

General Comments on previous CCQM Strategy (2013-2022) and performance to 2016

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Overview

1. **Focus areas of 2013-2023 Strategy**
2. **Performance against 2013-2023 Strategy**
3. **CCQM: New WGs and Task Groups (2013-2016)**
4. **CIPM-MRA Review, KCDB 2.0 and Broad Scope CMCs (2013-2016)**
5. **Drafting the 2017-2026 document**

CCQM 2013-2022 Strategy

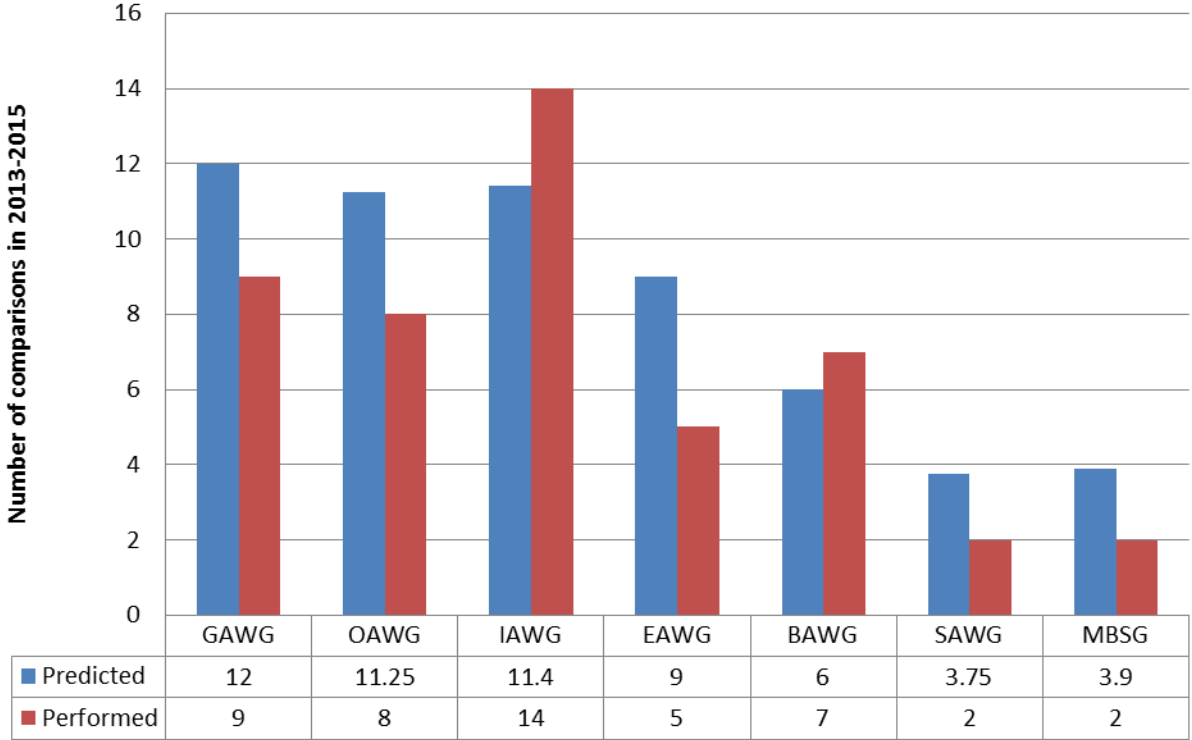
1. **Focus on 'Effective and Efficient' programme for comparisons**
2. **Core Comparison Model development started**
3. **Growth of CMCs: Need a sustainable system**
4. **CCQM impact case studies (well received)**
5. **CCQM requirements of 20 comparisons per year (stable despite increase in scope of CC activity)**

CCQM Strategy document: Future Key Comparisons (2013-2023)

