

# APMP Updates

To SIM General Assembly

4 November 2022

Dr Takehiro Morioka

APMP EC member



# What is APMP ?

## Asia Pacific Metrology Programme (APMP) is

- An **association of National Metrology Institutes (NMIs)** from the Asia-Pacific region for improving regional metrology capability;
- One of the six **Regional Metrology Organizations (RMOs)** to implement the CIPM MRA for the worldwide mutual recognition of measurement standards and of calibration and measurement certificates;
- One of the **Specialist Regional Bodies (SRBs)** working with APEC to facilitate the development and implantation of standards and conformance infrastructures that addresses APEC goals.



(SRB in metrology)



(SRB in standardization)



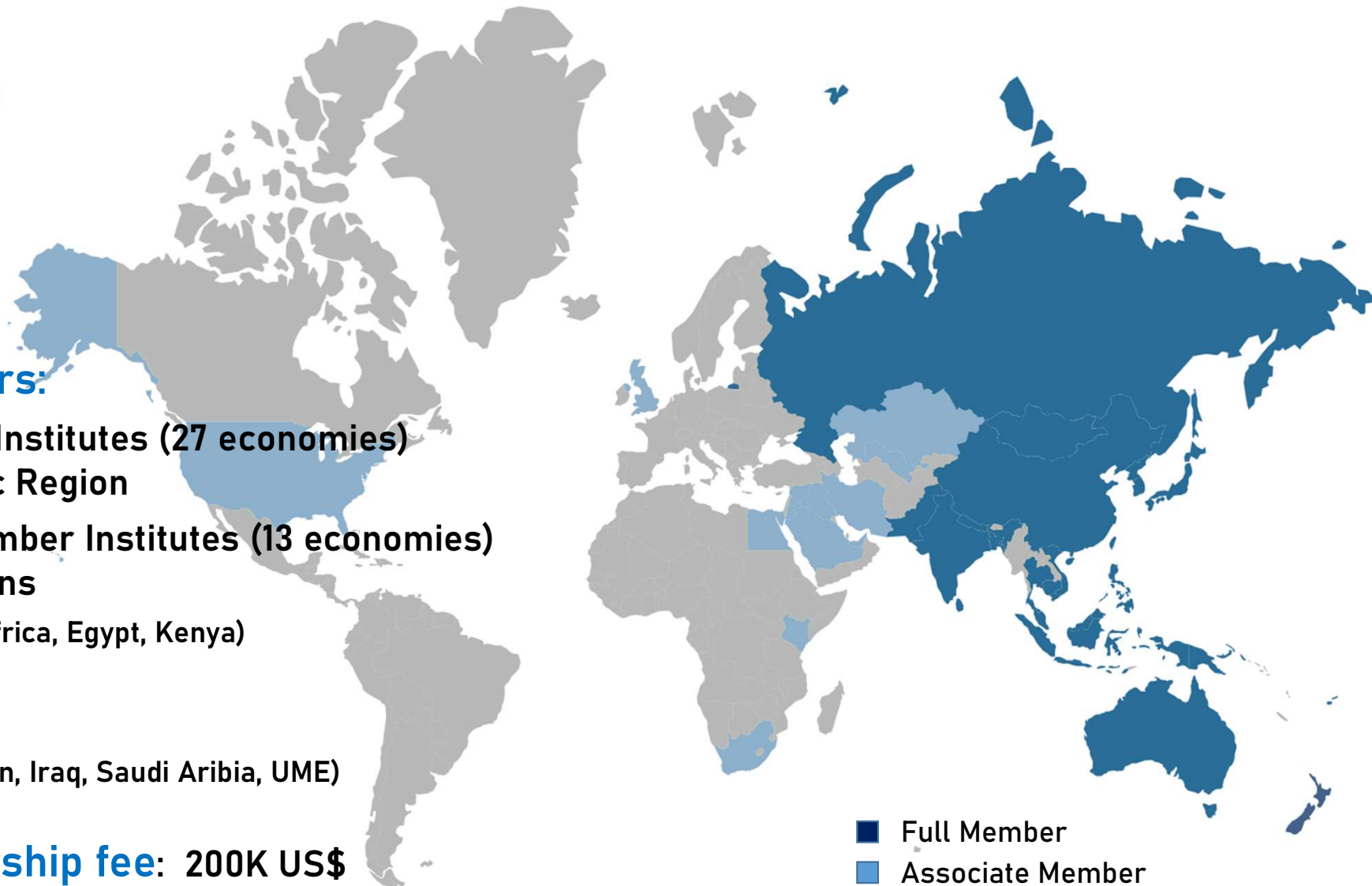
(SRB in conformity assessment)

