

MINUTES OF THE MEETING

5TH POLICY PARTNERSHIP ON SCIENCE, TECHNOLOGY, AND INNOVATION (PPSTI) MEETING BORACAY ISLAND, THE PHILIPPINES, 16 - 18 MAY 2015

The 5th PPSTI meeting was held in Boracay Island, The Philippines on 16-18 May 2015. It was attended by seventeen member economies (Australia, Brunei Darussalam, Canada, Chile, People's Republic of China, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Peru, the Philippines, Russian Federation, Chinese Taipei, Thailand, the United States and Viet Nam) and eight guests (Macau, China; APRU; WIPO; ASCC; HRDWG; Mr Sherwin Nones; Mr Yang Tianchu; and Mr Michael Mudd).

Day 1, May 16, 2015

OPENING SESSION

AGENDA ITEM 1. Welcoming, Opening remarks and Introductions

Opening Remarks

1. Mr. Chen Linhao, APEC PPSTI Chair, Deputy Director-General, Department of International Cooperation, Ministry of Science and Technology (China) opened the meeting by welcoming the participating economies, and thanking the government of the Philippines for the thoughtful arrangements and warm hospitality. He then lauded the APEC Secretariat for its hard work and support.
2. In consonance with the 2015 APEC theme of "Building Inclusive Economies, Building a Better World", Mr. Chen shared that PPSTI has chosen "Science, Technology and Innovation for Inclusive Growth" as the keywords for its annual work plan and the PPSTI-5 meeting.
3. Mr. Chen reported that through the facilitation of PPSTI and other APEC mechanisms, the Asia-Pacific has maintained sound momentum in advancing Science, Technology and Innovation (STI). The 2014 PPSTI initiative of Toward Innovation-Driven Development was endorsed at the APEC Economic Leaders' Meeting, offering an important guide for advancing STI under the APEC framework. The Chair also remarked that the role of PPSTI will become increasingly important in advancing STI in the Asia-Pacific region in the coming years. Some challenges such as weak participation of the private sector and fragmentation of cooperation outcomes, however plague the region. These problems can be addressed if all PPSTI members will adopt the common objective of building an efficient and seamless regional mechanism for S&T cooperation in the region.
4. Mr. Chen proposed enhanced cooperation in the following areas: a) institutional building of PPSTI through meetings and discussion and improvement of PPSTI strategies and annual work plans; b) strengthened dialogue on STI policies, best innovation practices,

and promote cooperation on concrete projects and joint research programs; c) strengthened PPSTI's interactions with other APEC mechanisms, international organizations, academic and research institutions.

5. Finally, Mr. Chen enjoined everyone to jointly elevate PPSTI to a new level, so as to guide the work of STI under the APEC framework, push for new progress to technological innovation and make even greater contribution to economic growth, social progress and a better life for the people in Asia-Pacific region.

Introduction of the new Governing Board Members

6. Mr. Chen requested the new Governing Board Members of APEC PPSTI to introduce themselves. The Board members consist of the Chair, Mr. Chen Linhao (PR China), Vice Chairs, Dr. Amelia Guevara (The Philippines) and Ms. Christin Kjelland (USA). Mr. Nicholas Brooke (Principal Advisor) and Mr. Alex Rogers (Program Director) were also introduced.

Welcome Message

7. Hon. Mario G. Montejo, Secretary of the Department of Science and Technology extended a warm welcome to the APEC PPSTI-5 delegates and conveyed that the Philippines is proud to host this meeting and to more than 30 other APEC technical working group meetings in the Island of Boracay. He further stated that the PPSTI, as a forum for exchange and dialogue plays an important role in fostering collaboration and synergy among APEC member economies in bringing science, technology and innovation in the forefront of economies' development efforts. The PPSTI provides a platform for engaging government, academe, and the private sector in fruitful discussions to formulate policy recommendations for enhancing the innovative capacity and promoting an environment that nurtures innovation.
8. Secretary Montejo highlighted that the APEC and PPSTI-5's theme on inclusive growth is consistent with the Philippines' development strategy that recognizes the use of STI in addressing pressing domestic problems and improving productivity in key areas of agriculture, health, industry and climate change adaptation, among others. The Philippines' R&D agenda is anchored on the developing technological self-reliance in critical and strategic technologies.
9. Secretary Montejo also emphasized that capacity building is an important strategy in developing cost-effective and sustainable STI-based solutions to national problems. He cited Project NOAH which was conceptualized, developed and implemented by Filipino scientists under the Philippines' Technology Self-Reliance policy. Project NOAH was able to complete a flood early warning system for the country's 18 major river basins in just a little more than two years. This is in contrast to the almost 40 years that it took the country to establish a similar system in only 5 major river basins at a higher cost and fully implemented by foreign institutions. A key component that led to the success of Project NOAH is partnership on capacity building, the freer flow of data and information

in science and technology which he hoped will be strengthened under the APEC.

10. The Secretary conveyed its support to PPSTI's efforts to promote STI for inclusive growth and look forward to receiving the meeting's recommendations to guide APEC leaders in translating R&D results and STI initiatives into national S&T policy agenda. He also invited delegates to the eco-tour for the mangrove and coral reef restoration projects. The eco-tour demonstrates how results and technologies developed from researches are translated into policies and programs adopted by local communities and government units. He expressed his hope to see more of these types of cooperative activities happening on the ground under a regional framework spearheaded by PPSTI.

AGENDA ITEM 2. Adoption of the Agenda

11. The agenda was adopted with no additions from the floor.

AGENDA ITEM 3. Business Arrangement

12. Dr. Amelia P. Guevara, PPSTI Co-Vice Chair (Philippines), informed the PPSTI members about the meeting schedule and venues, as well as arrangements for the cocktails, reception dinner and eco-tour.

AGENDA ITEM 4. Group Photo

GENERAL ISSUES

AGENDA ITEM 5. Preparation of High Level Policy Dialogue on Science and Technology in Higher Education (HLPD-STHE)

13. The Philippines informed the meeting that it will host the High Level Policy Dialogue on Science and Technology in Higher Education on 06-07 July 2015 in Manila. The dialogue is organized by the Philippines' Commission on Higher Education (CHED) and the Department of Science and Technology (DOST) in cooperation with APEC PPSTI and HRDWG. The objectives of the dialogue, which are aligned to the APEC objectives, are as follows: 1) to highlight the role of S&T in fostering inclusive and regional economic growth, 2) to examine and explore higher education mechanisms, modalities and strategies that can build the human capital necessary to produce innovations in S&T and 3) to demonstrate the contributions of science and technology in addressing issues that commonly affect APEC member economies.
14. The HLPD will have the following themes: 1) Innovation in Higher Education Delivery Modalities and Strategies Focusing on Science and Technology Programs 2) Ensuring Relevance, Utilization and Contributions of the Products of science and technology in Higher Education to Economic Development in APEC Region, and 3) Future Scientific and Technological Jobs and Careers. The areas to be covered are a) food production and security, b) environment disaster, prevention, climate change and energy, c) marine economy; biodiversity and conservation, d) smart analytics and engineering innovations, and e) health systems.

15. It is expected that the HLPD will be the venue for the formulation of HRDWG and PPSTI joint statement on strengthening multi-lateral cooperation for advancing science and technology in higher education in the APEC economies towards developing the 21st century innovators for science and technology. The Joint Statement may embody various strategies and actionable steps such as:
- Cross Border Education & Inter-University Collaboration
 - Establishment of the S&T Expert Mobility Card (The STEM Card), which allows S&T experts from any of the APEC member economies to travel within the APEC region for S&T activities in the 5 areas/fields
 - Capacity Building through Twinning Programs (Joint and Double Programs for Ph.D. degrees in Science and Technology, Engineering, Agriculture and Marine Sciences and Fisheries)
16. The Philippines invited member economies to participate and send speakers to the HLPD. The US expressed its support to the HLPD and confirmed to send a high-level speaker to the dialogue. It will also participate in the preparatory meeting scheduled on May 19. The HLPD-STHE was also supported by Indonesia and Russia. Indonesia further commented that the activity should endeavor to formulate specific policy recommendations on how to achieve relevant APEC aspirational targets. Russia meanwhile requested additional information on the S&T Experts Mobility (STEM) Card and its relation to the APEC Business card.
17. The Philippines explained that the proposed STEM card is similar or an expansion of the APEC business card with focus on the five priority themes. Further discussions on the STEM card will be done during the pre-conference and the dialogue proper and if adopted by both HRDWG and PPSTI, the initiative will be included in the discussion at SOM3. The objective is to have the proposal favorably considered by our APEC Leaders.

AGENDA ITEM 6. APEC 2015 Priorities

18. Ms. Noelle Velasquez (Philippines), representative of the SOM Vice Chair reported that APEC's theme for 2015 is *"Building Inclusive Economies, Building a Better World"*. The priority areas will focus on inclusive growth by: a) enhancing the regional economic integration agenda; b) fostering SME's participation in regional and global markets; c) investing in human capital development; and building sustainable and resilient communities.

AGENDA ITEM 7. Report of the APEC Secretariat

Report on Key Developments, including projects

19. The APEC Secretariat informed the Meeting of updates on PPSTI matters discussed in various APEC meetings namely AELM 2014, SCE1, SCE2, and SOM2. Moreover, PPSTI endorsed 16 high quality, well-presented notes for Session 1, 2015. However, only 1 was funded despite the majority of proposals receiving rank 1 status. For the remaining 15 endorsed PPSTI's concept notes, self-funding by member economies remains an option

for them to be implemented. Otherwise, endorsement will lapse and they will have to undergo the same process of review and fresh endorsement by PPSTI if it is to be submitted under Session 2, 2015. Session 2 is the last project funding round for 2015 and the deadline for submission to the Secretariat is on 1 July 2015.

