An Overview of Capacity Building in APMP: the APMP Developing Economies Committee (DEC)

Dr Angela Samuel, APMP DEC Chair
National Measurement Institute, Australia (NMIA)

27th meeting of the Asia Pacific Legal Metrology Forum (APLMF) (online), 3-4 December 2020
New Members since 2019:

- Metrology Division under the Ministry of Commerce, Industry and Cooperatives (MCIC), Republic of Kiribati, Dec. 2019 (Full)
- Uzbek National Institute of Metrology (UzNIM), Republic of Uzbekistan, Apr. 2019 (Associate)
- National Measurement & Calibration Center of Saudi Standards. Metrology and Quality Organization (NMCC/SASO), Kingdom of Saudi Arabia, Dec. 2019 (Associate)
December 2019: Transfer of Chairperson & Secretariat from NMIJ, Japan to NIM, China

Chairperson: Mr. FANG Xiang
Executive Secretary: Ms. CAI Juan (Ada)

2019 to 2022
EC Members

2 new EC members elected in 2019

<table>
<thead>
<tr>
<th>Name</th>
<th>Lab</th>
<th>Economy</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fang Xiang</td>
<td>NIM</td>
<td>China</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Toshiyuki Takatsuji</td>
<td>NMIJ</td>
<td>Japan</td>
<td>Immediate-past Chairperson; Liaison with Int. Orgs</td>
</tr>
<tr>
<td>Jan Herrmann</td>
<td>NMIA</td>
<td>Australia</td>
<td>Liaison with Int. Orgs; Liaison with APEC SCSC and SRB</td>
</tr>
<tr>
<td>Yon-Kyu Park</td>
<td>KRISS</td>
<td>Korea</td>
<td>Liaison with TCs</td>
</tr>
<tr>
<td>Ajchara Charoensook</td>
<td>NIMT</td>
<td>Thailand</td>
<td>Liaison with DEC</td>
</tr>
<tr>
<td>Teo Tang Lin</td>
<td>HSA</td>
<td>Singapore</td>
<td>Treasurer</td>
</tr>
<tr>
<td>Eleanor Howick</td>
<td>MSL</td>
<td>New Zealand</td>
<td>Award Advisory Committee Chair; Liaison with TCs</td>
</tr>
</tbody>
</table>
## TC Chairs

<table>
<thead>
<tr>
<th>TC</th>
<th>Name</th>
<th>Lab</th>
<th>Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead TC Chair</td>
<td>Chu-Shik Kang</td>
<td>KRISS</td>
<td>Korea</td>
</tr>
<tr>
<td>TCAUV</td>
<td>Ryuzo Horiuchi</td>
<td>NMIJ</td>
<td>Japan</td>
</tr>
<tr>
<td>TCEM</td>
<td>Hyung-Kew Lee</td>
<td>KRISS</td>
<td>Korea</td>
</tr>
<tr>
<td>TCFF</td>
<td>Takashi Shimada</td>
<td>NMIJ</td>
<td>Japan</td>
</tr>
<tr>
<td>TCL</td>
<td>Jariya Buajarern</td>
<td>NIMT</td>
<td>Thailand</td>
</tr>
<tr>
<td>TCM</td>
<td>Sheng-Jui CHEN</td>
<td>CMS/ITRI</td>
<td>Chinese Taipei</td>
</tr>
<tr>
<td>TCMM</td>
<td>Lingling Ren</td>
<td>NIM</td>
<td>China</td>
</tr>
<tr>
<td>TCPR</td>
<td>Haiyong Gan</td>
<td>NIM</td>
<td>China</td>
</tr>
<tr>
<td>TCQM</td>
<td>Kazumi Inagaki</td>
<td>NMIJ, AIST</td>
<td>Japan</td>
</tr>
<tr>
<td>TCQS</td>
<td>Ping Yang</td>
<td>NIM</td>
<td>China</td>
</tr>
<tr>
<td>TCRI</td>
<td>Duncan Butler</td>
<td>ARPANSA</td>
<td>Australia</td>
</tr>
<tr>
<td>TCT</td>
<td>Inseok Yang</td>
<td>KRISS</td>
<td>Korea</td>
</tr>
<tr>
<td>TCTF</td>
<td>Aimin Zhang</td>
<td>NIM</td>
<td>China</td>
</tr>
</tbody>
</table>

*4 new TC Chairs elected in 2019*
APMP Strategic Plan (2021-2023)

APMP’s priority strategic objectives and their implementation plans.

