



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

*Symposium on Indian Strategy on Quality Infrastructure
33rd APMP General Assembly and Related Meetings, 24 Nov – 1 Dec 2017*

APMP : A Historical Perspective

“Inspiration follows aspiration” ...

आकांक्षा प्रेरणा का स्रोत है

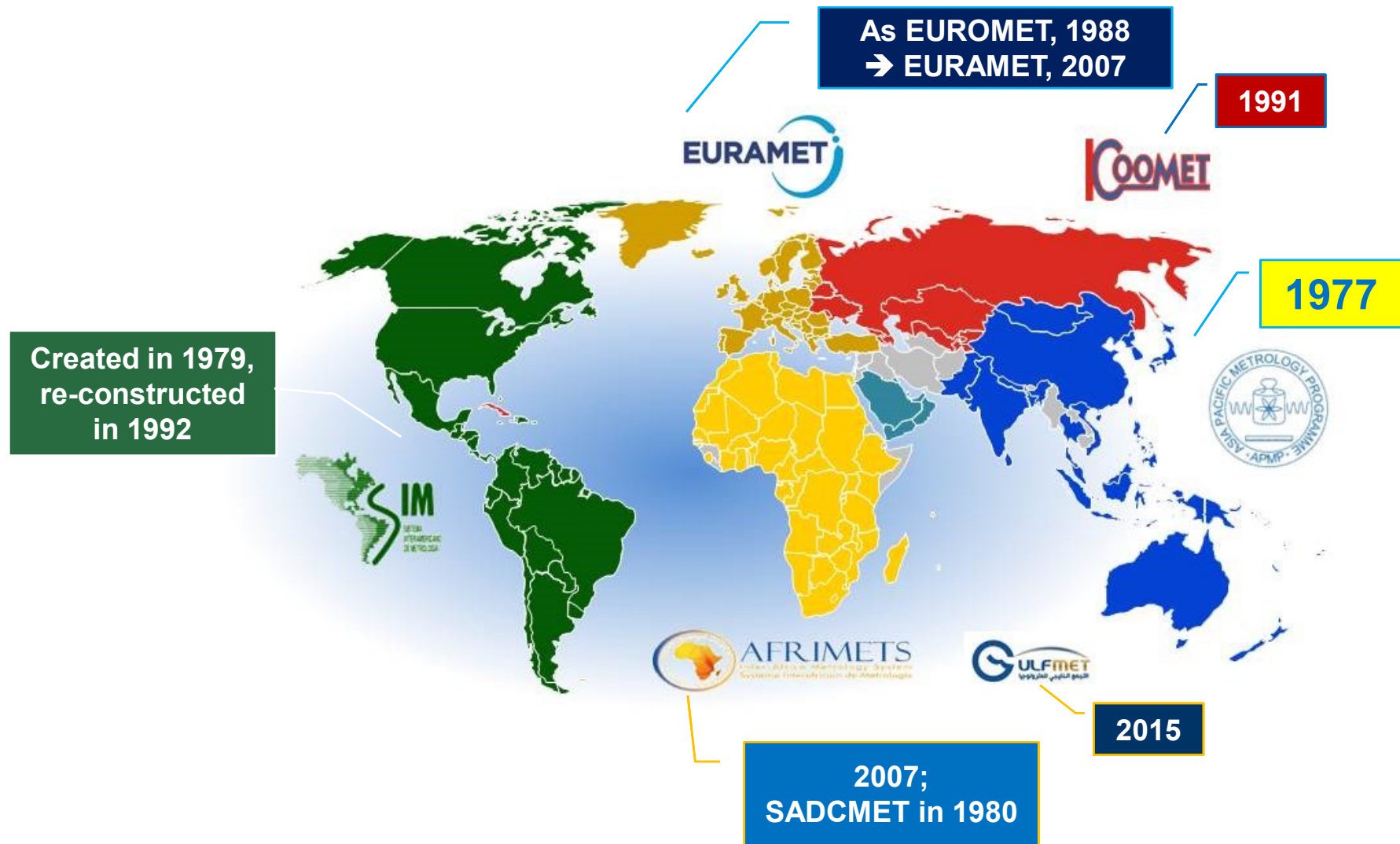
Rabindranath Tagore

Dr Angela Samuel,

Director, International Relations, National Measurement Institute, Australia (NMIA)

