Report of the 39th Meeting of the JCRB
Held on March 14 - 16, 2018
BIPM, Sevres, France

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Participants

**BIPM-CIPM**

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Mr. Andy Henson...............................................................(Director, BIPM ILC Department) BIPM
Mr. Nikita Zviagin.............................................................. (Executive Secretary) BIPM
Dr. Susanne Picard ............................................................. (KCDB Coordinator) BIPM
Dr. Barry Inglis .................................................................(President) CIPM
Dr. Willie May................................................................. (Vice-President) CIPM

**Delegations**

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Prof. Noha Khaled...............................................................AFRIMETS
Mr. Dennis Moturi ............................................................. AFRIMETS
Ms. Zakithi Msimang ........................................................... AFRIMETS
Dr. Toshiyuki Takatsui ..................................................... APMP representative to the JCRB
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Mr. Mohammad Al Mulla .................................................... GULFMET
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Dr. James Olthoff ............................................................. SIM representative to the JCRB
Dr. Alan Steele ................................................................. SIM
Ms. Georgette Macdonald .................................................. SIM
Dr. Claire Saundry

Ms. Gabriela De la Guardia
1. Welcome by the Chairman and approval of the agenda

M. Milton, Director of the BIPM and Chairman of the JCRB, welcomed the delegates to the 39th meeting of the JCRB. He noted that the meeting will have a special 3-day format with strategic discussions planned after specific agenda items.

The members of the JCRB delegations introduced themselves.

The agenda of the 39th JCRB meeting was presented and approved without amendment.

2. Approval of the minutes of the 38th meeting of the JCRB and review of pending actions

The minutes of the 38th meeting of the JCRB were approved without amendment. The GULFMET delegation had a question on p.12 of the minutes of the 38th meeting. It was decided to discuss it during the GULFMET report.

M. Milton reported on the status of actions agreed to at the 38th JCRB meeting:

- Action 38/1: the strategy and action plan will be discussed in agenda item 3 and throughout the meeting.

- Action 38/2: the improving of communication between JCRB and CC presidents was addressed in Decision CIPM/106-27 by which the CIPM asked the CIPM President to invite each RMO to send one or two representatives to the next meeting of the CC Presidents (19-20 June 2018).

- Resolution 38/1: The information on the current situation on risk-based CMC review and representative CMCs will be presented and discussed in agenda item 9.

- Resolution 38/3: The exact days of the 40th meeting of the JCRB will be discussed in agenda item 18.

3. Strategic planning workshop – introduction

A. Steele gave a short introduction to the strategic planning workshop. He noted that he had been away on a mission for a long period of time, and thanked M. Milton and A. Henson for their help and phone consultations in preparing the workshop. It was decided to focus discussion on specific agenda items instead of one large discussion. A. Steele suggested focusing on the question: “what the JCRB wants to achieve?” The meetings of JCRB shouldn’t include only technical reporting. The JCRB should actively work not only during the meetings but also between them.

A. Henson noted that Decision CIPM/106-27 about inviting RMO representatives to the CC Presidents meetings could serve as a positive example of the JCRB’s strategic impact.

4. Report from BIPM on progress since the 38th JCRB meeting

A. Henson reported on developments at the BIPM since the 38th meeting of the JCRB. The important points of the report included:

- Ethiopia and Tanzania became Associates of the CGPM on 1st January 2018. Yemen was excluded as an Associate State on 1st January 2018 due to non-payment.
Montenegro advanced to the latest stage to become a Member State. Kuwait is close to becoming an Associate, so A. Henson asked the GULFMET delegation to provide contacts from Kuwait in order to facilitate the process;

- The number of designated institutes has increased from 155 to 157;

- Significant changes since the 38th JCRB Meeting were made in the list of Associates encouraged to become Member states due to the Decision CIPM/106-20, that the percentage on the "Scale of assessments for the apportionment of the expenses of the United Nations" should be taken into account when considering whether it is appropriate for an Associate State of the CGPM to be encouraged to become a Member State;

- The results of the analysis performed by the BIPM on how CCs are addressing the Recommendations of the Working Group on the Implementation and Operation of the CIPM MRA were presented;

- The brief information on the liaison works of the BIPM with the OECD and the UNIDO was given;

- The theme for the 2018 World Metrology Day is “Constant evolution of the International System of Units". Thanks to METAS, Switzerland for the poster;

- World Metrology Day 2019 will be prepared by APMP. T. Takatsuji noted that APMP has organised a competition between NMIs to determine who will prepare the poster;

- The 26th meeting of the CGPM is approaching. The BIPM draft work programme will be available for consultation on the conference webpage in April 2018;

- The highlights of the BIPM news were presented.