20. It is noted that a total of 112 notes were submitted from across APEC, with 42 funded but only 17 of those were supported from the general funds. Committee scores show preference for projects on SME issues.
21. The APEC Secretariat also reported that the Science and Technology Sub-fund set up by Russia for PPSTI is depleted. It needs to be replenished, otherwise it will be closed. This competitive environment is expected to continue.
22. Russia expressed concern that the situation is discouraging member economies from submitting proposals and urged APEC Senior Officials to address funding concerns. In response, the APEC Principal Advisor suggested that PPSTI seriously consider the involvement of the private sector capable of funding PPSTI projects relevant to them.
23. China also suggested the APEC Secretariat to publicize for transparency the guidelines and principles for reviewing, ranking and funding projects. In response, the APEC Secretariat said that the ranking system being implemented is an APEC-approved system. Changes would have to be coursed through the member economies' respective Senior Officials. Moreover, PPSTI projects compete strongly against other projects.
24. Peru mentioned that it is very difficult to change the system and admitted that SCE projects are not a priority at the SOM level. Needless to say, radical changes in the system are needed including funding options to provide support to PPSTI projects. The possibility of mandatory contribution by member economies should be explored.
25. Australia also suggested that member economies adopt a process of screening proposals at the national level prior to submission to PPSTI to ensure alignment with APEC priorities.

Report on Economic Trends

26. The APEC Policy Support Unit reported an analysis of APEC economic trends for 2014 noting that, the APEC region's GDP grew by 2.9% in 2014 vis-à-vis the world's GDP of 3.4% despite uncertainties and challenging external conditions. The uneven pace of global economic recovery among APEC economies was also noted. Private consumption expenditures remained the key contributor to GDP growth while government spending was relatively stable. Economy-specific factors also weighed in on growth via domestic demand. The report also highlighted the importance of innovation and structural reforms. These include interventions relevant to PPSTI such as skills development especially in science and engineering, enhancing institutions, and improving labor productivity and innovation, among others.

AGENDA ITEM 8. Philippine initiative on Translating Science, Technology and Innovation Activities into Policy Statements/Briefs

27. Secretary Arsenio Balisacan, Secretary of the National Economic and Development Authority (Philippines) presented some initiatives of the Philippines in promoting evidence-based policy making to illustrate how research outputs can be translated into policies that can be adopted by APEC leaders. He cited that many of the policies and recommendations contained in the Updated Philippine Development Plan crafted by NEDA rely heavily on surveys and statistics generated by the Philippines Statistics Authority, as well as on the researches produced by scholars (local and foreign) and leading universities and research agencies in the country. Research in science and technology like the nutritional assessment surveys and studies also directly feeds into many high level discussions and social policy.
28. Sec. Balisacan then sought the member economies' support for evidence-based policy making within APEC. He said that it is important to generate high quality data and produce well-crafted studies, and expand research in science and technology to foster inclusive growth. Sec. Balisacan also added that though evidence-based policy making has been ideal for individual economies and governments, there is no reason to believe that it cannot be adopted within APEC, which accounts for a large part of the world's innovations and technologies.
29. A three-day capacity building workshop is being planned to be held in Manila involving researchers, scientists, inventors and sector representatives to learn how to formulate policy statements out of the outcomes of the activities of the PPSTI. The outputs of the said workshop will be policy statements and recommendations which will serve as inputs for consideration by APEC Leaders. Planning for the event will start in September 2015, while actual conduct of the workshop will be held in the first quarter of 2016.
30. China, Korea, USA and Russia lauded the initiative to translate STI into policy statements/briefs as this effort is consistent with the post 2015 agenda on sustainable development and points to the priority task of PPSTI in the coming years. The USA commented however that learning the skills to translate research outputs into policies and actions is not enough. It is also important to involve the policy makers and learn how the network works to ensure utilization of research results.
31. The Philippines reported that a draft statement will be circulated later in the afternoon for consideration of PPSTI.

AGENDA ITEM 9. The Role intellectual property (IP) plays in fostering a dynamic innovation ecosystem

32. The WIPO presented the basic concepts and guiding principles of intellectual property (IP) and its role in fostering a dynamic innovation ecosystem. IP captures the economic value of innovation and provides a secure environment for taking an idea through

commercialization. The increasing use of IP, WIPO's Patent Cooperation Treaty and patent information is noted. IPs, specifically patent database, is a valuable information resource that can foster innovation and lead to collaboration and partnerships. Information on who is doing or has done what can lead to faster and more efficient R&D projects.

33. The role of WIPO in making IP work for innovation and creativity was also mentioned. WIPO is a specialized UN agency that serves as a global forum for IP policy, services, information and cooperation. WIPO along with Cornell University and the European Institute of Business Administration (INSEAD) publishes annually the Global Innovation Index which is now a leading reference among innovation indices and a benchmarking tool for action among decision and policymakers. The Global Innovation Index (GII) goes beyond one dimensional innovation metrics and provides a more holistic analysis of innovation drivers and outcomes. The 7th edition of GI was released in 2014 and covers 143 country profiles.
34. The Chair thanked WIPO for their participation in PPSTI-5 and noted that IP is a continuing concern in the PPSTI's work. He invited WIPO in PPSTI's future meetings, and activities and encouraged delegates to approach the WIPO representative directly for their concerns.

AGENDA ITEM 10. Annual Work Plan for 2015 and Strategic Plan

Annual Work Plan for 2015 and final endorsement of the Work Plan by PPSTI members

35. The Chair said that the Annual work Plan for 2015 (document no. 2015/SOM2/PPSTI/008) has been circulated a few times prior to the meeting, and hence, has already undergone several revisions. He shared the two points raised by USA:
 - In the last sentence of item 1.1.3, it is mentioned that PPSTI will try to complete APEC's STI cooperation consulting report which would become part of the leaders' or minister's meeting papers. Hence, the Chair said that PPSTI needs to report highlights of its work in the coming years.
 - One of the statements under Item 2.1 – Business Sector cites that PPSTI delegates could additionally attend and observe ABAC meetings to assess fields of particular interest and stronger alignment with PPSTI activities. The Chair pointed out that with the approval of PPSTI and ABAC, delegates can participate in ABAC meetings.
36. The Meeting endorsed the Work Plan, with the provision that additional activities can be included later.

Revised PPSTI Strategic Plan (2016 – 2025)

37. The Chair said that the last strategic plan drafted by the former APEC Industrial S&T Working Group (APEC ISTWG), now the PPSTI, covering the period, 2013-2015 was not approved by SCE. The SCE raised comments on the Vision and Mission statements,

critical success factors, priorities and key performance indicators. The PPSTI took note of these comments, and considered them in drafting the new Strategic Plan for 2016-2025 (document no 2015/SOM2/PPSTI/021). The new plan has been referred for comments by the economies. It has the same structure as the last plan, with eight (8) chapters and an attachment. The Chair invited PPSTI delegates to comment on the strategic plan, and said that the final version is expected to be completed in July 2015, and is tabled for presentation and endorsement in the next PPSTI meeting

38. Korea commended the group for coming up with a well-written and balanced document. Canada however pointed out that some of the key indicators are very ambitious. The Chair said that it is now up to the PPSTI members to propose more conservative indicators, and to add more indicators, as necessary. China requested the Meeting to propose concrete, measurable and achievable indicators.
39. Canada, Russia and USA also raised comments regarding the capability of the PPSTI to measure and determine the baseline figures. Russia shared that since they are undertaking a study on development of methodology and analysis of STI cooperation in the APEC region, it is possible that some efforts could be put together to address this issue.
40. The Chair remarked that all points raised were valid and hence, will be considered in revising the document. He emphasized that the plan is a very important document as it will set the directions and priorities for the next 5 years.

AGENDA ITEM 11. PPSTI Operation Issues

Rebuilding Cooperation with ABAC

41. The Meeting discussed the need to rebuild cooperation with the APEC Business Advisory Council (ABAC). Mr. Brooke, APEC Principal Advisor, elaborated further by stating that PPSTI needs to develop an engagement strategy with the private sector, through ABAC and other groups in line with PPSTI's goal of strengthening its linkage with the private sector. He added that it is important to build the relationship based on relevance to the private sector. In this regard, the PPSTI has to repackage its projects and adopt a specific project approach for this engagement.
42. Mr. Mudd, private sector representative, expressed its support to PPSTI's decision to strengthen partnership with the private sector and mentioned that there are other private organizations that are willing to work with APEC.
43. The meeting requested Mr. Brooke to develop a strategy paper for engagement of the private sector in PPSTI programs for discussion in the next PPSTI meeting. Canada expressed its support to this initiative and requested to consider issues related to the transition of PPSTI from ISTWG.

Reselection of Subgroup Chairs and Vice Chairs

44. The Meeting discussed the reselection of PPSTI subgroup chairs and vice-chairs. The Chair requested member economies to submit their indications of interest to serve in said capacities and inform the Secretariat accordingly.