29 November 2017

Regional Metrology Organisations



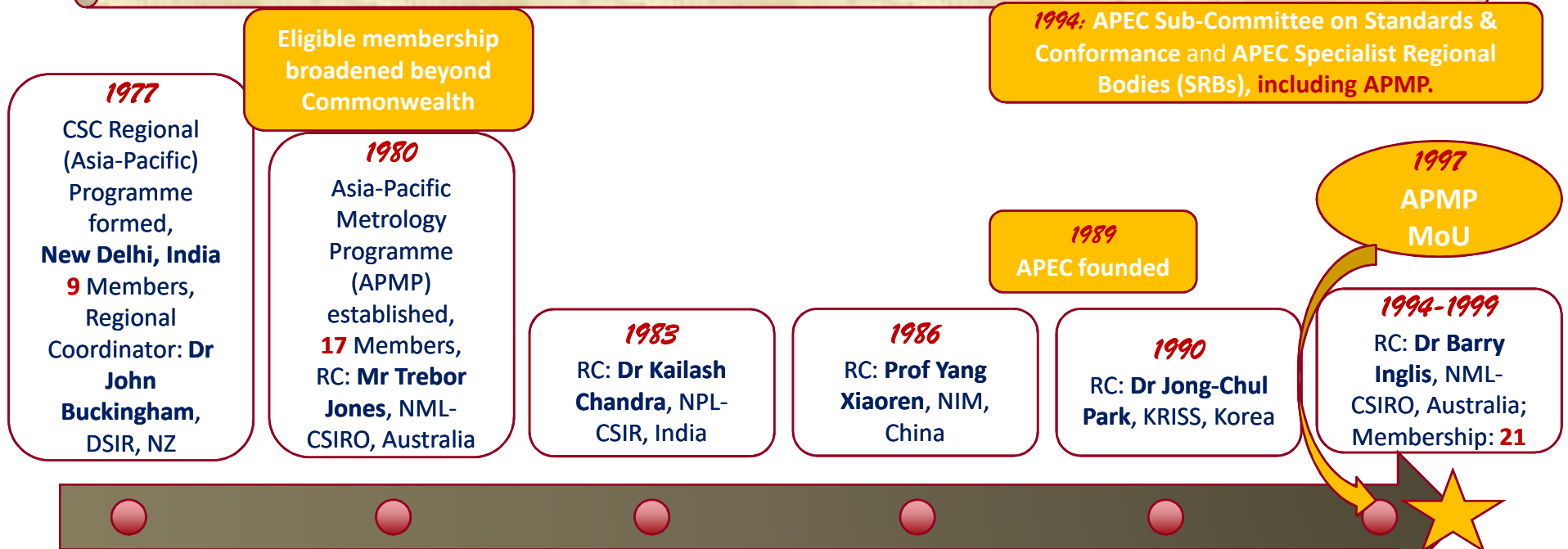
The Regional (Asia/Pacific) Project Group on Collaboration in Measurement Standards

- ❖ **21 Nov to 2 Dec 1977:** Meeting jointly organized by the Commonwealth Science Council (CSC) and the National Physical Laboratory (NPL) of India
- ❖ **Nine** Commonwealth countries
- ❖ **Main objective:** To form a Regional Metrology Programme of joint projects which would link each National Measurement System **into a collaborative network**
- ❖ **Context:** Importance of standardization and quality, especially in export markets. **Collaboration was seen as a way of accelerating progress while minimizing the drain on any one country's resources**
- ❖ **Outcomes:**
 - Agreement to establish a Commonwealth Regional (Asia/Pacific) Metrology Programme to foster collaboration in metrology
 - Formation of a Steering Committee (India, Malaysia, New Zealand) to assist the CSC in implementing the Regional Metrology Programme
 - A prioritized list of collaborative projects