- The vacancy for the 9th JCRB Executive secretary was posted on the BIPM website in February 2018. Closing date for applications: 31 May 2018.

5. Brief report back from Meeting of the CIPM ad hoc Working Group on Implementing the Recommendations from the Review of the CIPM MRA (12 and 13 March 2018)

B. Inglis made a brief report back from the meeting of the CIPM ad hoc WG. His report included:

- brief historical summary;

- list of CIPM ad hoc WG members and the terms of reference;

- List of actions for BIPM/CIPM and short report on progress in addressing the recommendations. It was noted that all the topics were addressed by the BIPM;
- List of actions for CCs. The progress on addressing them was presented earlier in agenda item 4. It was noted that CCs perform well in addressing the recommendations;

- Actions from ad hoc WG 2018 meeting:
  - Two template tables (one for JCRB and one for RMOs and NMIs) were presented in order to support the implementation of Action 1/03/18 that talks about the BIPM capturing progress of the JCRB and RMOs in implementing the Recommendations;
  - Action 2/03/2018 relates to reformulating of the CC objectives and alignment of CC strategies;
  - Action 3/03/2018 and 4/03/2018 are focused on re-reviews of existing CMCs, and the validity and vitality of published CMCs;
  - Action 5/03/2018 relates to the “risk based approach”. It was pointed that Recommendation 4a aims to reduce/eliminate unwarranted duplication of inter-regional CMC reviews. The “risk based approach” shouldn’t be interpreted as allowing data to be entered into the KCDB without any sort of peer review;
  - Action 6/03/2018 proposes the CIPM to consider regular RMO participation in the CC Presidents meetings.

[The brief CIPM ad hoc WG report is available on the restricted-access JCRB working documents webpage, listed as JCRB-39/04.1]

6. Update on the status of the BIPM QMS

A. Henson gave a presentation reporting on the status of the BIPM QMS. This included BIPM measurement services activity statistics, numbers of QMS documents, dates and status of peer and internal reviews, status of preventive/corrective actions raised internally and from complaints, customer feedback, and continuous improvement. The last global peer review took place on 8-9 November 2016. It was conducted by Dr. Enver Sadikoğlu, EURAMET TC-Q Chair. The next global peer review is due in 2021. It was noticed that the BIPM QMS review cycle ends in 2019. A decision is needed as to which RMO will follow EURAMET in 2019. The SIM delegation suggested SIM and was supported by other RMOs.

The following resolution was agreed:

Resolution 39/2: The JCRB thanks EURAMET for the work of the EURAMET TC-Q in receiving presentations of the BIPM Quality Management System (QMS) from 2014 to 2018 and welcomes the offer of SIM to allow BIPM to present its QMS to the SIM QSTF from 2019 to 2023.

[The BIPM QMS report is available on the restricted-access JCRB working documents webpage, listed as JCRB-39/06.1]
7. Update on BIPM CBKT program

C. Kuanbayev reported on progress of the BIPM Capacity Building and Knowledge Transfer (CBKT) Programme. He talked about the Programme goals activities and strategy, including engagement with the Global QI and reported about all initiatives: completed, ongoing and planned. He also gave an overview of courses format and design and showed an example of the “Sound beginning in the CIPM MRA” course agenda. He noted that feedback from the participants is very positive and presented some examples. Some important lessons were learnt during the realization of the Programme. He proposed “ISO/IEC 17025:2017 - Implementation of a new edition ‘Train the trainer’” course as the new “hot topic” for CBKT. In the end of his presentation C. Kuanbayev on behalf of the BIPM thanked all the sponsors of the CBKT courses.

[The CBKT course update report is available on the restricted-access JCRB working documents webpage, listed as JCRB-39/07.1]

Strategic discussion: How to best develop the idea of an ‘integrated CBKT framework’ of BIPM supporting RMOs delivering CBKT in the regions (and also to support the integration of “core CBKT” into the BIPM WP).

