



ASIA-PACIFIC LEGAL METROLOGY FORUM

APLMF Strategic Plan

Five Year Strategy 2021–2025



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INTRODUCTION

The Asia–Pacific Legal Metrology Forum (APLMF) is a group of legal metrology authorities in the economies on the Pacific Rim including the members of Asia–Pacific Economic Cooperation (APEC). The primary objective of APLMF is to develop and to promote free and open trade in the region through the harmonization and removal of technical or administrative barriers to trade in the field of legal metrology.

The Memorandum of Understanding (MoU), represents a commitment by Members of APLMF to work towards achieving the aims of APLMF as outlined in this document using the mechanisms specified. The objectives of the APLMF as provided in the MoU are:

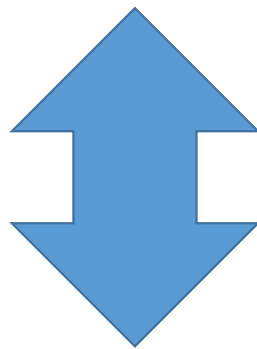
- To identify and promote the removal of technical or administrative barriers to trade in the field of legal metrology;
- To develop and maintain mutual confidence in measurement (metrological control) among legal metrology authorities in the Asia–Pacific region;
- To provide a forum for exchange of information among legal metrology authorities;
- To promote mutual recognition arrangements among Members and with other regional groups and individual economies;
- To cooperate with the International Organisation of Legal Metrology (OIML); promote use and acceptance of OIML International publications including International Recommendations (Standards) and the OIML Certification System www.oiml.org;
- To collaborate with other regional bodies in the field of legal metrology;
- To coordinate regional training courses in legal metrology and facilitate exchange of staff among authorities; and
- To provide cooperation and assistance in the development of the legal metrology infrastructure of members.

The APLMF Strategic Plan 2021-2025 sets out the Forum’s vision and mission along with the objectives, priorities and actions provided in the Forum’s MoU. This plan will be reviewed every two years. Next review due 2022.



VISION

To be an effective, representative and professional forum, that provides the leadership and networks for building and growing close cooperation among the members in advancing the field of legal metrology.



MISSION

To promote free and open trade through the development and harmonization of legal metrology across the Asia-Pacific region, and to lead improving economic development and social wellbeing for all.

For more information about
APLMF membership; what we
do and who we are, please
visit our website:

www.aplmf.org

KEY OBJECTIVES – Strategic Priorities and Actions

To deliver APLMF's objectives and mission, we have identified four strategic priorities and actions to achieve them. To obtain the maximum results using the limited resources available to the Forum, these actions will need to be implemented over the next five years.

It is proposed that this Strategy be refreshed every two years at the annual meeting of the Forum.

| Key Objectives | Strategic Priorities and Actions |
|---|--|
| 1: SUPPORTING CAPABILITY Support the development and maintenance of capability within national metrology organizations to enable them to meet the evolving needs of an effective legal metrology infrastructure. | 1.1 Training and Knowledge <ul style="list-style-type: none"> Support the development and delivery of training to members through the Metrology-Enabling Developing Economies in Asia (MEDEA) project and other initiatives, Identify new approaches for delivering training (e.g. e-Learning) and new funding streams to support training for developing economies, and Collaborate with OIML Training Center (OTC) and Regional Legal Metrology Organizations (RLMOs). |
| | 1.2 Communication <ul style="list-style-type: none"> Improve Forum's website functionality and ability to share information (using e.g. email, newsletter and, Metrology Asia-Pacific portal for exchanging information on all topics), Identify and support activities that promote awareness of legal metrology and the effective use of OIML Recommendations and Certificate System, Encourage the use of online tools for teleconference and meetings such as Zoom. |
| 2: STEERING FOR ORGANIZATIONAL STRENGTH Continue developing the Forum to be more dynamic, resilient and flexible with strong governance structures and systems that: <ul style="list-style-type: none"> provide confidence where members' funds are responsibly managed; share information effectively; deliver services that meet members' needs; and effectively represent members' interests at regional and international levels. | 2.1 Steering <ul style="list-style-type: none"> Update the current strategic plan aimed at improving the Forum's strength, sustainability, and delivery of work plans. Review the strategic plan every two years to ensure that it is relevant to the current needs of the members. Strengthen Working Groups' activities to support the needs of developing economies. Ensure a robust governance of the Forum. Enhance knowledge sharing through annual meetings and other networking opportunities. |
| | 2.2 Operational Systems <ul style="list-style-type: none"> Refine documentation processes and procedures. |

