



**Asia-Pacific
Economic Cooperation**

2014/SOM1/HRDWG/CBN/003

Agenda item: 11

Strengthening Mobility and Promoting Regional Integrity of Professional Engineers in APEC Economies

Purpose: Consideration
Submitted by: Chinese Taipei



**Human Resources Development Working Group
Capacity Building Network Meeting
Ningbo, China
19-20 February 2014**

APEC Concept Note

Please submit through APEC Secretariat Program Director. Concept notes of more than 3 pages (including title page) or incomplete submissions will not be considered.

Project Title:	Strengthening Mobility and Promoting Regional Integration of Professional Engineers in APEC Economies – Workshop on Centralized Data Bank
Source of funds (<i>Select one</i>):	<input type="checkbox"/> Operational Account <input checked="" type="checkbox"/> TILF Special Account <input type="checkbox"/> APEC Support Fund
Committee / WG / Sub-fora / Task-force:	Human Resource Development Working Group
Proposing APEC economy:	Chinese Taipei
Co-sponsoring economies:	(To be Invited)
Expected start date:	1 August, 2014
Expected completion date:	31 July, 2015
Project summary: Describe the project in under <u>150 words</u>. Your summary should include the project topic, planned activities, timing and location: <i>(Summary must be no longer than the box provided. Cover sheet must fit on one page)</i>	<p>The project aims to develop a centralized data bank including 6,338 APEC Engineers currently certified from 14 member economies of APEC Engineers Register to strengthen an open, inclusive multilateral trading system, promoting connectivity. The public and private sectors can use the proposed “i-cloud” manpower data bank covering numerous engineering specialists to solicit technical services on project basis, to expedite knowledge sharing through technology transfer and stimulate capacity building through workshops and seminars. The common practices on regulations of engineering procurement and technical capability among member economies, promoting professional mobility of engineers, as well as development of engineering education can be greatly enhanced. A two-day workshop is proposed in November 2014 to gather inputs from 14 APEC Engineer member economies in Taipei. The participants will work out an implementing action plan concerning IT operation, data integration, automation of member registration and renewal, internet security, intellectual property protection, and system optimization.</p>
Total cost of proposal: (<i>APEC funding + self-funding</i>) USD 100,000	Total amount being sought from APEC (USD): 50,000 US \$ By category: <i>Travel: US \$40,000 Labour costs: US \$ 0</i> <i>Hosting: US \$ 0 Publication & distribution: US \$ 0 Other: US \$ 10,000</i>

Project Proponent Information and Declaration:

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I declare that this Concept Note has been prepared in line with the **Guidebook on APEC Projects**. If approved in-principle, I agree to develop the project in line with APEC project requirements.

Name of Project Proponent

Date: 2014.01.28

Project Synopsis

1. **Relevance: Why should APEC undertake this project? What problem or opportunity will the project address and why is it important?**

APEC's Engineer Register has become the mechanism that increases professional mobility in APEC economies since the APEC leaders' meeting in Osaka in 1995. As of today, the multi-national, non-government organization reaches its maximum capacity at current level after 14 years continuous effort. In the past 14 years, the APEC Engineer Register primarily operates under the auspiciousness of the International Engineering Alliance (IEA) and lost contact with APEC. At the 2011 bi-annual meeting of IEA, the leadership of the existing 14 APEC Engineer Monitoring Committees unanimously agreed on the importance of reconnecting with APEC and bringing the issues of professional education and mobility to the attention of the leaders of the APEC Economies. An international workshop was held in Kazan, Russia in May 2012, organized by the Russian APEC Engineer Monitoring Committee and supported by APEC. A report on the progress of APEC Engineer activities and recommendations for future work was submitted to the APEC ISTWG and HRDWG two years ago. As a follow up action of the 2012 workshop, this proposed concept note intends to create a manpower data bank serving multiple-objectives including facilitating technology transfer, building a sustainable future through knowledge sharing in engineering, and balancing the demand supply chain in technical services by leverage the manpower surplus and technology advancement in developed economies with skill shortage and experience lagging for economies in need. The objective is in line with theme of the 5th AEMM, "Future Challenges and Educational Responses: Fostering Global, Innovative and Cooperative Education". The proponent is seeking funding resources to promote inclusive growth within APEC economies.

The mobility of engineers can be promoted by the support of APEC Economy Leaders in terms of recognizing the APEC Engineers Registers in bilateral or multilateral trade agreements between APEC economies. In the context of globalization, cooperation in education and practice is an essential driving force for sustainable, secure, inclusive, innovative, and balanced growth of the APEC region. This proposed project recognizes the need for cooperative models and best practices in order to share and to learn from each other and to elevate the level of educational and professional cooperation. The proposed data bank will in part solve problems concerning the shortage of engineers in APEC economies and is likely to stimulate economic growth and fair trade among economies.