During the strategic discussion many participants expressed their positive feedback about the BIPM CBKT Programme. W. May noted that the CBKT initiative should be well integrated into the BIPM Programme. A. Henson said that now the BIPM has two years of experience in realizing the CBKT Programme. The main activities are aimed at the new RMO TC-Chairs and countries with emerging economies. He suggested RMOs should indicate whether they have CBKT officers in their regions.

RMOs reported about the CBKT in their regions. Only APMP doesn’t currently have the dedicated CBKT person, but they will appoint one. A. Henson noted that it will be good to have a network of contacts and possibility of strategic discussion of the CBKT activity between the RMOs. A. Steele suggested creating a dedicated working group in the JCRB. Also he suggested that each RMO provide its strategic vision of the further developing of the Programme. W. Louw suggested that the BIPM training programs should be disseminated inside the RMOs and also RMO-specific topics should be added. B. Inglis noted that the objectives of the CBKT programme should be very clear and well worked out. The procedures shouldn’t be too bureaucratic. A. Henson added that sponsorship from RMOs and NMIs is still very important.

The following action and resolution were agreed:

**Action 39/1** Each RMO will send the name of a person responsible for capacity building activities in their region to C Kuanbayev at BIPM together with a short description of the RMO’s vision for capacity building activities both at the regional and the JCRB levels (by 30th April 2018). BIPM will circulate a summary of the responses to the JCRB.

**Resolution 39/1** The JCRB welcomes the efforts made by BIPM in realising the Capacity Building and Knowledge Transfer (CBKT) programme and encourages its further
implementation. Furthermore, the JCRB supports the proposal to include those CBKT activities that directly support the effective and efficient operation of the CIPM MRA as core activities within the next BIPM work programme, and encourages the BIPM and the RMOs to develop a framework approach for the delivery of capacity building activities.

8. **Report from the CIPM**

W. May delivered a report from the CIPM. He talked about the outcomes of the 106th Meeting of the CIPM and also about some decisions of the 105th CIPM Meeting. He particularly focused on the process of the revision of the SI and noted that a Task Group on raising public awareness has been created. The awareness campaign will be launched on 20 May (WMD) 2018 and run through to 20 May 2019.

B. Inglis commented on Decision CIPM/106-27 that mandates inviting RMO representatives to the CC Presidents Meeting. He said that the draft agenda of the meeting will be ready in a couple of weeks and welcomed input from RMOs.

A. Henson noted that the question of validity and vitality of the CMC will be a good point of discussion for that meeting. W. May added that the meeting will last two days and RMO representatives are invited for the first day session.

A. Steele noted that the work addressed in Decision CIPM/106-9 about the dissemination process after the redefinition of the kilogram has been already done.

*The CIPM report is available on the restricted-access JCRB working documents webpage, listed as JCRB-39/08.1*

**Strategic discussion: How are links between CIPM and JCRB evolving/improving?**

W. Louw noted that there are still some gaps in the linkage between CIPM and JCRB, the communication between CCs and TCs should be improved and the community should encourage joint decision making. A. Steele added that the dialog between the JCRB and the CIPM should be two-way and that the CIPM Member attending JCRB meetings should report to the CIPM on JCRB matters. M. Milton confirmed that the JCRB report is the part of the CIPM Meeting agenda. B. Inglis raised a question on what is happening with the information presented on the JCRB inside the RMOs. RMO representatives answered that all the information is presented either at RMO general assemblies or at the TC-chairs meetings. A. Henson said that it will be good to have some feedback from the RMOs to have an idea where we are. B. Jeckelmann answered that it is possible for EURAMET. J. Olthoff remarked that some questions are complex and it will be difficult to answer properly in a short period of time. P. Neyezhmakov asked about the level of detail in the feedback. A. Henson answered that detailed information is preferable.

A. Steele suggested that the terms of reference of the JCRB should be reviewed. B. Inglis supported that suggestion. Also A. Steele proposed that the JCRB should write a joint report from RMOs to the General Conference. He suggested to use template forms presented in agenda points 4 and 5 as the basis for this report.

The following action was agreed:
Action 39/2 Each RMO will complete two sheets (doc 39/05.2) summarising progress with addressing the recommendations from the review of the implementation of the CIPM MRA. They will be sent to the JCRB Executive Secretary by 30th April 2018.

