

## CMC PREPARATION AND SUBMISSION

### THE 3-POINT CHECKLIST FOR SUCCESSFUL PUBLICATION OF CMCs

The outcomes of the CIPM MRA are the internationally recognized Calibration and Measurement Capabilities (CMCs) of the participating institutes declared on the publicly available BIPM key comparison database (KCDB).

Proper preparation of CMCs will increase the effectiveness of the CMC review process thus ensuring 'right first time' submission of CMC claims in the KCDB. Before submitting CMC claims for review, you may ensure preparedness by using this 3-point checklist.

**QUALITY MANAGEMENT SYSTEM** – My institute's quality management system has been peer reviewed and recognized by the local RMO and covers my CMC claims. The evidence can be uploaded to the KCDB for availability to the RMO TC Chairs.

The QMS established and operated by the institutes shall cover all declared CMCs and meet the requirements of:

- ISO/IEC 17025 for calibration and measurement services;
- ISO 17034 for certified reference material production.

*For further information, please refer to section 2 of CIPM MRA-G-12.*

**TECHNICAL EVIDENCE** – The range and measurement uncertainty of my CMC claims is consistent with the results of comparisons (key or supplementary comparisons within the CIPM MRA).

While the results of key and supplementary comparisons are the ideal supporting evidence, all other sources listed in CIPM MRA-G-13 may be considered to underpin CMCs. Consultative Committees are responsible for providing specific guidance on the required technical evidence.

*For further information, please refer to CIPM MRA-G-11 and section 3 of CIPM MRA-G-13.*

**METROLOGICAL TRACEABILITY** – The supporting national measurement standard(s) and other measurement instruments that contribute to the measurement uncertainty of my CMC claim are metrologically traceable to the International System of Units (SI).

An institute participating in the CIPM MRA shall establish its metrological traceability route to the SI via one of the following routes:

- via a primary realization or representation of the unit of measurement concerned;
- via another institute having relevant CMCs with appropriate uncertainty published in the KCDB or through calibration and measurement services offered by the BIPM.

*For further information, please refer to section 5 of CIPM MRA-P-11.*

**Other notes:** CMC declarations shall be self-consistent, and a CMC specification shall not depend on references to other services.

Please refer to the CIPM MRA documents and KCDB resources through the following links:

- CIPM MRA documents: <https://www.bipm.org/en/cipm-mra/cipm-mra-documents>
- KCDB resources: <https://www.bipm.org/en/cipm-mra/kcdb-help>

**Outcome from the Checklist:** If the CMCs meet the requirements of the CIPM MRA, then proceed to submit them to the local RMO TC/WG Chair via the KCDB 2.0 platform. This checklist is meant to be a guide and is not meant to be a self-declaration, to be reviewed or uploaded to the KCDB.