Report from Asia-Pacific Legal Metrology Forum (APLMF) for OIML RLMO RT (Regional Legal Metrology Organizations Round Table)  
26 September 2023

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on behalf of Dr. Osman Zakaria (APLMF President)
1. Introduction

- APLMF is a group of legal metrology authorities on the Pacific Rim with 23 member economies (21 full+2 correspondence).
- Aims to reduce TBT (technical barriers to trade), exchange information, provide training programs, and cooperate with other organizations (OIML, RLMOs, etc.).
- Established in 1994 in Australia. The presidency and secretariat were then transferred to Japan (2002), PR China (2007), New Zealand (2015), and Malaysia (2021).
- In 2020-2022, Forum Meetings were held online.
- In Nov. 2023, the 30th Forum Meeting will be held physically in the Philippines.
Structure of APLMF

Forum Meeting (every year)
50-80 participants attend from:

Full Members (21):
Australia, Brunei, Cambodia, Canada, PR China, Hong Kong China, Indonesia, Japan, Kiribati, Rep. Korea, Malaysia, Mongolia, New Zealand, Papua New Guinea, Peru, Philippines, Singapore, Chinese Taipei, Thailand, USA, and Viet Nam

Corresponding Members (2):
Lao PDR and Russia

Executive Committee
President, Past Pres. (NZ), Training Coord., Secretariat, Australia, PR China, and Indonesia (ASEAN)

President
Dr. Osman Zakaria (NMIM, Malaysia)

Training Coordinator
Dr. Matsumoto (Japan)

Secretariat
Ms. Nik, Ms. Khairun, Mr. Zainal, Mr. Mamin & Mr. Nasir (NMIM, Malaysia)

Working Groups (WGs)
WG on Goods Packed (Indonesia)
WG on Utility Meters (PR China)
WG on OIML-CS (PR China)
WG on Agricultural Pro. (Malaysia)
WG on Met. Cont. Sys. (PR China)
WG on Weighing Inst. (PR China)
WG on Medical Meas. (PR China)
WG on Meas. Fuels (Australia)
2. Forum Meetings in 2023

The 30th APLMF Meetings are scheduled from 8th to 10th November 2023 in Bohol Island hosted by ITDI, Philippines

Draft agenda:

- Reports from BIML, OIML-CS, and DTG of OIML (online)
- Report from PTB regarding the MEDEA project
- Reports from APMP (online) and ASEAN/WG3
- Reports from the President, Training Coordinator and Secretariat
- Reports from the eight WGs.
- Introduction of the legal metrology system in the Philippines
- Special topics from Canada, PR China, Indonesia, and Kiribati
- Topic regarding the article of OIML Bulletin on prepackages from Indonesia
- Topic regarding OIML G 22 on EVSE from PR China
- Topic regarding digitalization in type approval from Malaysia
- Poster sessions for reports from the participating economies
- Full member session on financial issues, strategy, WG’s structure, and next meeting
3. APLMF Working Groups (WGs)

1. **WG on Goods Packed by Measure** *(WG-GPM / Dr. Ardianto, Indonesia)*

   WG has conducted many training courses on prepackages (PPGs) and plans another course in 2023. WG develops e-Learning module. WG supports OIML TC 6 and promotes awareness programs on PPGs.

2. **WG on Utility Meters** *(WG-UM / Mr. Wang, PR China)*

   WG has conducted many training courses on utility meters and plans a training course on EVSE (Electric Vehicle Supply Equipment) in 2023. WG develops an e-Learning module on electricity metering. WG also plans a training program on water meters.

3. **WG on OIML Certificate Systems** *(WG-CS / Ms. Zheng, PR China)*

   WG liaises with OIML-CS by participating in its MC meetings. WG has provided an animated video for the CS and is developing additional videos. WG also plans a seminar on the CS in 2024 to promote the CS for the stakeholders.
3. APLMF Working Groups (WGs)

4. WG on Metrological Control Systems (WG-MCS / Mr. Guo, PR China)

WG is responsible for metrology systems in the region and liaises with CEEMS AG, RLMO RT and DTG of OIML. WG provides a scholarship to invite trainees. A SWG on Digitalization in Metrology has recently been set up.

