



WG on Metrological Control System

Report for 23rd APLMF Meeting

By Guo Su
November 2016
Tokyo, Japan



1 About WG7

2 Work in 2016

3 Plan for 2017



1.1

Background

1.2

Chair

1.3

Scope/Objective/Outcome

1 About WG7

2 Work in 2016

3 Plan for 2017



1.1

Background



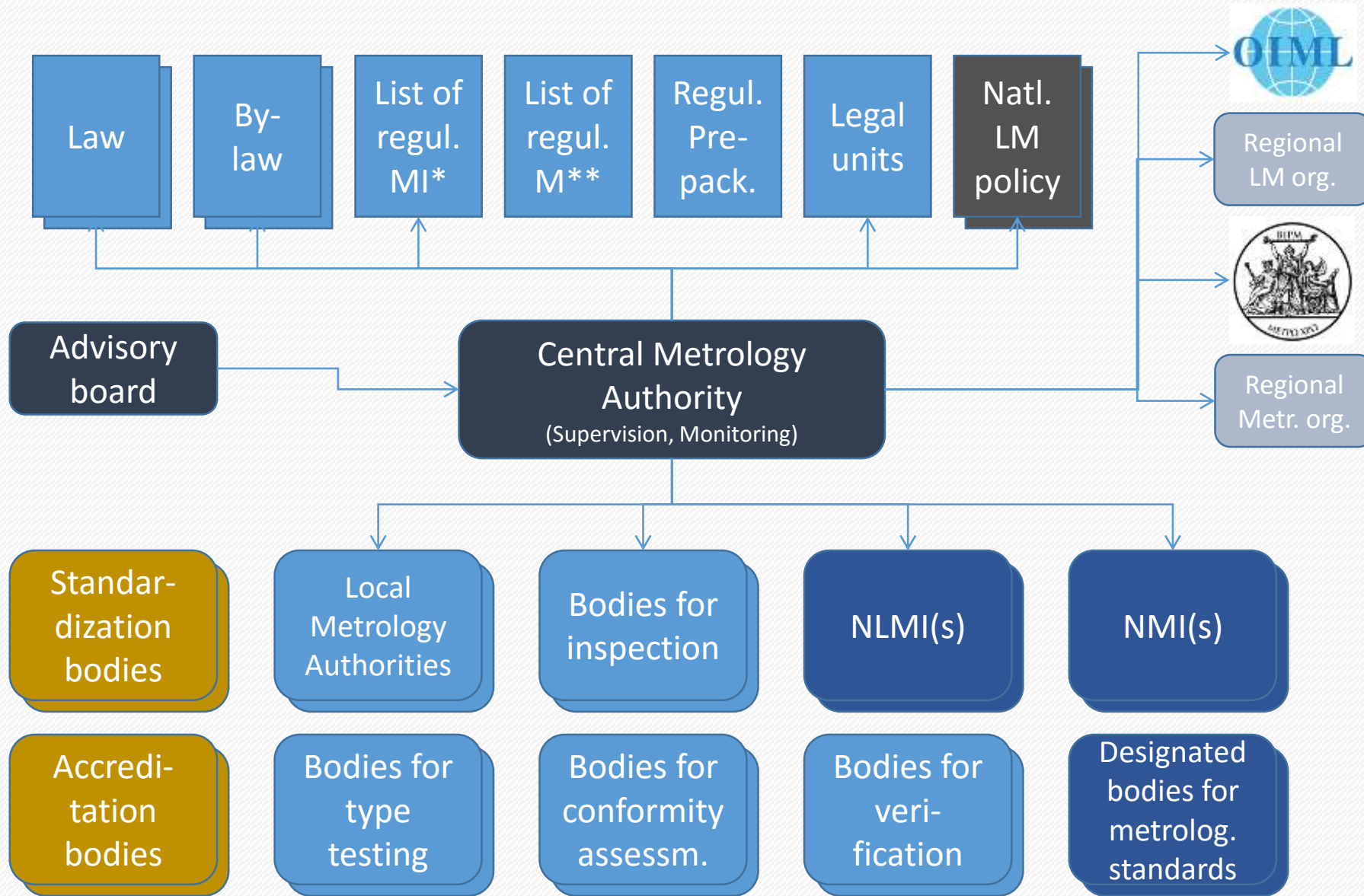
Suggested by EC of 14th APLMF Meeting, October 2007, at Zhouzhuang, China



