

Bureau International des Poids et Mesures

BIPM Report to the 7th EURAMET General Assembly

Andy Henson

Director of International Liaison and Communications Department, BIPM

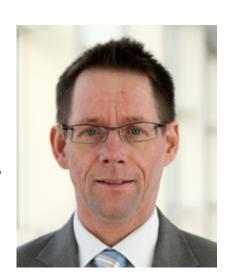


7th EURAMET General Assembly, Reykjavik, May 2013

Change in BIPM Director

Dr. Martin Milton has joined the BIPM on 1 October 2012 as Deputy Director/Director Designate and has taken over the directorship of the BIPM from Dr. Michael Kühne on 1 January 2013

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BIPM: Staff Changes and Secondments

Mr. José María Los Arcos, previously Research and Development Advisor at CIEMAT (Spain), has taken up his new post as Director of the BIPM's lonizing Radiation, replacing **Penelope Allisy-Roberts** after her retirement.

Mr. Chingis Kuanbayev, Head of Mechanical and Geometrical Laboratory at Kazakhstan Institute of Metrology (KazInMetr RSE), has taken over from Omer Altan as the JCRB Executive Secretary as of December 2012.

Mr Carlos MAGGI, previously Quality Systems Coordinator at National Research Council (NRC, Canada), has taken up his new post as Quality, Health and Safety Manager of the BIPM, replacing **Bruno Coelho**.

Changes in the CIPM

Following the retirements of **Dr Bennett**, **Prof. Issaev** and **Dr Tanaka** from the International Committee of Weights and Measures (CIPM), three new members have been elected:

• Dr Brian Bowsher (Managing Director, NPL, United Kingdom),

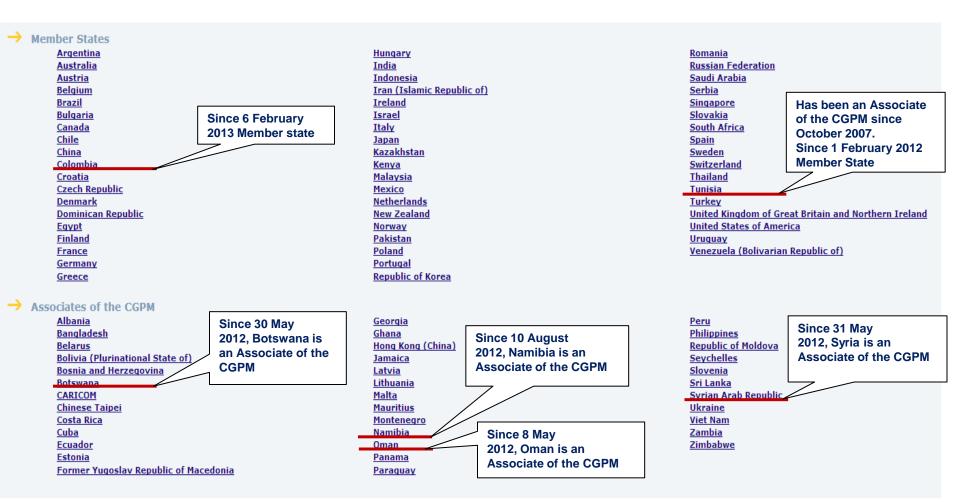
- **Dr Vladimir Krutikov** (Rosstandart, Russian Federation)
- **Dr Takashi Usuda** (Director of the International Metrology Cooperation Office, NMIJ/AIST, Japan).

Following the retirements of **Prof. Göbel**, **Dr Hengstberger** and **Dr Schwitz** from the International Committee of Weights and Measures (CIPM), three new members have been elected:

- Prof. Humberto Brandi (Director for Scientific and Industrial Metrology, INMETRO, Brazil),
- Dr Wynand Louw (Director, Technical Infrastructure Development, NMISA, South Africa)
- Prof. Joachim Ullrich (President, PTB, Germany)

Membership

June 2013 - 55 Member States of the BIPM, and 37 Associate States and Economies of the General Conference:



CIPM MRA Participation

The CIPM MRA has now been signed by the representatives of 92 institutes – from 52 Member States, 36 Associates of the CGPM, and 4 international organizations* – and covers a further 147 institutes designated by the signatory bodies.