5. WG on Quality Measurement of Agricultural Products (WG-QMAP / Ms. Haslina, Malaysia)

WG covers measurements of agricultural products and has delivered training courses. WG has provided a guide document on rice moisture measurement and is developing an e-Learning module.

6. WG on Weighing Instruments (WG-WI / Ms. Suliana, Malaysia)

WG covers NAWIs, AWIs, and multi-dimensional measuring instruments. WG provided an e-Learning module on NAWIs. WG plans training courses and develops e-Learning modules on AWIs (R 51, R 61, R 134, etc.).
3. APLMF Working Groups (WGs)

7. WG on Measurement of Fuels (WG-MF / Dr. Harrington, Australia)

WG covers all kinds of fuels and has delivered many training courses. WG has developed an e-Learning module for fuel dispensers. WG plans additional training courses for petroleum/LPG dispensers and bulk flow meters.

8. WG on Medical Measurements (WG-MM / Dr. Ding, PR China)

WG was taken chair by Chinese Taipei, and it has been re-established in 2022. WG plans a joint webinar with APMP in 2023. WG plans training courses for clinical thermometers and sphygmomanometers. WG liaises with OIML TC 18 and APMP in this field.

9. Sub-Working Group on Digitalization in Metrology (SWG-DM)

This is a new SWG under the WG-MCS, and the chairperson and members are being sought. This SWG is expected to liaise with OIML DTG and cover the software used for legal metrology.
4. Training Activities

Overview:

✓ This is a **core activity** to strengthen the social infrastructures in legal metrology.
✓ It was started in 1997 and over 1,500 trainees participated in 75 events.
✓ It is planned based on the surveys among the members. Trainers and materials are provided by a WG and the experts in member economies.
✓ In 2014, APLMF, as well as APMP, participated in the MEDEA project of PTB (Germany) to continue training.

Current situation:

✓ After the pandemic, training is shifting to an online scheme. Practical components are also provided online. This movement will continue after the pandemic.
✓ To respond to DX in metrology, a new SWG-DM has been set up. Software for measuring instruments is an important issue in legal metrology.
✓ There is a difficulty in maintaining skilled experts/trainers and it will be a big challenge to continue training.
### APLMF training courses in 2019-2023

<table>
<thead>
<tr>
<th>Topics</th>
<th>Date (d/m/y)</th>
<th>Place</th>
<th>Organizers and trainers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Course on Water Meters – OIML R 49</td>
<td>15-18/10/2019</td>
<td>Malaysia</td>
<td>Malaysia (NMIM)</td>
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<tr>
<td>Training Course on Calibration and Testing of Non-Invasive Sphygmomanometers</td>
<td>11-15/11/2019</td>
<td>Malaysia</td>
<td>Germany (PTB), Malaysia and Chinese Taipei</td>
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<tr>
<td>Training Course on electricity meters and EVSE (Electric Vehicle Supply Equipment )</td>
<td>18-21/1/2021</td>
<td>Online</td>
<td>PR China and Rep. Korea</td>
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<tr>
<td>Training Course on Bulk Flow-metering Systems</td>
<td>22-25/2/2021</td>
<td>Online</td>
<td>Australia and Malaysia</td>
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<tr>
<td>Foundation Course on Pre-packaged Goods</td>
<td>4 days/3/2021</td>
<td>Online</td>
<td>Indonesia and New Zealand</td>
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<tr>
<td>APEC Workshop on Requirements for Software-Controlled Measuring Instruments*</td>
<td>10-12/5/2022</td>
<td>Online</td>
<td>Malaysia, Australia, Canada, PR China, Germany, Indonesia, Japan and USA</td>
</tr>
<tr>
<td>ASEAN-PTB Training Course on LPG Dispensers*</td>
<td>16-18/8/2022</td>
<td>Online</td>
<td>Thailand, Australia and PTB</td>
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<tr>
<td>Webinar on Metrology for Health (a joint event with APMP)</td>
<td>16/11/2023</td>
<td>Online</td>
<td>PR China, R. Korea, Brazil and Japan</td>
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<tr>
<td>Training Course on EVSE</td>
<td>11 or 12/2023</td>
<td>Online</td>
<td>PR China</td>
</tr>
<tr>
<td>Training Course on Pre-packaged Goods</td>
<td>5-7/12/2023</td>
<td>Online</td>
<td>Indonesia, Singapore and Japan</td>
</tr>
</tbody>
</table>