| Key Objectives | Strategic Priorities and Actions |
|--|---|
| <p>3: INTERNATIONAL REPRESENTATION AND COLLABORATION</p> <p>Participate in the regional and international meetings to promote the views of the Forum members. Support international activities and regional collaborations for greater harmonization and development in legal metrology. This collaboration will focus on supporting the works of:</p> <ul style="list-style-type: none"> • International Organisation of Legal Metrology (OIML); • Regional Legal Metrology Organisations (RLMO); • Asia Pacific Metrology Programme (APMP); • Asia-Pacific Economic Co-operation (APEC); • APEC Specialist Regional Bodies (SRBs); and • Metrology-Enabling Developing Economies in Asia (MEDEA) project. | <p>3.1 International Collaboration</p> <ul style="list-style-type: none"> • Improve linkages with international and regional bodies, particularly OIML, RLMOs, APEC and other APEC SRBs, • Represent the region in OIML: RLMO Round table and Countries and Economies with Emerging Metrology Systems (CEEMS) Advisory Group, • Build collaboration between all metrology disciplines (scientific, physical and legal metrology) through liaison with APMP, • Build linkages with industry and non-government bodies, and • Collaborate with PTB to deliver training to members under the MEDEA work programme. |

STRATEGIC PRIORITIES AND ACTIONS

1.1 TRAINING AND KNOWLEDGE

Training is a key strategic priority for the Forum. An effective legal metrology system is built on the capability of those experts and officers working in the member economies to develop and maintain their systems.

a) Training Coordinator's role

At the 23rd APLMF held in Tokyo, Japan in 2016, it was proposed that training coordination would become a core function of the APLMF Secretariat in close collaboration with the APLMF Executive Committee and Working Group Chairs. The first appointment was confirmed in 2017. The Training Coordinator's position is for a fixed period of up to 3 years and then, the coordinator is reappointed from the member economies to maintain this new function. Future appointments will be made following a call for nominations. The next appointment is due to be made in 2020.

b) MEDEA project and beyond

APLMF has been fortunate to have the financial and administrative support of Physikalisch-Technische Bundesanstalt (PTB) for the delivery of the project, Metrology – Enabling Developing Economies in Asia (MEDEA) since 2013. The second project, MEDEA 2 continues to provide training support till 2020. However, this training support will come to an end at some stage and APLMF needs to identify additional funding sources to continue to provide training in the region.

Another successful aspect of the MEDEA project is the close working relationship with APMP (Asia-Pacific Metrology Programme). The Forum intends to build on this success by exploring opportunities for future co-operation between the Regional Metrology Organizations (RMOs).

c) e-Learning

The APLMF will be looking at opportunities to deliver more training via e-Learning and the development of online training modules to complement its current training courses. Online training modules are being developed on a trial basis for core legal metrology areas of operation such as the verification of non-automatic weighing instruments. As a future goal of development, a library of such modules will be provided on the OIML website as a valuable resource for member economies. Currently all our Working Groups have the development of e-Learning modules in their work programs (See Appendix 2 for details on Working Groups). This work will involve consolidation by the member economy, use of RLMOs resources and close cooperation with OIML, in order to ensure consistency and international harmonization in the e-Learning modules.

d) Support of OIML International Activities

The Forum will also monitor and seek to support initiatives identified by the OIML's Member Countries and Economies with Emerging Metrology Systems (CEEMS) Advisory Group and the OIML Training Centre (OTC) which is supported by the People's Republic of China.

