



Asia Pacific Metrology Programme

Recent developments of APMP

Prof. Yu Yadong

NIM Deputy Director / APMP Chairperson

22nd meeting of the COOMET

April 2012, Cholpon-Ata, Kyrgyz Republic



What is APMP

- **A collaboration of National Metrology Institutes (NMIs)** in the Asia Pacific region **since 1977** engaged in improving regional capability in metrology
- **A regional Metrology Organization (RMO)** recognized by the CIPM for achieving worldwide mutual recognition of measurement standards and of calibration and measurement certificates;
- One of **APEC's Specialist Regional Bodies (SRBs): APMP, APLAC, APLMF, PAC, PASC**



Full member economies



Associate member economies



Members

Full Member Economies (labs) – 23 (38)

Associate Member Economies (labs) – 6 (6)

- *Metre Convention (Member States/Assoc) – 22 (17/5)*
- *Signatories of CIPM MRA – 22*
- *APEC members - 16*

Expansion of members:

2 new labs joined in 2009: (full member)

- **VNIIM, Russia** **RCChem-LIPI, Indonesia**

1 new lab joined in 2010: (associate member)

- **KEBS, Kenya**

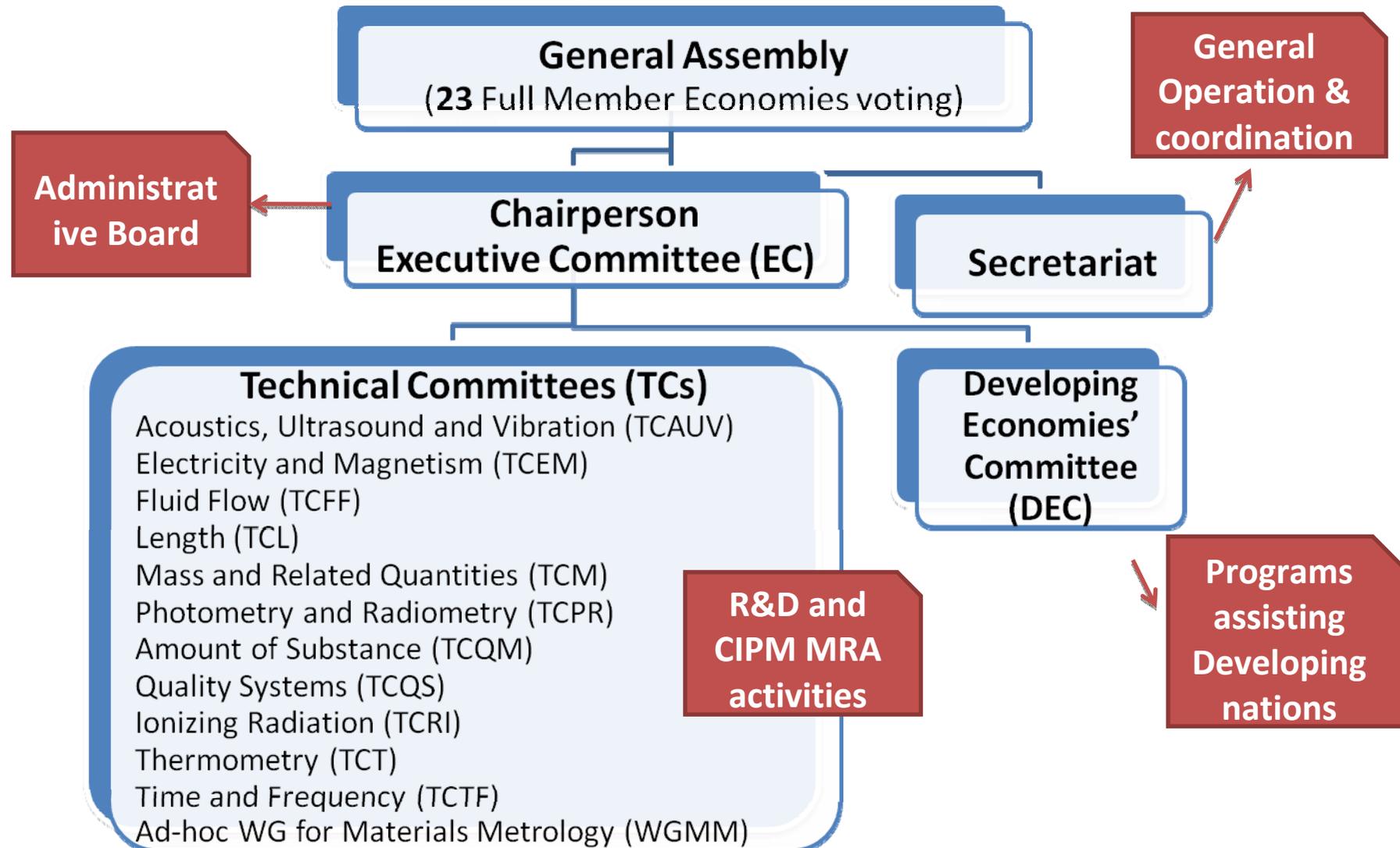
Membership in progress:

- **National Standards Centre (NSC), Brunei**

 Associate member economies



Organization





Executive Committee

1. Prof. YU Yadong: **APMP Chairperson**
(Secretariat: NIM, China)
2. Dr. Duann Jia-Ruey (CMS-ITRI, Chinese Taipei): **liaison between EC and TC chairs**
3. Dr. Myungsoo Kim (KRISS, Korea): **liaison between APMP and international organizations**
4. Dr. A K Bandyopadhyay (NPLI, India): **Award Advisory Committee Chair**
5. Dr. Yukinobu Miki (NMIJ, Japan): **liaison between EC and TC chairs**
6. Dr. Laurie Besley (NMIA, Australia): **APEC SCSC, SRBs, DEC (Chairperson-elected)**
7. Dr Tim Armstrong (MSL, New Zealand):





Asia Pacific Metrology Programme

Developments of APMP in 2011 & 2012 that may be of interest to other RMOs



Highlights of APMP GA 2011

Decemer 4th-9th, 2011 at Kobe, Japan, hosted by NMIJ.

Attended by ~300 reps from over 20 member economies of APMP as well as invited reps from BIPM, CIPM, COOMET, EURAMET, AFRIMETS, UNIDO, IAEA, NCSLI, APLMF...

Meetings & events:

- **General Assembly**

- **TC, DEC annual meetings**





Highlights of APMP GA 2011

- 2nd APMP “NMI Directors Workshop”



- ~10 satellite workshops or trainings organized by TCs

- APMP Award Presentation Ceremony



- Symposium on “Nanotechnology and Material Metrology”





GA Key decisions

Approval of:

- **The APMP Work plan and the Budget for 2012**, noting that the **“TC Initiatives” budget for FY11/12 will be increased to \$40,000.**
- **Changing APMP’s fiscal year** (currently from 1 October to 30 September) to be from 1 January to 31 December starting from the year of 2013.
- **The APMP-APLMF MoU.**
- The decision **to open**, from the year 2012, **a new Award** to recognize remarkable contributions of individuals from developing NMIs in establishing new laboratories and/or improving metrology capacity in their economy.



“TC INITIATIVES”

2011 conclusion & 2012 new launch

- In 2010, the APMP EC established a small pool of funds, the “TC initiatives” budget, to support collaborative research initiatives and comparison activities among and between APMP’s TCs. Reports at the 2011 midyear meetings on the status of activities undertaken using this new budget testified to the success of this initiative.
- As a result, the APMP EC proposed an increase in the "TC Initiatives" budget from US\$20k to US\$40k to support 6-12 projects. This proposal was approved by GA 2011.
- Proposal collection and evaluation for FY 2011/2012 has been finished. US\$12,000 was allocated to fund 4 projects:
 1. *TCAUV: Research for free-field calibration in acoustics*
- Jointly proposed by KRISS, NIM, CMS and NMIA, this project develops a free-field calibration procedure and is to organize an inter-comparison among APMP NMIs for free-field reciprocity calibration of microphone, to link the corresponding KC that many NMIs in APMP didn’t join.



“TC INITIATIVES”

2011 conclusion & 2012 new launch

2. *TCM: APMP pilot study on Torque in the range of 0 N·m, 500 N·m, 1000 N·m* This proposal develops a comparison protocol and conducts a pilot study for torque in the range of 0 N·m, 500 N·m, 1000 N·m.
3. *TCPR: APMP Pilot Study on Total Spectral Radiant Flux*
 - This proposal holds a pilot comparison on Total Spectral Radiant Flux, especially for LEDs, among NMIs, which will be the first APMP comparison on total spectral radiant flux.
4. *TCTF: GNSS receiver calibration exercise along with the Asia-Pacific Workshop on Time and Frequency (ATF) 2012*
 - The project is to hold a GNSS calibration exercise in conjunction with the ATF 2012 in Wellington, New Zealand in late November, to identify current needs on GNSS calibration and suitable equipment and start the TCTF GNSS calibration campaigns, with a view to discuss with EURAMET about harmonizing the procedure to report results to BIPM.