* Conducted by other organizations in cooperation with APLMF.
## E-Learning materials/modules under development

<table>
<thead>
<tr>
<th>Year of delivery</th>
<th>Main topic</th>
<th>Responsible WG</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>Fuel dispensers (based on OIML R 117) on NMIA’s website (utilized)</td>
<td>WG-MF</td>
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<tr>
<td>2021</td>
<td>NAWI (OIML R 76) on PTB’s website (utilized)</td>
<td>WG-WI</td>
</tr>
<tr>
<td>2023</td>
<td>AQS for pre-packages (OIML R 87)</td>
<td>WG-GPM</td>
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<td>2023</td>
<td>OIML-CS (animated videos)</td>
<td>WG-CS</td>
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<tr>
<td>2023</td>
<td>Rice moisture meters (OIML R 59 and APLMF Guide 6)</td>
<td>WG-QMAP</td>
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<tr>
<td>2024</td>
<td>Electricity meters and EVSE (OIML R 46 and G 22)</td>
<td>WG-UM</td>
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<td>2024</td>
<td>Bulk-fuel metering system (OIML R 117)</td>
<td>WG-MF</td>
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<tr>
<td>2024</td>
<td>NAWI for spring scales and weighbridges (OIML R 76)</td>
<td>WG-WI</td>
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<tr>
<td>2024-25</td>
<td>LPG dispensers (OIML R 117)</td>
<td>WG-MF</td>
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<tr>
<td>2024-25</td>
<td>CNG dispensers (OIML R 139)</td>
<td>WG-MF</td>
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<tr>
<td>2024-25</td>
<td>Automatic catch-weighing instruments (OIML R 51)</td>
<td>WG-WI</td>
</tr>
<tr>
<td>2024-25</td>
<td>Automatic gravimetric filling Instruments (OIML R 61)</td>
<td>WG-WI</td>
</tr>
<tr>
<td>2024-25</td>
<td>Instruments for weigh in motion (OIML R 134)</td>
<td>WG-WI</td>
</tr>
<tr>
<td>2024-25</td>
<td>Multi-dimensional measuring instruments (OIML R 129)</td>
<td>WG-WI</td>
</tr>
<tr>
<td>2025-26</td>
<td>Belt weighers (OIML R 50)</td>
<td>WG-WI</td>
</tr>
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The MEDEA (Metrology Enabling Developing Economies in Asia) project of PTB targets the developing economies in South-West Asia.

Since 2014, this project has significantly contributed to our training activities. In 2021, the third-phase project (MEDEA 3) started, and it continues for 3 years.

MEDEA 3 focuses on the Sustainable Development Goals, particularly SDGs No. 3 (health), 6 (water), 8 (economy) and 9 (industry).

Rapid Diagnostic Toolkit of World Bank is used for monitoring the economies.

Policy Briefs are being developed for pre-packages and water quantity.

Online training is provided to develop e-Learning modules.

A Joint APMP-APLMF metrology web portal has been developed to share information among the NMIs, LMAs and stakeholders in metrology (https://metrologyasiapacific.com/)

CC (Coordination Committee) is organized by the PTB’s secretary (see photo).
6. Liaisons and Future Perspectives

Liaisons:

- **OIML** including RLMO RT, CEEMS AG and DTG: Some members take important roles in OIML. Australia and New Zealand proposed a *pilot market surveillance* for Conformity to Type (CTT) to support OIML TC 3/SC 6.

- **APEC** (Asia-Pacific Economic Co-operation): Cooperation with the SRB (Specialist Regional Bodies) Forum.

- **APMP** (Asia Pacific Metrology Programme): Cooperation through MEDEA.

- **ASEAN** (Association of South-East Asian Nations): Cooperation with the WG3 on legal metrology.

Future Perspectives:

- **Online scheme** will continue after the pandemic. This is a chance for a *change in paradigm* as people can meet online at any time.

- **APLMF Strategic Plan** is updated. The latest five-year strategy (2021-2025) is provided here: [https://www.aplmf.org/strategic-plan.html](https://www.aplmf.org/strategic-plan.html).
Thank you for your attention

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