Dr Chris Sutton, DSIR, NZ



1977-1998 : Laying the foundations of cooperation, mutual assistance and sharing of expertise



- ❖ Evaluation of existing calibration procedures
- ❖ Intercomparisons and calibration of standards
- ❖ Advice and assistance in establishing standards and calibration facilities
 - ❖ Supply of measurement standards and calibration equipment
- ❖ Compilation of a directory of national measurement standards and calibration facilities
 - ❖ Harmonizing testing and calibration facilities

Challenges in the early 1990s

- ❖ Until 1990, the CSC Secretariat
- ❖ Post 1990, the home of the Regional Coordinator, the costs and responsibilities of the Programme are high
- ❖ Limited funding from C and other project grants
- ❖ Emphasis was on training, calibration assistance, comparisons, with demand >> no. of member NMIs able to meet needs
- ❖ **Geography! Costs of travel, different cultures, languages, etc**
- ❖ **Difficulty in finding successive Regional Coordinators!**

1989: APEC
1994: APEC SCSC
1995: WTO,
TBT Agreement



In support of APEC goal of reducing TBTs:

- ❖ **APMP 1996, Manila: 1st draft APMP Mutual Recognition Agreement**
- ❖ **APMP 1997, Sydney: 2nd draft**
- ❖ **APMP asked to suspend MRA development, pending..**
- ➔ **1999: Establishment of CIPM Mutual Recognition Arrangement (MRA)**



APMP Memorandum of Understanding (MoU), August 1997

- ❖ **Definition of Full Members and Associate Members: 21 Full Members at signing and 2 Associates**
- ❖ **APMP Objectives:**
 - To develop a closer collaboration between Members in work on measurement standards within the region
 - To improve the level of metrology, and to gain international recognition for Members
 - To encourage traceability between Members through the provision of calibration services
 - To ensure that measurement standards within the Region are traceable to standards maintained or coordinated by the International Bureau of Weights and Measures (BIPM) in the realization of the International System of Units (SI), and to generally reinforce the objectives of the Metre Treaty.

Further organizational evolution...

1997:

- ❖ First time participation of regional chemical metrology laboratories, to consider bringing **chemistry** into APMP
- ❖ September meeting of Working Group on Lasers and Dimensional Metrology (forerunner to TCL)

1998:

- ❖ **APMP Committee re-named General Assembly (GA), Regional Coordinator re-named Chairman**
- ❖ Creation of **Executive Committee (EC)** to support the Chairman
- ❖ Creation of **8 Technical Committees (TCs)** (TCEM, TCL, TCM, TCPR, TCQM, TCRI, TCT, TCTF), mirroring CIPM Consultative Committees (*TCAUV, TCFE, TCQS and TCMM later*)

2000: Creation of **Developing Economies' Committee (DEC)**

1999 – 2016: Close to two decades of cooperation and growth.

2000: DEC

Membership fees introduced

1999

Chairman: **Dr Hidetaka Imai**, NMIJ, Japan

APMP Ad hoc WGMM

2003

Chairman: **Mr Lam Kong Hong**, SPRING, Singapore

2004

Chairman: **Mr Keith Jones**, MSL, NZ

APMP-APLAC MoU

2007

Chairman: **Dr K H Chung**, KRIS, Korea

APMP-APLMF MoU

2009

Chairman: **Prof Yu Yadong**, NIM, China

2012-13

Chairman: **Dr Laurie Besley**, NMIA, Australia

2013-2016

Chairman: **Dr Peter Fisk**, NMIA, Australia



Iizuka Prize



Inaugural APMP Award recipients: **Mr Trebor Jones**, **Dr Jong-Chul Park** and **Dr Barry Inglis** (APMP 2000)