→ Member States

Argentina
Australia
Austria
Belgium
Brazil
Bulgaria
Canada
Chile
China

Colombia Croatia Czech Republic Denmark

Dominican I Eqypt Finland France

Germany Greece

Associates of the CGPM

<u>Albania</u> <u>Bangladesh</u> <u>Belarus</u> <u>Bolivia (Plurinational State of)</u>

Bosnia and Herzegovina
Botswana
CARICOM
Chinese Taipei
Costa Rica
Cuba
Ecuador
Estonia

Former Yugoslav Republic of Macedonia

<u>Hungary</u> <u>India</u> Indonesia

Iran (Islamic Republic of)

Ireland
Israel
Italy
Japan
Kazakhstan
Kenya
Malaysia
Mexico
Netherlands
New Zealand
Norway
Pakistan
Poland
Portugal

Republic of Korea

<u>Georgia</u> <u>Ghana</u>

Hong Kong (China)

Jamaica
Latvia
Lithuania
Malta
Mauritius
Montenegro
Namibia
Oman
Panama
Paraguay

<u>Romania</u>

Russian Federation

Saudi Arabia Serbia Singapore Slovakia South Africa Spain Sweden Switzerland Thailand Turkey

United Kingdom of Great Britain and Northern Ireland

United States of America

Uruguay

Venezuela (Bolivarian Republic of)

Peru

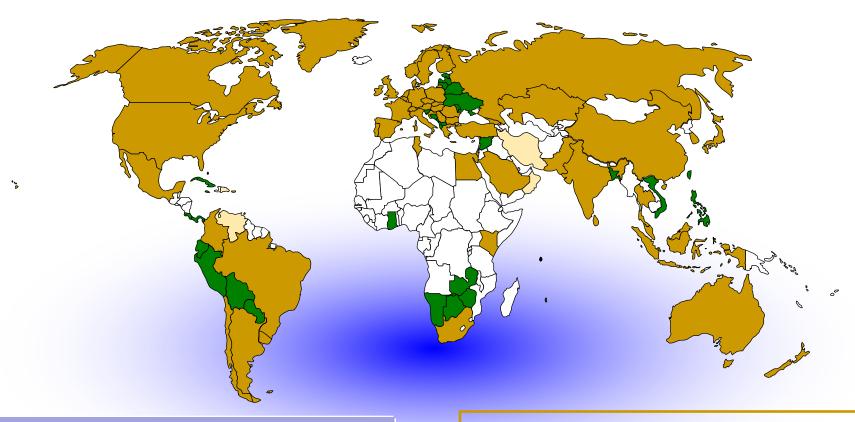
Philippines
Republic of Moldova

Seychelles Slovenia Sri Lanka

Syrian Arab Republic

<u>Ukraine</u> <u>Viet Nam</u> <u>Zambia</u> <u>Zimbabwe</u>

CIPM MRA Participation



Member participating in the CIPM MRA

Associate participating in the CIPM MRA

Members/Associates not yet signed the CIPM MRA

The CIPM MRA has now been signed by the representatives of 92 institutes – from 52 Member States, 36 Associates of the CGPM, and 4 international organizations – and covers a further 147 institutes designated by the signatory bodies.

Regional Metrology Organizations



Potential new Member States and Associates

BIPM ACTIONS

 BIPM continued working with RMOs, IGOs and organizations on raising awareness about the CIPM MRA.

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 The BIPM is working with a number of States interested in participation (Member State or Associate status). Among them are:

Middle East

- Bahrain
- Kuwait
- Qatar
- UAE
- Yemen

Central America

Nicaragua

Asia-Pacific

Myanmar

Africa

- Ethiopia
- Cote d'Ivoire
- Morocco
- Nigeria

<u>Europe</u>

Luxembourg

Eastern Europe & Central Asia

- Azerbaijan
- Kyrgyzstan
- Mongolia
- Uzbekistan

Restatement of the BIPM mission

The BIPM is an intergovernmental organization established by the Metre Convention, through which Member States act together on matters related to measurement science and measurement standards.

The mission of the BIPM is to ensure and promote the global comparability of measurements, including providing a coherent international system of units for:

- Scientific discovery and innovation,
- Industrial manufacturing and international trade,
- Sustaining the quality of life and the global environment.

Restatement of the BIPM role

The unique role of the BIPM is based on its international and impartial character enabling it:

- To coordinate the realization and improvement of the world-wide measurement system to ensure it delivers accurate and comparable measurement results.
- To undertake selected scientific and technical activities that are more efficiently carried out in its own laboratories on behalf of Member States.
- To promote the importance of metrology to science, industry and society, in particular through collaboration with other intergovernmental organizations and international bodies and in international forums.

The unique role of the BIPM enables it to achieve its mission by developing the technical and organizational infrastructure of the International System of Units (SI) as the basis for the world-wide traceability of measurement results. This is achieved both through technical activities in its laboratories and through international coordination.