AGENDA ITEM 12. 2015 ASPIRE

45. The USA and Philippines presented the annual award, APEC Science Prize for Innovation, Research and Education (ASPIRE), which is on its 5th year. The ASPIRE recognizes young scientists from APEC region, 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.
46. Since its launching in 2011, ASPIRE has been sponsored annually by Wiley and Elsevier who will again provide the prize money of USD 25,000 for the 2015 winner. Mr. Brad Fenwick, Elsevier representative expressed their excitement over the partnership with PPSTI in recognizing talented young scientists.
47. The Philippines announced the ASPIRE theme for 2015, “Disaster Risk Reduction: Understanding the Role of Climate Change and Variability” as selected by the Philippines (as the host country) and the co-sponsors. The contest was launched in February 2015. Deadline set for the submission of nominees by the economies is May 22, 2015. The awarding ceremony will be hosted by the Philippines in the next PPSTI meeting.
48. The economies were encouraged to submit their best nominee. Australia shared that the government of Australia and Australian Academy of Science ran a national competition to select their nominee. Institutions were required to submit a single application only. The top three (3) Australian ranked applicants will receive a prize of A\$2,000 (USD\$ 1,590), and will be required to discuss their work with scientists and senior officials. The Australian award ceremony will take place next week. Other economies were encouraged to adopt similar strategies in selecting their nominees.

AGENDA ITEM 13. Report on ART 2015

49. The ROK gave a brief background of the 2012-2014 APEC Research and Technology (ART) Program and the highlights of the recently concluded ART 2015 held on 9-13 March at SUNY-Korea, Songdo, Korea. Twelve member economies participated in ART 2015 which focused on the theme “APEC Innovation Platform/Post 2015 SDGs.”
50. Russia expressed its support to Korea for spearheading ART and acknowledged that it is one of the PPSTI’s mechanisms to come up with policy recommendations. He requested details of the results of ART 2015 to determine what can be implemented under the PPSTI framework.

SUB-GROUP MEETINGS

51. Three (3) parallel meetings were conducted to discuss the endorsed and planned activities for the 3 sub-themes: Building Science Capacity, Promoting Enabling

Environment for Innovation and Enhancing Regional Science and Technology Connectivity.

Parallel Meeting 1: Building Science Capacity

52. Eight (8) projects were presented wherein six (6) are self-funded, one (1) is seeking approval for PPSTI endorsement, and one (1) is planning to expand its project to the PPSTI framework. The six self-funded projects are the following: 1) Building regional ocean and land observation systems to safeguard APEC resources and communities by Australia and co-sponsored by China and USA; 2) APEC Young Scientist Workshop on Effective Science Communication in the 21st Century by China; 3) APEC S&T Mentoring Center for the Gifted in Science by Korea; 4) APEC Green Video Festival and 5) Workshop on Scientific Decision Supports for Emergency Preparedness on Natural Hazards by Chinese Taipei, co-sponsored by Indonesia, Malaysia, Thailand and US; 6) and the Developing Research and Industrialization of Chinese Medicine in Macau by China. The presented projects requested for funding by APEC are the following: the 9th APEC Cooperation for Earthquake Simulation (ACES) by APRU; and the Training and Nurturing Young Scientists (Theoretical Physicists) in the Asia Pacific Area by Korea.

A detailed report is appended as Annex 1.

Parallel Meeting 2: Promoting Enabling Environment for Innovation

53. Group B 'Innovation' presented five projects, two of which are self-funded, namely, 1) Establishment of Regional Database on Herbal Medicine (Philippines) and 2) APEC Workshop on Strategies to Address Non-communicable Diseases (NCDs) through S&T and Innovation: Nutrigenomics Approach (Philippines); and three are presented to give updates on APEC-funded projects namely: (1) APEC Internet of Vehicles (IOV) - Phase 2 (China) (APEC funded), (2) Development of Methodology and Analysis of STI Cooperation in APEC Region (Russia) (APEC funded), and (3) The Co-establishment of an Online Service Platform for Collaborative Innovation of SMEs in APEC Member Economies (APEC funded). The proposed self-funded project entitled "APEC Workshop on Commercialization and Popularization of Research and Market-based Innovations through Policy Translation (Philippines)" was also presented.

A detailed report is appended as Annex 2.

Parallel 3: Enhancing Regional Science and Technology Connectivity

54. Subgroup C entitled "Enhancing Regional Sciences and Technology Connectivity" discussed eight (8) projects (i) Progress Report of Promoting Innovative and High Value-Added Bio-Product Production Technologies for Sustainable Development of APEC's Region (ii) Innovative Application of Weather and Climate Information in APEC Region (iii) 2014 APEC Typhoon Symposium (iv) APEC Smart City Forum and Exhibition on Information Technology (v) Public Private Partnership for the Development of Value Chain: Cycling to APEC Through SME's Value Chain Integration (vi) Use of Weather and Climate Information for Efficient Disaster Management (vii) Proposal for Regional

Workshop on Measurement Challenges in Renewable Energy and Climate Science (viii)
Building Regional Ocean and Land Observation Systems to Safeguard APEC Resources
and Communities.

A detailed report is appended as Annex 3.

Day 2, May 16, 2015

PPSTI Innovation Policy Sharing Seminar

Session 1 (Government) Policy support for small and medium S&T enterprises to gain greater access to finance technology, market, etc.

55. The important role of SMEs in creating new jobs, pushing new technologies and increasing overall progress in economy and society was discussed. Programs and policies being implemented in support of SMEs in nine member economies were presented. The session identified some common challenges facing SMEs, such as non-translation of research results into business innovation, human resources, access to information, acquisition of technology, and right policy mix for direct and indirect support from the government.
56. WIPO also discussed several intellectual property (IP) issues that science and technology SMEs encounter and presented tools to help them access the IP system effectively. The Principal Advisor gave three observations on the government aspects, which were: need for a robust eco-system or “joining the dots”, the possible need for additional policy that would support or accelerate success of SMEs, and the struggle of the SMEs in the digital world.

A detailed report is appended as Annex 4.

Session 2 (Academe) Academia’s contribution to human capacity building of S&T SMEs and academia’s recommendations to government

57. Session 2 looked into the role of academe and its potential contribution to human capacity building of S&T SMEs. Efforts of the Philippines in harnessing its S&T human resource for Small and Medium S&T Enterprise is anchored on the DOST S&T human resource development framework. With Electronics as one of the largest export products of the Philippines, DOST also leads the Microelectronics Education program (DMEP). In support for SMEs, DOST spearheaded the Technology Business Education Program which is a direct policy intervention adopted under the Science, Technology and Industry Chapter of the Medium-Term Development Plan to create greater demand for science, technology and industry.
58. Chinese Taipei presented real world situations on the role of R&D institutes in the growth of SMEs. It highlighted the cycle of concept invention to sustainable growth development for the SMEs. R&D Institutes provide the platform to overcome the challenges faced by SMEs in product development and engineering. An example of this

is the “YouBike”. The Youbike is an innovation that makes use of ICT in creating a user-friendly system to make bicycle rides fun and a form of exercise. R&D institutes are responsible for the development of road maps and strategies with the ultimate goal of establishing a favorable ecosystem that could attract capital talent. Fostering a robust knowledge economy that fully leverages the potential of the triple helix model of government, academia and industry is also important. USA discussed the different contributions each stakeholder can give to improve the system because everybody has different roles to play and potentials to harness. Using the Triple Helix Model of government, industry and academe, meaningful partnerships can become the foundation for success.

A detailed report is appended as Annex 5.

Session 3 (Private Sector) Relationship between development of S&T SMEs and inclusive growth and private sector’s recommendations to government

59. The Philippines presentation on “Bridging the idea to commercialization gap through industry spurring investments in building the startup ecosystem” discussed the innovation funding gap in the Philippines that paved way to the establishment of IdeaSpace Foundation which aims to address the innovation gap and to inculcate in the Filipino culture technology, innovation and entrepreneurship. It was also mentioned that through IdeaSpace, support for incubation are available in each stage that is in line with the foundation’s 3 major initiatives: inspire, incubate, and invest. The major recommendation of IdeaSpace to the PPSTI group is to distinguish S&T and Innovation Enterprise versus SME in policy making.

60. The United States, through I.M. Systems Group, Inc. presented the “Relationship Between Development of Small and Medium Science & Technology Enterprises and Inclusive Growth” and mentioned their initiatives in providing inclusive growth such as application of S&T with Social Welfare, improvement of access to knowledge and education, and S&T efforts through Public-Private Partnership. It was also noted that part of the initiatives of the United States (I.M. Systems Group) was the restoration effort of the mangrove rehabilitation area in Sorsogon, Philippines. Lastly, the USA also appreciated the triple helix model in promoting inclusive growth.

A detailed report is appended as Annex 6.

AGENDA ITEM 14. Wrap-up Session

Report of the Chair of Subgroup A: Building Science Capacity

61. The Chair reported the summary of the discussions for Sub-Group A in Day 1. She noted the attendance of 11 member economies and one observer/invited guest. There were eight projects presented which included six self-funded, one for APEC consideration, and one for information.