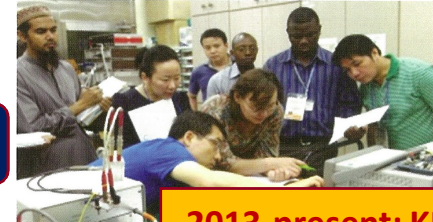


2009: APMP-PTB Metrology in Chemistry (MiC) Guide

2012: TCMM

2014: Focus Groups

TC Initiatives : fostering regional R&D collaboration



2013-present: KRIS GMA

TCxx-DEC Workshops



2014-2018: MEDEA 1.0

1999: CIPM MRA

Due to needs of APMP non-Metre Treaty members

Associates of the CGPM

JCRB: Inter-RMO coop'n

1999-2016 – .. and Achievement!!

Support for **CIPM MRA participation**:

- APMP encouragement of 3rd Party accreditation, now commonly referred to as on-site peer review, and with aim of ensuring transparency and effectiveness, selection of two assessors for each review, one from within APMP and one from another region.
- **TC Chairs** : Japan; Korea; Chinese Taipei; Hong Kong, China; China; Australia; New Zealand; Singapore; Thailand
- ➔ In 2017, **19** of the **24** APMP full member economies are CIPM MRA signatories, APMP has undertaken **239** Key and Supplementary Comparisons, with a total of **5,926** Calibration & Measurement Capabilities (CMCs) published in the Key Comparison Database (~24% of all CMCs in the KCDB).

(From 1995) Cooperation with other Asia-Pacific **Specialist Regional Bodies (SRBs)** and **APEC**

- ❖ APMP-APLAC Proficiency Testing Working Group
- ❖ SRB Forum
- ❖ APEC Food Safety Cooperation Forum,
- ❖ APEC-funded Focus Group Workshops: Energy & Climate (2015), Food Safety (2016)

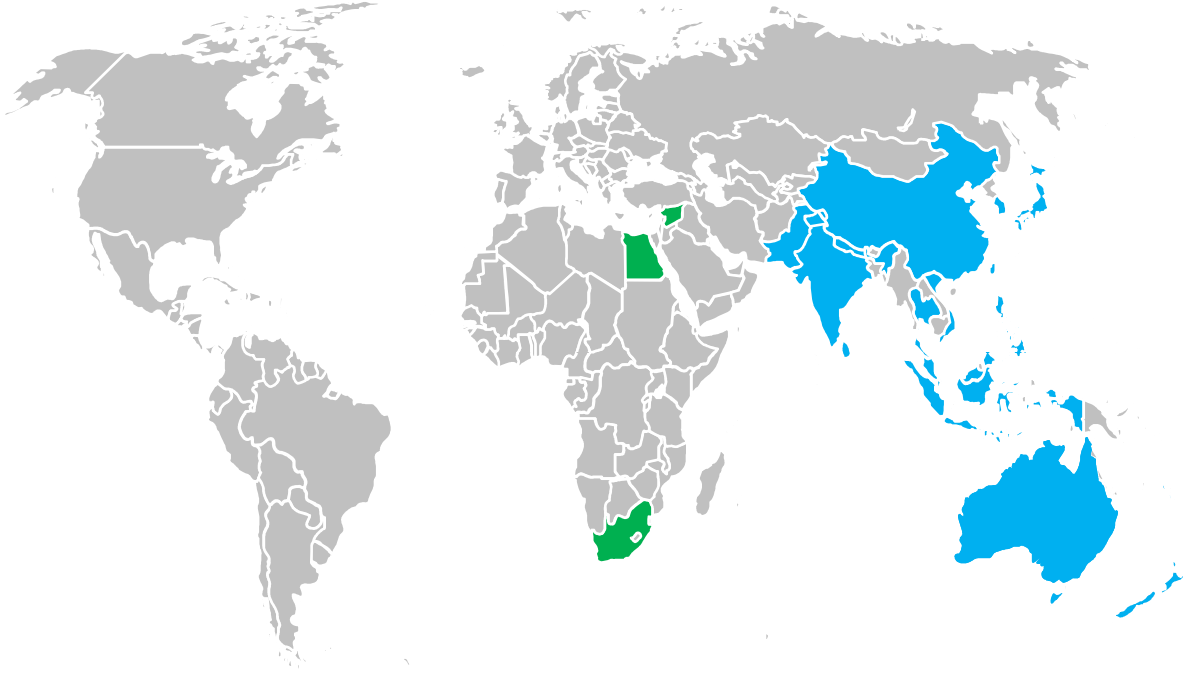
APMP “NMI Directors Workshops” : 9th Workshop in 2017