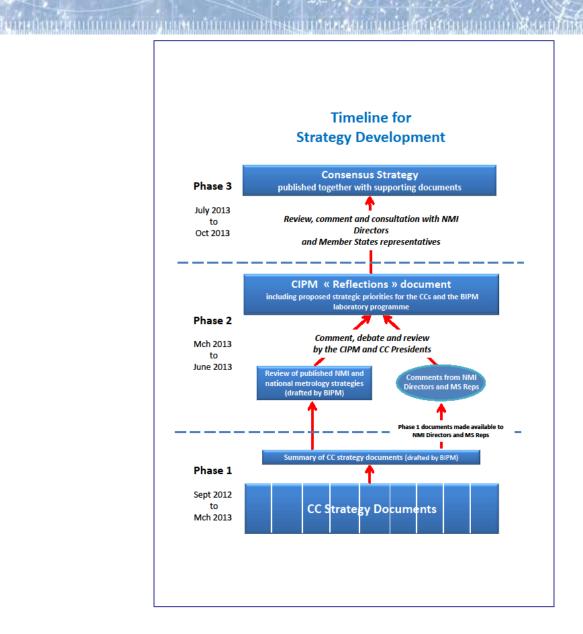
Restatement of the BIPM objectives

 To establish and maintain appropriate reference standards for use as the basis of a limited number of key international comparisons at the highest level.

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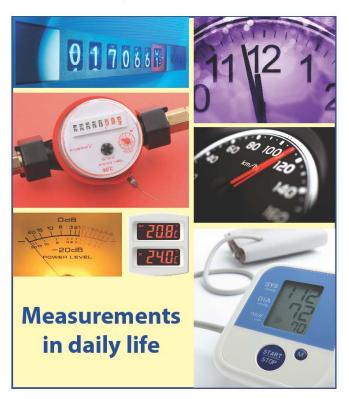
- To coordinate international comparisons of national measurement standards through the Consultative Committees of the CIPM; taking the role of coordinating laboratory for selected comparisons of the highest priority and undertaking the scientific work necessary to enable this to be done.
- To provide selected calibrations for Member States.
- To coordinate activities between the NMIs of Member States, such as through the CIPM MRA, and to provide technical services to support them.
- To liaise as required with relevant intergovernmental organizations and other international bodies both directly and through joint committees.
- To organize scientific meetings to identify future developments in the world-wide measurement system required to meet existing and future measurement needs in industry, science and society.
- To inform, through publications and meetings, the science community, the wider scientific public and decision makers on matters related to metrology and its benefits.

Strategy Development



World Metrology Day 2013

Metrology









- The theme of World Metrology Day in 2013 is "Measurements in Daily Life"
- The joint BIPM-OIML WMD website has been updated to the official 2013 WMD poster designed in cooperation with TÜBİTAK UME
- Information on national WMD activities will be posted on the website www.worldmetrology.org

For the future the RMOs are asked in turn to work with their regional legal metrology organizations to take responsibility for the developments of the poster (in conjunction with BIPM and OIML). Internally the RMOs are free to decide which particular member takes on the task (for example the RMO may choose to run a competition etc.).

Highlights of the CIPM

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State Reps and NMI Directors meeting 16-17 October 2012

Reflections on the ad hoc Working Group Recommendations

- Development of a statement on the BIPM mission, role and objectives supported
- Development and regular updating of mid- and long-term strategic plan, including financial analysis and proposed BIPM PoW and budget, with input from CCs, and active interest by NMI Directors and State Reps. Frame work ready by end 2012. Time scale approved. Draft Strategic plans to be sent for further input and comments in March 2013 to NMI Directors and State Reps. (failure to responds means: assent)
- RMO chairs invited to attend the NMI Directors meeting, and RMO TC Chairs invited to attend CC Strategy WGs
- Improvement of communication and published documents: more compact, easily readable, clear summary and list of decisions and actions

State Reps and NMI Directors meeting 16-17 October 2012

Reflections on the ad hoc Working Group Recommendations

- Regular yearly meetings of NMI Directors and State Representatives
- More transparent election process of CIPM members; CIPM members scrutinized against listed criteria; appointment for fixed term of 4 years, renewable
- CC Presidents appointed on the basis of being the "best person"; criteria to be formulated; appointment for fixed term of 4 years, renewable
- CGPM meetings every 4 years, deciding on the BIPM budget for a 4 year period; intermediate CGPM meetings not favoured
- Duration of CGPM meetings to become reduced to 2 or 3 days
- Review of content and management of BIPM Pension Fund