2 workshops during the 2011 Mid-year Meetings in Mongolia

Workshop on “Strategic Planning & Regional Roadmapping”

Objectives:

- Identify areas specific to APMP that would benefit from EMRP-style Inter-NMI collaboration;
- Provide TC Chairs with specific skills of initiating and creating roadmaps
- Facilitate strategic dialog between TC Chairs and Executive

The 1st Inter-RMO Workshop on Activities in Support of Small, Emerging and Developing Economy NMIs,

DEC+PTB organized, chaired by Dr Robert Kaarls, attended by reps of APMP, AFRIMETS, COOMET, EURAMET and SIM. **A new platform for DEN policy dialogues among RMOs, and a successful try toward establishing potential collaboration among RMOs for high an efficiency and effectiveness in carrying out supporting activities for DENs.**



2nd APMP NMI Directors' Workshop

- A new initiative to enhance high-level communications on issues of strategic importance



1st workshop:

"Stakeholder Relationships & National Road Mapping"

2nd workshop:

"The role of NMI and APMP in addressing emerging global issues: health, energy, new technologies, climate change, etc"

Objectives:

- *Exchanging information and ideas on national strategies to address emerging global issues.*
- *Exploring views on the role of the NMI, APMP and the global metrology community to address the measurement issues in these areas.*



2nd APMP NMI Directors' Workshop

Time	Activity
08.00 - 08.15	Registration
08.15 - 08.20	Opening Address by Prof Yu Yadong
08.20 - 08.30	Introduction to the Workshop by the Workshop Facilitator
08.30 - 09.30	Global and National Perspectives (15 mins each) <ul style="list-style-type: none">•Dr. Robert Kaarls "CIPM/Global Perspective" (CIPM Secretary)•Dr. Yokinubu Miki (Director of NMIJ,)•Dr Duann (Vice Director of NIM,)•Mr Abdul Rashid bin Zainal Abidin (Director of NML-SIRIM Bhd,)
09.30 - 10.00	Q-A and discussion of the points raised
10.00 - 10.15	Break
10.15 - 11.15	Sub-Group Discussions <ul style="list-style-type: none">•National strategies to address the emerging issues•Views on the role of the NMI, APMP and the global metrology community to address the measurement issues in these areas
11.15 - 11.45	Sharing of discussion results in plenary
11.45 - 12.00	Conclusion and Closing by Dr Laurie Besley



Enhanced collaboration with stakeholder organizations

APMP's contacts & collaborations with SOs great enhanced since 2010 after adopting a series of new policies:

1. APMP will have an annual review and prioritization of SOs
2. APMP will increase its representation in SO activities (via EC members' participation) with cost shared by NIM and APMP
3. APMP will invite CIPM members from the region to attend annual GA and Directors' Workshop
4. APMP is in a process of establishing cooperation framework with more SOs and organize more joint activities for meaningful outcomes





APMP's role in APEC FSCF PTIN

- APMP, together with the other APEC SRBs, supports the work of APEC in particular through the SCSC and its work programs. Since 2009, APMP has been the nominated-SRB representative to the APEC Food Safety Cooperation Forum (FSCF)'s Partnership Training Institute Network (PTIN).**



APMP-APLAC

- **APMP-APLAC MoU** signed in 2008, **annual Chairs Meeting** held since 2007
- In 2011, two APMP comparisons (in food safety) were initiated, linked to concurrent APLAC PT programs in order to provide reference values for the APLAC programs. The two PT programs are to be completed in 2012.
- During the 2012 Chairs Meeting in Beijing, APMP tabled a proposal from the APMP TCQM Chair to further strengthen collaboration in order to disseminate the metrological traceability to field laboratories in the Asia-Pacific region through ***incorporation of measurement uncertainty for PT programs in the area of chemical measurements.***



APMP-APLAC (cont')

- **Recommended joint efforts include the followings:**
 - That a joint working group or taskforce be set up to further discuss possible collaboration.
 - That the TCQM proposes to APLAC's PT Committee conducting PT programs with metrologically traceable reference values provided by APMP. Candidate studies in 2012/13 that are being planned are:
 - Determination of the residues of a veterinary chemicals in a food matrix; and
 - Determination of trace elements (Cd, Ni, Pb and Ca) in drinking water



Asia Pacific Metrology Programme

APMP-APLMF

First APMP-APLMF MoU signed in Dec 2011

at

APMP-APLMF Joint Symposium

“Metrology for Economic and Social Sustainability”

NIM Changping Campus, December 13-15, 2011

sponsored by AQSIIQ and NIM, China



•16 invited key note speakers from CIPM, OIML, RMO, WHO, UNIDO and Member economies of APMP and APLMF

Topics: roles of metrology in addressing global issues such as energy saving, food safety, environmental protection, health care, climate change, international trade, customer protection, as well as emergency response...

Goal : as the first concrete activity to implement the APMP-APLMF MoU,

- 1.Establish a forum for metrology development policy dialogues between APMP/APLMF**
- 2.Promote collaboration with other relevant international organizations.**
- 3.promote the harmonization of regional metrology strategies and initiatives.**



Asia Pacific Metrology Programme

Future events

The 28th APMP GA and related meetings
November 25-30, 2012 Wellington, New Zealand
Get access to APMP 2012 website through APMP website





Asia Pacific Metrology Programme

Thank you!

<http://www.apmpweb.org>