# Members

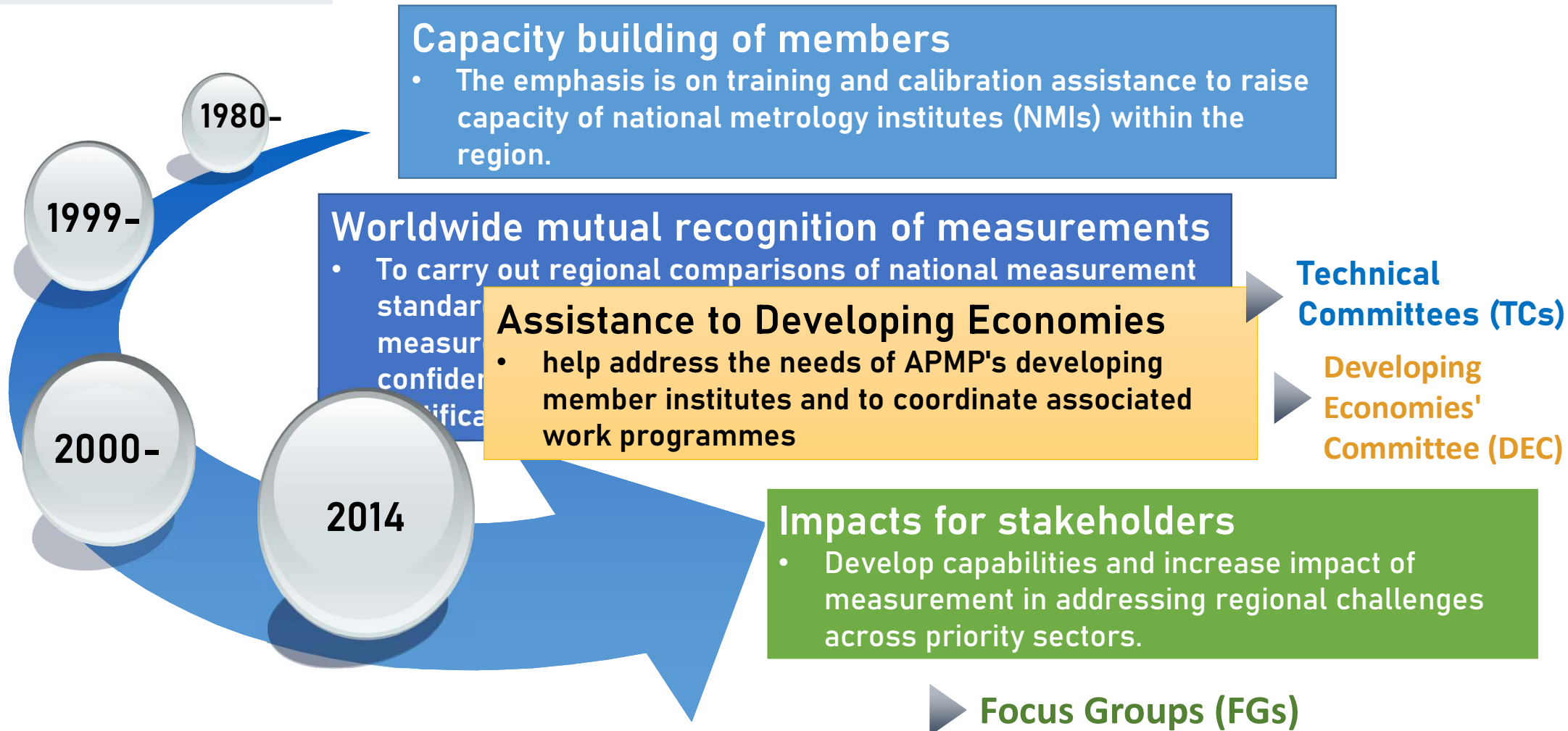
## Current members:

- 45 Full Member Institutes (27 economies) from Asia Pacific Region
- 14 Associate Member Institutes (13 economies) from other regions
  - Africa (South Africa, Egypt, Kenya)
  - Americas (U.S.)
  - Europe (UK)
  - Middle East (Iran, Iraq, Saudi Arabia, UME)

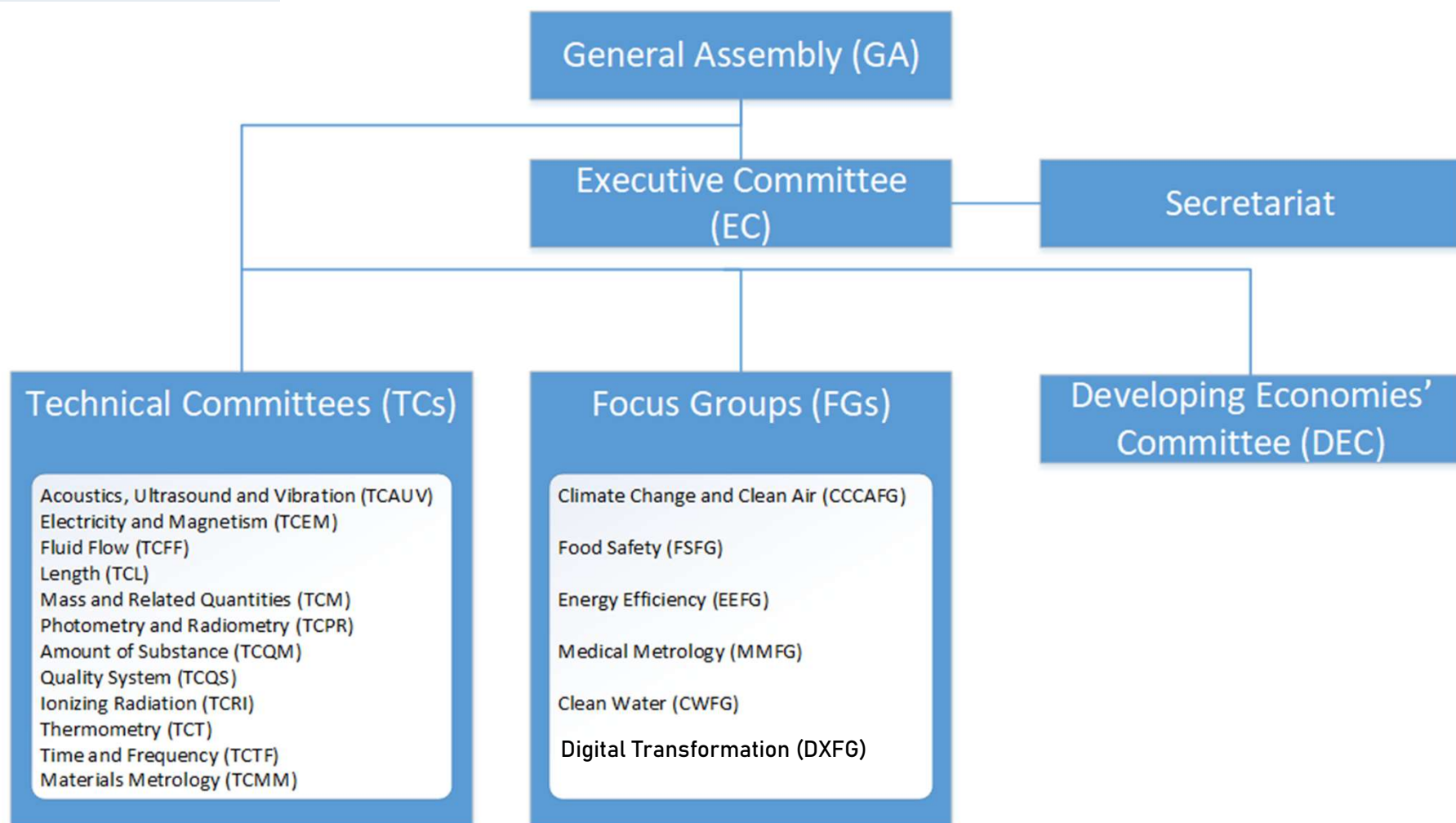
**Annual membership fee:** 200K US\$



# Responsibilities evolving with time



# Organisation



# Executive Committee



**Chairperson**

Dec 2019 – Dec 2022

**Xiang FANG**, NIM, China



**Chairperson-elect**

Dec 2022 – Dec 2025

**Hyun-Min PARK**, KRISS, Korea



**Ajchara Charoensook**

Thailand

2018 GA-2022 GA



**Teo Tang Lin**

Singapore

2019 GA-2022 GA



**Morioka Takehiro**

Japan

2020 GA-2023 GA



**Wei-En Fu**

Chinese Taipei

2020 GA-2023 GA



# Programmes

**APMP TC Initiatives**  
*Advancing metrology*

**APMP FG Initiatives**  
*Impact for stakeholders*

**(100 K US\$ per year)**

**DEC Programme**  
*Capacity building for  
Developing members*

**(45 K US\$ per year)**

## Technical Committees (TCs)

Acoustics, Ultrasound and Vibration (TCAUV)  
Electricity and Magnetism (TECM)  
Fluid Flow (TCFF)  
Length (TCL)  
Mass and Related Quantities (TCM)  
Photometry and Radiometry (TCPR)  
Amount of Substance (TCQM)  
Quality System (TCQS)  
Ionizing Radiation (TCRI)  
Thermometry (TCT)  
Time and Frequency (TCTF)  
Materials Metrology (TCMM)

## Focus Groups (FGs)

Climate Change and Clean Air (CCCAFG)  
Food Safety (FSFG)  
Energy Efficiency (EEFG)  
Medical Metrology (MMFG)  
Clean Water (CWFG)  
Digital Transformation (DXFG)

## Developing Economies' Committee (DEC)

# Technical Committees: supporting the CIPM MRA

**APMP TCs' core mission is to support operation of the CIPM MRA through:**

- reviewing quality system of member NMIs;
- organizing regional key/supplementary comparisons;
- reviewing CMCs submitted from in/out of the region;
- Linking a wider scope of members to the international metrology system;