5 key aspects of current context:
2. Advances in measurement science and technology and the rise of global challenges
3. Uneven development among Members
4. Effective and efficient governance
5. Stronger regional and international engagement

6 strategic objectives as its work priority:
1. Work together in the fight against the COVID-19 pandemic
2. Promote R&D excellence in emerging areas
3. Increase APMP’s impact and value to members
4. Enhance the quality and efficiency of APMP’s governance and operations
5. Enhance global engagement and partnership
6. Fulfill RMO obligations under the CIPM MRA
APMP Response Program against COVID-19 and Future Pandemics

Budget: US$ 100,000 + US$ 45,000

First call launched in October 2020

Two workshops:
- APMP NMI Directors’ Workshop 2020 on COVID-19
- APMP DEC-MEDEA COVID-19 Project Planning Workshop

Acknowledging the needs within APMP to boost:
- comparisons and/or pilot studies of COVID-19 related measurements among APMP member institutes and facilitate their participation in the associated international comparisons and/or pilot studies;
- development of traceable calibration systems on diagnostics, therapeutics and vaccines;
- knowledge transfer and capacity building challenges brought by the pandemic;
- sharing information, knowledge and resources.

Considering that:
- some APMP member institutes have access to research and resources that are applicable to e.g. the diagnostic test of coronavirus, quality assurance of ventilators, as well as calibration system for infrared clinical thermometers;
- APMP has surplus fund for operations due to the cancellation of its onsite meetings and activities planned for 2020, and the elimination of its representatives’ travels to meetings and events of other stakeholder organizations.

Decides to establish APMP Response Program against COVID-19 to encourage and fund:
- the Technical Committees (TCs) to organize comparisons of COVID-19 related measurements among APMP member institutes and facilitate their participation in the associated international comparisons and/or pilot studies;
- the Developing Economies Committee (DEC) to organize and coordinate the provision of trainings in various forms to developing member institutes in need;
- APMP member institutes to share information, experience and resources available for collaboration on optimal research enabling accurate tests, effective therapeutics, as well as possible vaccines.
Global and RMO Developing Economy / CEEMS activities
APMP DEC: Current status

With around two-thirds of member economies classified as “developing”, the APMP Developing Economies' Committee (DEC) was established in 2000 to help address the needs of APMP's developing member institutes and to oversee and coordinate associated work programs.

It’s our 20th Birthday!!

Noting this milestone, two key Strategic Planning Workshops were conducted in 2019 (associated with APMP’s mid-year and annual meetings) to:
• review achievements over the DEC’s first 19 years,
• identify lessons learned,
And, based on agreed priorities,
• develop the next multi-year DEC Strategic Plan.

The DEC Strategic Plan 2021-2023 sits under the overarching APMP Strategic Plan 2021-2023.
2000-2019: Challenges & Strengths

Challenges for DEC members:
• Geography (distances)
• Languages & cultures
• Range of development needs LDCs (Bangladesh, Fiji, Nepal) through to e.g. China, India, Malaysia, Thailand
• Proportion of developing c.f., developed economies
• Limited resources (human and financial) – DEC Annual Budget 2020 is US$45k
• Advances in science and technology (Industry 4.0, IoT, revised SI, …)
• Cross-border challenges (climate change, health, food safety, clean water…)

Value-add:
• Direction, vision and strategic leadership for developing economies
• A common platform that represents NMIs at the regional and international level
• Connection between developed and developing NMIs, and experts around the world
• Spirit of cooperation, community, teamwork and well-organized activities
• Relationship with other QI Bodies (APAC, APLMF) and BIPM/RMOs (EURAMET, SIM, AFRIMETS, COOMET, GULFMET) as well as donor/implementation bodies (PTB/MDEA [APMP-APLMF], Japan, Korea, Thailand, China, ..)
• Quality leaders, technical experts from developed NMIs; support from TCs and FGs
• Mid-year meetings hosted by developing NMIs: Awareness Raising with local decision makers, etc; capability building workshops, guidance from APMP leaders and key regional experts
2000-2019: Lessons learned

- Need for active and dedicated team and platform (web-based) to coordinate activities and improve communication internally, with other APMP Committees and externally
- More effective utilization of funds and evaluation/monitoring criteria to assess impact
- More DEC-level comparisons → Hybrid comparisons
- Increase benefits to LDCs
- More effective implementation of some activities
- Importance of alignment of activities with national priorities to foster support from members as well as national governments
## 2019 activities supporting Developing Members