9. Risk-based CMC Review and Representative CMCs: Resolution item 38/1

N. Zviagin gave a presentation on the implementation of Risk-based CMC Review and Representative CMCs in CCs. He presented the information provided by the Executive Secretaries of each CC on both topics.

B. Jeckelmann noted that there is not too much information on how CCs are dealing with the broadscope CMCs.

A. Henson gave a presentation of his view on how the CMCs could be consolidated in order to decrease their number with the set of specific examples.

W. Louw noted that CCRI is moving now to the practice of grouping CMCs. A. Steele said that consolidated CMCs and broadscope CMCs are not the same thing. He also suggested focusing on the question of strict correspondence between one service and one CMC. N. Khaled remarked that in some AFRIMETS countries such a correspondence is required by a regulation. M. Milton said that CMCs shouldn’t be artificially subdivided. W. Louw said that the question is more not how to do, but how to interpret the broadscope CMCs.

[The presentation on the implementation of Risk-based CMC Review and Representative CMCs in CCs can be found on the restricted-access JCRB working documents webpage as JCRB-39/09.1]

Strategic discussion: How are links between JCRB/CCs evolving/improving?

It was noted that the working groups on RMOs (or similar) in the CCs are working fruitfully and create good communication between CCs and RMOs. RMO representatives reported that CC matters in all RMOs are transferred to the corresponding TCs during the TC-chair meetings and/or general assemblies. A. Henson asked TC-chairs to make more active inputs to the JCRB meetings.


G. Macdonald gave a presentation about the new version of ISO/IEC 17025. That included:

- History, timeline and main stages of development;
- The main changes compared to the previous edition, namely: the application of risk-based thinking, greater flexibility in the requirements for processes, procedures etc., adding the definition of “laboratory”.
- The scope of ISO/IEC 17025:2017;
Other key changes/uploads, including revised structure, process orientation, emphasis on “impartiality” vs. “independence”, range of laboratory activities, metrological traceability, information technology, decision rules;
- Terms and definitions that were added to the document.

Some technical questions were raised and answered.

G. Macdonald presented the SIM QSTF Transition Policy and Plan for ISO/IEC 17025:2017 and ISO 17034:2016. After that other RMOs were asked about their plans on transition:
- AFRIMETS transition plan will be established on the quality working group meeting in July 2018.
- For APMP most of NMI and DIs are using accreditation so they are automatically subject to the transition. A small explanatory guide will be provided by APMP.
- COOMET plans to make a unique translation of the documents and prepare its own recommendations.
- The transition plan is an agenda point of the next meeting of GULFMET TCQS;
- EURAMET will prepare the plan to the end of April 2018. The check of transitioning will be based on NMI/DIs annual reports.

The following resolutions were agreed:

**Resolution 39/3**: The JCRB, noting the publication of ISO/IEC 17025:2017 and ISO 17034:2016, and their importance to the CIPM MRA, decides that the RMOs shall ensure that all NMI and DIs declaring CMCs within the CIPM MRA shall have demonstrated the conformance of their quality management systems to the above standards (in so much as they are applicable to the CMCs of the NMI or DI), no later than three years after the publication date of the standards.

**Resolution 39/4**: The JCRB recommends that the CIPM MRA Guidance documents be updated to reflect the transition period agreed by the JCRB for the adoption of ISO/IEC 17025 and ISO 17034.

*The background documents related to agenda item 10 can be found on the restricted-access JCRB working documents webpage as [JCRB-39/10.1](#), [JCRB-39/10.2](#), [JCRB-39/10.3](#)*

**Strategic discussion: Beyond simply implementing the new standard, what does, for example, the emphasis on ‘risk’ offer in terms of opportunities?**
The discussion was focused on two aspects: the procedure of sampling the CMC sets for review and consolidating/broadscope CMCs.
W. May said that CCs should actively work with regions and observe the processes of implementing, sampling and broadscope CMCs. The prescriptive methods will not work because of the differences between the CCs.
W. Louw noted that all CCs are looking for these processes. It will be good to have a summary of RMO views on the vitality and validity of CMCs.
A. Steele was pleased to see the reports from CCs in the agenda item 9 and suggested that it will be good for JCRB to provide some guidance document.