101st CIPM meeting, session II, October 2012

□ Issues discussed (ToR, activities, external advisors)

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- ✓ CIPM Sub-Committee on Science Strategy
 - New folder on BIPM Mission, Role and Objectives
- ✓ CIPM Sub-Committee on Finance
 - Developing sustainable BIPM financial situation and Program of Work
- ✓ CIPM Sub-Committee on the Pension and Provident Fund and Health Insurance
 - Developing a sustainable BIPM Pension Fund, actuarial study, Health Insurance
- ✓ CIPM ad hoc Working Group on Conditions of Employment
 - Studying and comparing primary & secundary employment conditions
- ✓ CIPM ad hoc Working Group on CIPM Membership
 - Draft document on Criteria and Process for Election of CIPM Members

101st CIPM meeting, session II, October 2012

□ Issues discussed and approved

- ✓ Conclusions of the October 2012 meeting with the State Reps and NMI Directors summarized and agreed
- ✓ Setting up of a accrual accounting system noted
- Rescheduling agreement with Iran agreed
- ✓ BIPM 2013 budget approved
- ✓ Updated Declaration of Cooperation between CIPM, IFCC and ILAC concerning the JCTLM approved
- ✓ CC membership and observership
- ✓ Letter to ITU concerning time scale without leap seconds, and ITU/BIPM workshop on "Future of the International Time Scale" in September 2013
- ✓ Preparation of draft resolutions for the 25th CGPM in November 2014

BIPM - CIPM - ILAC - ISO - OIML meetings in March 2013

✓ Tuning of policy with respect to the JCGM and its governance

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- ✓ Tuning of policy and activities with respect to the DCMAS Network support to developing Economies
- ✓ ILAC Arrangement will include Inspection Bodies and in the near future PT Providers and CRM Producers
- ✓ ISO Guide 34 wil be used as a stand alone document for the accreditation of CRM Producers
- ✓ ILAC P10 (Traceability) and P14 (Uncertainty) approved by ILAC (January 2013)
- ✓ Proposed review of ISO/IEC 17025
- ✓ Ways to demonstrate capability, competence, traceability for accredited non-NMIs/DIs having primary standards
- ✓ Future of the Metrologyinfo.org website
- ✓ World Metrology Day, future poster development

BIPM - CIPM - ILAC - ISO - OIML meetings in March 2013

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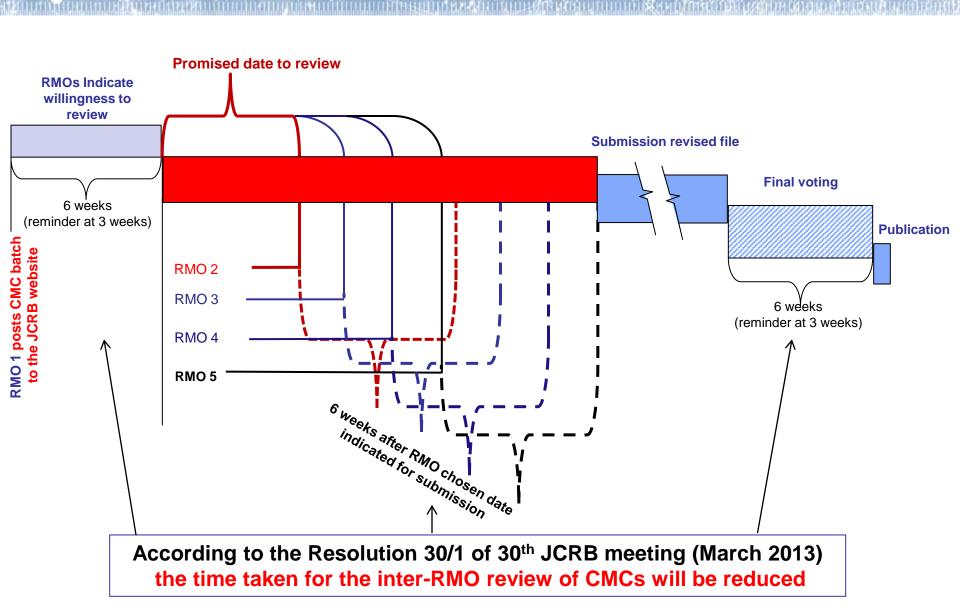
- ✓ Review of how metrology, accreditation and standards development can mutually reinforce the values of the services provided to customers
- ✓ Agree on actions that will assist the BIPM, OIML, ILAC and ISO to demonstrate these values to their stakeholders
- ✓ Possibility and utility of organizing a big stakeholder meeting (BIPM, ILAC, ISO, OIML, Codex A., WMO, WHO, IEC, ITU, a.o.)
- ✓ First priority: joint symposium on "Climate Change Assessment", including measurable, reportable and verifiable carbon inventories (emissions and mitigation/sequestration strategies)
- ✓ Role and activities of ISO Technical Interface Group (part of ISO CASCO)
- ✓ Re-instatement of ISO TAG 4 (investigating needs of ISO TCs on GUM and VIM issues)