APMP Focus Groups:

- **Clean Water,**
- **Climate Change/Environment,**
- **Energy Efficiency,**
- **Food Safety,**
- **Medical Metrology**

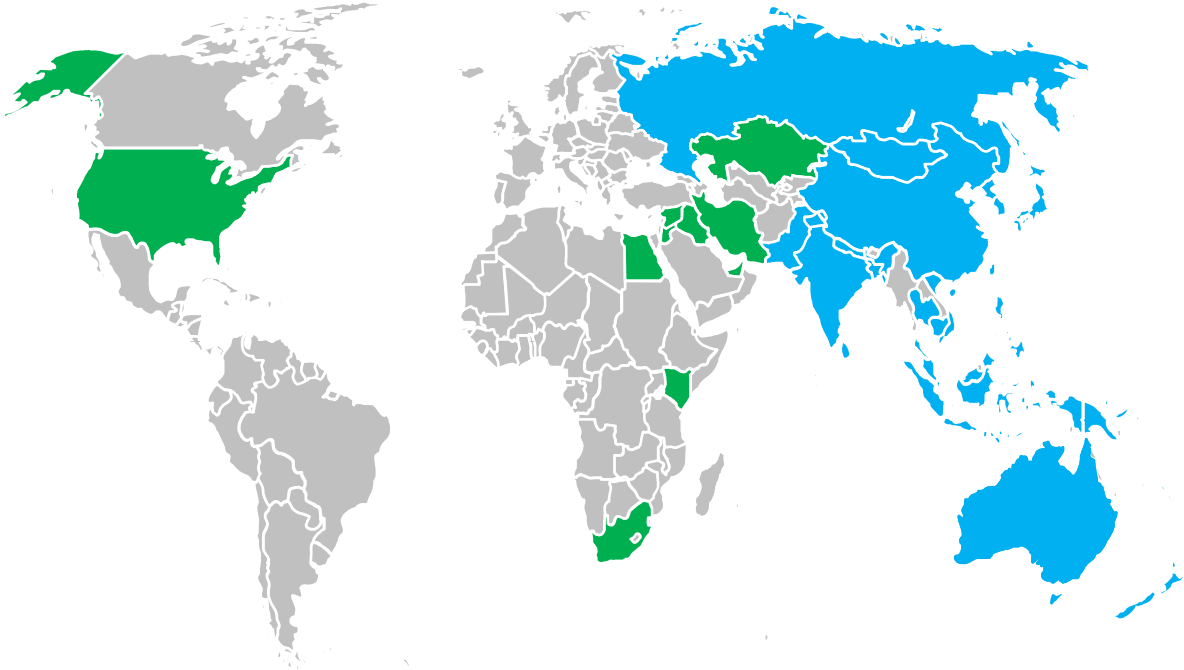




1999



	Full Members:	22
	Associate Members:	3

2017



	Full Members:	25
	Associate Members:	11

APMP's Mission and Vision today...

