



中国计量科学研究院
National Institute of Metrology, China

APMP TCQM Considerations

CCQM SPWG Workshop

April 2017, BIPM

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APMP Major achievement and major challenge

- Large number of CMCs had been published on KCDB (2075 items, 1/3 of CCQM)
- Large number of new CMCs claims annually (373 CMCs to KCWG this year)
- Large number of APMP.QM KC, SC, PS (12KC, 16SC and 32PS)
- Large work for CMC intra-review (65 days per cycle)
 - How to Reduce the number of CMCs? Matrix CMC Claim?
 - How to Reduce the number of APMP.QM KCs and SCs?
 - How to improve the efficiency and effectiveness of the review process?

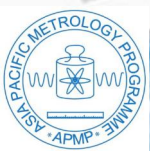
KCDB 2.0, on line review



How should the CCQM strategy be updated to meet the RMO need?

For sharing RMO's KC and SC plan

- a) The strategy documents of the CCs must clearly define the long-term timetable for KCs (including the repeat cycle). The RMO TCs should also plan regional KCs and SCs strategically, to reflect the needs of the RMO.
- To encourage exchanging comparisons plans between RMOs,
- To encourage NMIs participate in other RMO's KC ,SC and PS, which can raise efficiency and promote cooperation between members from different RMOs.



APMP TCQM Comparisons Plan

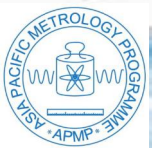
	IA	OA	GA	EA	Bio
2016	P30 Elemental calibration solution <NPLI> S10/P31 Elements in food <GLHK>	S11/P32 Organochlorine pesticides in ginseng root <GLHK>	S12 BTEX (Benzene, Toluene, and Xylene) in N ₂ <KRISS>		
2017	Pxx? Cd in milk powder <NIM> Pxx? Essential and toxic elements in bovine liver	Pxx BaP (Benzopyrene) in olive oil Pesticide r-HCH purity assessment	S13 1000 µmol/mol N ₂ O in N ₂ <NIM> QM-Pxx ? PM2.5 impactor <NPLI> S9.2017 CO in nitrogen, 100 µmol/mol <KRISS> S15 CO ₂ in nitrogen 1000 µmol/mol <KRISS>		Pxx? Enumeration of total coliform in water <NIM>
2018		Pxx? Mycotoxins?	S14 Hazardous Air Pollutants (HAPs) in N ₂ <KRISS> APMP QM. K90 HCHO in nitrogen 2 µmol/mol <KRISS NMIJ?>		Pxx numeration of pathogenic bacteria in food matrix
2019					Pxx Quantification of Norovirus in food by qPCR

How should the CCQM strategy be updated to improve the CMC service?

- b) The use of CMCs to cover as many services as is technically justified should be encouraged.....

Indicating the range of CMC service as follow:

- **CRMs services** including production and reference value certification
- **PTs services** including organization and reference values assessment (encourage to collaborate with ILAC) (APMP-APLAC joint PTs has been successful)
- Measurement and method validation services including provision of traceability (encourage to collaborate with Standardization Organization such as ISO, IEC or other International Organization for their method validation)



APMP-APLAC joint proficiency testing

- NMIs/DIs coordinate PTs and provide homogeneous and stable **samples** with **certified reference values** as assigned PT reference values, in connection with registered relevant **CMCs** or **KCRVs**.