Decides to set up WG on Metrological Control System chaired by P.R. China

OIML D1

Legal Metrology Management System according to OIML D1



*MI = Measuring Instruments
**M = Measurements

LM = Legal Metrology

NMI = National Metrology Institute
NLMI = National Legal Metrology Institute



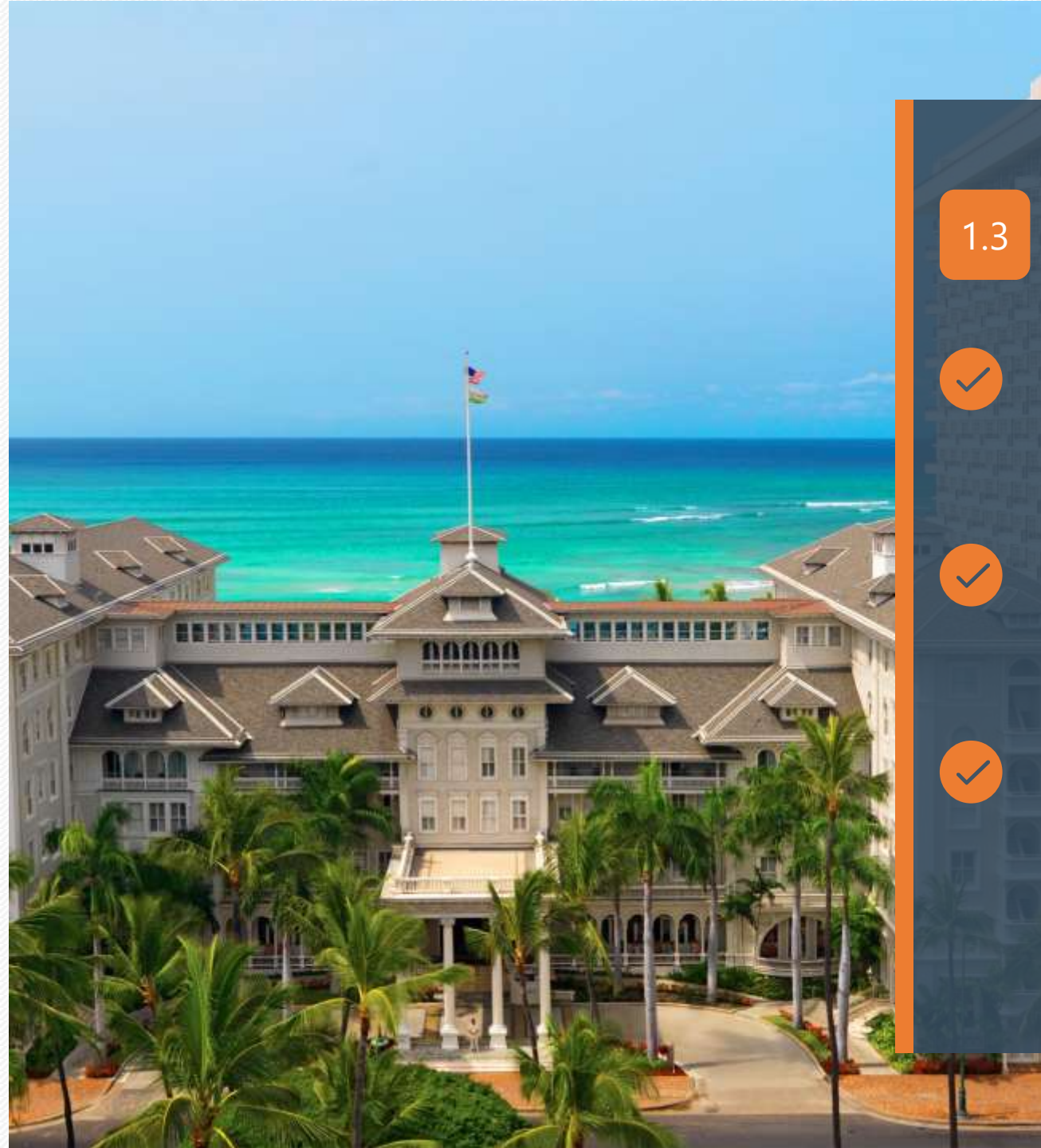
Mr. Yang Youtao

Chaired from 2008-2015,
senior engineer of Beijing
Institute of Metrology



Mr. Guo Su

Chaired from 2015,
former APLMF secretary
from 2008-2015,
OIML Advisory Group
secretary since 2014



1.3

Scope/Objective/Outcome

Scope:

Covers management of national law and regulation system, national administrative system, and national traceability system.

Objective:

To establish a regionally sound model of metrological control system as a guide reference for all APLMF member economies to use.

Outcome:

A survey and analysis on the extent of metrological control system of APLMF member economies

Develop guide document based on needs and interests from APLMF member economies;

Hold seminars on common interest topics and provide consultancy for member economies who needs assistance on this area.



2.1

Survey

2.2

Seminar

2.3


Summary


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2.1 Survey


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Template for seminar



2.2 OIML Pilot Training Center(OPTC) Video



Seminar on Legal Metrology Management System

- 100 participants from 16 economies
- Invited guest report

August 9-11 2016
Baiyun International Conference Center,
Guangzhou, China

- Presentation by each economy
- Lab tour to Guangzhou institute of metrology

Group discussion

- “How to optimize the legal metrology management system in OIML D 1”
- “How to raise the awareness of metrology”
- “How to improve capacity building in your organization”

DATA ANALYSIS

Discussion from the seminar

How to optimize legal metrology management systems?

Lesson Learned

- all SI unit