Highlights of the JCRB

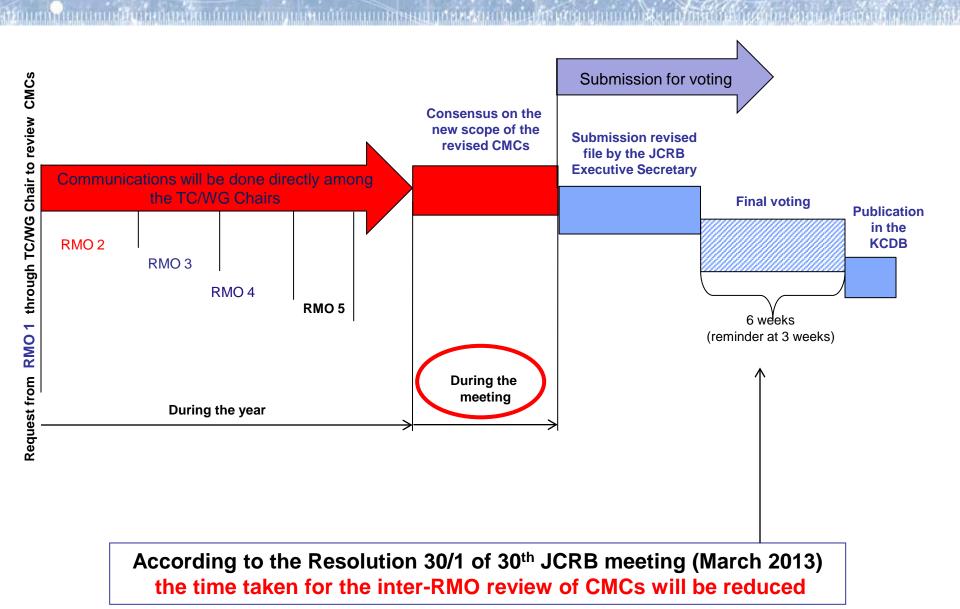
CIPM MRA documents



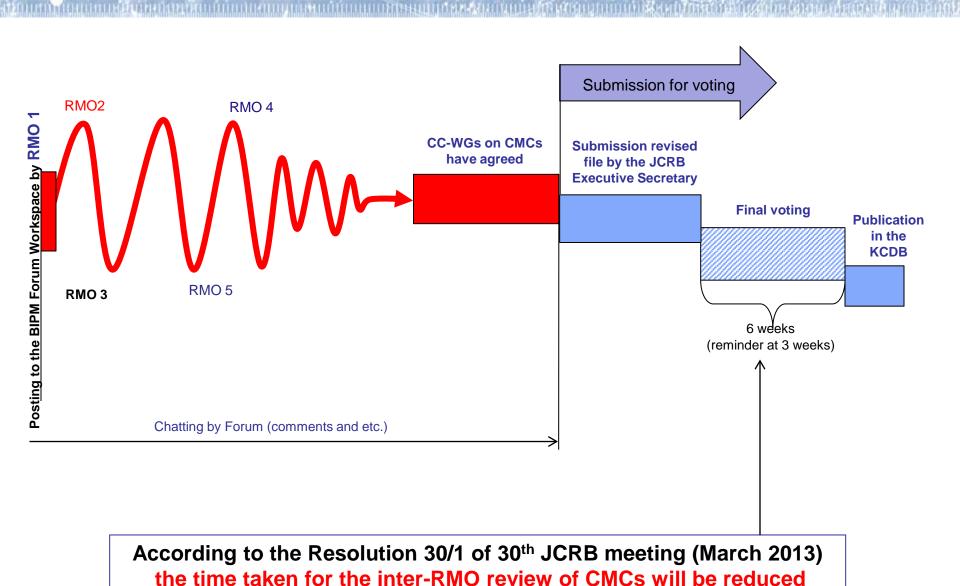
CLASSIC INTER-RMO REVIEW of CMCs



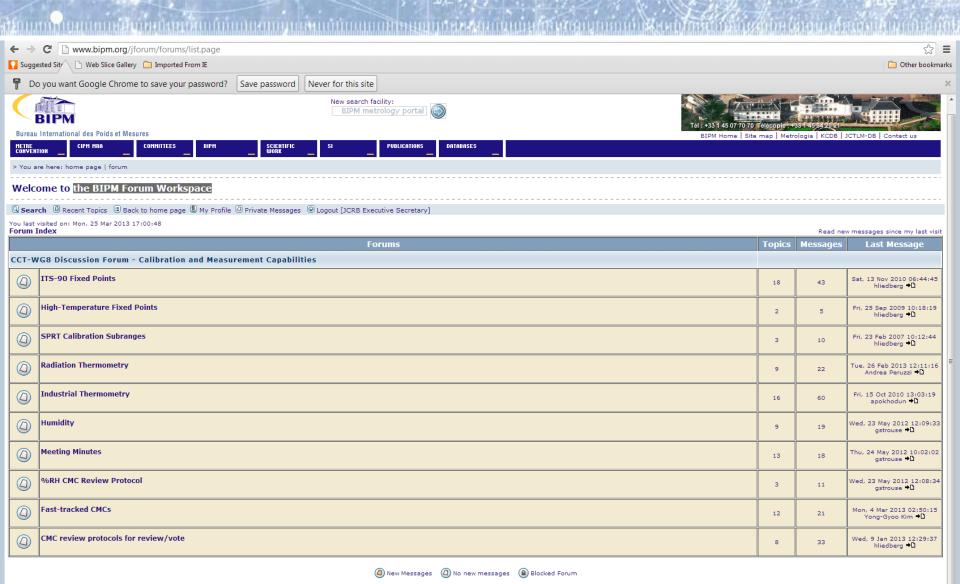
Fast track CCQM



Fast track CCT



The BIPM Forum Workspace



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For your reference

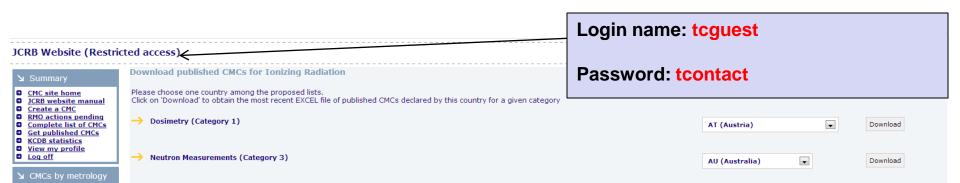
According to the section 10 of the document CIPM MRA-D-04

Modifications of a published CMC usually arise for reasons falling into one of three categories:

- a. material or editorial errors and improvements to the explanatory text for a quantity, instrument, method etc.;
- b. increase of the uncertainty or reduction in scope, decided by the NMI or following a comparison result;
- c. change of the method of measurement or reduction of the uncertainty or increase in scope (should follow the full procedure of intra- and inter-RMO review as if they were new CMCs)