T. Takatsuji transferred the opinion of the Australian NMI that supports the idea of representative CMCs but considers the sampling procedure inappropriate for such CMCs. J. Olthoff confirmed that the level of trust in the risk-based review depends on the QS of the RMO.

11. Highlights of the RMO reports to the JCRB including status of RMO Quality Management Systems

11.1. AFRIMETS
W. Louw presented the highlights of the AFRIMETS report.
N. Khaled presented the highlights of the AFRIMETS Quality System report.

11.2. APMP
T. Takatsuji presented the highlights of the APMP report.
I. Kishimoto presented the highlights of the APMP Quality System report.

11.3. COOMET
P. Neyezhmakov presented the highlights of the COOMET report, including Quality System.

11.4. EURAMET
B. Jeckelmann presented the highlights of the EURAMET report.
E. Sadikoğlu presented the highlights of the EURAMET Quality System report.

11.5. GULFMET
O. Kanakrieh presented highlights of the GULFMET report, including on outline of the GULFMET review process for NMI Quality Systems. O. Kanakrieh referred to the GULFMET current status, and the requirement that GULFMET NMI must individually submit their CMCs through another RMO or RMOs. O. Kanakrieh explained that GULFMET NMI would prefer to submit collectively via their GULFMET TC-Chairs rather than through other RMOs by separate NMI. However, they were advised that this was not the basis of the current JCRB procedures. The JCRB suggested that GULFMET does indeed carry out prior ‘quasi’ reviews of these CMCs using their TCs to gain experience. The example of AFRIMETS NMI was explained. Initially, NMISA went through APMP and NIS went through EURAMET prior to AFRIMETS being able to review and approve CMCs. O.Kanakrieh noted the clarification and committed to transfer this answer to GULFMET TC-Chairs.

11.6. SIM
J. Olthoff presented highlights of the SIM report.
G. Macdonald presented the highlights of the SIM Quality System report.

Strategic discussion: Does/do the various approaches used by the regions need to evolve further in response to an enhanced role for the QMS reviews with the CIPM MRA?

During the discussion it was proposed that in order to harmonize the approaches used in different RMOs to the Quality system review the active exchange of experience is needed. The TCQ-chairs should meet at least once a year to discuss their practices. It was suggested to organize such a meeting as an additional day of the JCRB Meeting. Also the active participation of TCQ-chairs in TCQ Meetings of other RMOs should be encouraged. RMOs were asked to inform the BIPM on a regular basis about the upcoming TCQ events. The BIPM will transfer that information to other RMOs.

The following action was agreed:

**Action 39/3** Each RMO to provide the JCRB Executive Secretary with information on the date and place of upcoming TCQ Meetings. The JCRB Executive Secretary to collate this information and share with RMO TCQ Chairs.

12. KCDB report

S. Picard presented a summary of the semi-annual KCDB report to the JCRB. The report included the following points:

- As of end February 2018, the KCDB has a total of 24 972 CMCs, with 18 794 in Physics (including ionizing radiation) and 6 178 in Chemistry. Although countries published CMCs over the last six months the total number of CMCs is stationary over the same period and increased by only 0.3 % over the last 12 months. While the number of CMCs in physics increased, the number of CMCs in Chemistry decreased, much due to almost 300 CMCs for Sediments, soils, ores and particulates in Chemistry that were greyed out or deleted.

- Several countries declared CMC for new Metrology Areas: Colombia, Moldavia and Montenegro in Length metrology; Croatia in Ionizing Radiation; Bolivia, Colombia and Estonia in Mass metrology. Romania, Russia and Ukraine declared new CMCs in additional fields of Mass and related qualities and several members of SIM declared CMCs for additional areas of Chemistry.

- 265 CMCs are in greyed-out status (temporarily removed from the KCDB). There were 48 reinstatements from 10 countries since the last JCRB Meeting. There are 6 greyed-out CMCs in the 1-year reinstatement period from Belgium (TF). CMCs that will reach the 5-year greyed-out limit in the next 6 months Mexico QM (5 Apr 2018), Belgium EM (14 Aug 2018), France EM (14 Aug 2018). CMC that will reach the 5-year greyed-out limit in the next 12 months are IAEA IR (10 Sep 2018), USA IR (25 Sep 2015).