62. The first project was presented by Australia which aimed to develop a framework for a Pan-Pacific integrated land and marine observation systems. A workshop will be conducted later in 2015, which is co-sponsored by China and USA. The expected outcome/recommendation for the project is a policy statement that would encompass sustainable development in the region using the system. The policy statement may not be crafted this year but probably in the succeeding PPSTI meetings.
63. The second project was presented by Malaysia on Young Scientist Workshop on Effective Science Communication which is a platform for sharing best practices in communicating through new information modes. They have conducted a meeting this May and the next will be in September. The expected outcome is the establishment of a Science Media Center for APEC economies. It was also recommended to come up with a policy statement such as on open access to information among APEC member economies.
64. The third project was S&T Mentoring Center for Gifted in Science which is an on-going self-funded project by Korea. The project aims to build and operate a mentor-mentee pool among scientist, science education professionals and gifted students in science from APEC economies. It was recommended that Korea come up with a report on the best practices and lessons learned from the program which other economies can adopt.
65. The fourth project presented was the Chinese Taipei's Green Video Festival which was a learning initiative to appreciate quality video programs with three themes, namely: green energy, green building and green technology. The event is scheduled on October 23rd to November 01 this year. The discussion during the event will aim to increase public awareness and it was recommended that the project be expanded in the future to include other themes.
66. The next project is the APEC Cooperation for Earthquake Simulation or ACES by APRU. The project aims to understand the earthquake and tsunami generation mechanism in Asia-Pacific Region. It was recommended that APRU and ACES cooperate with external partners and consider joining forces to reach the best in tsunami and earthquake science.
67. Another project presented was Developing Research and Industrialization of Chinese Medicine in Macau which aims to possibly expand their program to APEC economies.
68. The next project was the APEC Young Scientist Training which is an on-going project by Korea. It was recommended that a more concrete proposal be prepared to strengthen the association with APEC and to foster a more synergistic relationship.
69. The last project was presented by Chinese Taipei which is a workshop on Scientific Decision Supports for Emergency Preparedness on Natural Hazards. The activity aims for a collaboration among economies on knowledge-based innovation and better preparedness prior, during and post disasters.

70. After the presentation, Malaysia requested that the Philippines' suggestion to adopt a virtual Science Media Center be also reflected in the report. Instead of an infrastructure for the Science Media Center, Malaysia agrees to the suggestion of the Philippines.

Report by the Chair of Subgroup B: Promoting Enabling Environment for Innovation

71. The Chair reported the highlights of the Sub-group B meeting. A total of 11 APEC member economies were present: Brunei Darussalam, Canada, China, Chinese Taipei, Indonesia, Korea, Malaysia, Peru, Philippines, Russia, and USA. Five (5) projects were presented: two are self-funded, while three are APEC –funded.
72. China reported on the APEC Internet of Vehicles (IOV) – Phase 2, which is an APEC-funded project. This is an integration of 3 networks: inter-vehicle network, intra-vehicle network, and vehicular mobile Internet. This is expected to be a system for wireless communication and information exchange between V2X (Vehicle to X: vehicle, road, human and internet). Comments generated from the audience include source of funding, plans for the exhibition and concrete recommendations for sharing to higher level of SOM.
73. Russia reported on the Development of Methodology and Analysis of STI Cooperation in APEC Region. An APEC-funded project, it aims to apply a measurement framework that would reflect development of co-operation between APEC economies in the sphere of STI and its influence on the development of economies' innovation systems. Comments raised after the presentation included plans on publications, possibility of a joint publication between member economies and how these will be measured, difficulty in getting data from 21 member economies when they have different databases and approaches in publishing studies, and project may pave way for more cooperation among APEC member economies.
74. The Philippines, on the other hand reported a self-funded project entitled "Establishment of Regional Database on Herbal Medicine" which aims to develop a mechanism to provide easy access on information about scientifically-proven and potentially useful plants. After the presentation, member economies cited that the project is good example of an initiative addressing cross cutting issue that has to be taken up by APEC. However, possible confusion may arise on the kinds of information about herbal medicines.
75. Another self-funded project was presented by the Philippines on APEC Workshop on Strategies to address non-communicable diseases through S&T and Innovation: the Nutrigenomics Approach. The project aims to create a framework of collaboration and information sharing on best practices in Nutrigenomics. After the presentation Russia and USA expressed strong support to the project but inquired how much scientific evidence do member economies have at the moment.

76. Another APEC-funded project entitled “The Co-establishment of an Online Service Platform for Collaborative Innovation of SMEs in APEC Member Economies” was presented. It aims to make use of information technology and the Internet to provide an enabling environment for SMEs in innovative activities and empower their capacity to operate in an international market. The proponent introduced the Suzhou Productivity Promotion Center (SZPPC) and how it will take on the work of the former APEC Center for Technology Transfer (APECTT) in providing service for SMEs on technology transfer and technology commercialization. SZPPC will reapply for the qualification and changing the name to APEC Technology Commercialization and Promotion Center in order to continue to serve the Asia-Pacific region.
77. Policy briefs and recommendations that can be derived from the projects under Innovation include:
- Application of measurement framework reflecting development of co-operation between APEC economies in the sphere of STI and its influence on the development of economies’ innovation systems
 - Developing a mechanism to provide easy access on information on scientifically-proven and potentially useful plants as it addresses cross-cutting issues on health
 - Developing an information resource from peer-reviewed sources to aid researchers and potential investors in drug discovery and development
 - Hastening the translation of research and innovation into practice which has potentials for researcher-researcher and research-industry collaboration
 - Policy brief or recommendation on how scientific breakthroughs like Nutrigenomics can be a game changer in the innovative fusion of health/nutrition, science, trade, business and investments.
78. On the future actions and new projects, the sub-group discussed a self-funded initiative by the Philippines on APEC Workshop on Commercialization and Popularization of Research and Market-based Innovations through Policy Translation. The project aims to strengthen the capability of APEC member economies for policy development and advocacy while providing forum to share, discuss, and formulate policy statements. Comments generated after the presentation included concern over its similarity to the ART project of Korea, thus proponent may need to be specific on its goals so as not to confuse with the plans presented by the ART project. Changing of the term policy statement to “resolution” is suggested.
79. For the Managerial Issues, concern regarding the process of classifying the projects among the sub groups was raised noting that some of the projects included for discussion under the Subgroup 3 could also fit well with Subgroup 2. The Chair said that this is an issue that has been raised in previous meetings and that the group will convey this to the governing board for appropriate action.

Report by the Chair of Subgroup C:

80. The Chair reported that the meeting was attended by Australia, China, Chinese Taipei,

Malaysia, Korea, Philippines, and the USA. The Principal Advisor also participated. They discussed two ongoing projects, and five projects for funding consideration.

81. The project, “Progress Report of Promoting Innovative and High Value-Added Bio-Product Production Technologies for sustainable Development of APEC’s Region” involves research collaboration between research institutes and the private sector, as well as conduct of training in September 2015. Recommendations raised include: revise the training course to make it more comprehensive, provide more details on the policy recommendation, scale up production of biofuels and involve SMEs and the private sector.
82. For the initiative on “APEC Smart City Forum and Exhibition on Information Technology”, the Chair relayed that their recommendations include formulation of policy recommendations, setting of more realistic goals, and holding of an experts’ workshop involving the private sector.
83. The proposal to conduct a “Regional Workshop on Measurement Challenges in Renewable Energy and Climate Science” is envisioned to bring together experts from APEC Metrology Institutes and other stakeholders. The Chair said that this project can be used as a guideline for deploying experts available in member economies.
84. The initiative on “Building Regional Ocean and Land Observation Systems to Safeguard APEC Resources and Communities” aims to regionalize land and marine observation systems and information to build regional capacity, improve regional disaster resiliency, and monitor Indo-Pacific reef health.
85. “Public-Private Partnership for the Development of Value Chain: Cycling to APEC through SME’s Value Chain Integration” is a project aimed to provide the long-term economic development strategy that will improve health, enhance tourism potential and provide industrial benefits as a result of lesser energy costs, carbon dioxide exhaust, pollution, traffic jams and use of urban space. The group suggested that the use of the bicycle as the last-mile transportation be brought to the attention of policy makers.
86. Another initiative was proposed under the purview of the APEC Research Center for Typhoon and Society (ACTS), titled, “Innovative Application of Weather and Climate Information in APEC Region”. The group raised several policy recommendations, as follows: 1) raise awareness on disaster risk and mitigation by the private and public sector through avenues such as publications, social media like YouTube, Facebook, 2) focus on government-private education; 3) conduct a very good assessment on insurance for government and private protection.
87. The APEC Smart City Forum and Exhibition on Information Technology was presented. The initiative on Smart City is anchored on internet of things, interconnection and intelligence.

88. The APEC Climate center presented their project “The Use of Weather and Climate Information for Efficient Disaster Risk Management (APEC Climate Center)” for consideration. Through the proposed symposium, the Center aims to mainstream the use of science in disaster management and policy, knowledge platform and capacity building of AHA Center in knowledge management. The group supports the project and noted the initiative of APEC Center to include policy recommendations as outputs of the symposium. Moreover, it was suggested that a platform be developed for sharing weather information policy among member economies.
89. In summary, the Chair highlighted four (4) points to consider for future actions: 1) Develop a platform for information sharing, 2) Focus on value integration and creation of realistic goal setting, 3) Cooperation and policy making experience sharing, and 4) Demonstration of program design.

Discussion on Sub-group Reports

90. The Chair commended the delegates for their very active participation during the sub-group meetings. He noted that the diversity in scope, complexity and extent of projects implemented and proposed under PPSTI. Some policy recommendations arising from the projects can be elevated to the level of APEC Senior officials. Some proposed fora can be integrated to gain more impact and create more synergy within PPSTI and other APEC mechanisms.
91. Mr. Brooke commented that from the reports alone, 21 events such as fora, symposium and workshops were discussed. He suggested to come up with a masterlist of events. The Chair agreed to include said list in the PPSTI workplan.

AGENDA ITEM 15. Endorsements and Next Steps

92. The Meeting endorsed the minutes of the 4th Meeting of the PPSTI held on September, 2014 in Beijing, China.

Proposed Policy Statement on Translation of STI to Policy

93. The Philippines presented a working draft of a proposed policy translation initiative, which is consistent with the PPSTI Terms of Reference to support development and exchange innovation policies. The Meeting expressed its appreciation to the Philippines for the initiative. Mr. Brooke, Principal Advisor, suggested to make the statement’s message more direct, clearer and bolder. He also inquired on how the Philippines see the policy statement being used to which the Philippines replied that it is envisioned to be a basis for decision-making by higher authorities. The statement, once adopted by PPSTI, will be elevated to SCE, SOM and hopefully, adopted by APEC Leaders.
94. China and Russia requested more time to study the document. China suggested further that other PPSTI priorities such as engagement of the private sector and collaboration be considered. Canada also suggested that PPSTI be cleared on what it is trying to achieve

with the statement and reflect its relation to PPSTI's mission of STI for development.