<table>
<thead>
<tr>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November-December</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIST Fundamentals of Metrology W’shop, USA 6 DE beneficiaries Cambodia, Indonesia, Mongolia, Philippines, Thailand, Sri Lanka</td>
<td></td>
<td>FSFG Workshop, China 9 funded DE beneficiaries</td>
<td></td>
<td>Annual APMP meetings, incl. DEC Strategic Planning W’shop &amp; Meeting, FG and TC Workshops, “Women in STEM” event, … 15 funded DE beneficiaries</td>
</tr>
<tr>
<td>CCCAFG W’shop, Indonesia 35 DE beneficiaries</td>
<td></td>
<td>NIST Food Safety Workshop, USA 5 DE beneficiaries Bangladesh, Mongolia, Philippines (2), Thailand</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Vision Statement:
A sustainable and inclusive DEC that works collaboratively to benefit society across its agreed scope of activities. The DEC will deliver on its vision through improved accountability, learning, and operational excellence, raising awareness and empowering and developing capabilities of all members to address real needs that are aligned with national priorities.

VALUES, STRENGTHS AND PURPOSE (Guides for the DEC’s Strategic Thinking, Learning & Acting)

• We acknowledge that our diversity in development, knowledge, resources and values is our strength and opportunity. We improve by collaborating with and supporting each other, facilitating these processes and providing the space for our members to grow.

• We recognize that national priorities might differ and that not all DEC members will be focusing on the same issues or topics or starting from the same place.

• We will leverage the strength of the DEC in being able to identify similar needs, priorities and goals that we can work on together.

• We will encourage Members to align the measurement capabilities and services that they develop and deliver with achievement of the Sustainable Development Goals prioritized by their Governments.

• We will also seek to align strategic issues and activities of the DEC with national strategic plans and priorities wherever possible, to add value to the implementation of national strategies and the development and metrology within member economies (at organizational as well as individual levels).
Improving Governance:
- DEC Leadership and Management Development (Australia)
- Implementation of DEC Monitoring & Evaluation (Indonesia)

Developing Online Collaboration and Training tools*:
- Creation of a Knowledge Management System (Nepal)

“Leaving no one behind”:
- Enabling participation in CIPM MRA (Bangladesh)
- Future Proofing (Thailand)

Fostering engagement to support national SDG priorities:
- Focus Groups (Sri Lanka): Clean Water, Climate Change & Clean Air, Energy Efficiency, Food Safety, Medical Metrology

The DEC has identified Taskforces to take on responsibility for the implementation of these priorities.

*The DEC is adapting activities to respond to national and regional needs arising from the COVID-19 crisis.
MEDEA – Metrology: Enabling Developing Economies in Asia

Joint multi-year capacity building program involving APMP, APLMF and PTB (MEDEA Coordination Committee, CC):

- MEDEA 2.0 due to finish in April 2021 – range of activities including workshops, training attachments, awareness raising capability building, soft-skills development
  - Joint APMP-APLMF Web Portal being developed to host success stories/case studies
- MEDEA CC has drafted MEDEA 3.0 objectives as follows:
  - Improving governance and sustainability of activities supporting developing members
  - Increasing awareness by national stakeholders (government, industry, etc) of developing members in the role of metrology in achieving prioritised SDGs, with the medium-term goal of increasing support for the NMI/LMA through incorporation of metrology in national strategies, policies, etc
  - Improving measurement capabilities and regulatory frameworks that support national priorities in achieving selected SDGs
- June 2020 survey of APMP and APLMF members covered:
  - Ability to access digital platforms/tools
  - E-learning resources (with requests for online training and training videos)
  - Economy priorities re: UN Sustainable Development Goals (SDGs)
  - Issues and activities related to Covid-19
Annual DEC and related activities planned for November 2020

**17-18 November**: DEC Meeting over 2 online sessions

**19 November**: APMP-APLMF-PTB MEDEA 3.0 Planning Workshop

**25 November**: DEC-MEDEA COVID-19 Workshop (*APMP Response Programme against COVID-19*)

APMP DEC 2020 Meetings (online): 17-18 November

APLMF representative invited to attend
Thank you

Angela.Samuel@measurement.gov.au
APMP-Secretariat@nim.ac.cn
http://www.apmpweb.org/dec/general.php