation process management?

Guangxi Science and Technology Department and Guangxi-ASEAN Technology Transfer Center are responsible for the management of the co-creation process. Guangxi-ASEAN Technology Transfer Center was established in 2014, it is a public institution directly under the Guangxi Science and Technology Department, and is specifically responsible for the operation of CATTC. So far, it has about 50 FTEs.

Q10A\*. Was a steering group or advisory committee set up? If so, please provide details on its role and frequency of interactions.

CATTC establishes yearly bilateral consultation mechanisms with each center of ASEAN member states, and holds an annual bilateral meeting every year.

11\*. What is the frequency of interaction between co-creation partners? (please select) If necessary /Once every few months/ Several times a month / <u>Regularly</u>

Regularly.

Q11A\*. Please describe the nature and frequency of interaction between all couples of partners

For Thailand, Laos, Cambodia, Myanmar, Vietnam, Brunei and Indonesia, who has signed the cooperation agreement/memorandum, CATTC has kept regular meetings and irregular daily communication with them. In details, CATTC holds joint working group meetings regularly, keeps work talks, send daily E-mail and use instant messaging tools to maintain efficient communication and avoid information-missing.

For Malaysia and Philippines, who has not signed any agreement/memorandum yet, CATTC has kept irregular daily communication with them. In details, CATTC keeps work talks and daily E-mail exchanges to maintain necessary communication.

- 12\*. What are the main means of communication among co-creation partners? (Please choose all appropriate answers)  $a_x$   $b_x$   $c_x$   $d_x$  e
- a) Official meetings at the end of the reporting period (quarterly, yearly)
- b) Sharing of newsletters, documents, reports, publications
- c) Digital tools (e.g., email communication, conference calls, internet platforms)
- d) Conferences, workshops, etc. engaging external stakeholders
- e) Personal meetings
- f) Other (please specify)
- 13. Is there an partnership agreement for the co-creation initiative? Yes /No (go on to question 13C)Yes.
  - 13A. Is the agreement formalised? Yes.
  - 13B. Please specify the type of the agreement: b)
    - a)Legal agreement
    - b)Memorandum of understanding
    - c)Other (please specify):
  - 13C. Are legal issues related to the ownership of jointly developed IPRs settled in a partnership agreement?

As a daily operation management unit, CATTC hires legal consultants to guide and deal with legal issues related to IPRs. If IRPs are involved in the cooperation process, all involved partners shall clarify IPRs issues by signing specific agreements.

- 13D. In case there is no agreement, please explain how partners' activities are coordinated
- 14A\*. Who is the owner of data from the co-creation initiative?

CATTC has signed the cooperation agreement/memorandum with Thailand, Laos, Cambodia, Myanmar, Vietnam, Brunei, and Indonesia to jointly establish a bilateral technology transfer center. According to the agreement/memorandum, partners exchange information on technology supply and demand of enterprises, universities and research institutes. Exchange research results and technical information in key areas of co-creation initiative. Data in the cooperation process is owned by the data provider. CATTC is the

owner of its supply and demand project database and collaborative network institution information database.

14B\*. Who is the owner of IP from the co-creation initiative?

According to the signed cooperation agreement/memorandum, if the research results are jointly carried out by partners, orobtained through their joint activities or efforts, the IPRs are jointly owned by partners. If the research results are carried out or obtained by one partner alone, the IPRs shall be solely owned by that partner. If necessary, each partner and its participants shall mutually guarantee the IPRs of each other through the same or other legal means.

15\*. How is the process of accessing research results (for partners) organized?

The acquisition of research results here mainly involves the acquisition of relevant information. According to the signed cooperation agreement/memorandum, partners jointly promote the related exchanges and cooperation between enterprises, universities and research institutes, which means to promote the exchange and sharing of technology supply and demand information based onto the terms of the agreement/memorandum, laws and regulations of respective countries and national policies. Through the holding of science and technology exhibitions, technology docking and project road shows, enterprises, universities, and research institutes are required to conduct technical exchanges and share them through related cooperation documents or the official database.

16\*. How do you set the balance between data sharing and IP protection?

According to the signed cooperation agreement/memorandum, partners share technical cooperation information and attach importance to IPRs protection, which is based on the terms of the agreement and within the scope permitted by the laws, regulations and policies of their respective countries. Partners shall establish relevant regulations for data management and submission, use technological protection measures reasonably, and enhance the awareness of sharing and protection of IP.

17. Is public access to either co-creation results or products granted?

Yes. The public may access relevant technical supplies and demands, basic information of industry experts, or related product information disclosed by CATTC, which can be found through the official website and WeChat public account.

18\*. What types of intellectual property (IP) protection mechanisms are used (e.g., patents, trademarks, industry design, utility model, complexity)?