- As of 1 March 2018, there were 1529 total comparisons in the KCDB (996 KCS, 533 SCs). Of the 29 comparisons registered in the KCDB since the last JCRB meeting, 3 comparisons were registered for GULFMET. GULFMET has hence now 17
comparisons registered in the KCDB. Reports were published for 37 comparisons since the 38th JCRB.

– The number of comparisons seems to have reached a steady yearly start rate of around 80. The total ratio of Supplementary Comparisons, 1 out of 5 in 2006, has progressively increased to 1 out of 3.

[The KCDB report is available on the restricted-access JCRB working documents webpage listed as JCRB-39/12.1 and on the unrestricted BIPM website at http://www.bipm.org/jsp/en/ViewKCDBReport.jsp. The KCDB report presentation is available on the restricted-access JCRB working documents webpage listed as JCRB-39/12.2].


S. Picard gave the presentation on the status of the scope for KCDB 2.0. At first she talked about the main objectives of the system and changes that will be implemented in the new system. She outlined the possibility of new search facilities and statistical tools. Also she presented the time plan for realisation of the project. The next steps and approximate time of their realisation also were discussed.

The work on KCDB 2.0 is scheduled such that an alpha-version of KCDB 2.0 should be available before 26th meeting of the CGPM (November 2018).

[The presentation on KCDB 2.0 can be found on the restricted-access JCRB working documents webpage as JCRB-39/13.1]

Strategic discussion: KCDB 2.0 extends the platform right back to the NMI/DI CMC writer... what are the implications for NMIs/DIs?

B. Jeckelmann noted that the transfer to the new system seems to be easy to organise and there are not too much changes for NMIs.

W. Schmid talked about the changes in the account handling and suggested to inform RMOs and NMIs about it in detail.

J. Olthoff said that the import of existing data is still the main question of the future system and asked the BIPM to focus on that process.

14. Status of CMC submissions and review / issues from Consultative Committees

N. Zviagin made a presentation on the status of CMC submissions and review, and the operation of the JCRB CMC review. Since the 38th JCRB, 24 CMC sets have been published, 19 CMC sets have been submitted, 3 sets were not approved and no sets were abandoned. As of 9 March 2018, 19 sets were in the status of “review in progress”, 4 CMC sets had its last update more than 2 years ago, and 4 sets had their last update more than a year ago. RMOs whose CMCs sets were last updated in the 2015 or earlier were asked to take appropriate action to bring the review process to conclusion. It was reported that 4 of the published CMC sets took longer than 300 days for the inter-RMO review; 1 of them took
almost 700 days. In most cases the longest portion of the review was the posting of the revised file by the submitting NMI/RMO.

In the period since the September of 2017, Inter-RMO review performance (the number of reviews performed according to meeting process deadlines) was 97% for APMP, 96% for EURAMET, 95% for SIM, 91% for GULFMET, 89% for AFRIMETs and 75% for COOMET. No response to the review request was the main reason for loss of review rights (3 of 6 loss of rights for COOMET was due to the lack of response).

Percentage of CMC sets submitted without the required confirmation of the QMS evidence increased a little. In the six months since the 38th JCRB meeting, there were 6 CMC sets submitted without quality confirmation (QM, EM, T, RI). It was noted that although QM uses fast track procedure and always checks QS confirmation before it, the confirmations should be submitted with the submissions, in order to have them together on the CMC-portal.

As of 8th March 2018, 67 KCs and 63 SCs are in the category of unfinished and started 5 years or more ago. In the last six months, 9 KCs and 8 SC were removed from the category due to being approved. The complete list of comparisons remaining in this category is available in KCDB report.

New web-based JCRB directory is already on the website.

M. Milton added that the BIPM will modify the current JCRB directory and delete all the information about phone and fax numbers from it, leaving only e-mails.

[The CMC status report is available on the restricted-access JCRB working documents webpage listed as JCRB-39/14.1].

15. Guidance for the participation of guest laboratories in pilot studies (for information)

The BIPM has developed the draft form of the request from guest laboratories for the participation in pilot studies on the basis of the document used in the CCQM. The document could be downloaded from the working documents webpage.

[The supporting document for agenda point 15 is available on the restricted-access JCRB working documents webpage listed as JCRB-39/15.1].

16. Strategic planning workshop – wrap up and outcomes

A. Steele gave a brief conclusion to the strategic planning workshop and thanked all the participants of the discussion.

17. Any other business

The following action was agreed:
Action 39/4 The BIPM to circulate a questionnaire to each participant in the 39th JCRB to obtain feedback on the logistics and organization of the meeting.

