#### Joint Committee for Guides in Metrology

Minutes of the meeting held on Wednesday 24 January 2024

via Zoom

Present:

Dr Walter Bich (WG1 Convenor)

Dr Charles Ehrlich (WG2 Convenor, OIML)

Ms Mercè Ferrés Hernández (ISO)

Prof. Brynn Hibbert (IUPAC)

Mr Svetozar Kapusta (IEC)

Prof. Luca Mari (IEC)

Dr Martin Milton (JCGM Chair, BIPM)

Mr Erik Oehlenschlaeger (ILAC)

Mr Robert Sitton (JCGM Executive Secretary, BIPM)

Dr Agnieszka Zoń (OIML)

### 1. Opening of the meeting and welcome by the Director of the BIPM

The Director of the BIPM, Dr Martin Milton, welcomed the participants.

# 2. Approval of the agenda

The provisional agenda dated 18 October 2022 (JCGM/2022-00-Agenda) was approved.

## 3. Approval of the minutes of the meeting of 12 December 2022

The minutes of the previous JCGM meeting (JCGM/2022-05), which had been approved by correspondence, were confirmed.

# 4. Review of the decisions taken at the December 2022 meeting

**Decision 1** WG2 will continue to develop the VIM4 2CD, which will be circulated to the JCGM Member Organizations with a 3-month period for comments.

It was agreed that Decision 1 would be discussed as part of the report on WG2.

**Decision 2** Dr Milton, Dr Bich, Prof. Mari and Mr Sitton will prepare a draft revision of the JCGM charter for presentation at the next meeting of the JCGM in 2023.

The JCGM Chair presented a proposal to remove from Section 2 of the JCGM Charter the outdated reference to the requirement for two language versions of the VIM and GUM. In addition it was proposed that the following text be added to Section 7.2.3: *Draft documents shall be developed in English. WGs may consider the ease of translation of the text into French and other languages as part of their work, to the extent practical.* The group

referred to in Decision 2 had identified other areas of the Charter that could be revised and had agreed that now was not the right time to carry out a wider review (see section 9).

Ms Ferrés Hernández said that she had discussed the proposed changes within ISO and with the IEC and asked the JCGM Chair for clarification about what was meant by WGs may consider the ease of translation of the text into French and other languages as part of their work, to the extent practical. The JCGM Chair replied that WG2, when working on the VIM, works exclusively in English. They consider the ease with which terms can be translated into French and other languages during their discussions. He quoted the example of the term 'magnitude', which is notoriously difficult to translate. The intention of the new sentence is to preserve this practice.

The Chair asked the JCGM if they supported the changes. The representatives of the six MOs present at the meeting gave their approval.

ACTION: The JCGM Executive Secretary will create a PDF of the revised charter and replace the existing version on the JCGM webpages.

# 5. Reports from Working Group 1 (GUM) and Working Group 2 (VIM)

Dr Bich, Convenor of WG1, and Dr Ehrlich, Convenor of WG2, presented reports of the activities within their WGs in 2023. For full details see documents JCGM/2024-03 and JCGM/2024-04. The JCGM Chair invited questions and comments.

Mr Oehlenschlaeger said that the VIM is used by most accredited laboratories, and he noted that this group and the wider testing community are only represented in the development of the VIM through ILAC. He suggested that wider engagement in WG1 and WG2 could be considered, although this may be a problem, particularly considering cost issues that affect ILAC.

Dr Ehrlich expanded on the definition of 'measurement uncertainty' described in his report, particularly how the definitions developed by WG1 and WG2 have diverged relating to whether the definition should be quantitative or non-quantitative. He noted that a joint webinar between WG1 and WG2 has been proposed by the JCGM Chair to try to assess the level of support from within the user community for a non-quantitative definition.

Dr Ehrlich recalled that WG2 had identified between 20 and 25 common themes among the comments received following the circulation of the VIM4 2CD among the MOs and NMIs. WG2 had discussed these themes at its meeting in December 2023, where they were categorized into "technical comments that could be dealt with within WG2", and "non-technical issues that will require guidance from the JCGM". Prof. Mari reinforced his view that WG2 will require decisions from the JCGM on certain non-technical subjects. The themes requiring JCGM guidance are:

- measurement uncertainty (which will be discussed in the proposed joint WG1/WG2 meetings to try and reach a consensus)
- the understandability of certain definitions in the VIM4 2CD (the document has become more of a state-of-the-art vocabulary rather than being usable by practicing metrologists)
- should pure computation be included in the definition of measurement
- should Chapter 6 on nominal properties be removed from the VIM4
- should WG2 agree to adopt the entries from ISO/TC 334 on, for example, certified value of a reference
  material and reference materials, as they are being developed by the vocabulary committee and as long
  as they are compatible with other VIM4 entries or should WG2 wait until the development is finished.