Modifications must be made clearly visible by the use of the following color code:

- a. **bold red** characters for corrections to be brought to a published CMC and for presenting a new CMC not yet published;
- b. highlighting with a light pink background a CMC that should be deleted, the words "to be deleted from the KCDB" should also be placed in the "comments" column of the CMC.



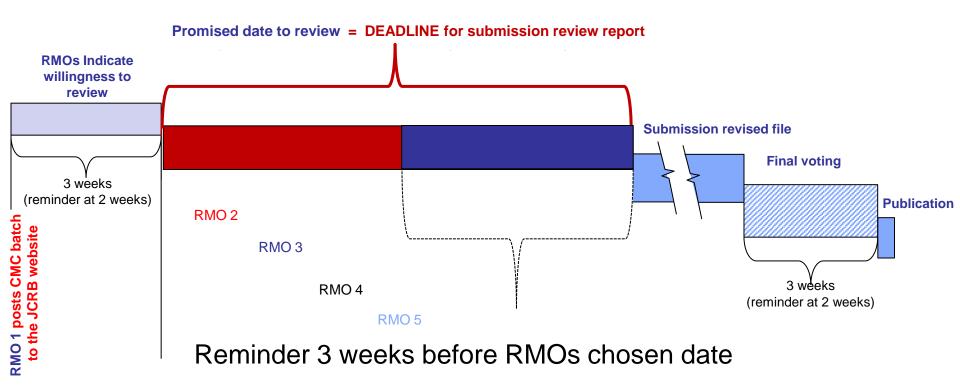
Highlights of 30th Meeting of the JCRB

Resolution 30/1: In order to decrease the time taken for the inter-RMO review of CMCs, the JCRB resolves to revise CIPM MRA-D-04 as follows:

- The time to indicate "intention to review" will be reduced <u>from 6 to 3 weeks</u> (with a reminder after 2 weeks);
- The deadline for submission of the RMO review report will be made a <u>"hard deadline"</u>
 (with a reminder 3 weeks before);
- The deadline for approval of CMCs will be reduced <u>from 6 to 3 weeks</u> (with a reminder after 2 weeks).