For more information about CEEMS and OIML Training Centre please visit their website
<https://www.oiml.org/en/structure/ceems>

e) Evaluation

To ensure that training continues to meet the needs of members, it is important that training outcomes are evaluated so that programs and methods for training can continue to be improved. This is currently being undertaken as part of the MEDEA 2 project, with the support of the APLMF Secretariat that is collating training action plans and their progress throughout the programs.

It is also important for the Forum to continue identifying the training needs as well as areas for sharing ideas on both current and emerging issues in metrology. It is proposed that this analysis forms part of the discussions in the Working Groups. The result of discussions will be fed back to the annual Forum meeting to get consensus on the areas to be focused on.

1.2 COMMUNICATION

APLMF operates over a widely dispersed geographic region, with the member economies that are at different stages of economic and social development and have differing levels of systems and infrastructures in legal metrology.

Part of APLMF's role is to support member economies through promotion of 'best practice' in legal metrology and harmonization within the region.

APLMF will continue to identify and support the activities that promote awareness of legal metrology and the effective use of OIML's International Recommendations, Guides, Documents and Certificate System where they are applicable to the members.

(a) Forum communications

The Forum communications have improved with information available to the members via the refreshed APLMF website and emailed newsletters. Various procedures, including approval of guide documents and training materials are now available online to the members. The Secretariat will continue to improve its communication strategy while consulting with the members.

(b) Promoting awareness of metrology

Metrology is a fundamental aspect of economic operations that forms the regional Quality Infrastructure and parts of government organizations. Its importance, however, is not fully acknowledged by industry, public organizations and government agencies outside of the Regional Metrology Organizations (RMOs).

Therefore, the key aspect of communication activities of APLMF is promoting awareness of metrology within the region through supporting the local metrology authorities responsible for this promotion in their economies. The annual World Metrology Day is an example of this type of activity that this Forum needs to effectively support. The Forum is also supporting the economies to develop case studies which capture the benefits of metrology within their economy.

The APLMF Executive Committee is keen to work with the members to identify priorities both for the promotional activities and for the case studies to support domestic activities.

(c) Metrology Asia-Pacific – portal

As part of this general promotion of metrology, MEDEA has provided funding to develop a shared APMP/APLMF information portal that will provide links to the case studies and information held by the international organisations such as OIML and BIPM.

National metrology authorities and organisations can use this information for their own promotional activities. The work related to the portal will be ongoing, and the design and content for the portal will change to reflect the priorities and needs of the members.

2 SYSTEMS AND STEERING OF THE FORUM

To effectively undertake its role for developing and maintaining mutual confidence in measurement systems among the legal metrology authorities in the Asia-Pacific region, APLMF needs to have strong organizational and governance systems in place.

The current structures and *Rules for Procedures for APLMF Collaborations* were established in 2003 – these rules were reviewed in 2019 and shall be reviewed every 5 years, i.e. the next review shall occur in 2024.

(a) Working Groups

APLMF establishes Working Groups to undertake specific tasks with clearly defined terms of references. At present, there are six Working Groups focusing on key areas for the members; Goods Packed by Measure, Metrological Control Systems, NAWI (Non-Automatic Weighing Instrument), OIML Certificate Systems, Quality Measurement of Agricultural Products and Utility Meters. Further information on Working Groups is provided in Appendix 1.

The creation of the processes of efficient governance and arrangements for Working Groups is fundamental for ensuring that the APLMF members can effectively collaborate on the common issues of importance.

- Topics – Following a review of the activities in 2017-2018, the Working Groups were restructured and refocused to reflect the needs of the members better and to align with priorities within the region. In 2018, new Working Groups on NAWI and OIML Certificate System were formed, as a result of the restructure. Working Groups provide a report at each annual forum and present their work plan for the next year. If a Working Group has been assessed as being non relevant to the members, the group may be restructured or disbanded with a consensus at the annual Forum meeting.
- Ways of working – APLMF will work with Chairs of the Working Groups to identify possible changes for improving collaborative effects needed to progress common issues and to support the members and Working Groups.