17.1. APMP guideline for the use of routine calibration services provided by NMIs and DIs as evidence supporting CMC claims

C. Kang gave a presentation on APMP guideline for the use of routine calibration services provided by NMIs and DIs as evidence supporting CMC claims. He described the proposed solution and showed the flow diagrams of the procedure for three different cases: when the artefact is provided by the Applicant NMI, when the artefact is provided by the Issuing NMI, when the artefact requiring a stability check is provided by the Applicant NMI.

It was noted that such a procedure could be used as supporting evidence corresponding to the point: “other available knowledge and experience” from list of the sources of evidences from the document CIPM MRA D-04.

[The corresponding guideline and presentation on the topic are available on the restricted-access JCRB working documents webpage listed as JCRB-39/17.1.1 and JCRB-39/17.1.2 respectively].

18. Next meetings and meeting closure

The JCRB agreed the following resolutions regarding the next two JCRB meetings:

Resolution 39/5: The 40th meeting of the JCRB will take place on March 13 and 14, 2019 at Sevres, France. The meeting will start in the morning of March 13, 2019 and will last two days with the end of last day at 16.00. The JCRB Executive Secretary will collaborate with the RMO TCQ Chairs to collocate an informal meeting amongst them.

Resolution 39/6: The date and location of the 41st meeting of the JCRB will be decided at the 40th meeting, noting that the Emirates Authority for Standardization and Metrology (ESMA) has offered to host it in Dubai (UEA) in week 37 of 2019.

M. Milton read the resolutions, recommendations, and actions. He called the 39th meeting of the JCRB to a closure.

19. Resolutions, Recommendations, and Actions

Action 39/1 Each RMO will send the name of a person responsible for capacity building activities in their region to C Kuanbayev at BIPM together with a short description of the RMO’s vision for capacity building activities both at the regional and the JCRB levels (by 30th April 2018). BIPM will circulate a summary of the responses to the JCRB.

Action 39/2 Each RMO will complete two sheets (doc 39/05.2) summarising progress with addressing the recommendations from the review of the implementation of the CIPM MRA. They will be sent to the JCRB Executive Secretary by 30th April 2018.
**Action 39/3** Each RMO to provide the JCRB Executive Secretary with information on the date and place of upcoming TCQ Meetings. The JCRB Executive Secretary to collate this information and share with RMO TCQ Chairs.

**Action 39/4** The BIPM to circulate a questionnaire to each participant in the 39th JCRB to obtain feedback on the logistics and organization of the meeting.

**Resolution 39/1** The JCRB welcomes the efforts made by BIPM in realising the Capacity Building and Knowledge Transfer (CBKT) programme and encourages its further implementation. Furthermore, the JCRB supports the proposal to include those CBKT activities that directly support the effective and efficient operation of the CIPM MRA as core activities within the next BIPM work programme, and encourages the BIPM and the RMOs to develop a framework approach for the delivery of capacity building activities.

**Resolution 39/2:** The JCRB thanks EURAMET for the work of the EURAMET TC-Q in receiving presentations of the BIPM Quality Management System (QMS) from 2014 to 2018 and welcomes the offer of SIM to allow BIPM to present its QMS to the SIM QSTF from 2019 to 2023.

**Resolution 39/3:** The JCRB, noting the publication of ISO/IEC 17025:2017 and ISO 17034:2016, and their importance to the CIPM MRA, decides that the RMOs shall ensure that all NMIIs and DIs declaring CMCs within the CIPM MRA shall have demonstrated the conformance of their quality management systems to the above standards (in so much as they are applicable to the CMCs of the NMI or DI), no later than three years after the publication date of the standards.

**Resolution 39/4:** The JCRB recommends that the CIPM MRA Guidance documents be updated to reflect the transition period agreed by the JCRB for the adoption of ISO/IEC 17025 and ISO 17034.

**Resolution 39/5:** The 40th meeting of the JCRB will take place on March 13 and 14, 2019 at Sevres, France. The meeting will start in the morning of March 13, 2019 and will last two days with the end of last day at 16.00. The JCRB Executive Secretary will collaborate with the RMO TCQ Chairs to collocate an informal meeting amongst them.

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