CCQM Working group	Number* of Key comparisons 1999-2012	Number* of (standalone) Pilot Studies 1999-2012	Approximate Number of CMCs underpinned by WG activities at the end of 2012	Estimated Number of Key comparisons for 2013-2023	Estimated Number of (standalone) Pilot Studies for 2013-2023
Gas Analysis Working Group (GAWG)	26 [‡]	9	2039	30	10
Organic Analysis Working Group (OAWG)	29	34	1480	30	5 to 10
Inorganic Analysis Working Group (IAWG)	36	38	1400	30	8
Electrochemical analysis (EAWG)	18	9	117	15	15
Bioanalysis Working Group (BAWG)	2	20	9	10	10
Surface Analysis Working Group (SAWG)	2	5	4	8	3
<i>Ad hoc</i> Steering Group on Microbial Measurements (MBSG)	0	0	0	3	10
Total number of CCQM comparisons (1999-2012)	113	115	-	-	-
Average number of CCQM comparisons per year (1999-2012)	9	9 to 10	-	-	-
Estimated total number of CCQM comparisons (2013-2023)	-	-	-	126	61 to 66
Estimated average number of CCQM comparisons per year (2013-2023)	-	-	-	13	6 to 7

CCQM Comparison track record (2013-2015)

**CCQM-WG Comparisons 2013-2015:
Predicted number vs. Number performed**

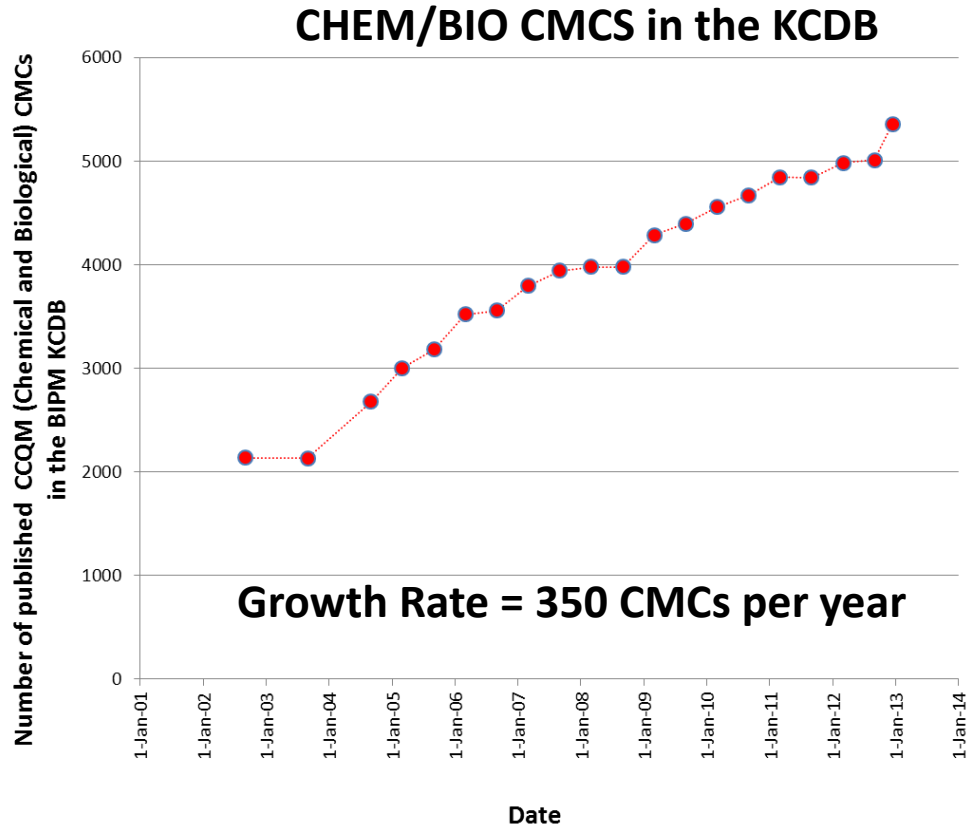


CCQM has organized 18% less comparisons in the 2013-2015 period than predicted in 2012