New guidelines and operating procedures for working groups were developed and agreed upon by the members at the 24th APLMF Forum Meeting in 2017.

(b) Annual meeting

The APLMF annual meeting provides a valuable opportunity to share knowledge and expertise, to identify and create a shared understanding of emerging issues and to build a trusted and collaborative environment. The Forum continues to develop the structure of meetings to maximize active participation and engagement by the members. APLMF also actively promotes networking opportunities among the members to share knowledge and to disseminate information.

(c) Membership

Contribution of the members is provided in terms of both specialists' support and financial support. Engagement in this contribution by the members is important for maintaining APLMF's sustainability and it meets the key strategic objectives of the Forum.

At the 24th APLMF meeting, the criteria for membership was agreed upon that full membership be available to:

- Asia-Pacific Economic Cooperation (APEC) members
- Official APEC observers
- Association of Southeast Asian Nations (ASEAN) members
- Pacific Island Forum (PIF) members
- Pacific Economic Cooperation Council (PECC) members

The APLMF Executive Committee and Secretariat will continue to work to grow the membership of this regional body. They will also seek options for increasing the financial and non-financial (in-kind) contributions of the member economies and other regional organizations/international organizations.

(d) Governance

The APLMF President and Secretariat supported by the Executive Committee will continue to maintain an appropriate level of governance to ensure the transparency in operation. They should also plan and support succession of the office to the next President and Secretariat.

3 INTERNATIONAL COLLABORATION

International collaboration will remain an engagement with a high priority – APLMF will continue to seek ways to align its work programs with the activities of OIML and other Regional Legal Metrology Organizations. APLMF will also increase collaboration with RMOs including APMP and look for opportunities to work more effectively with APEC in support of its goals and priorities.

If APLMF is to remain as a competent and responsive RLMO, in terms of successful representation of members' views, then engagement with other regional and international organizations is important. The Forum will seek to support the mutual recognition and international harmonization of the metrology systems in the region, in order, to reduce barriers to trade for the APEC's member economies.

A brief overview of various international organizations including the Specialist Regional Bodies of APEC is provided in Appendix 2. The Interconnections of various international organizations and the relevant regional organizations are provided in Appendix 3.

(a) OIML and RLMOs (Regional Legal Metrology Organizations)

APLMF collaborates closely with OIML, including attendance to its meetings and providing feedback to the development of the OIML publications. APLMF will also seek to build and maintain linkages with other RLMOs through active participation in the OIML's RLMO Round Table and Advisory Group on matters of Countries and Economies with Emerging Metrology Systems (CEEMS). APLMF would also seek out opportunities for bilateral co-operations with:

- WELMEC – European Cooperation in Legal Metrology
- SIM – Sistema Interamericano de Metrología
- AFRIMETS – Intra-Africa Metrology System

- COOMET – Euro-Asian Cooperation of National Metrological Institutions

(b) Specialist Regional Bodies (SRBs)

APLMF also maintains close links with the APEC Sub-Committee on Standards and Conformance (APEC SCSC) through the Specialist Regional Body (SRB) Forum.

The SRB Forum is made up of the following four SRBs, who individually and jointly provide advice and support to APEC's work programs in the standards and conformance area.

- Asia-Pacific Legal Metrology Forum (APLMF)
- Asia-Pacific Metrology Programme (APMP)
- Asia-Pacific Accreditation Cooperation (APAC)
- Pacific Area Standards Congress (PASC)

The SRB Forum has made changes to enhance its ability to provide effective links to APEC through coordinating the expertise of SRBs. APLMF will continue to work with the other SRBs to create a new operating model of the SRB Forum.

