Asia-Pacific
Economic Cooperation

2015/PPSTI2/004
Agenda Item: 9

Policy Partnership on Science, Technology and Innovation Strategic Plan (2016-2025) (Endorsed)

Purpose: Consideration
Submitted by: Chair

APEC
PHILIPPINES
2015

6th Policy Partnership on Science, Technology and Innovation Meeting
Manila, Philippines
10-12 August 2015

PPSTI Strategic Plan (2016-2025)

Chapter 1 – Introduction

Innovation represents an important pathway to improve the quality of growth, promote economic and social development, address common challenges and achieve prosperity of the Asia-Pacific and beyond.

According to the blueprint proposed in “2011 Honolulu Declaration”, “2012 Vladivostok Declaration”, “2013 Bali Declaration”, and “2014 Beijing Declaration”, the innovative growth strategy is closely related to regional cooperation, human resource exchange, and infrastructure development. In 2011, “Honolulu Declaration” highlighted the importance of open, non-discriminatory trade and investment policies to the implementation of innovative growth strategy. In 2012, APEC Senior Officials agreed to broaden the mandate of the APEC Industrial Science and Technology Working Group (ISTWG) to include issues of innovation policy development by transforming ISTWG into a Policy Partnership on Science, Technology and Innovation (PPSTI) to intensify cooperation among the relevant stakeholders -- government, private sector and academia. In 2013, “Bali Declaration” underscored the commitment to achieving innovative growth through human resource exchange, infrastructure development and enhanced financing. In 2014, the APEC theme of “Shaping the Future through Asia-Pacific Partnership” proposed three priority areas, including promoting innovative development, economic reform and growth. And the APEC Leaders endorsed the initiative on “Toward Innovation-Driven Development”.

In line with the above declaration of innovative growth through enabling eco-system, regional cooperation, human resource exchange, and infrastructure development, PPSTI is to strengthen the synergy of government, academia and industry, including SMEs, and engage actors involved in joint scientific research and in the technology inception, dissemination and commercialization cycle, with both its competitive commercial sectors and non-profit elements.

Chapter 2 – Vision Statement

By 2025, APEC will have achieved innovative economic growth through PPSTI’s efforts.

Chapter 3 – Mission Statement

PPSTI will support the development of science and technology cooperation as well as effective science, technology, and innovation policy recommendations in APEC through collaboration between government, academia, private sector and other APEC fora. PPSTI will build science capacity, promote an enabling environment for innovation, and enhance regional S&T connectivity. Relevant activities can encompass workshops/seminars/forums/policy dialogues, tangible projects, joint research, and establishment of new networks.

Chapter 4 – Critical Success Factors

- Commitment and willingness by relevant stakeholders- government, private sector and academia - to identify and address issues and needs.

- Active participation by member economies in the PPSTI's activities, as well as by private sector and academia (both through regional organizations such as the APEC Business Advisory Council and the Association of Pacific Rim Universities and through representation on each economy delegation).
- Collaboration among the stakeholders (government, private sector, and academia), facilitating dialogue and creating opportunities to exchange views, share knowledge, information and experience among APEC member economies.
- Enhancing capacity building in innovative growth and infrastructure development through workshops and projects at individual level and institutional level in terms of knowledge, skills, and uptake of innovation outputs. Improving linkages, networking capability and knowledge sharing among different groups of private and public stakeholders.
- Development of policy recommendations and sharing of best practices.
- Development and implementation of projects and initiatives that align with PPSTI's strategic orientations.
- Promoting collaboration with other APEC fora as well as other regional and international organizations to jointly address issues on innovative growth.
- Avoid duplication of work completed or underway in other APEC fora (i.e., Intellectual Property Experts' Working Group, Life Sciences Innovation Forum, Ocean and Fisheries Working Group, Energy Working Group, Emergency Preparedness Working Group, SME Working Group).
- Adequate funding for PPSTI proposed activities.
- Adapting to the changing circumstances, to meet the needs of the new normal.

Chapter 5 – Agreed Priorities, Objectives and Key Performance Indicators (KPIs)
PPSTI is composed of three Sub-Groups. Each Sub-Group will determine its Agreed Priorities, Objectives and Key Performance Indicators (KPIs)：