CATTC has the IP protection mechanisms to protect all types of IPRs, including the patents, trademarks, industry design, utility model and so on. Details areas follows.

- 1. The involved partners protect their intellectual property rights in accordance with the relevant laws, regulations and rules of their respective countries, as well as perform their obligations under applicable international agreements.
- 2. Without the prior written consent of either partner, no partner should use the name, logo and/or official badge of that partner in any publication, document and/or article.
- 3. If the results are jointly carried out by partners, or obtained through their joint activities or efforts, the IPRs are jointly owned by partners. If the research results are carried out or obtained by one partner alone, the IPRs shall be solely owned by that partner.

4. If necessary, each partner and its participants shall mutually guarantee the IPRs of each other through the same or other legal terms.

Unless the author explicitly rejects attribution, the publication or other publicly published copy of the copyright work should specify the author's name.

18A\*. What types of IP are more important for your co-creation processes?

Since CATTC is an ASEAN-oriented technology transfer agency on national level, almost all types of IP are involved in the co-creation processes. Therefore, no priority is given to the protection of all types of IPRs, they are equally important.

## 3. PROJECT EVALUATION

19\*. Are milestones and key performance indicators (KPIs) set for the co-creation initiative? Yes.

If YES.

- 19A. Are they settled in a partnership agreement? No.
- 19B. Are they essentially qualitative or quantitative? Both.
- 19C. Please provide the main KPIs (provide up to 5 indicators)

Main KPIs: (1) China-ASEAN Technology Transfer and Innovation Cooperation Conference is held once a year; (2) Joint bilateral technology transfer working groups jointly hold more than one technology docking or training event each year; (3) Build and improve the technology transfer mechanism with 10 ASEAN countries (4) Improve the China-ASEAN technology transfer cooperation network, starting from 2020, focus on training 100 core members of the cooperation network within three years; (5) Initially build the China-ASEAN technology trading platform by 2022.

20\*. At what stages is the evaluation implemented? (Please choose all appropriate answers): Ex-post. It's a performance evaluation.

For each evaluation stage, please, provide the following information:

20A. What approaches are used?

The main approaches are case study, informal discussion, interviews and field research.

20B. What types of data are used?

Data used are the combination of qualitative and quantitative data.

20C. How is the evaluation process organised? Who is responsible for it? Are there any external evaluations conducted?

In 2013, MOST China funded a project with a capital of RMB 11 million yuan, which was specially used to support the construction of CATTC. In 2017, MOST China organised an performance evaluation of the related funding programme, which involved the porject of CATTC construction. The evaluation was specifically implemented by the National Center for Science & Technology Evaluation (short for NCSTE). NCSTE constructed a performance evaluation

index system to evaluate the progress of the implementation, the international exchanges, the output and outcome of CATTC.

21. Are the evaluation results open (e.g. published on the website, reports, structured databases, etc.) or closed (used only for the internal goals)? If they are open, please specify.

The evaluation results are closed.

22. What are the implications of any evaluations conducted so far (e.g., revision of KPIs; suspension or termination of funding; penalties and rewards associated to performance)? Please explain.

Since the evaluation was not directed at the CATTC project, but at the international science and technology cooperation program of MOST China, so no actions that were done in response to the findings from the evaluation. However, this evaluation played a key role in the design and improvement of the system and mechanism of the international science and technology cooperation program.

23. What are the key success factors of this co-creation initiative?

One of the key factors for the success of the CATTC is the establishment of a distinctive cooperation mechanism between the science and technology authorities of China and ASEAN member states. So far, CATTC has set up intergovernmental bilateral technology transfer centers with 9 ASEAN countries, namely Thailand, Laos, Cambodia, Myanmar, Vietnam, Brunei, Indonesia, Malaysia, and the Philippines, attracting more than 2400 "China-ASEAN Technology Transfer Network" members. The second key factor of success is the exploration of suitable operation mode for the characteristics of China-ASEAN science and technology innovation cooperation. CATTC has adopted the "China-ASEAN technology transfer model" of one bilateral working mechanism, one innovation cooperation conference, one collaborative network, and various matchmaking activities. Under this model, CATTC has successfully hosted seven China-ASEAN Technology Transfer and Innovation Cooperation Conferences, organized more than 70 domestic and overseas technology transfer activities, and connected more than 1900docking projects, leading to the signing of 491 cooperation agreements. This model has become a highlight of S&T cooperation between China and ASEAN countries.

- 24. Were there any challenges during the co-creation process? Please provide details and explain what caused them.
- 25. Based on your experience, what would you recommend to a new co-creation initiative for it to be successful? Please explain the main lessons learned from your experience.