To promote awareness of metrology, APLMF is also working closely with APMP to deliver joint training as part of the MEDEA project. This collaboration includes the Asia-Pacific joint web portal in metrology for development of case studies. The Forum intends to build on this success by exploring opportunities for future co-operation between the regional metrology organizations.

(c) Other international organizations

APLMF will make it a priority to build on existing connections and generate new connections internationally.

- APLMF represents the region and provides feedback to metrology organizations in Europe as required.
- APLMF represents the region at the ASEAN Legal Metrology Working Group under the Consultative Committee on Standards and Quality (ACCSQ)
- APLMF will seek to generate connections with other international organizations representing industries and consumers.

(d) Pacific Islands

The Forum will consider how to best support the economies in the Pacific Islands and respond to the needs in developing their emerging metrology systems.

APPENDIX 1 - Working Groups

To find current Chair, contact details and additional information please visit

<https://www.aplmf.org/active-working-groups-overview.html>

| WORKING GROUP | SCOPE | OBJECTIVE(S) |
|--|--|---|
| Goods Packed by Measure | Covers the legislative and administrative requirements for prepacked commodities, including controls on; insufficient quantities to the tolerable deficiencies, identification of the packer on the label, standard sizes, drained weight and deceptive packaging. | To harmonize the requirements for pre-packaged commodities in the Asia-Pacific economies with a view for removing technical barriers to trade. |
| Metrological Control Systems | Covers management of national law, regulation systems, national administrative systems and national traceability systems in metrology. | To establish a regionally sound model of metrological control systems as a guide for all APLMF member economies. |
| NAWI (Non-Automated Weighing Instruments) | Create an online training module for spring balances and weighbridges which demonstrates the implementation of test procedures based on OIML Recommendations used by the officers in legal metrology authorities. | <ul style="list-style-type: none"> • To contribute harmonization and standardization of international test procedures based on OIML Recommendations across the Asia-Pacific Region. • To enhance the consistency of training by providing information and advice from the qualified experts. • To improve the technical knowledge and capability of new and experienced legal metrology officers. • To use simple English to effectively explain the common test procedures |

| WORKING GROUP | SCOPE | • OBJECTIVE(S) |
|--|---|--|
| NAWI (Non-Automated Weighing Instruments) Continued... | | <ul style="list-style-type: none"> • To achieve a greater degree of coverage for the target audience by providing consistent training materials. • To save time and expense, eliminate the need for travel and remove the need for classroom-based training. • To increase the number of people who can access training at low cost. |
| OIML Certificate Systems | <ul style="list-style-type: none"> • To promote awareness of the role of the OIML-CS in the Asia-Pacific region; • To guide and assist APLMF member economies to establish and/or improve their national OIML certificate systems; • To study the documents of the OIML-CS; • To promote the participation of APLMF member economies in the OIML-CS; and • To provide consultation and suggestion to APLMF Secretariat in respect to the APLMF activities for the OIML-CS. | <ul style="list-style-type: none"> • To promote implementation of the OIML-CS in the Asia-Pacific region; • To promote regional harmonization, unified interpretation and implementation of OIML's technical requirements on measuring instruments and/or modules; • To avoid unnecessary testing to obtain national type approvals by supporting the mutual recognition of the test results on measuring instruments and/or modules under legal metrological control in support of the global trade of measuring instruments; • To foster mutual confidence among APLMF members in type evaluations that indicates conformity of measuring instruments and/or modules to the technical requirements in the OIML Recommendation(s); and • To enhance the competency of testing laboratories among the APLMF member economies under the OIML-CS. |

| WORKING GROUP | SCOPE | • OBJECTIVE(S) |
|---|---|---|
| Quality Measurement of Agricultural Products | Study the quality measurements of agricultural products used in the field of legal metrology including the requirements for type approval and verification of the measuring instruments used in these fields. | <ul style="list-style-type: none"> • To ensure the accuracy of quality measurements of agricultural products subject to legal metrology. • To establish the traceability in quality measurements of agricultural products. • To organise activities and develop action plans for legal metrology related to the quality measurements of agricultural products. |
| Utility Meters | Covers utility meters including water meters, gas meters, electricity meters, taximeters, telephone meters, parking meters and heat meters. | <ul style="list-style-type: none"> • A survey and analysis on the extent of metrological control of utility meters in Asia-Pacific economies; • To ensure that technical requirements for utility meters are harmonized within the Asia-Pacific region with a conformity to the OIML Recommendations(s). |