- unification of LM certification
- calibration with AB's
- continues education of experts and follow up training
- not necessary to have all elements of OIML D1
- OIML central – national deviations
- too many options. Important parts neglected due to lack of clear guidance
- not constant innovation but needs to be consistent
- guidance when starting from scratch
- upgrade tech
- document simplified
- case studies

1

2

Attractive

- how to setup conformity assessment for LM
- quality system such as ISO IEC 17025
- accreditation of LM system by LM officials
- collaboration with conformity assessment body
- being mandatory the fee may be reasonable
- fee must be fixed by state
- Develop partnerships with universities
- developing trained metrologists
- government support
- highlight public good
- highlight fair trade
- to encourage private partners to invest in LM of the economy

3

Essential for an optimum LMMS

- need to clarify national policy, staged specifically to development level of economy.
- organization structure
- Use D1 as best practice
- law for LM
- type approval facility
- verification facility

4

Testing or MAA

- software testing facility,
- need for better exchange of information on fraud and non-compliance between NMIs and LMAs.
- need for better systems to reduce fraud of test reports.
- OIML MAA certification
- better collaboration between developed and developing economies' type approvals.
- develop type approval labs

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Proposals

- add surveillance in D1
- OIML help in economy of country?
- OIML consultancy on web, experts, Q&A
- system self-sustainable
- NLMI may be a good innovation for LM system
- steering committee useful but may not have detailed metrology knowledge. Need to link with advisory group.
- need competent members for Advisory groups
- emerging issue such as measuring time of Uber

DATA ANALYSIS

Discussion from the seminar

How to raise awareness in metrology?



