

APEC PPSTI Initiative

Fostering international cooperation among innovative clusters and areas of APEC Economies

Proposed by the Russian Federation

1. Background

Today regions are becoming independent actors able to compete globally as globalization of competition is consistent with the localization of competitive advantage. In many ways, regional competitiveness is based on clusters – “geographical proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and externalities” (Porter, 1998). The APEC Leader’s Declarations of 2014-2016 acknowledge the importance of “featuring innovative development, interconnected growth and shared interests” as well as “a pragmatic, efficient and vigorous partnership on science, technology and innovation”. There is a shared goal to advance business activity, encourage new investment and employment, spark innovation, and promote an enabling environment for the knowledge economy. Innovative clusters represent an efficient mechanism to strengthen collaboration among government, academia, and private sector stakeholders with an emphasis on STI ecosystem.

Changes in the global economic environment are making cluster linkages more important. Clusters are not capable of long-term excellence and development unless their members are acting in global markets and involved in international knowledge transfer. Thus, fostering international cooperation among innovative clusters opens broad opportunities to reorganize innovation processes across areas, based on new forms of division of labor among firms at international level.

Clusters play an important role in APEC member Economies. For example, export revenues and innovation production output of 27 pilot innovative clusters in Russia are 20% and 75% higher than on average in the regions of their location (HSE, 2017). In the USA, clusters provide 36% of employment, 50% of income and 96.5% of patents in the national economy (Harvard Business School, 2014). The coastal provinces of China, where top-100 clusters are located, demonstrate the highest innovation intensity: Beijing (19.2%), Tianjin (10.5%), Sichuan (9.1%), Chongqing (8.3%), and Zhejiang (7.4), compared to the average of the economy (3.6%) (World Economic Forum, 2014). Viet Nam’s clusters in electronics make up a critical priority for the economy’s leadership to promote sustainable productivity growth (Porter, Ketels, 2008). Traditional SMEs of Chinese Taipei moved to higher-valued industry clusters such as “dechnology” (technology+design) of metal and demonstration of green micro cars (APEC, 2016). The industrial complex clusters in the Republic of Korea account for 69% of manufacturing production, 78.5% of exports and 48.6% of employment (KICOX, 2015).

Meanwhile, APEC Economies vary greatly in terms of their cluster policies, cluster development models and management. To our knowledge, there is neither any comparable statistical coverage nor aggregated data regarding cluster activities in the area. So information coherence on clusters in the Asia-Pacific is a relevant issue for consideration.

APEC was once described as the World’s Global Cluster (Geoffrey Kokheng See, 2009) acting as “a network connecting government and business leaders in the Asia Pacific able to close the institutional gap between the Economies”.

The proposed initiative aims to contribute to conceptual and practical issues of international cooperation among innovative clusters and areas of APEC Economies.

2. Objectives

To foster innovative development of APEC Economies, Russia suggests to launch an initiative to promote international cooperation among innovative clusters of the area. Many APEC

Economies (i.e. Australia, Canada, China, Japan, Malaysia, the Republic of Korea, the Russian Federation, Singapore) specifically stimulate the development of innovative clusters within the cluster policy framework. Cluster policy enhances cooperation among private sector, government, trade associations, research and educational institutions in innovation process, which promotes investment, leads to the growth of joint R&D activities and projects, increase of high-end jobs, patents, technology start-ups, total revenues of cluster members.

In line with one of 2017 APEC's priorities of deepening regional economic integration and connectivity as well as promoting sustainable, innovative and inclusive growth, we will move step by step from APEC cluster landscape analysis, best practice exchange and opportunities discussions to cluster mapping and collaboration in the Asia-Pacific.

The objectives of the initiative are:

- to study measures and mechanisms used by APEC Economies to the development of innovative clusters;
- to organize APEC discussion on comprehensive development of innovative clusters;
- to introduce new instruments for the development of innovative clusters that will accelerate APEC Economies' growth;
- to identify potential for international cluster cooperation in APEC Economies, and set priorities for such cooperation;
- to establish a viable mechanism for inter-cluster cooperation in APEC area;
- to share experience and best practices with a view to their dissemination in the Asia-Pacific.