APPENDIX 2 - International Organizations

(Including: Specialist Regional Bodies of APEC)

| WORKING GROUP | WORLD | EUROPE | ASIA | EURASIA | AFRICA | NORTH, CENTRAL AND SOUTH AMERICA |
|---------------------------------------|---|--|--|---|--|--|
| Metrology Industrial/Scientific |  BIPM Bureau International des Poids et Mesures |  European Association of National Metrology Institutes |  APMP Asia-Pacific Metrology Programme |  ICOMET EURO-ASIAN COOPERATION METROLOGICAL INSTITUTIONS |  AFRIMETS African Inter-Metrology System |  SISTEMA INTERAMERICANO DE METROLOGIA Interamerican Metrology System |
| Metrology Legal |  OIML Organisation Internationale de Metrologie Legale |  WELMEC European Cooperation in Legal Metrology |  APLMF ASIA-PACIFIC LEGAL METROLOGY FORUM Asia-Pacific Legal Metrology Forum ASEAN WG 3 | Euro-Asian Cooperation National Metrological Institutions | Intra-African Metrology System | Interamerican Metrology System |
| Accreditation of Laboratories |  ILAC International Laboratory Accreditation Cooperation |  EA European co-operation for Accreditation |  APAC ASIA-PACIFIC ACCREDITATION COOPERATION | – |  AFRAC AFRICAN ACCREDITATION COOPERATION |  IAAC InterAmerican Accreditation Cooperation |
| Accreditation of Certification Bodies |  IAF International Accreditation Forum |  EA European co-operation for Accreditation |  APAC ASIA-PACIFIC ACCREDITATION COOPERATION | – | African Accreditation Cooperation | InterAmerican Accreditation Cooperation |
| Standards |  ISO International Organization for Standardization |  CEN European Committee for Standardization | PASC Pacific Area Standards Congress | EASC Euroasian Interstate Council |  ARSO African Organisation for Standardization |  COPANT National Standards Bodies of the Americas |
| Standards - Electrotechnical |  IEC International Electrotechnical Commission |  CENELEC European Committee for Electrotechnical Standardization | PASC Pacific Area Standards Congress | EASC Euroasian Interstate Council |  AFSEC The African Electrotechnical Standardization | COPANT National Standards Bodies of the Americas |
| QI Networks | – | – | – | – |  PAQI PAN-AFRICAN QUALITY INFRASTRUCTURE Pan African Quality Infrastructure |  QICA Quality Infrastructure Council for the Americas |

APPENDIX 3 - Interconnections of Specialist Regional Bodies (SRBs), International and Regional Organizations

| | | | | |
|---------------------|---|--|---|--|
| INTERNATIONAL LEVEL | Standardization ISO/IEC | Accreditation ILAC/IAF | Metrology BIPM | Legal Metrology OIML |
| REGIONAL LEVEL | Pacific Area Standards Congress (PASC) | Asia-Pacific Accreditation Cooperation (APAC) | Asia-Pacific Metrology Programme (APMP) | Asia-Pacific Legal Metrology Forum (APLMF) |
| NATIONAL LEVEL | National Standards Body | National Accreditation Body | National Metrology Body | National Legal Metrology Body |
| MAJOR OUTPUTS | Document standards/ specifications for industry and regulations | Accredited testing/ certification bodies for calibration, testing, inspection and RMPs (risk management plans) | National measurement system and participation to CIPM MRA with CMC (calibration measurement capability) | Enforcement of reliable transactions / certification with type evaluation and verification |