All data listed in the KCDB have been reviewed and approved within the CIPM Mutual Recognition Arrangement

## APMP participation in the CIPM MRA

**20 / 27**

APMP Full Member Economies are CIPM MRA participants

**151**

APMP key comparisons

**6,735/25,798**

CMCs published from APMP / total CMC entries

**123**

APMP supplementary comparisons

Source: <https://www.bipm.org/kcdb/>



# Focus Groups: Impacts for stakeholders

**“Bridges” between Technical Committees and stakeholders**  
&  
**Cross-cutting, inter-disciplinary forums to meet  
sector needs and engage with stakeholders**

**Topics selected based on UN SDGs and regional priority needs**

**Food Safety  
(FSFG)**



**Medical  
Metrology  
(MMFG)**



**Clean Water  
(CWFG)**



**Energy  
Efficiency  
(EEFG)**



**Climate Change  
& Clean Air  
(CCCAFG)**



**Digital  
Transformation  
(DXFG)**



(established in Nov 2021)

# APMP Strategic Plan (2021-2023)

## 5 key aspects of current context:

- Significant and long-term impacts of the COVID-19 pandemic.
- Advances in measurement science and technology and the rise of global challenges
- Uneven development among Members
- Effective and efficient governance
- Stronger regional and international engagement

## 6 strategic work priorities:

### 2021 Priority

Work together in the fight against the pandemic

### 2022 Priority

Promote R&D excellence in emerging areas

Increase APMP's impact and value to members and to "leave no one behind"

Enhance quality and efficiency of APMP's governance and operations

Fulfill RMO obligations under the CIPM MRA

Enhance global engagement and partnership

# APMP Response Programme against COVID-19



**This programme** aims to encourage and support all scientific, technical, knowledge transfer activities that will improve members' measurement capabilities needed to fight against the COVID-19 pandemic, underpin national initiatives for combating the crisis, or contribute to metrological preparations for future pandemics.