2. **Objectives: Describe the 2-3 key objectives of the project. (e.g., to... create a framework...; ensure participants will be able to...; share experiences...; enhance understanding...; develop recommendations...; build interest...; revise strategies... etc.)**

The primary objective of the data bank is to create a framework of professional engineer supporting system to maximize the utilization of human resources, technologies available in the region and shorten learning curves of skilled workers in economies in need. The APEC Engineers will share and exchange lessons learned in infrastructure development, natural disaster mitigation, design codes and standard specifications, construction technology and project management, financial and logistics, common values in terms of code of ethics within members in the APEC region.

The purpose of the proposed workshop is to develop suggestions and recommendations to system administrators on establishing a feasible framework, format ensuring security and accessibility within the APEC economies. The second objective of the event is to share experience among APEC member economies in the field of regulations of engineering activities, promoting professional mobility of engineers, as well as development of engineering education to promote regional integration despite the variations in political, government structure and education systems.

3. **Alignment: Describe how the project will help achieve APEC's key priorities and meet your forum's work-plan or medium-term plan.**

The 21st APEC Economic Leaders' Meeting in Bali, Indonesia, under the APEC 2013 theme "Resilient Asia-Pacific, Engine of Global Growth", reaffirmed their commitment to the strengthening of the multilateral trading system. The proposed "i-cloud" manpower data bank is a rules-based, transparent, non-discriminatory, open, and inclusive multilateral trading system to promote engineer mobility. The proposed project is in line with the APEC 2013 Priority to "Work on connectivity focuses on physical connectivity, institutional connectivity, and people-to-people connectivity" supporting sustainable economic growth and prosperity in the Asia-Pacific region. It safeguards trade expansion that serves as a source of economic growth, job creation, and sustainable development. The proposed project will facilitate a centralized manpower data bank serving common interest. It recognized that one of the 2012-2016 APEC priority areas is the need for higher education quality to equip students with the 21st century competencies they need for full participation in the globalized and

knowledge-based society. As Myanmar and Papua New Guinea adopt the FEIAP Engineering Education Guidelines in 2014, to minimize the variations in graduate attributes and outcomes among the APEC region, the proposed project fills the gap in competency levels among practitioners as a medium goal. It may also be linked with the existing APEC Knowledge Bank Wiki as an external resource in the long run.

4. **Methodology:** How do you plan to implement the project? In this section, address:

- **Timeline: Project timelines and dates for key activities and deliverables**

1. Organizing the workshop;
2. September-October 2014: program development and selection of speakers;
3. November-December 2014: conducting the workshop;
4. January-February 2015, the project organizer will carry out a follow-up survey to economies who participated in the workshop to receive additional feedback on the workshop.
5. July 2015: final report submission. The report will include specific recommendations and execution plan.

- **Stakeholders: Beneficiaries and stakeholders (APEC & non-APEC) and how they will be engaged**

Beneficiaries: The experts of APEC economies who are responsible for development of consulting engineering practices and engineering education in their economies, international organizations, and engineers currently performing engineering related works within APEC economies. The proposed purpose-driven professional networking creates a synergy among professional engineers in learning the best practices.

Stakeholders: Participating institutions of the APEC Engineer Register such as educators and citizens in the APEC Region will generally benefit from the proposed project through identifying experts working on special tasks or projects. The data bank can also serve as knowledge management and technology transfer on specific purposes such as career and technical education (CTE).

Governmental institutions: All government institutions support APEC Engineers.

- **Previous projects/activities: If and how this proposal builds on the findings or lessons learned from previous projects/activities, while avoiding duplication**

Sponsored by the United Nations Educational, Science and Cultural Organization (UNESCO), the Institute of Engineering Education Taiwan (IEET) and the Chinese Institute of Engineers (CIE) developed the FEIAP Engineering Education Guidelines in 2010. On May 22-23, 2012, the Russian APEC Engineer Monitoring Committee and the Association for Engineering Education of Russia (AEER) hosted an International Seminar on "Development of Engineering Professionals in APEC Economies". The seminar aim was to exchange experience between member economies of the APEC Engineers Register in the fields of regulation of engineering activities, promotion of professional mobility of engineers, and development of substantial equivalents for engineering education. The seminar was endorsed and supported by the APEC Secretariat. The proposed project is built on the recommendation from the seminar.

- **Communication: How you plan to communicate the results or benefits of this project to others**

The results of the proposed workshop will be presented to the leaders of APEC economies to receive wide feedback and support. The implementation action plan will be posted on the existing official website of IEA (www.ieagreement.org). There are 21 economies within the APEC family. Several member economies have not yet established their presence in or involvement with APEC Engineer. A translation of the workshop results into Spanish may improve the interest of South American participation. Looking to the future, APEC Engineer has every intention of extending welcome to non-member economies to join. APEC Engineers also work closely with the Federation of Engineering Institutions of Asia and the Pacific (FEIAP) and the World Federation of Engineering Organization (WFEO). Delegates may be sent to organizations that share common values and vision at their annual conventions and take advantage of overlaps in the leadership among professional organizations, allowing continuous interchange of ideas with regard to engineering education, accreditation criteria development, mutual recognition of qualifications and development of international professional mobility.