Engineering Mobility and APEC Engineer

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Professional Engineers

- "Professional engineer" refers to a person engaged in the professional practice requirs education, training and experience in engineering sciences and the application of such knowledge for the purpose to safeguard life, health, property, and public welfare.
- No person shall practice engineering unless professionally trained and licensed as a "Professional engineer"
- Qualified Engineers are essential for infrastructural development and industries

Mobility is Needed

- Engineers are playing vital roles in the response to the mitigation of disasters which are beyond its traditional responsibility.
- Qualified engineers are still in shortage in many countries. Disaster response becoming global and cross-border service is need.
- Candidate holding international certification can respond readily, thus “Mobility” turn out to be important.

The Goal of Engineering Mobility

- To facilitate the "mobility" of experienced professionals across international borders by establishing a system that will expedite the mutual recognition of professional credentials
- Several multi-national agreements opened the way for porfessional engineers in the member countries to practice in one or more of the other countries.
- International Professional Engineers, IntPE or formerly known as EMF, with 26 members organizations.

Cross-boarder Agreements

- FEANI is a federation of professional engineering associations from 34 European Higher Education Area (EHEA) countries.
- ASEAN Federation of Engineering Organizations (AFEO) formed the ASEAN Engineers Register (AER) of ASEAN countries.
- APEC Engineer is established in the region of Asian and Pacific. It will be focused in the following discussion.

Year	Activities
1995	APEC Leaders' Meeting, Osaka agreed on a proposal from Engineers Australia, EA and Institute of Professional Engineer New Zealand, IPENZ on needs for mobility.
January 1996	APEC Human Resources Development, HRD Ministers meeting in Manila, Philippines.
January 1996	APEC Human Resources Development Group, HRDWG meeting in Wellington, New Zealand.
July 1997	Launch of the APEC Engineer Coordinating Committee

Year	Activities
November 1999	Establishing Monitoring Committee in Economies in Australia, Canada, Hong Kong, Japan, Korea, Malaysia, New Zealand.
November 2000	The first and only APEC Engineers Manual (Blue Book) published. Indonesia and US Joined in 2001; Philippines and Thailand, 2003; Singapore and Chinese Taipei, 2005.
May 2012	International Seminar on the Development of Professional Engineers, Kazan, Russia. (proposed by Russia, receiving partially supported by APEC)

Year	Activities
August 2012	A written report on the APEC Engineer Coordinating Committee was submitted to the APEC HRDWG and ISTWG – an HRD subgroup
May 2013	Chairs Dr. Za-chieh MOH and Seng-chuan TAN Called on Program Directors in APEC Secretariat in Singapore
June 2013	Informal meetings with Prof. KIM, YoungHwan Lead Shepherd of APEC HRDWG.

Year	Activities
February 2014	Proposal to apply APEC Special Account by succeeded at 36th APEC HRDWG Capacity Building Network Meeting
September 2015	Strengthening Mobility and Promoting Regional Integrity of Professional Engineers in APEC Economies- Workshop on Centralized Data Bank
August 2018	APEC Engineer Workshop on Promoting Regional Connectivity of Professionally Qualified Engineers in APEC

The Goal of APEC Engineer

- To facilitate practice by professional engineers thru establishing a system of mutual recognition
- The APEC Engineer coordination committee offers a pluri-laterial platform.
- Materialized of the commitment needs Mutual Recognition Agreement between economies.
- Practicing within any participating economies
- Achieving “right to independent practice”
- “Mobility” + “supplemental assessment”

Current Status

- A limited number of memoranda for mutual recognition and practice of engineers have been signed between economies/jurisdictions, Such as:

  Japan vs. Australia; Texas vs. Australia; Korea vs. 5 U.S. States; Hong Kong vs. Canada.

- It is understood that there is even smaller number of agreements substantiated on mutual recognition signed between the economies.

Current Status

- Fail to materialize the exercise of the engineer "mobility" is hindering the growth of APEC Engineer registration and it may lead to the risk of dissolving confidence in professional circle.
- The number of APEC Engineer registration remains about the same because the title does not bring in business or revenue.
- The number of registered APEC Engineer in each economy varies widely.

Current Status

- Similarly, ASEAN Mutual Recognition Arrangement on Engineering Services was supposed to create a platform of engineering mobility for ASEAN Economies. However, it seems that the proposed MRA has not been materialized effectively.
- The main issues and challenges in promoting engineers' mobility might have been: the mindset in the traditional engineering community, legal issues, governmental attitude, and, conservatism related to open markets.

PE Regulations

- In general, three types of regulation
- Government Regulation
- Co-regulation of Gov. and Professional body
- Self-regulation of professional body
- All of the regulation schemes are subject to legislation and not necessarily funded by government

Practical Difficulties

- "Agreement" between foreign government agency or authorized body is a diplomatic behavior, the protocol and formality involved is tedious.
- Seeking "Right of independent practice" or "Power to sign-off papers" by a foreigner induces objection from the local circle of professionals.

Each Economy is Different

- Different culture, different language……
- Different government structure, different legal systems, different work structures….
- Different formula, different code, different geology, different climate….
- Practicing in a foreign environment, the support from a loyal local partner is needed.

Local Support is Essential

- Normally, a local partner may be very helpful to identify the domestic risk and know better how to handle
- From the client's view point, local partner is more responsive and will stay to take responsibility, foreigner may easily get away
- Thus "right of independent practice" may be difficult practically and politically

Supplemental Assessment

- "supplemental assessment" is mentioned in APEC Engineer Handbook for qualifying foreigner entering new environment.
- The assessment scheme may vary from one economy to another. It is very difficult to have equivalent procedure or coverage.
- Successful completion of an adaptation period of sponsored practice in the designated economy might be more effective than requiring "supplemental assessment".

Suggestions

- Foreign Engineers are needed only when local professionals can not offer the services
- The goal of APEC Engineer of “mobility” with “power of independent practice” need to reviewed; Abide to local regulations.
- Collaboration with mutual respect to local professionals may be more welcomed for reducing resistance
- Each bi-lateral arrangement and supplemental assessment may be different

Looking into future

- Relationship with APEC need to be further strengthened so as to create support from member governments
- Seeking recognition in CPTPP, RCEP…..
- Seeking acknowledgement from financial institutions such as ADB, AIIB…..
- Requirement in international Tender documents….
- New initiative is needed and welcome

THANKS
For Your Attention