Launched in 2020

Budget: USD 100,000 per year

USD 97,640 awarded till date:

## 5 Projects approved

1. Non-destructive testing for **medical PPE** suit to verify its readiness & prototype of open source DIY positive pressure powered air-purifying respirator and its traceability in pressure testing
2. Comparison measurement and training courses on the **ventilator** tester
3. Investigation of the **human speech/cough droplet size** measurement and comparison for COVID-19 infection control
4. Accurate measurement of **SARS-CoV-2** and development of **nucleic acids reference material**
5. Establish and validate national capabilities to support the growth in use of **thermal imagers** for public thermal screening

# APMP Focus Group on Digital Transformation



- Approved by APMP GA in Nov. 2021
- Current membership: 35, including 2 external partners (members of NCSLI-MII) and reps from EURAMET, GULFMET and COOMET
- DXFG Activities: monthly meetings, external activities, collaborative projects, DXFG infrastructure



## **Metrology for Digital Transformation Workshop “DCC– Applications and future developments”**

29 June 2022

*A full-day event organized by NIMT, Thailand with APMP DEC and DXFG to share presentations on DX topics and disseminate information from attendees of the PTB DCC Summer School*



**Chair: Dr. Blair Hall**

*Principal Research  
Scientist,  
MSL New Zealand*

# 2021 APMP NMI Directors' Workshop

## *Foster Asia-Pacific Metrology Collaboration in a Digital World*

The 12<sup>th</sup> APMP NMI Directors' Workshop was held on the theme "Foster Asia-Pacific Metrology Collaboration in a Digital World" for ideas sharing and discussions to develop a holistic understanding of metrology digitalisation and to review the preliminary work plan of the APMP Focus Group on Digital Transformation in Metrology (DXFG). The Workshop connected APMP NMI directors and invited participants virtually for a forward-oriented dialogue driven by digitalisation on 23 November 2021.

Topics that featured prominently on the agenda are:

*Topic 1: How is digital transformation changing NMIs?*

*Topic 2: Key areas of digital transformation for APMP*

*Topic 3: Regional collaboration in metrology for digital transformation*



Workshop Chair: Dr. Morioka Takehiro  
APMP Executive Committee Member



Dr. Takashi USUDA  
Director General, NMIJ /  
CIPM Secretary



Mr. FANG Xiang  
Director, NIM, China /  
APMP Chairperson



Dr. Hyun-Min Park  
President,  
KRISS



Ms. Ajchara Charoensook  
Director,  
NIMT



Dr. Cui Shan  
Scientist III,  
NMC, A\*STAR



Dr. Blair Hall  
Principal Research Scientist,  
MSL



Mr. Mark Kuster  
Chair,  
NCSL 141 Measurement  
Information Infrastructure &  
Automation Committee  
(MII&AC)



Dr. Sascha Eichstädt  
Convener, EURAMET TC-IM Working Group  
'Metrology for Digital Transformation' (WG M4D) /  
Head of Dept. Metrology for  
Digital Transformation, PTB /  
Chair of IMEKO TC6 "Digitalization"



Dr. Héctor Laiz  
Research Director of  
Metrology, INTI,  
Argentina /  
CIPM Member



Ms. Chang Kwei Fern  
APAC Chair /  
Director, SAC,  
Enterprise Singapore

# A new issue of APMP Newsletter released in February 2022

Main activities of APMP in 2021 can be found in this issue.