The JCGM Chair said that the issue of whether Chapter 6 on nominal properties should be removed from the VIM4 is not up for discussion as it is clear from previous mandates that it should be included.

Dr Ehrlich said that WG2 had proposed an expanded definition of metrology to include nominal properties in the VIM4 2CD, rather than expanding the definition of measurement. This situation will continue in any potential VIM4 third committee draft (3CD). He added that WG2 will meet in-person on 27-31 May 2024, the week after WG1, to develop a VIM4 3CD. The intention is for the focus groups that progress the definitions in each of the six chapters of the VIM4 to continue to meet and to complete their work virtually in advance of this meeting, by which time a joint webinar to present the proposed new definition of measurement uncertainty will have been held. Dr Bich said that WG1 might not have completed its work on definitions related to measurement uncertainty by May 2024. If WG1 has not completed the work before the circulation of the VIM4 3CD, WG2 may have to proceed with the existing definitions as used in the 2CD.

The Chair asked Dr Ehrlich to confirm if the definitions of metrology, measurement, measurement uncertainty and true value are the only topics of broader "political" interest from the VIM4 2CD circulation that require guidance from the JCGM. Dr Ehrlich confirmed that these are the main points, along with the question of understandability of certain definitions and the adoption of the entries from ISO/TC 334 on reference materials. The Chair suggested that it would be difficult to adopt the definitions from ISO/TC 334 whilst they are still under development and should therefore be left out of the VIM until they are finalized. Dr Ehrlich agreed with the proposals.

The Chair summarized the discussions. The JCGM agreed that the proposed significant change in the definition of measurement uncertainty will be discussed in a joint WG1 and WG2 webinar to assess the level of support for the change in the user community. The webinar is expected to be in the second quarter of 2024. WG2 will continue its work on the proposed definition of metrology and will also incorporate any outcomes of the webinar on measurement uncertainty into a draft VIM4 3CD, ready for circulation in the third quarter of 2024. Dr Ehrlich said that this timeline is realistic and will allow the outcome of related discussions on measurement and metrology in the CCU to be considered. He stressed that the intention of WG2 is not to change the definition of measurement, but to propose an expanded definition of metrology. The following decision was taken.

**Decision 1** The VIM4 3CD will be circulated for comments in the third quarter of 2024 following efforts to build consensus between the WG1 and WG2 communities on "measurement uncertainty" and associated definitions.

The JCGM agreed that the VIM4 3CD circulation to the MOs and NMIs will be accompanied by a letter from the WG2 convenor to summarize the main points of the work that has been carried out since the circulation of the 2CD. The Chair concluded the discussions by saying that the next meeting of the JCGM should be scheduled to allow WG2 sufficient time to consider the comments received from the VIM4 3CD circulation before presentation to the JCGM (see section 10).

### 6. Actions taken by Member Organizations since the last meeting

**IUPAC** 

Dr Zoltan Mester is the new Secretary General of IUPAC.

**OIML** 

Dr Bobjoseph Mathew is the new President of the CIML.

**ILAC** 

Mr Eric Oehlenschlaeger will continue his liaison activities with the BIPM in 2024. The merger of ILAC and the IAF is proceeding.

### 7. Proposal for a JCGM logo

The Chair said that the concerns expressed by the IEC and ISO regarding the use of the proposed JCGM logo have been addressed. He reiterated that the logo will be used solely for purposes such as branding of internal documents and reports, for example, by the Convenors when they want to show that the Working Groups are acting as Working Groups of the JCGM.

## 8. Any other business

Prof. Mari asked if there is any intention to carry out further revision of the JCGM Charter to address some outdated information, for example document and meeting formats. The Chair noted that the last revision had been carried out around 15 years ago and any proposed revision should be limited to the presentation of the Charter; there should be no intention to change the mission or scope. The JCGM agreed that the MOs should review the Charter and a commenting template will be sent to them to obtain their feedback on text for revision. A deadline will be given to the MOs to submit their comments and the JCGM Executive Secretary will collate the comments so that they can be circulated to the MOs ready for comment at the next JCGM plenary meeting in 2025.

**Decision 2** The JCGM Charter will be circulated to the MOs with a commenting template to bring forward comments on text in the Charter that should be considered for revision.

# 9. Date and venue of next meeting

A poll was held after the meeting to find a suitable date for the next plenary meeting in Week 4 of 2025.

The next meeting will be held on Thursday 23 January 2025 online at 14:00 to 16:00 CET.