APMP's mission is to promote and support a measurement infrastructure in the Asia-Pacific region that facilitates international trade, improves industrial efficiency and competitiveness, ensures equity in the marketplace, and enhances the quality of life and the environment.

APMP's vision is to become an inclusive, representative and transparent regional metrology organization providing leadership for meeting the measurement challenges of the region.



Food Safety Workshop

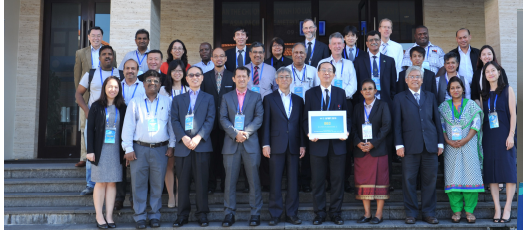


**APMP General Assembly
2016**



APMP NMI Directors Workshop

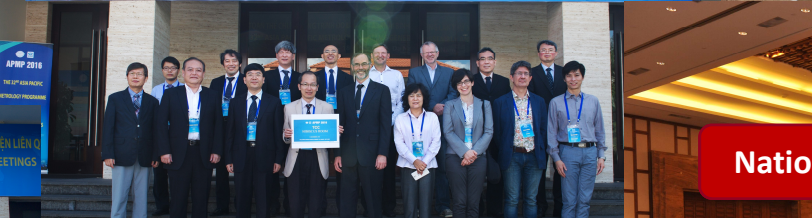
Developing Economies' Committee



Executive Committee

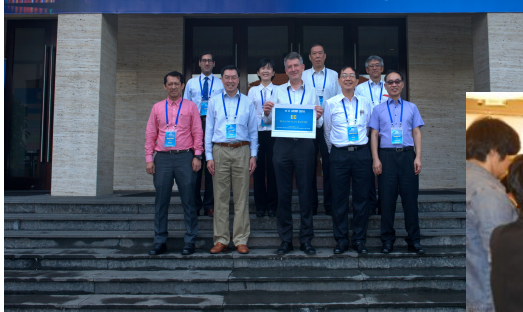


Technical Committee Chairs



National Awareness-Raising Symposium

Executive Committee
09 - 18 November, 2016, Da Nang, Viet Nam



Mid-year Meetings 2016



The first 40 years : Lessons learned

- ❖ APMP has a proud history and has provided leadership in many areas..
- ❖ The challenges of resource-limitations, language barriers, geographical distances, range of capabilities and proportion of developing cf developed NMIs have encouraged different strategies:
 - Twinning between developing NMIs,
 - Train-the-Trainer
 - Trilateral cooperation : Developed NMI ↔ leading developing NMI ↔ emerging NMI
- ❖ It has been critical to identify strong regional champions
- ❖ The close cooperation between SRBs is a special strength in the Asia-Pacific and should be maintained and enhanced
- ❖ There are ongoing challenges, trends, and drivers at national, regional AND global levels for the metrology community
 - It is not enough to simply adapt to current needs → need to think with a 5-10 year horizon
 - With rapid technological changes, cross-border challenges (climate change, food safety, health) and increasing geo-political uncertainty, APMP's long-standing collaborative culture, scientific excellence and innovative capabilities stand it in good stead to provide a sound technical basis to support national and regional needs!
- ❖ **APMP Members have a strong commitment to work together to ensure effective and internationally recognised regional metrology capabilities**
 - ➔ **Ongoing achievement relies on APMP's ongoing effectiveness!**

Inspirational reflections from...