95. The Chair requested clarification from the APEC Secretariat on whether adoption or issuance of policy statements is within PPSTI's Terms of Reference. The APEC Secretariat informed the Meeting that while PPSTI is a non-binding forum, the usual practice is for it to craft initiatives rather than statements. As such, it might be good to follow past guidelines.
96. The APEC Secretariat also informed the Meeting that an external independent assessor assigned by SCE will be attending PPSTI-6. The assessor will look at, among others, the fundamental aspects of PPSTI operations which include formulating innovation policies.
97. The Meeting agreed to work on the document intersessionally, leveraging on what has been prepared by the Philippines and taking into consideration the comments and suggestions made by APEC member economies. The US, Australia and Canada volunteered to work with the Philippines on enriching the document.

AGENDA ITEM 16. Guests Reports

Association of Pacific Rim Universities (APRU)

98. APRU presented an overview of their organization's mission, organizational structure, and programs. Their main purpose for attending the Meeting is to inform the meeting of the contributions made by their organization in advancing research and innovation potentials of the APEC region. APRU represents a large proportion of research capabilities in the region being an international organization of key research universities across APEC. The APRU also partners with relevant institutions to work on solutions to Asia-Pacific challenges and is also sought for advice by member economies on big science projects.
99. The APRU has identified the following thematic priorities namely, 1) Shaping Asia-Pacific higher education and research, 2) Creating Asia-Pacific global leaders, and 3) Partnering on solutions to Asia-Pacific challenges. The projects and accomplishments that support each of the thematic priorities were presented.
100. The APRU also informed the Meeting that it is working with Elsevier to look at the capabilities of universities in research and innovation, specifically their competencies and capabilities across a wide range of fields/disciplines. The APRU looks forward to a continuing partnership with PPSTI.
101. The Meeting thanked APRU for its presentation and considered including in the agenda a discussion of APEC capabilities in the next PPSTI meeting.

APEC Study Centers Consortium (ASCC)

102. The representative of APEC Study Centers Consortium (ASCC) thanked PPSTI for the

opportunity of presenting ASCC to the PPSTI member economies for the first time. She shared that APEC Study Centers (ASCs) were part of the vision set out by the APEC Leaders in 1993 when they launched the APEC Leaders' Education Initiative. This initiative called on APEC members to foster regional cooperation among tertiary and research institutes to promote greater academic collaboration on key regional economic challenges.

103. ASCCs are hosted by universities and research institutes around the APEC region. Currently, there are more than 50 ASCs in 20 out of the 21 APEC member economies. Given the common concern to promote collaboration to address regional economic issues, ASCC seeks to explore possible collaboration in terms of research, information sharing and research dissemination with PPSTI.

Integrated Micro-electronics, Inc. (IMI)

104. Mr. Sherwin Nones, representative of Integrated Micro-electronics, Inc. (IMI) disclosed that their company is a global provider of electronics manufacturing services (EMS) and power semiconductor assembly and test services (SATS). He shared that it was his second time to attend PPSTI, and that because of his participation in PPSTI 4, he was able to establish contacts and secure a business deal. He revealed that his company has indirect links with ABAC, and hence can assist PPSTI in forging closer links with the Council. Mr. Nones also stated that they are looking forward to exploring potential partnership with some of PPSTI's projects, and in forging a long-term engagement with PPSTI.
105. The Chair thanked the private sector guests for their continued support and cooperation, and expressed his hopes that PPSTI and the private sector can jointly move forward to address common challenges to achieve prosperity in APEC.

OTHER BUSINESSES

AGENDA ITEM 17. Report to SCE/SOM and Meeting Summary

106. The Meeting discussed the draft executive summary and endorsed the same incorporating the comments of member economies.

AGENDA ITEM 18. Announcement by the Host Economy (The Philippines)

107. The Co-Vice Chair invited PPSTI member economies to PPSTI 6, which will be held in Cebu City, Philippines. She said that the final date of the meeting will be announced later.
108. The Co-Vice Chair also issued the invitation for everyone to join the eco-tour on May 18, 2015, which will start with the ceremonial mangrove tree planting, and to be followed by the ceremonial coral transplantation. She gave the details of the arrangements for the visit.

AGENDA ITEM 19. Closing Remarks

109. PPSTI 5 Co-Vice Chair Dr. Guevara conveyed her gratitude to all the delegates of PPSTI member economies for participating in PPSTI 5. She said that the Philippines through the Department of Science and Technology was happy to host the conference.
110. Vice Chair Ms. Kjelland expressed her appreciation for the excellent agenda and leadership by the Chair, and congratulated the Philippines for hosting a well-organized conference. She said that PPSTI- 5 has been an efficient meeting and was very productive in generating a lot of policy recommendations and in conducting the PPSTI Innovation Policy Sharing Seminar.
111. Mr Chen, PPSTI Chair remarked that PPSTI 5 has undoubtedly achieved a lot. The Meeting was able to discuss a lot of project proposals, more than 20 events, and private sector participation. He added that even with little funding, the PPSTI has a lot of ongoing projects. Considering that innovation plays a critical role and has a very high ranking in the APEC agenda, Mr. Chen said that there is still a lot of work to be done in the future. He then enjoined everyone to work together in elevating and expanding the scope of PPSTI's work, and continue to move towards contributing to the APEC aim of enhancing economic growth, trade and investment opportunities, as well as social progress, in harmony with sustainability.
112. In closing, Mr. Chen thanked the Vice Chairs, colleagues in PPSTI, as well as the Program Director and the Principal Adviser for their continuous support and cooperation. He also conveyed his gratitude to the economies for their active participation. Finally, he thanked the Philippines for hosting the event, and the DOST staff for their hard work and excellent arrangements made for PPSTI-5.

DAY 3, May 18, 2015 ECO-TOUR

113. Member economies participated in the eco-tourism activities consisting of the ceremonial planting of mangrove and tying of coral fragments unto a coral nursery unit in Malay, Boracay. These activities were organized to demonstrate how research outputs are adopted and translated into appropriate policies by the local community. The eco-tour also coincided with the celebration of Boracay Day.
114. In his welcome message, Mr. John Yap, mayor of Malay, Boracay, said that it is a challenge for Boracay to foster and sustain its natural resources. As such, the Coastal Resource Management Program is being implemented and strengthened giving high regard to mangrove areas and corals—the world's famous, powdery white sand. The community sustains the program by involving different sectors and organizations which generously share their time and efforts for these conservation efforts. Mayor Yap expressed his gratitude to PPSTI for spearheading activities to help the Island conserve its natural resource and ensure that these are enjoyed by generations to come.

115. The other activity of the eco-tour is the ceremonial tying of coral fragments unto a coral nursery unit (CNU) by member economies which was then transported to the Coral Garden, 10m deep into the waters of Boracay. In recognition of PPSTI's staunch commitment in the preservation of the coastal resources of Boracay Island, the municipality of Malay declared 100 square meters of the coral garden as APEC PPSTI Coral Garden. The declaration and turnover of the CNU were received by the Philippine Science Secretary Mario Montejo, PPSTI Chair Chen Linhao, Vice-Chairs Amelia Guevara and Christin Kjelland, and Alex Roger of the APEC Secretariat.
116. With the permission of PPSTI and the APEC Secretariat, the Philippines will show a video every year during the PPSTI meeting to update member economies on the status of the APEC PPSTI Coral Garden.
117. To conclude the event, the Vice Chair thanked everyone who participated in the three-day PPSTI meeting and said that updates on the Coral Nursery Units (CNU) will be given on the next PPSTI 6 meeting in Cebu City in August 2015.

REPORT OF SUB GROUP A – Building Science Capacity

The Capacity Sub-group was chaired by Ms. Rongfang Wang of China with Mr. Brad Fenwick of the US as Vice Chair. APEC member economies (11) attended the session, namely Australia, Brunei Darussalam, China, Malaysia, New Zealand, Republic of Korea, Philippines, Chinese Taipei, Thailand, US, and Viet Nam. APRU and Macau, China also attended as observers.

The Vice Chair opened the session for presentation of ongoing and proposed activities. Eight (8) projects were presented, six of which are self-funded and two are for APEC funding consideration. Below are the projects presented.

1. **“Building regional ocean and land observation systems to safeguard APEC resources and communities” (self-funded by Australia: co-sponsored by China and US)**

The aim of the project is to develop a framework for a Pan-Pacific integrated observation system that will facilitate the building of the science and research capacity of the region by utilizing land and marine observation systems. One of the expected outcomes of the project includes the development of an action plan for a regional system. Member economies are invited to join the workshop that will be held later in 2015 in Australia. The Vice Chair recommended that the project be also presented to the Food Security Working Group. The Chair, on the other hand, asked for initiatives carried out by the project to avoid duplication of efforts.

According to Australia all similar and related initiatives are being reviewed and possible collaborations are looked into. As for the creation of a policy statement that could be adopted by APEC PPSTI, Australia responded that they are still in the process of integrating the project with the sustainable development goal for the region. The Vice Chair requested for the preparation of a comprehensive policy statement for presentation next year.