Resolution 30/1: CLASSIC INTER-RMO REVIEW of CMCs

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Highlights of 30th Meeting of the JCRB

Recommendation 30/1: The JCRB strongly encourages the CCs and the RMOs to use the BIPM Web Forum as a tool for effective information exchange and consider increased use of the "fast track" to promote more rapid processing of CMCs.

Recommendation 30/2: The JCRB recognizes the maturity and effectiveness of the CMC review process and the degree of trust established between the RMOs. Consequently, the JCRB strongly recommends that duplication, resulting from RMO reviewing the same CMCs during interregional review, be reduced wherever possible.

Highlights of 30th Meeting of the JCRB

Recommendation 30/3: The JCRB recommends that RMOs pay greater attention to the appropriate guidelines during intra RMO review in order to improve the efficiency of the inter RMO review of CMCs.

Recommendation 30/4: The JCRB recommends that the CIPM regularly monitors the status of Key Comparison reports in order to minimize the number of reports experiencing significant delays.

Action 30/1: The JCRB Executive Secretary will develop text on "greying-out CMCs" and reinstating "greyed-out CMCs" for CIPM MRA-D-04 for approval at the next meeting of the JCRB.

Changes to CIPM MRA Documents

Our production of the contract
Action 29/3: The JCRB executive secretary will change the procedure for monitoring
the impact of comparisons detailed in document on CIPM MRA-D-05 to include a
provision for addressing communications related to inconsistencies between
comparison results and published CMCs to the Quality TC/WG of the RMO to which
the NMI in question belongs. The JCRB chairman will present the changes to the
CIPM for approval.

Section 9, Monitoring the impact of comparison results

The procedure for monitoring the impact of comparisons is as follows:

 After Draft B is approved, if the NMI detects a discrepancy between the published CMC and the result of a comparison, the NMI should send a communication to the corresponding RMO technical committee and to the chair of the RMO technical committee/working group responsible for approval of NMI quality management systems.

If the pilot institute or any other participant detects the discrepancy between the results of a laboratory in a comparison and published CMCs, the pilot institute should write to the NMI alerting them to any potential problems in their results for the comparison, copying to the NMI's RMO technical committee and the chair of the RMO technical committee/working group responsible for approval of NMI quality management systems.

Approved by the CIPM and available on the BIPM website

Changes to CIPM MRA Documents

Changes to the CIPM MRA-D-05 which consist of a change in the text in Section 7.2 of the document concerning the approval procedure for RMO supplementary comparisons that bring it in accordance with CIPM MRA requirements for CC approval while avoiding, as far as possible, an unnecessary additional burden on CC working groups.

Section 7.2. Reports of supplementary comparisons

Measurement comparisons in the context of the CIPM MRA CIPM MRA-D-05



approval is given by the corresponding RMO committee;

- degrees of equivalence relative to a supplementary comparison reference value may be computed, but this is not mandatory.
- Reports approved by the RMO must be forwarded to the CC Executive Secretary and the Chair of the relevant working group (e.g. Key Comparison or CMC Working Group) of the CC to allow for a six-week period of comment and editorial control. If at the end of the period, no objections have been raised within the working group of the CC, the final report, accompanied by a statement that the control and comment procedure has been completed, will be sent by the RMO TC Chair to the KCDB Office for publication in the KCDB. Those CCs that wish to discuss RMO supplementary comparison reports and formally approve them at the meetings of their relevant CC working groups may do so as an alternative.

To be used as support for CMCs the Final Reports should be published in the KCDB.