The initiative reflects APEC Accord on Innovative Development, Economic Reform and Growth: the proposed workshop and Blueprint will encourage the members' efforts to share experiences and best practices in innovation (item 6); and APEC's cluster collaboration platform will promote cooperation in STI, improve the environment for innovation (item 16) and contribute to the establishment of APEC databases on innovative best practices and service platforms to improve the competitiveness of SMEs (item 19). The initiative aims to strengthen STI ecosystem in APEC area and thus contributes to the second PPSTI priority (proposed theme) for 2017. The initiative also corresponds to the Agreed Priorities of PPSTI Subgroup B (Promoting Enabling Environment for Innovation) and Subgroup C (Enhancing Regional Science and Technology Connectivity) as set out in PPSTI Strategic Plan 2016-2025, in particular:

- B.1. Promote S&T Entrepreneurship
- B.3. Promote PPP for S&T Innovation
- C.3. Create STI ecosystems & STI networks that strengthen regional STI linkages

3. Main Activities Proposed

Russia has gained a fine blend of knowledge and expertise in cluster support and enhancement, private sector involvement, joint R&D, cross-cluster collaboration and internationalization. When implementing the initiative, we will consider relevant experience of APEC Economies, and namely U.S. Cluster mapping at Harvard Business School, Innovation cluster initiatives of the National Research Council of Canada, Chinese Taipei project on SMEs Cluster Development through STI and Supplier Value Chain Integration, "Miniclusters" development model and the Program of Industrial Complex Clusters of the Republic of Korea, State development areas of new and high technologies of China, etc.

Within this initiative the following activities are proposed.

1. Arranging expert discussion on best practices regarding cluster support measures and cluster management.
2. Delivering workshops on international cluster collaboration.

3. Drafting a Blueprint on international cluster collaboration across APEC Economies.
4. Designing inter-cluster cooperation mechanisms among APEC Economies – APEC’s cluster collaboration platform “**PEC** - **p**latform for the **e**conomies’ **c**lusters”.

4. Cooperation with Other Fora

Considering the multi-featured agenda of international cluster cooperation, the initiative is expected to be delivered in cooperation with the following APEC fora:

- Small and Medium Enterprises Working Group, SMEWG
- Intellectual Property Rights Experts Group, IPEG
- APEC Business Advisory Council, ABAC
- Human Resources Development Working Group, HRDWG
- Telecommunications and Information Working Group, TELWG
- Investment Experts’ Group, IEG

The initiative will be coordinated by PPSTI.

The initiative echoes the related activities of global fora, such as OECD, TCI Network, and European cluster collaboration platform. The organizations mentioned are supposed to be cooperated with while implementing the initiative.

5. Draft Implementation Schedule

Year	Main Activities
2017	<ul style="list-style-type: none"> – April – beginning of May: gathering comments on the initiative from APEC Economies and interested working bodies – mid-May: presentation, discussion and approval of the initiative October-November: round table on APEC cluster collaboration opportunities Aim 1: Sharing best practices of international cooperation among innovative clusters and areas of APEC Economies Aim 2: Workshop on Professional evolution of cluster teams regarding cluster collaboration
2018	<ul style="list-style-type: none"> – before PPSTI / SOM 1: designing the structure of a Blueprint on international cluster collaboration across APEC Economies (herein after – the Blueprint) and a questionnaire to study best practices and various aspects of clusters collaboration (trade, investment, joint R&D, HR exchange, training, visibility and promotion, etc.). – PPSTI / SOM 1: discussion and adoption of the questionnaire and the structure of the Blueprint. – after PPSTI / SOM 1: collecting data on international cluster collaboration across APEC Economies and drafting the Blueprint. – PPSTI / SOM 2: presentation of the Blueprint.
2019	<ul style="list-style-type: none"> – before PPSTI / SOM 1: designing the structure and interface of APEC’s cluster collaboration platform “PEC - platform for the economies’ clusters” (herein after – the Platform). – PPSTI / SOM 1: discussion of technical issues related to the Platform launch and adoption of the structure of the Platform interface – after PPSTI / SOM 1: launching the Platform and encouraging the Economies to register – PPSTI / SOM 2: presentation of the Platform