- business
- universities
- consumer
- school
- financial institutions
- government

- promotional collaterals
- national information seminar
- use cartoon character
- simple messages of use to consumers
- survey, asking their needs
- reach to education providers metrology recognized as subject.
- involve with schools
- create lesson plan around metrology activity.
- involve visit to
- WMD ceremony
- lab network platform
- consumer protection media
- documentary of metrology history

- stories or case studies
- practical event to involve a Government minister,
- highlight simple examples of benefits of metrology and pay back
- relate metrology to popular events as Olympics; every day life
- showing negative of wrong measurement
- simplifying and interesting
- public service advertising

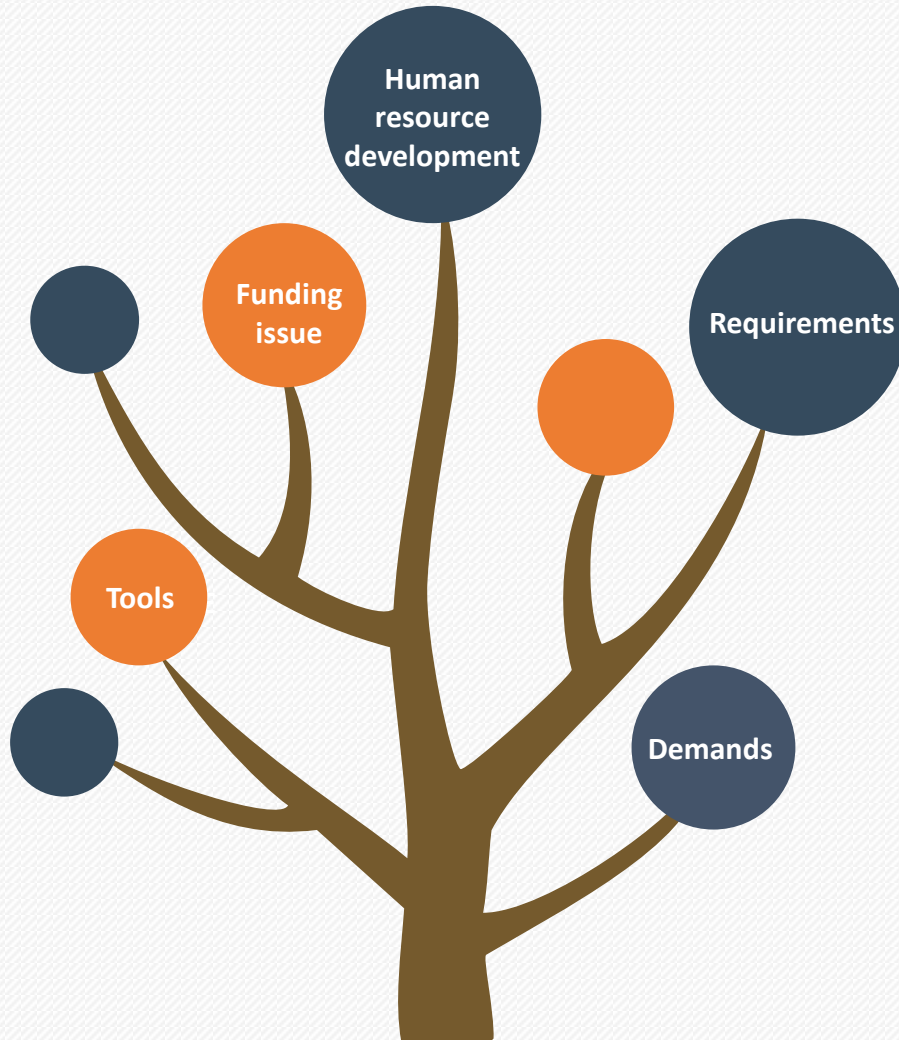
- cartoon
- verification certificate
- emails and digital media
- YouTube
- WhatsApp
- apps

- competition for photographs of metrology in action.
- talk show in TV
- training for inspectors
- metrology conference
- magazine
- award on measurement science

DATA ANALYSIS

Discussion from the seminar

How to improve the capacity building in your organization?