Sub-Group（SG）	**Agreed Priorities**	**Key Performance Indicators (KPIs)**

A. Building Science Capacity	A.1. Enhance Human Capacity	Enhanced STI education with an increase of the degree attainment, researches, and academic publications and technology outputs.
		Promotion on the communication capability among young scientists and students with the students in STEM education.
		By 2025 all APEC Member Economies would continuously strengthen the international cooperation activities with an increase of the number of training courses among different economies through 30-40 projects.
	A.2. Improve Science Integrity	By 2025 all APEC Member Economies would adopt the Responsible Conduct of Research Policies and Practices with an increase of the number of laboratories applying the RCR.
		By 2025 all APEC Member Economies would adopt the RCR Policy with an increase of the number of laboratories that are GLP certified.
		By 2025 all APEC Member Economies would establish a relatively good system of academic integrity through the procedure of peer Review and merit-based screening of research projects.
	A.3. Increase Science Awareness	By 2025 Public Participation in STI Activities and Events would grow significantly in all APEC Member Economies.
		By 2025 all APEC Member Economies would have greater press coverage of STI, with the identification of development of reliable measures of the public awareness of the importance and value of STI.
		Significant Boosts of the Public Funding for Science, Science Education, Technology Development and Innovation Activities will be achieved in all APEC Member Economies through PPSTI's appeal and effort
B. Promoting Enabling Environment for Innovation	B.1. Promote Science and Technological Entrepreneurship	Enhance the linkages between entrepreneurial activity and science and technological activities. Encourage entrepreneurial activity by underrepresented groups in science, technology, engineering and mathematic (STEM) fields especially women and girls. Promote experiential models of entrepreneurship outside of traditional institutional learning models. Strengthen linkages with the private sector to connect science and technological activities to promote entrepreneurship such as business plan competitions and mentorship programs. Share information on entrepreneurial programs and best practices and develop policies recommendations to foster scientific and technological entrepreneurship.
	B.2. Accelerate	Increase the linkages between public research institution and industry on scientific

	Commercialization of Science and Technology	breakthroughs. Share information on public research and development programs to support commercialization programs. Encourage mapping of existing metrics or development of metrics to link science and technological investments with commercialization activities. Promote understanding of the partnership between universities and the private sector in promoting knowledge flows and the role intellectual property protection plays in advancing research, development, financing and commercialization of innovation. Foster policy recommendations to facilitate research and development commercialization.
	B.3. Promote Public-Private-Partnerships for Science and Technological Innovation	Strengthen links between the public and private sectors by organizing 20-30 workshops/seminars/dialogues.. Develop an inventory of model public-private partnerships and best practices to support science and technological innovation. Strengthen links between the public and private sectors to support research and development commercialization including financing mechanisms. Develop frameworks and policy recommendations to increase public-private partnerships in support of commercialization.
C. Enhancing Regional Science and Technology Connectivity	C.1. Promote and empower young/early career innovators to drive collaborative cross-economy STI activities to address current and future challenges	Formulate PPSTI policy recommendations to promote the empower young/early career innovators from the aspects of skill, experiences, and pressure adjustments through PPSTI objects and meetings. Encourage young/early innovators to address grand challenges. Improve young scientists' skills/performances Promote mentorship between young scientists & engineers and experienced innovators. Participation by young/early career innovators in PPSTI projects and meetings. Create PPSTI policy recommendation to promote and empower young/early career innovators
	C.2. Accelerate S&T knowledge sharing to strengthen regional connectivity as an enabler for innovation	Formulate PPSTI Policy recommendations to set procedures and mechanisms for knowledge sharing, scientific data sharing and S&T knowledge sharing. Share Best practices and experiences Establish procedures and mechanisms for knowledge sharing. Promote transparency. Promote scientific data sharing.

		Create PPSTI policy recommendation to accelerate S&T knowledge sharing.
	C.3. Create STI ecosystems & STI networks that strengthen regional STI linkages	Formulate PPSTI policy recommendations to strengthen STI ecosystems and STI networks. Enhance connectivity of industry, academia and policy maker consortiums. Promote dialogue among private sectors, scientists, engineers, including ways to connect venture capital funds for technology commercialization. Increase STI centers/long term mechanisms under PPSTI as appropriate to help PPSTI meet its mission.

Chapter 6 – Project Development and Ranking

Projects should be built in line with APEC Goals, PPSTI priorities and interests of majority members. PPSTI members will rank the proposals according to the following criteria to evaluate its importance:

1. Relevance to APEC: Project proposals which are consistent with the APEC leaders' direction of future of cooperation, with the instructions of AMM and APEC ministers of science and technology, with the Initiative on Innovation-Driven Development, while the capability of policy recommendations will be given highest ranking.
2. Fora Alignment: Project proposals that align with the PPSTI Strategic Plan 2016-2025 / current Annual Workplan / Collective Action Plan will be given higher ranking.
3. Project proposals which meet the following quality assessment criteria will be taken into consideration:

3.1 A direct link to the priorities identified by the current Host Economy will be given higher ranking.
3.2 Relate to priorities of majority member economies.
3.3 Contribute to achieving the objectives identified by each Sub-Group.
3.4 Build on existing work, while avoiding duplication.
3.5 Have good effectiveness and efficiency (with clear and achievable goals, good methodology, sufficient budget, expected outcomes etc.).