2. **“APEC Young Scientist Workshop on Effective Science Communication in the 21st Century” (self-funded)**

The workshop was conducted to develop a platform for sharing best practices in science communication that draw public attention and, at the same time, to foster ties among Young APEC scientists. For future action, through dissemination modes, the project will look into the implementation of best practices among young scientists and selected media practitioners from 21 APEC economies. Through APEC, the project also aims to achieve the creation of a policy statement on Science Communication; the sharing of STI information among APEC economies, encourage the establishment of Science Media Centre, and the establishment of science communication as a professional career.

The Vice Chair noted that the Science Media Center initiative falls as an infrastructure project, and suggested the creation of a possible policy statement related to open access of STI information.

3. **APEC S&T Mentoring Center for the Gifted in Science” (self-funded)**

Korea presented the project on Mentor-Mentee pool among scientist that involves science education professionals and gifted students in science from APEC Economies for continuing exchange programs and joint research activities.

The Chair requested Korea to submit a detailed analysis/ key points and best practices on the implementation of said program and to recommend a related policy statement.

4. **“APEC Green Video Festival” (self-funded; co-sponsor: Indonesia, Malaysia, Thailand and US)**

The aim of the festival is to facilitate empathic learning through quality video programs tackling green energy, building and technology. Chinese Taipei invited the member economies to the festival to be held at Eslite (Xin Yi Store), Taipei from 30 October to 01 November 2015. Video submissions from member economies are also encouraged. English will be the official language.

5. **“9th APEC Cooperation for Earthquake Simulation (ACES)” (for funding)**

APRU presented concept for the 9th APEC Cooperation for Earthquake Simulation to be held in Chengdu, China. The initiative emphasizes the relationship of training, education, and outreach to decrease vulnerability to hazards. Through the workshop, APRU aims to help facilitate the understanding of earthquake and tsunami generation mechanism in Asia Pacific region.

6. **“Developing Research and Industrialization of Chinese Medicine in Macau” (self-funded)**

Macau, China presented the traditional Chinese medicine initiatives of Macau and called for investment partnerships and collaboration in the continuous efforts related to its technology platform. The Chair recommended that other traditional Chinese medicine/ medical practices that has been proliferated in the region be included in their initiatives.

7. **“Training and Nurturing Young Scientists (Theoretical Physicists) in the Asia Pacific Area (APEC Young Scientist Training)**

The Asia Pacific Center for Theoretical Physics (APCTP-Korea) Young Scientists Training Programs aims to promote basic research in theoretical physics for young scientists in the region. Through APEC, APCTP would like to extend the program to the regional activities and networks.

8. “Workshop on Scientific Decision Supports for Emergency Preparedness on Natural Hazards”

Chinese Taipei invites researchers, and practitioners on hazard related technologies from member economies to the workshop to be held from 27-31 July 2015 in Taipei. The workshop aims to facilitate a dialogue among the academe, practitioners and the community actors to engage in public, private and people partnership for better utilization of S&T innovations for decision making. Through the workshop, the National Science and Technology Center for Disaster Reduction (NSTCDR) will promote broader participation and knowledge-based innovation that are important in emergency preparedness.

There are no new proposals to be included in the PPSTI working group.

Managerial Issues

Malaysia recommended to the Chair that together with Korea and Chinese Taipei, an integrated policy statement on science communication and promotion will be prepared. Related to this, the Philippines suggested to the Chair that to improve STI initiatives in the region, collaborations must be worked out for better outcomes. Further, the Philippines suggested that other economies may volunteer or share in the funding of good programs or collaborations to enhance and expand participation. In line with this, the Philippines suggested that PPSTI initiate a data sharing policy for APEC. Further, with reference to the discussion of the strategic plan, the Chair recommended that each economy contribute inputs to the KPIs to make it achievable and measurable. The Chair emphasized that each economy may suggest concrete, achievable goals that are numerical. If necessary, one economy sets up and leads special task force with other participating economies to do the research for the final KPIs.

In conclusion, the Vice Chair emphasized on internal collaboration in projects to improve quality and create greater possibility of receiving funding from APEC.

REPORT OF SUB GROUP B – INNOVATION

The Innovation Sub-group was chaired by Dr. Mario V. Capanzana of the Philippines. APEC member economies (11 member economies) present were Brunei Darussalam, Canada, China, Chinese Taipei, Indonesia, Korea, Malaysia, Peru, Philippines, Russia, and USA.

The Chair invited the proponents to make a presentation of their on-going projects. Five (5) projects were presented, of which, two are self-funded and three are APEC funded. Right after each presentation, member economies were encouraged to raise questions and discuss important policy recommendations advocated in the projects.

AGENDA ITEM 2.2.1: Report on the endorsed and planned activities and discussion ensuing after the presentation.

1. The first project discussed was the APEC-funded project from China, co-proposed by Chinese Taipei and USA, entitled ***“APEC Internet of Vehicles (IOV) - Phase 2.”*** It was presented that the IOV is an integration of three networks, namely, the inter-vehicle network, intra-vehicle network, and vehicular mobile Internet. Based on this concept, IOV is expected to be a system for wireless communication and information exchange between V2X (Vehicle to X: vehicle, road, human and internet) according to agreed communication protocols and data interaction standards. Phase 1 of the project involved the conduct of the APEC-funded global forum which took place in Shanghai in 2014 and the publication of the 1st edition of the APEC White Paper. The project is being progressed collaboratively with sub-forums, including TEL-WG, TPT-WG, the APEC Automotive Dialogue, the APEC Sub-Committee on Standards and Conformance. The proposed Phase 2 of the project includes: (1) an exhibition to show the latest technological achievements in Intelligent Transportation, ICT application on vehicles and IOV, (2) a symposium to muster solutions to road safety and transportation efficiency, and (3) framework (standards, IP protections and ects.) of measures for applying IOV in APEC economies. It is expected that after the symposium, the publication of the 2nd edition of the IOV White Paper will be prepared. It is also hoped that there would be a focus on capacity building for developing APEC economies.

Canada asked for clarification regarding the source of funding for the project. The APEC Secretariat responded that the project was originally submitted for general fund. It was however redirected to the Science and Technology Sub-fund upon the review of the project management unit of the Secretariat.

USA asked about the plans for the exhibition. China responded that preparations are being made and they are planning to do the exhibition in early 2016.

Russia suggested that the proponent should make concrete recommendations for sharing to higher level of SOM.

2. Russia reported on the APEC-funded project entitled ***“Development of Methodology and Analysis of STI Cooperation in APEC Region”*** which aims to apply a measurement framework that would reflect development of co-operation between APEC economies in the sphere of STI and its influence on the development of economies’ innovation systems. Expected outputs of the project include: (1) The methodological guidance for measurement of STI co-operation in the APEC region; (2) Workshop for APEC economies to discuss the results of the analysis and make recommendations to foster STI co-operation; (3) Analytical report on the “STI co-operation within the APEC region”; and (4) Publication of special statistical bulletin / data book ‘STI co-operation of APEC economies’

USA inquired on the project’s plans on publications, the possibility of a joint publication between member economies and how these things will be measured. Vietnam remarked that the proponent may find it difficult to get data from 21 member economies when economies have different databases and approaches in publishing their studies. Philippines inquired on the potential policy that can be derived from the project. Russia responded that the project will help determine where and how cooperation can be developed. It could be a good policy tool to set goals to achieve and to measure KPIs.

Indonesia on the other hand expressed hope that the outcome of this project will pave the way for more cooperation to happen among APEC member economies. APEC Secretariat extended support to the effort of the Russian Government towards implementation of the project.

3. The Philippines presented the updates on the self-funded project entitled ***“Establishment of Regional Database on Herbal Medicine.”*** The plans for the conduct of the workshop in May 2016 were discussed, highlighting that it is intended to be the venue for stakeholders to discuss and develop a mechanism to provide easy access on information about scientifically-proven and potentially useful plants. Ultimately, the workshop is geared towards the development of an information resource from peer-reviewed sources which could aid researchers and potential investors in drug discovery and development. At present, Malaysia already developed a web-based prototype for ASEAN, but the system can further be enhanced and used by APEC economies. She mentioned an example of policy statement that can be developed from the project, that is: to hasten the translation of research and innovation into practice, we enjoin the economies to participate in the build-up of a regional database on herbal medicine for easy access to information which has potentials for researcher-researcher and research-industry collaboration (in support of Healthy Asia Pacific 2020 as formulated by the Health Working Group).

Indonesia supported the project and expressed that it is a good example of an initiative that addresses a cross-cutting issue that has to be taken up by APEC. It was suggested that the project be also presented in the Health Working Group meeting.

Chinese Taipei expressed concern on the possible confusion on the kinds of information about herbal medicines that will be included in the database. The Philippines responded that a background review will be conducted prior to the meeting.

4. Another self-funded project from the Philippines is the ***“APEC Workshop on Strategies to Address Non-communicable Diseases (NCDs) through S&T and Innovation: Nutrigenomics Approach”*** which aims to create a framework of collaboration and information sharing on best practices in Nutrigenomics. The workshop will be a two and a half day event which is divided into two themes. The first theme will be about the public health implications of Nutrigenomics. While the second one will be more specific in creating a system of collaboration via the initiation of the APEC Center for Nutrigenomics which is expected to become APEC’s hub in Nutrigenomics research, development, and translation. At the end of this workshop, each of the participants will be aware of the role Nutrigenomics will play in curbing NCDs. Each will come to know about the existing methods used to utilize the promises of Nutrigenomics, and expected to be adapted and soon put into a unified scheme among APEC economies. People from the business sector will also be able to appreciate the economic prospects this new science can offer. An avenue for cross collaboration among other APEC working groups like the Health will be created and come up with a draft statement heralding Nutrigenomics as a game changer in the innovative fusion of health, science, trade, business and investments.