Human resource development

- work with universities to develop HR/people capability.
- need to see clear career path way in metrology/consumer protection
- Need for compliance officer in skills to do with evidence/court/ investigation, could be on-line"
- skills training: placement or secondment of inspectors from one economy to another
- recognized pool of technical experts in topic areas,
- get staff to take part in TC work at OIML/APLMF. use as a development opportunity for staff."
- training for software use / LM management system / verification of new sophisticated instruments

Funding issue

- Secure funding over extended period. – long game!
- Difficult when relying on fees collected.

Demand

- Clearly show demand for services from industry.
- Facility of OIML MAA certification
- testing of sphygmomanometer, energy meter
- accreditation of LM labs
- knowledge on metrology law, metrological controls and metrology infrastructure

Tools

- Use online discussions through online communities. Consider setting up webinars on topics of interest.
- International aid project, from PTB etc.

Requirements

- less than 50 years of age
- at least 5 years in LM field, service at least 10 years
- educational qualification



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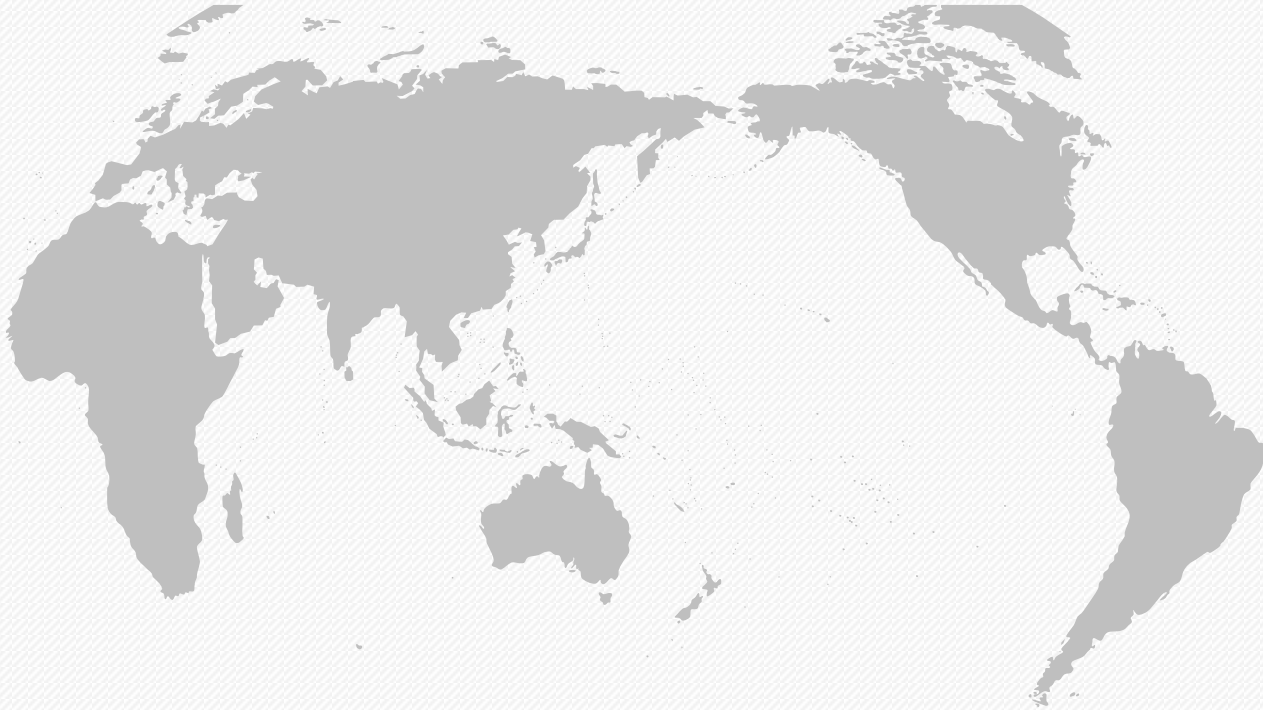
3 Plan for 2017

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3 Plan for 2017

Liaison



OIML AG



OPTC



Broadcasting



Thank you!

By Guo Su,
WG on Metrological Control System
November 2016, Tokyo, Japan