The newsletter can be accessed at  
<http://www.apmpweb.org/documents/newsletters.php>

## APMP NEWSLETTER

Asia Pacific Metrology Programme

### Inside this Issue

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Guidelines on Financial Support for Equipment Leasing by DEC Members  
DEC Highlights  
Progress of MEDEA 3.0  
21<sup>st</sup> NMI Directors and Member State Representatives Meeting  
APMP New Website on the Way  
Greetings from Chairperson-elect and New TC Chairs  
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News from Members



**Issue 46**  
February 2022

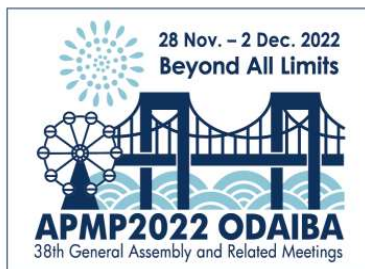




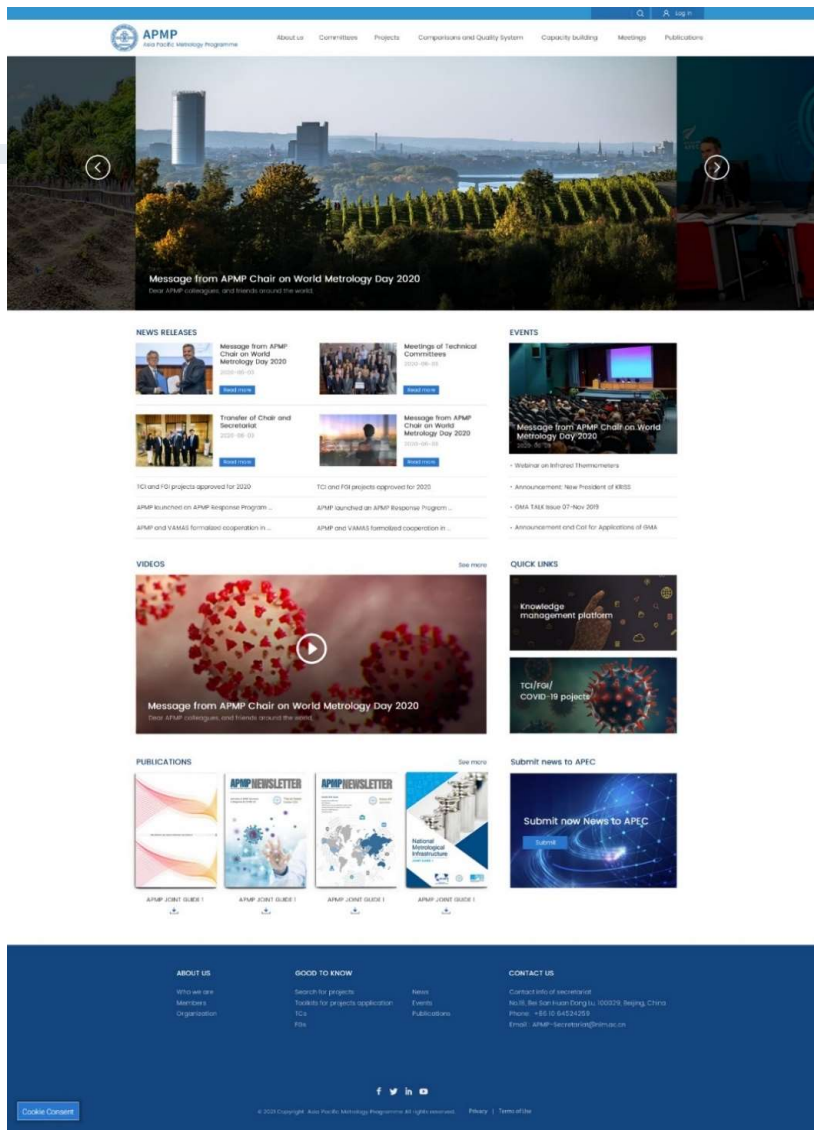
# Welcome to APMP2022 !

In 2022, the 38<sup>th</sup> APMP General Assembly and Related Meetings will be held at **AIST Tokyo Waterfront**, Odaiba Tokyo, Japan during 28th November to 2nd December 2022.

Invite **liaison organisations** to participate in  
GA Open Session on 1 December 2022 **ONLINE**



2022 International Cooperation Office / NMIJ, AIST



*(new APMP website under construction)*

# Thank you for your attention !

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