Barry Inglis, CIPM President and former APMP Chair:

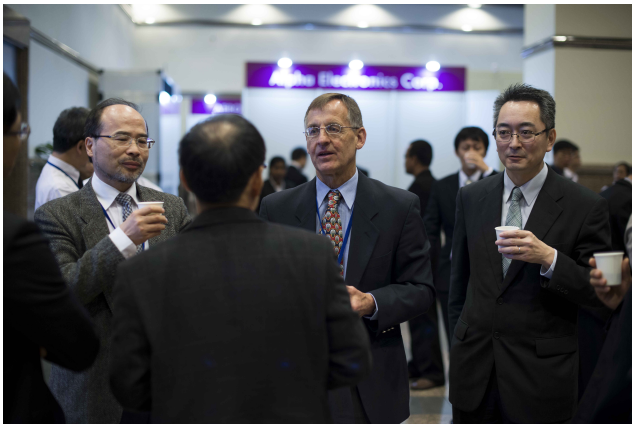
“ *The challenges faced by the APMP throughout its history, arising from the diverse range of capabilities between member NMIs and the large geographical distances within the region, have meant that it has always had to develop strategies to address its own specific regional needs often in advance of other regions.*

Within APMP it was recognised at an early stage that the advanced NMIs could not provide all of the support necessary to ensure sustainability on their own. As a result, APMP gave priority to the development of capabilities within the emerging NMIs such that they could play a role within the committee structure and through the provision of support and input, for example, through the provision of peer and CMC reviewers at an appropriate level. The importance of this is being increasingly recognised at the global level with greater focus on capacity building within CEEMS.

APMP has demonstrated strong leadership and initiative throughout its 40 year history in establishing itself as one of the major RMOs. It is important for the region that APMP continues to develop, particularly by addressing long-term regional and global challenges and by playing a pro-active role in global metrology. ”



**2003: Dr Barry Inglis,
President, CIPM**

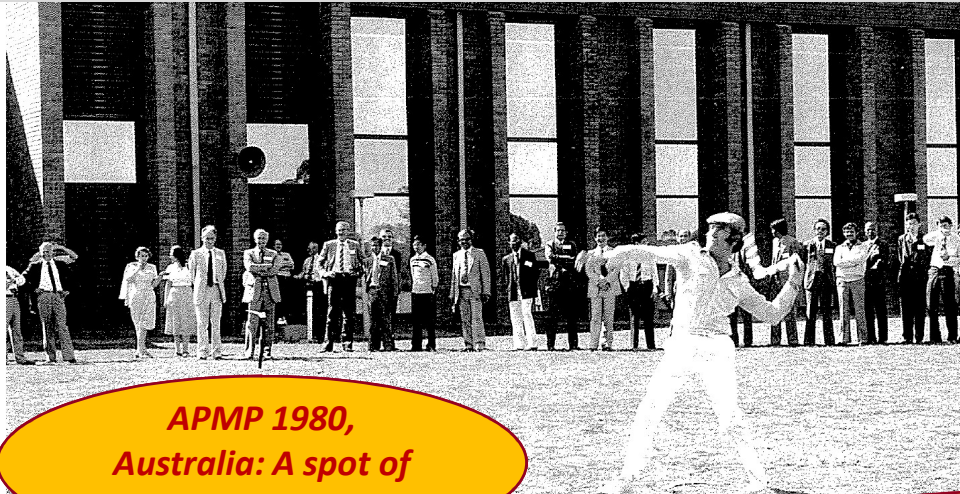


Chris Sutton, APMP's longest-serving representative:

“ *It is great to see the APMP succeeding in cooperatively developing the metrology capabilities of the region, following the aims set at the first meeting in 1977.*

For me, this success comes down to the strong friendships and collaboration between APMP members. ”

APMP bonds of friendship – crossing cultures, languages and distance



**APMP 1980,
Australia: A spot of
Boomerang throwing**



**...APMP 2000, Thailand:
Dr Chris Sutton demonstrating
the NZ “haka” ...**



**Indian cultural performance,
APMP 2006**



**Korean cultural
performance, APMP 2014**



**And the re-knowned APMP
tradition, “Karoake” at
APMP 2016, Vietnam**