Number of stand-alone pilots studies much reduced

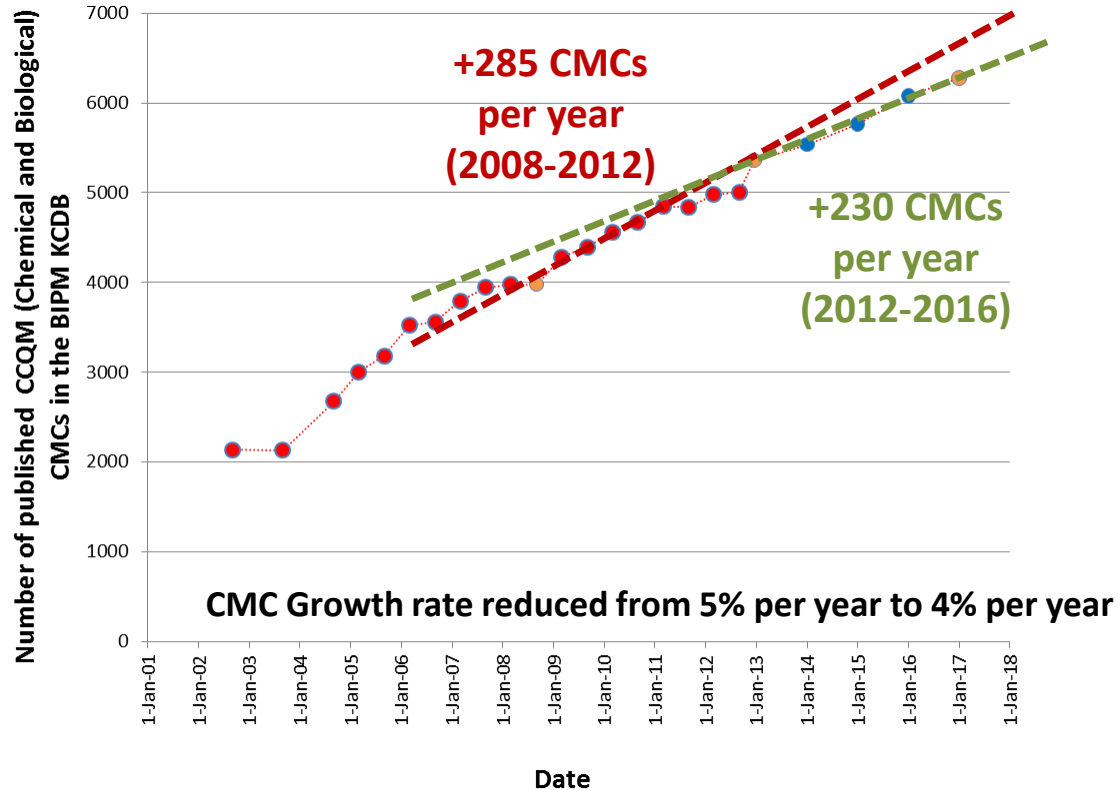
Based on Dec 2015 KCWG figures

CCQM Strategy document (2013-2022)



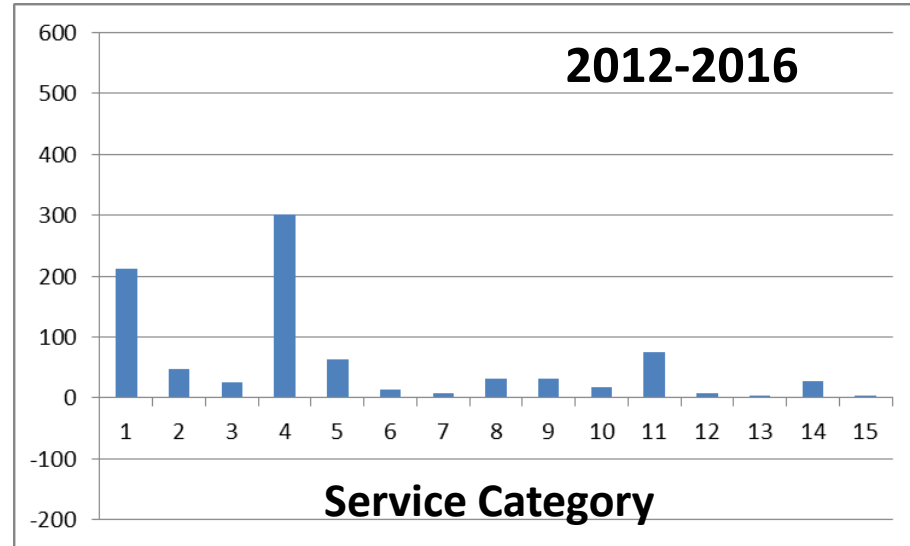
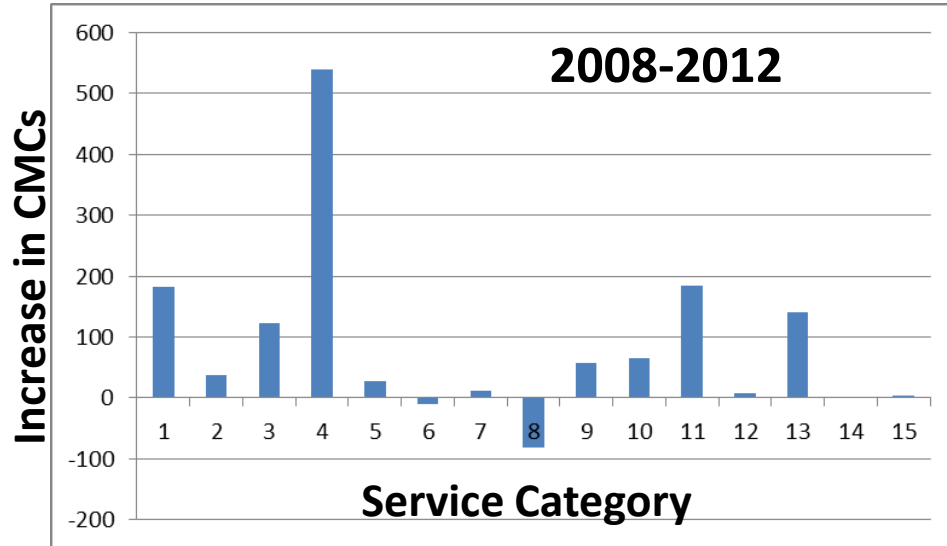
- 1) **Need an effective and efficient programme of comparisons to support current capabilities**
- 2) **Do we have the resources to review the growing number of CMCS?**
- 3) **Are all capabilities delivering services?**