The policy statement proposed is as follows: APEC economies must strive to utilize Nutrigenomics as a means of preventing the rise of non-communicable diseases.

Russia expressed support for the project and shared that there are technology platforms in Russia which can be interested to join the project and attend the workshop in Manila.

5. China presented another APEC-funded project entitled ***“The Co-establishment of an Online Service Platform for Collaborative Innovation of SMEs in APEC Member Economies.”*** which aims to make use of information technology and the Internet to provide an enabling environment for SMEs in innovative activities and empower their capacity to operate in an international market. The proponent introduced the Suzhou Productivity Promotion Center (SZPPC) and how it will take on the work of the former APEC Center for Technology Transfer (APECTT) in providing service for SMEs on technology transfer and technology commercialization. SZPPC will reapply for the qualification and changing the name to APEC Technology Commercialization and Promotion Center in order to continue to serve the Asia-Pacific region.

Chinese Taipei asked for the policy recommendations that will be derived from the project. China responded that focus was given on the cooperation among member economies instead of policy considerations or recommendation. Question on procedures on supply and demand was raised by Korea. China replied that since the project is an open portal, those who would be interested to be partners will be invited for discussion. Korea expressed high expectations for the project considering

that commercialization is an important subject matter. Chinese Taipei suggested that the business model of the project should be improved to provide more services. This may increase the success factor and sustainability of the project and may later on benefit more member economies.

AGENDA ITEM 2.2.2: Discussion on the future actions

On the future actions and new projects, the sub-group discussed the following initiative presented by the Philippines:

1. The self-funded project on ***“APEC Workshop on Commercialization and Popularization of Research and Market-based Innovations through Policy Translation”*** aims to strengthen the capability of APEC member economies for policy development and advocacy and to provide the forum to share, discuss, and formulate policy statements. Two workshops will be conducted in 2016. The first workshop in March 2016 will involve review of concepts, methods, and process in policy development and drafting of framework for the institutionalization of policy development in the PPSTI’s agenda. The follow up workshop in September 2016 will involve the crafting and formulation of policy statements and policy briefs on specific areas. It is expected that after the workshop, the policy documents emanating from the workshop will serve as the tangible outputs of the PPSTI and serve as basis for policy formulation.

USA inquired about possible similarity of the proposed project with the ART project of Korea. Korea shared that the proponent should be specific on its goals so as not to confuse with the plans presented by the ART project.

Russia remarked that the economies should not limit themselves to the development of policy statements as the end goal of the projects because implementation is another step that has to be considered. After all, policies, like research results, are meaningless if they stay on paper and not properly implemented.

Brunei Darussalam suggested to change the term policy statement to “resolution”.

AGENDA ITEM 2.2.4: Other Managerial Issues

Canada asked regarding the process of classifying the projects among the subgroups noting that some of the projects included for discussion under the Subgroup 3 could also fit well with Subgroup 2. The Chair said that this is an issue that has been raised in previous meetings and that the group will convey this to the governing board for appropriate action.

REPORT OF SUB GROUP C – ENHANCING REGIONAL SCIENCE AND TECHNOLOGY CONNECTIVITY

The chair of the Connectivity subgroup was Dr. Jetshu of Chinese Taipei with Ms. Christin Kjelland of the USA as Vice Chair. The APEC member economies in attendance were Australia, China, Chinese Taipei, Malaysia, Korea, Philippines, and the USA. The Principal Advisor also participated.

The proponents presented their projects indicating status of the project, future actions and their respective policy recommendations. Below are the projects presented:

1. Chinese Taipei's project **"Progress Report of Promoting Innovative and High Value-Added Bio-Product Production Technologies for sustainable Development of APEC's Region"** aimed in linking bridges in other APEC economies such as Indonesia, China, Mexico and Thailand through conversion of organic wastes into high value-added Bio-product Production Technologies such as Pharmaceuticals, Nutraceuticals and Biofuels. The project also collaborated with the academe for the basic research, as well as research institutes and private sector. There will also be a short-term training course for the said project on 21-24 September 2015 at Keting, Pingtung, Chinese Taipei. The Chair mentioned that the training course should be comprehensive and give more details on the policy recommendation. The USA also suggested scaling up the production of biofuels and including the SMEs and private sectors.
2. The project "APEC Smart City Forum and Exhibition on Information Technology" and its previous works were presented by China, where the important aspects like world urbanization and features of Smart City were also discussed. Smart City is anchored on internet of things, interconnection and intelligence. There are likewise challenges to Smart City which are identified in six scenarios: 1) Resident/community healthcare; 2) Lower carbon and energy savings; 3) Intelligent traffic; 4) Communication and Information; 5) Water Resources Protection and 6) Business/Governance/Emergency. The APEC Smart City Industrial Technology Cooperation Forum was conducted in 2012 with 19 APEC member economies in attendance and 1 guest economy. The output of the forum was the Changzhou Declaration which is "to build Smart City Together". The 2014 Forum also came with the 2014 Changzhou Declaration to: 1) Enhance the cooperation among business, government and academia under APEC framework; 2) Develop smart health, logistics, transportation, and home preferentially; 3) Build APEC Research Institute for Smart City Initiative; and 4) Cooperation project for Smart City among APEC. The Smart City through the Changzhou declaration further promotes cooperation among APEC member economies in building smart city and smart industry development. It will give strategic direction for building smart city, industrial innovation and technological cooperation. The presenter also mentioned that they will try to submit policy recommendation after the event as Chair's request. The USA recommended to include the private sector in technical standards discussion and the private sections can follow the standards in building smart cities. The Chair also added to his recommendations that the project should have realistic goals and to have an expertise workshop that involves the private sectors.

3. China and United States presented their project **“Proposal for Regional Workshop on Measurement Challenges in Renewable Energy and Climate Science”** for funding consideration. The project aims to strengthen the measurement infrastructure in the Asia Pacific particularly in the renewable energy and climate science through a one-day workshop that will bring together experts from APEC Metrology Institutes and other stakeholders. The United States mentioned that APEC funds received would ensure participation of developing economies in the workshop. Through the workshop, member economies will share their best practices and to know exactly the problems that they encounter and to propose solutions.
4. The project of Australia on **“Building Regional Ocean and Land Observation Systems to Safeguard APEC Resources and Communities”** for consideration aims to regionalize land and marine observation systems and information to build regional capacity, improve regional disaster resiliency, monitor Indo-Pacific reef health. The presenter also invited the group to be involved in the project through speaker and technical advisory roles and mentoring.
5. Chinese Taipei presented for information of the other economies the **Public-Private Partnership for the Development of Value Chain: Cycling to APEC through SME’s Value Chain Integration**. This zeroes in on **SME Green Growth** as the long-term economic development goal that leads to health, tourist and industrial benefits as a result of lesser energy costs, carbon dioxide exhaust, pollution, traffic jams and use of urban space. The development of **last-mile personal green mobility** through SME cluster is considered as the essential strategy for the STI policy for smart city/smart transportation development as well as in developing the **cycling culture**. The project further presents that the cycling industry has been upgraded to be a **value-added industry** as it evolved from a purely bicycle manufacturer into a transportation solution provider for leisure, tourism, professional sport competitions, and the best mental-to-physical balancer. The **value chain integration**, on the other hand, is an important factor for SME to save time, investment and reduce the business complexity. Chinese Taipei intends to share the best practice of the SME value chain integration with APEC economies.
6. Chinese Taipei likewise presented the **Innovative Application of Weather and Climate Information in APEC Region** under the APEC Research Center for Typhoon and Society (ACTS). The economic and human impact of disasters in 2005-2014 in terms of damage, affected people and people who perished. It also showed the top 10 economies with most disasters with the top 3 being China, US and the Philippines. The data show that climate-related disasters now account for over 85% of all disaster events and contribute enormously to economic losses. This led the ACTS to develop a **Connectivity Platform** in 2010 for the specific purpose of experience sharing, technology development and science awareness among APEC economies. These are conducted through symposia, workshops, forum and publications like the ACTS newsletter. Chinese Taipei also discussed the underinsurance map. The Chair presented some policy recommendations, as follows: 1) make the private and public sector be aware and understand disaster through avenues

publications, the YouTube, focus on government-private education; 2) conduct a very good assessment on insurance for government and private protection.

Managerial Issues

The Chair pointed out four (4) points to ponder for future actions:

1. Platform approach
2. Focus on value integration and creation of realistic goal setting
3. Cooperation and policy making experience sharing
4. Demonstration program design

It was also mentioned to the group some critique points such as the importance of including the private sector in science, technology and innovation and focusing on the core enhancement of the research. It was also noted the issues in funding and exploring possible support/funds from the private sectors for Subgroup C projects.

REPORT ON SESSION 1 – (Government)

Policy support for small and medium S&T enterprises to gain greater access to finance technology, market, etc.

The session on government perspective on policy support for small and medium S&T enterprises was chaired by China with the Philippines as Vice Chair. APEC member economies present were Australia, Brunei Darussalam, Canada, China, Chinese Taipei, Indonesia, Japan, Korea, Malaysia, New Zealand, Russia, Peru, Philippines, Thailand, The United States, and Viet Nam. Also present were observers/invited guests namely Macau, China, APRU, WIPO, ASCC and the principal advisor.

The Chair opened the session by introducing the important role in creating new jobs pushing new technologies and increasing overall progress in economy and society. There were 9 presentations; seven were by member economies and two by invited guests.