Approved by the CIPM and available on the BIPM website

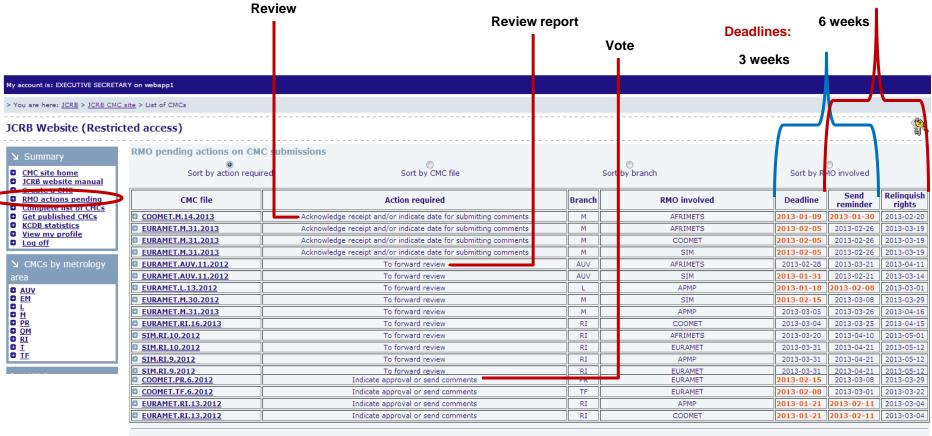
Processing of CMC batches

CMC batches				
CMC batches from 2001 to 7th February 2013:	444 🔻			
1. ABANDONED	31			
2. IN PROGRESS	25			
3. PUBLISHED	388			

One CMC batch can usually include more than one CMC claim from more than one country

388 PUBLISHED CMC BATCHES	AFRIMETS	APMP	COOMET	EURAMET	SIM	
1. CMC batches of RMOs submitted by	21	110	68	118	69	
2. CMC batches proposed "for review" to	367	278	320	270	319	
2.1. APPROVED by	235	229	167	247	231	
2.2 indicated as "N/A"	132	49	153	23	88	
a) Indicated as "NO" (will not review , FAST track or it was decided to simply share)	79	36	113	8	57	
b) Relinquished its right to submit review report	13	2	15	13	14	
c) Relinquished its right to vote	40	11	25	2	17	
	Percei	ntage				
2.1. APPROVED by	64%	82%	52%	91%	72%	
2.2 indicated as "N/A"	36%	18%	48%	9%	28%	
Unnecessary delays by the reviewer losing their rights						
to submit review report and vote	14%	5%	13%	6%	10%	

Monitoring by RMOs to avoid to losing rights (review/submit review report/vote)



Date: Sun Feb 17 23:41:01 CET 2013 \$Revision: 1.1 \$ /BIPM v1.0 Copyright © 2004 |lm@bipm.org

> You are here: JCRB > JCRB CMC site > List of CMCs

BIPM - Pavillon de Breteuil F-92312 Sèvres Cedex FRANCE

Login name: tcguest

Password: tcontact

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Metrology training courses aimed at assisting developing countries



NMI- and RMO-run metrology training courses aimed specifically at assisting developing countries are now listed under the BIPM banner on the DCMAS Network website. Details of other such courses, including appropriate text, links and documents, should please be submitted by email for inclusion in the list.

Conferences, workshops and general assemblies will continue to be listed on the BIPM website. – BIPM page on the DCMAS Network website

Upcoming Meetings and Events

From 3 to 5 June 2013	JCGM Working Group 2: VIM at the BIML, P	'aris

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10 June 2013 CODATA Task Group on Fundamental Constants

From 11 to 13 June 2013 21st meeting of the CCU

From 17 to 18 June 2013 Meeting of the bureau of the CIPM

From 19 to 21 June 2013 102nd meeting of the CIPM (Session I)

From 19 to 20 September 2013 ITU/BIPM Workshop on "Future of the International Time Scale"

From 20 to 21 October 2013 Meeting of the bureau of the CIPM

22 October 2013 102nd meeting of the CIPM (Session II)

From 23 to 24 October 2013 Meeting of representatives of State Parties to the Metre Convention and of

Directors of National Metrology Institutes

25 October 2013 102nd meeting of the CIPM (Session II)

From 28 to 31 October 2013 9th meeting of the CCAUV and associated meetings of the CCAUV-WGs

From 2 to 3 December 2013 JCGM Working Group 2: VIM

3 December 2013 Meeting of JCTLM Review Teams

4 December 2013 Meeting of the JCGM

From 4 to 5 December 2013 Meeting of JCTLM Stakeholders and Members

5 December 2013 JCGM Working Group 2: VIM

6 December 2013 Meeting of the JCTLM Executive Committee



Bureau International des Poids et Mesures

Thank you for your attention

Andy Henson Director of International Liaison and Communications Department, BIPM

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7th EURAMET General Assembly, Reykjavik, May 2013