Chem-Bio CMC evolution 2008-2016



CCQM Strategy document (2008-2016)

Growth in number of CMCs per service category



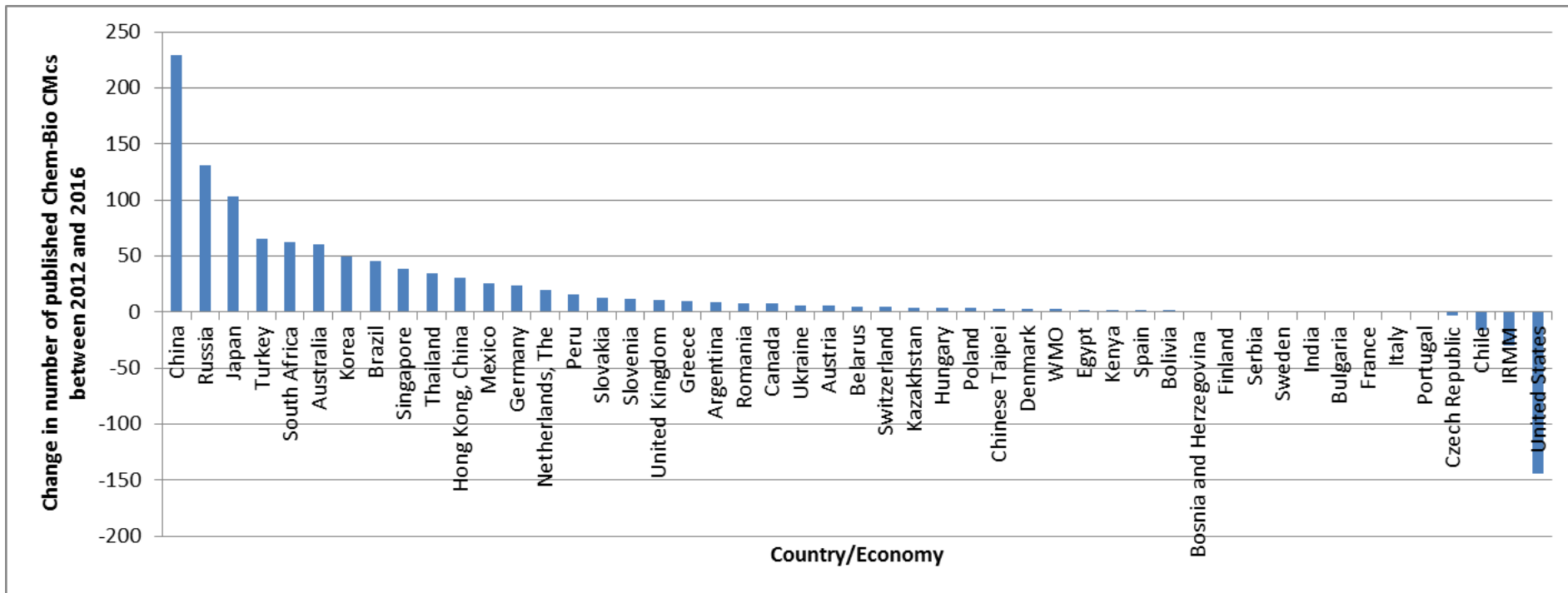
Greatest growth in:

Gases (4)

High Purity Chemicals (1)

Food (11)

Change in number of Chem/Bio CMCs (2013-2016)



CCQM Working Groups: Changes in 2012-2016

2001-2014

Chemistry

Organic Analysis WG
Inorganic Analysis WG
Gas Analysis WG
Electro-chemical
Analysis WG
Surface Analysis WG

Biology

Bio-Analysis WG

Chemistry was
subdivided into several
discipline-based WGs

Biology, at least as
complex and probably
more so than chemistry,
was covered by one WG

2015 onwards

Chemistry

Organic Analysis WG
Inorganic Analysis WG
Gas Analysis WG
Electro-chemical
Analysis WG
Surface Analysis WG

Biology

- **Nucleic Acids WG**
- **Protein Analysis WG**
- **Cell Analysis WG**

**Subdivided Biology into
discipline-based WGs**

CCQM: *ad hoc* WGs and Formation of Task Groups



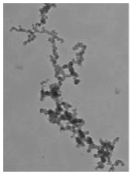
1. CCQM ad hoc WG on KCDB 2.0



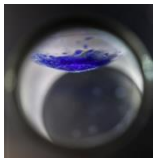
2. CCQM ad hoc WG on the mole



3. GAWG Task Group on Strategy for Particulate Comparisons



4. GAWG Task Group on Black Carbon



5. GAWG Task Group on Ozone Cross Sections

CIPM MRA Review



- ◆ A Working Group will meet on 14-15 March 2016 at the BIPM and will provide a report with recommendations for action to the NMI Directors and the CIPM in October 2016
- ◆ The review will focus on:
 - The key expectations for the CIPM MRA and its future development;
 - the key strengths and weaknesses of the CIPM MRA;
 - the role of the JCRB in the governance and operation of the CIPM MRA;
 - Guiding principles for further improvements.

Dr James Olthoff	Physical Measurement Laboratory Director, NIST (USA).	[SIM]
Dr Jörn Stenger	Member of the Presidential Board, PTB (Germany).	[EURAMET]
Dr Yuning Duan	Vice-Director, NIM (China); CIPM member; CCT President.	[APMP]
Dr Martyn Sené	Deputy Director and Director of Operations, NPL (UK).	[EURAMET]
Dr Takashi Usuda	Assistant Director General, NMJ (Japan); CIPM Member; CCPR & CCAUV President.	[APMP]
Mr Luc Erard	Scientific Advisor, LNE (France); CIPM Member; CCTF President.	[EURAMET]
Dr Peter Fisk	Chief Executive and Chief Metrologist, NMIA (Australia).	[APMP]
Mr Dennis N. Moturi	Head of Department, Metrology, KEBS (Kenya); AFRIMETS President.	[AFRIMETS]
Dr Vladimir N. Krutikov	Director, VNIIOFI (Russian Federation), COOMET President.	[COOMET]
Dr Beat Jeckelmann	EURAMET Chairperson, Chief Science Officer, METAS (Switzerland).	[EURAMET]
Dr Philippe Richard	Deputy Director, METAS (Switzerland); CIPM Member; CCM President.	[EURAMET]
Dr Héctor Laiz	Director of Metrology, INTI (Argentina) ; SIM President.	[SIM]
Dr Wynand Louw	Director Research & International, NMISA (South Africa); CCRI President.	[AFRIMETS]
Dr Gert Rietveld	Senior Scientist Electrical Measurements, VSL (Netherlands); CIPM member; CCEM President.	[EURAMET]
Ms Nino Mikanadze	Director of Metrology Institute, GEOSTM (Georgia).	[COOMET]
Mr Robert Edelmaier	Director of Metrology Service, BEV (Austria).	[EURAMET]
Ms Claudia Santo	Metrology Director, LATU (Uruguay).	[SIM]
Invited by the Chairman:		
Dr Willie E. May	Director, NIST (USA), invited by the Chairman to represent interest in Chemistry.	[SIM]
Mr Prayoon Shiwattana	Director, NIMT (Thailand), invited by the Chairman to represent interest in Chemistry in developing countries.	[APMP]

The Working Group will be supported by:

Dr Martin J.T. Milton	BIPM Director.
Mr Andy S. Henson	Director, BIPM International Liaison and Communication Department.
Dr Douglas A. Olson	JCRB Executive Secretary (2015-2016).
Mr Chingis Kuanbayev	JCRB Executive Secretary (2013-2014).