Chapter 7 – Project Monitoring and Evaluation

1. The Leading economies of the prioritized activities in this strategic plan will present annually the current progress and the trend of future cooperation of their projects. APEC-Funded projects will be monitored and evaluated by their lead Sub-Group at each PPSTI meeting.
2. The chairs of the Sub-Groups will report at every PPSTI plenary meeting panorama of the on-going projects within their Sub-Groups and illustrate in advance whether and why to launch new proposals.
3. The Chair of PPSTI will report annually the implementation and effect of this strategic plan to the SOM Steering Committee on ECOTECH through the SCE Fora Report, and report to Senior Officials, as requested.

Chapter 8 – Review of Strategic Plan

In every 2 years since this strategic plan has taken effect, PPSTI will prepare a progress report on implementation of projects approved. The projects should be evaluated according to the Agreed Priorities and the KPIs.
It is accepted that the plan is a living document and the PPSTI will evaluate the effectiveness of this strategic plan on a regular basis in line with current APEC guidelines. The Strategic Plan will be reviewed every two years, with a view to modification or amendment, particularly if there is a change in situation. In 2020 and 2025, PPSTI will conduct a comprehensive evaluation to this strategic plan respectively. The review will be based on achievements against stated objectives and outputs, as well as consideration whether the sub-group should continue to operate.

Attachment – Biannual Prioritized Implementation Schedule (from 2016 to 2017)

Sub Group Building Science Capacity

Priority Areas	Prioritized Activities*	Lead Economies	Start Date/ Completion Date	Outputs	KPIs & Review	Funding Types
A.1. Enhance Human Capacity						
A.2. Improve Science Integrity						
A.3. Increase Science Awareness						

Sub Group Promoting Enabling Environment for Innovation

Priority Areas	Prioritized Activities*	Lead Economies	Start Date/ Completion Date	Outputs	KPIs & Review	Funding Types
B.1. Promote Science and Technological Entrepreneurship						
B.2. Accelerate Commercialization of Science and Technology	The Co-establishment of an Online Service Platform for Collaborative Innovation of SMEs in APEC Member Economies	China	Mar 2015/Nov 2016	An upgraded website, primarily for nano and biomedicine industries (expected) Several service sites (expected) A concluding report (expected)	Feedbacks will be collected from participants by methods such as surveys, conversations and questionnaires. Website hits and the number of registers will also be an important indicator.	The Co-establishment of an Online Service Platform for Collaborative Innovation of SMEs in APEC Member Economies
B.3. Promote Public-Private-Partnerships for Science and Technological Innovation	IOV Phase II - A Global Exhibition with a Symposium in the Asia-Pacific Region	China, Chinese Taipei, USA	Feb. 2015 – Dec. 2016	2nd version of the APEC IOV White Paper + APP (as a platform where S &T entrepreneurship and commercialization will be broadly promoted in the APEC region) + annual APEC IOV	Strengthen links between the public and private sectors via IOV events series to support research and development commercialization; Develop an inventory of model	IOV Phase II - A Global Exhibition with a Symposium in the Asia-Pacific Region

				exhibition in cooperation with other APEC forums and non-APEC organizations	public-private partnerships and best practices to support STI and the related start-up and entrepreneurship. Develop frameworks and policy (for instance: Standards in IOV technology and products) recommendations to increase public-private partnerships in support of commercialization.	

Sub-Group Enhancing Regional Science and Technology Connectivity

Priority Areas	Prioritized Activities*	Lead Economies	Start Date/ Completion Date	Outputs	KPIs & Review	Funding Types

C.1. Promote and empower young/early career innovators to drive collaborative cross-economy STI activities to address current and future challenges	Annual APEC Science Prize for Innovation, Research, and Education (ASPIRE)	The United States; Hosting Economy	Ongoing Annual Award	An ASPIRE winner is selected by PPSTI delegates each year to recognize young scientists who have demonstrated a commitment to both excellence in scientific research, as evidenced by scholarly publication, and cooperation with scientists from other APEC member economies. Winner is honored at a ceremony held at a PPSTI meeting.	Enhances regional science and technology connectivity. Brings attention to the cross-border cooperation taking place among our young scientists which is vital to advancing future discoveries that help drive our economies.	
C.2. Accelerate S&T knowledge sharing to strengthen regional connectivity as an enabler for innovation						

C.3. Create STI ecosystems & STI networks that strengthen regional STI linkages						

*Activities lacking a lead economy or necessary resources will be discussed at PPSTI 5 & 6, and then dropped if no member economy expresses interest to keep them forward.