- Common programs were related to direct support such as financial assistance, subsidies and tax incentives, specific government agencies or centers that focus on all SME-related transactions, and indirect support such as collaboration with universities and financial institutions that support SMEs.

Some of the best practices and programs were presented such as the instruments that help identify optimal policy mix of Canada; setting priorities such as building high tech zones, S&T SMEs' incubators and information centers as well as financial incentives such as inno-fund of China; strengthening public-private partnerships and bridging institutes from research laboratories to the industry of Japan; CREAR of Peru which is a set of instruments to increase the capacity to innovate (that include increase investments, human resource information, and exchange and transfer of technology); policies on technological self-reliance, data sharing and IP of the Philippines; federal subsidies to the regions for SMEs of Russia; Small Business Innovation Research and Small Business Technology Transfer of USA; and S&T Development Fund and CPTTM of Macau, China.

- Similar identified challenges that SMEs face include that much research are still not translated into business innovation, human resource, access to information, acquisition of technology, and right policy mix for direct and indirect support from the government.
- WIPO also discussed several IP issues that S&T SMEs encounter and presented tools to help them access the IP system effectively. Among these include addressing low awareness through IP Panorama, discounts to PCT applications, Investor Assistance Program, and implementation of support programs such as WIPO Green which connects green technology providers, and WIPO Arbitration and Mediation Centers.

Observations/Recommendations from the Principal Advisor

- The Principal Advisor gave three observations from the presentations on government perspectives. These were:
 1. The need for robust eco-system or “joining the dots”. The governments are good in terms of vertical implementation but there is a need for joined up delivery of services or assistance on a lateral level.
 2. The economies have a good base-level support. However, they may need or initiate a sort of ranking for the successful SMEs and may create additional policy that would support or accelerate success of SMEs.
 3. A common struggle of SMEs in wherever economy is digitization or integration to the virtual world. It is the aspect that SMEs are most troubled with, in general.

REPORT ON SESSION 2 – (Academia)

Small and Medium S&T Enterprises for Inclusive Growth: Academia's contribution to human capacity building of S&T SMEs and academia's recommendations to government

Session 2 was chaired by Mr. Chen Linhao of China and vice chaired by Ms. Christin C. Kjelland of the USA. The Vice Chair introduced the three presenters for Academia's contribution to human capacity. Each presenter was allotted 10 minutes to present their contribution to human capacity building of S&T SMEs and academia's recommendation to government.

S&T human resource development for Small and Medium S&T Enterprise (Philippines)

The Philippines' presentation for S&T human resource development for Small and Medium S&T Enterprise is divided into 3 parts: High School and Undergraduate Scholarships, Science and Engineering Graduate Scholarships, and Small and Medium Enterprises S&T Enterprises. Along High School and Undergraduate scholarships, the S&T human resource development framework in the Philippines is consisted of four parts: basic education, undergraduate levels covering 2 laws (RA 7687 and 2067) and graduate level covering 3 programs, namely the ASTHRDP, ERDT, and science education. The way the performance of the Philippine Science High School System is measured is through the following: number of scholars supported, number of graduates, percentage of graduates enrolled in S & T Courses, all PSHS campuses included in the top 20 schools passing the UPCAT, percentage of graduates passing the UPCAT. Scholarship for Basic Education is implemented through the Philippine Science High School (PSHS) system which is currently composed of 13 campuses nationwide. The DOST Science Education Institute (SEI) manages the undergraduate and graduate level scholarships. Majority of scholars who graduate usually enter private firms, including SMEs. With Electronics as one of the largest export products of the Philippines, DOST also leads the Microelectronics Education program (DMEP). The Philippine Institute for Integrated Circuit (PIIC) is expected to pave the way for collaboration not just with the academe, but also with other government agencies, and other players in the semiconductor industry to happen. In support for SMEs, DOST spearheaded the Technology Business Education Program which is a direct policy intervention adopted under the Science, Technology and Industry Chapter of the Medium-Term Development Plan to create greater demand for science, technology and industry. Continuing agenda along development of S&T human resource for small and medium S&T enterprise is anchored on the following: (1) promotion of science & technology education and innovation in APEC; (2) Enabling MSMEs to increase their productivity and competitiveness by giving them access to better technologies and more sophisticated equipment; and (3) Addressing the gap and bottlenecks in the value chain of priority industry clusters.

R&D Institutes provide S&T platform for SME's capacity building (Chinese Taipei)

Chinese Taipei presented real world situations on the role of R&D institutes in the growth of SMEs. It highlighted the cycle of concept invention to sustainable growth development for the SMEs. R&D Institutes provide the platform to overcome the challenges faced by SMEs in product development and engineering. They help researchers discover the products that are marketable and improve these through innovation. This is the best way for SMEs to build its capacity and this is what Chinese Taipei has been doing. STI drive Chinese Taipei economy

for sustainable growth. An example of this is the “YouBike”. The Youbike is an innovation that makes use of ICT in creating a user-friendly system to make bicycle rides fun and a form of exercise. R&D institutes are responsible for the development of road maps and strategies with the ultimate goal of establishing a favorable ecosystem that could attract capital talent. Chinese Taipei discussed the role of young people in innovation.

Fostering a robust knowledge economy that fully leverages the potential of the triple helix – Government, Academia and Industry (USA)

USA discussed the different contributions each stakeholder can give to improve the system because everybody has different roles to play and potentials to harness. Governments can convene partners and reduce barriers, academia can create new knowledge, and industry can create wealth and support reinvestment in government and industry. Using the Triple Helix Model of government, industry and academe, meaningful partnerships can become foundation for success. It was also discussed that international and diverse collaborations make quality research. And although funds provide opportunity for more researches to be done, it is still the quality of the researches that matters. When government’s funding is robust, they fund research but when government’s funding is limited, industry steps in. Thus, there is room for a lot of collaborations to occur. Research requires substantial investment but the pay offs driving innovations are worth it. Evidence-based data helps inform policy recommendations.

REPORT ON SESSION 3 – (Private Sector)
Relationship Between Development of Small and Medium S&T Enterprise and Inclusive Growth and Private sector's Recommendations to Government

Session 3 was chaired by Undersecretary Amelia P. Guevara of the Philippines. The session had four presentations from the private sector, which featured the beneficial collaboration among the private sector and the government, and the academe.

1. China presented **The Integration of Public Service to Enhance SMEs' Innovative Capacity** featuring the experience of the **Suzhou Productivity Promotion Center (SPPC)**. The SPPC presentation anchored on the ultimate goal of APEC of a **Balanced, Inclusive, Sustainable, Innovative, and Secure** Growth. It is also directed towards the desired regional growth attributes for **Inclusive Growth** where they ensure that all citizens have the opportunity to participate in, contribute to, and benefit from global economic growth. In achieving these goals, SPPC provides four Service Support mechanisms, as follows: 1) Training; 2) R&D Results Sharing; 3) Technology Transfer, and 4) Enterprise Diagnosis. Training is focused for technology managers while R&D results sharing is for SMEs that lack funds to purchase expensive testing research equipment. These SMEs are required to input their data in the online technology portal. As regards Technology Transfer, SPPC has engaging activities to promote and encourage technology transfer. One of the successful activities is their conduct of technology matching meeting and events to develop technological areas among university and international partners. They also have some APEC-funded meetings in specific areas and support technology commercialization programs. For Enterprise Diagnosis, SPPC employs diagnosticians from different companies to assess the management, technical and financial problems and provide solutions. This has significantly reduced R&D costs for the SMEs. The SPPC looks forward to a better future with a more open platform and has developed an English version for a more global involvement. Its mobile version will also be offered soon where the APEC will be given more service sites. One of its flagship program is the build-up of the Markerspace which serve as a virtual incubation center which gives recommendations on how to organize projects, meet opportunities and as well as mentors and venture capitalists.
2. **Malaysia** through the **MTDC** presented the paper on **Commercialization of R&D for Inclusive Growth**. The MTDC takes as its guide the **Malaysia's Economic Trajectory & National Innovation System** which presents specific activities that lead to successful

commercialization of R&D. One of the biggest learnings of MTDC is to get the university to work with the private sector. Since its inception in 1992 up to 2015, MTDC has evolved into a hybrid management company that provides venture capital, start-ups and global expansions. Throughout the years, MTDC has assisted 700 companies. In its bid to building world-class Malaysian technology companies, MTDC is extending its services to all entrepreneurs, providing technology acquisition for women, encourage fresh graduates to become entrepreneurial, link technologies in the global market to companies in Malaysia and get SMEs to link with larger companies.

3. The Philippines presentation on **Bridging the idea to commercialization gap through industry spurring investments in building the startup ecosystem** discussed the innovation funding gap in the Philippines that paved way to the establishment of IdeaSpace Foundation which aims to address the innovation gap and to inculcate in the Filipino culture technology, innovation and entrepreneurship. It was also mentioned that through IdeaSpace, support for incubation are available in each stage that is in line with the foundation's 3 major initiatives: inspire, incubate, and invest. The major recommendation of IdeaSpace to the PPSTI group is to distinguish S&T and Innovation Enterprise versus SME in policy making.
4. The United States, through I.M. Systems Group, Inc. presented the **Relationship Between Development of Small and Medium Science& Technology Enterprises and Inclusive Growth** and mentioned their initiatives in providing inclusive growth such as application of S&T with Social Welfare, improvement of access to knowledge and education, and S&T efforts through Public-Private Partnership. It was also noted that part of the initiatives of the United States (I.M. Systems Group) was the restoration effort of the mangrove rehabilitation area in Sorsogon, Philippines. Lastly, the USA also appreciated the triple helix model in promoting inclusive growth.