#### 4. THEMATIC FOCUS

Please select one of the two themes below and answer the corresponding questions:

# Theme 1. Co-creation's contributions to digital innovation and AI and effects of data sharing

Please explain:

• What are the ways in which the co-creation initiative features digitalization and AI? Please provide examples.

- What are the roles of stakeholders? Are they different from traditional ones? Please provide examples.
- How are data sharing and intellectual property protection organised? Please provide details.
- What are your best practices? What would you recommend to a new co-creation project involving digital innovation and AI?

The digitalization and AI expression of CATTC is mainly the China-ASEAN technology transfer information platform, which has already been put into use. Through this platform, universities, research institutes and enterprises in China and ASEAN can quickly looking for supply and demand projects, achieve projects docking. At the same time, they can also learn about the latest activity information, sign up for the innovation conference, obtain supporting services, find expert resources and so on. The role of CATTC managers and collaborators is mainly to deeply dig and collect supply and demand information, timely release, and provide a docking platform.

# Theme 2. Effective involvement of NGOs and civil society at addressing societal challenges

Please explain:

- How are civil society and NGOs engaged in the co-creation initiative? Provide examples.
- At which stages of the co-creation process (e.g. priority setting, research, design, experimentation and development, commercialisation, product launch) is the interaction most intensive? Please explain
- What tools do you use to gather inputs from civil society (e.g. online surveys, social media, organised workshops)?
- Are there mechanism in place to address possible conflicts of interest? Please provide details.
- Was the participation of civil society and NGOs in the co-creation project useful for you? Why?
- What are your best practices? What would you recommend to a new co-creation project involving civil society or NGOs?

# 5. POLICY CONTEXT

26\*. Was the initiative supported by a specific policy initiative? If so, please provide details on the policy initiative and type of support provided (e.g. amount of funding, conditions of support, selection criteria, reporting obligations, etc.).

At present, the global scientific and technological innovation has entered an unprecedented period of activity. Developing countries have evolved into an innovation growth pole of increasingly global importance. In this context, China attaches great importance to scientific and technological innovation cooperation with developing countries. At the same time, China has been committed to making tangible contributions to the realization of the

SDGs. The "China-ASEAN Science and Technology Partnership Program" and the "One Belt And One Road S&T innovation action plan" are important ways to achieve the SDGS.CATTC has been strongly supported by this two initiatives. One of the key cooperation contents of the "China-ASEAN Science and Technology Partnership Program" is to build a network of China-ASEAN technology transfer platform. This network builds China-ASEAN technology transfer center, which provides aninformation sharing, resource docking and supporting service platform, topromote cooperation and docking between Chinese and ASEAN enterprises and S&T parks. It alsoorganises the China-ASEAN Technology Transfer and Innovation Cooperation Conferences to provide a "face-to-face" platform for the cooperation between Chinese and ASEAN enterprises. In the future, CATTC will play a more important role in promoting the transfer of advanced and applicable technologies and innovation cooperation between China and ASEAN countries, promoting the development of regional integration of innovation, and driving economic and social development and people's livelihood of ASEAN countries.

27\*. What are the factors (e.g. related to regulations, policy, business environment etc.) supporting and/or hindering co-creation in your country? Please explain.

The factors that support China's international co-creation are:

- (1) To promote the building of the "community of Shared future for mankind", Chinese government attaches great importance to international scientific and technological innovation cooperation. It has been taken as an important content in various national strategic plans and the "One Belt and One Road" programme.
- (2) The investment in international scientific and technological cooperation has increased significantly. The MOST China, the Natural Science Foundation of China, the Chinese Academy of Sciences and other departments and institutions have established programmes to support international scientific and technological innovation cooperation, and are gradually increasing the opening of the national science and technology programmes to the outside world.
- (3) A number of national-level international scientific and technological cooperation bases have been established.

The factors that hinders China's international co-creation are:

- (1) The procedures for going abroad of some departments and institutions are complicated and limited by time and frequency.
- (2) The openness of the national science and technology programmes is still insufficient.
- (3) Restrictions on overseas use of research funds.
- (4) The capacity to participate in international scientific and technological innovation cooperation is still insufficient.
- (5) The incentive measures and service system for enterprises to "go global" need to be improved.
- 28\*. What do you think are most effective types of policy support for co-creation?

Intergovernmental cooperation platform on science, technology and innovation. The government provides funding and policy support, mobilises multiple resources and creates

aco-creationmodelwith regional characteristics. This is the most effective support for co-creation.

----- CASE STUDY AUTHOR -----

Name: ZHOU Xiaolin

Location (country): China

Your role in the co-creation process: evaluator and researcher

Your main activities in the co-creation process: evaluation and research