CIPM-MRA Review: Some outcomes

- 1) The success and importance of the CIPM MRA is recognized
- 2) The resources used for the CIPM MRA should not increase (and preferentially be decreased)
- 3) The Chem-Bio community should review their CMC template (to see if revision/simplification is necessary)
- 4) The relationship between CMCs and services needs further examination (general comment – not just for Chem-Bio)
- 5) The Broad Scope CMC approach will be investigated further (general comment – not just for Chem-Bio)
- 6) A new database – web based for data entry – improved search capability – is to be developed – Chem-Bio should be clear on their requirements.

Ad hoc CCQM KCDB 2.0 WG Recommendations (CCQM/17-06)

- 1) Simplify CMC template by suppressing 9 columns**
- 2) Review measurement service categories (classification & use)**
- 3) CMC template to be able to accommodate Bio measurand descriptions (long)**
- 4) Discuss further introduction of broad scope CMCs into database**
- 5) Keep 'analyte group' descriptor in template**
- 6) Produce CCQM best practice guides on units to be used in the KCDB**
- 7) Support for web-based tool: tracking complete CMC submission and review process**

CCQM Strategy Document (2017-2026) -1 year Development Timeline

Major review of WG Strategy Documents (bottom up): **Start in April 2016**

Major review of CCQM Strategy Document (top down): **Start in April 2016**

Discussion of revised versions in WGs: **October/November 2016 (completed)**

Submission to SPWG: **December 2016 (completed; available as CCQM/17-05&06)**

Draft CCQM (2017-2026) strategy to CCQM for comment: **February 2017 (in preparation)**

Comments from CCQM: **1 April 2017**

CCQM Workshop on Strategy Document: **26 April 2017**

CCQM plenary meeting review of 2017-2026 Strategic Plan Document: **27-28 April 2017**

Revised CCQM Strategy document available: **June 2017**

CCQM Strategic Plan Workshop, 26 April 2016 (BIPM)

Time	Presentation Title	Speaker
14h00-14h10	Welcome and introduction	W. E. May (Chair)
	Baseline and Performance over last period (2013-2016)	
14h10-14h20	General Comments on previous CCQM 2013-2022 Strategy	R.I. Wielgosz
14h20-14h30	Evolution of KCs and CMCs 2013-2016: KCWG view	W. M. Sin
14h30-14h45	Questions and discussion	All
	Draft Strategic Plans of CCQM WGs	
14h45-15h15	Elevator Pitches from 8 technical CCQM WGs <i>4 minutes with no slides, addressing the 4 following points:</i> <ul style="list-style-type: none"> • Major Achievement for WG in last period? • Major Challenges for WG in last period? • What's new in the updated WG strategy? • Number of comparisons per year for future period? 	Chairs of: OAWG, GAWG, IAWG, EAWG, SAWG, NAWG, PAWG, CAWG
15h15-15h40	Questions and Discussion for CCQM WG Chairs	All
15h40-16h00	Tea	
	RMO inputs into CCQM Strategic Plan	
16h00-16h30	Elevator Pitches from 5 RMO TC QM Chairs <i>4 minutes with no slides, addressing the 4 following points:</i> <ul style="list-style-type: none"> • Major Achievement for RMO TC in last period? • Major Challenges for RMO TC in last period? • How should the CCQM strategy be adapted to meet RMO needs? • Number of comparisons per year for future period? 	TC QM Chairs from: AFRIMETS APMP COOMET EURAMET SIM
16h30-17h00	Questions and Discussion for RMO TC QM Chairs	
	Presentation and discussion of Updated Strategic Plan	
17h00-17h15	Overview of Draft CCQM 2017-2026 Strategic Plan	R. I. Wielgosz
17h15-17h45	Discussion and comment from CCQM, including invitation to provide elevator pitches on issues, addressing: <ul style="list-style-type: none"> • What's missing? • Why is it important? • How should it be addressed in the strategy? 	All
17h45-18h00	Summary and next steps	W.E. May

Thank you.

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