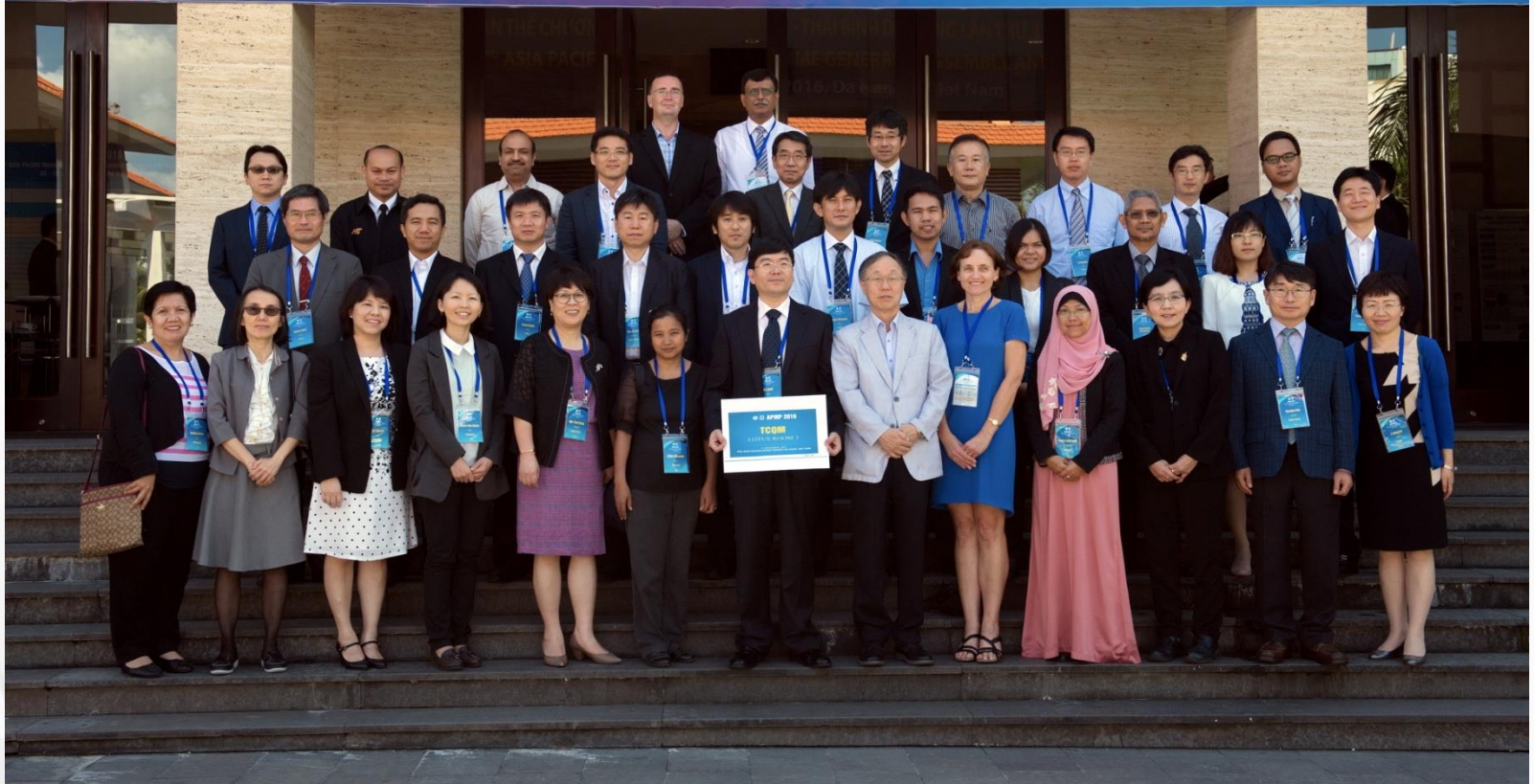
APLAC-APMP Joint PT	Name	year
APLAC T093	Toxic elements (Pb and Cd) in Cabbage	2014
APLAC T094	Pesticide residues (p,p'-DDE and alpha-endosulfan) in Cabbage	2014
APLAC T095	Determination of Elements (Calcium and Cadmium) in Drinking Water	2014
APLAC T100	Toxic Elements in Wheat Flour	2015
APLAC T102	Pesticides in Fruit Juice	2015
APLAC T105	Nutritional Elements (Fe and Zn) in Wheat Flour	2016
	Elements in food supplement	2016
	Organochlorine pesticides in ginseng root	2016
	Cadmium in milk powder	2017
	BaP(Benzopyrene) in olive oil	2017





HỘI NGHỊ TOÀN THỂ CHƯƠNG TRÌNH ĐO LƯỜNG CHÂU Á - THÁI BÌNH DƯƠNG LẦN THỨ 32 VÀ CÁC SỰ KIỆN LIÊN QUAN
THE 32ND ASIA PACIFIC METROLOGY PROGRAMME GENERAL ASSEMBLY AND RELATED MEETINGS

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Thank you for your attention.

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