

Decisions of the 22nd CCU

1. That KRISS, METAS and NRC be proposed as new members of the CCU to the CIPM.
2. That the Draft Resolution be corrected as follows:
 - Exchange Appendices 1 and 3.
 - The definitions of the base units stay as they are but with the addition of “implicitly” before “defined” in the definition of the base units in Appendix 3.
 - Change “hyperfine splitting” by “hyperfine transition frequency” in the definition of the second.
 - Change the order of units in the definition of the candela to be $\text{cd sr kg}^{-1} \text{m}^{-2} \text{s}^3$.
 - Acknowledge in the draft Resolution the special status of the IPK after the redefinition.
 - Regarding the mole, the CCU invites an official request from IUPAQ to the CCQM to discuss a reformulation of the definition of the mole. The eventual CCQM proposal to the CCU should be discussed in the 2017 meeting of the CCU.
 - Reformulate the abrogation of the Josephson constant to explicit that the abrogation refers to a decision and not to a value.
 - Change to “vacuum magnetic permeability”.
3. That the 9th edition of the SI Brochure be corrected as follows:
 - Prefer “vacuum magnetic permeability” and “vacuum electric permittivity”.
 - Keep “base” units (do not add “traditional”).
 - Explicit the status of the Brochure in the introduction: the Brochure is a CIPM document requested by the CGPM.
 - Issues regarding the treatment of the radian and of the “unit 1” to be discussed again by the working group on angles and dimensionless quantities (WGADQ).
 - Add in the chapter devoted to dimensions the paragraph proposed by the NPL that encourages users to describe the quantities they report and in particular those quantities that participate in ratios of quantities of equal dimension.
 - In answer to METAS comments, add the text shown by Joachim stating that the base units are not strictly necessary anymore but kept for historical reasons.
4. That “var” will not to be added in the draft Brochure tables as a unit allowed to be used with the SI, but that the CCEM may submit an official request to the CCU and the CIPM.
5. That the number of digits to be chosen for the defining constants should be according to case 3 (provided that this brings the TPW temperature to 273.16 K).
6. That the working group WGADQ established at the last meeting be extended by the addition of Emilio Prieto, Alan Steele, Luca Mari and Peter Blattner. The group should report to the CCU president well before October 2016.
7. That the drafting team of the 9th edition of the SI Brochure be extended by the addition of Richard Davis.
8. That the term “Kibble balance” is to be preferred from now on in all CCU documents.
9. That the updated CCU strategy has been approved.
10. That during the transition period until the new definitions of the SI come into force, the term “revised SI” is to be preferred. After the redefinition, it should simply be called again “the SI”.

11. That the implementation date for the new definitions should be World Metrology Day in 2019.