7. Competencies and Qualifications

7.6 Development and updates of competency frameworks on *instrumentation, calibration, meteorological observations, and observing programme and network management*

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Background

- **Competency frameworks for observations, instrumentation, calibration, and observing programme/network management under Guide to Instruments and Methods of Observation (WMO-No.8)**
  - Four competency frameworks were developed by the former Commission for Instruments and Methods of Observation (CIMO) in close collaboration with ETR (2016-2018)
  - Endorsed by the CIMO Management Group at its 15th session (Geneva, 26–29 March 2018)
  - Approved by the Executive Council at its 70th session (EC-70, June 2018) (Resolution 15 – Amendments to WMO-No. 49, Volume I, Part V)
  - Included in WMO-No. 8, Volume V (Chapter 5): Quality Assurance and Management of Observing Systems, (2018 edition)

- **Defined under:**
  - Annex 5.A. Competency Framework for Personnel Performing Meteorological Observations
  - Annex 5.B. Competency Framework for Personnel Installing and Maintaining Instrumentation
  - Annex 5.C. Competency Framework for Personnel Performing Instrument Calibrations
  - Annex 5.D. Competency Framework for Personnel Managing Observing Programmes and Networks
  - Included also in the Compendium of WMO Competency Frameworks (WMO-No.1209)

- **Reason for revision:**

  The update of the competency frameworks was requested by INFCOM Standing Committee on Measurements, Instrumentation and Traceability (SC-MINT):
  - To reflect technological advancements and evolving roles and responsibilities of technical staff
  - To ensure applicability across multiple observing domains, and consistency of terminology across frameworks

Background

- **A new competency framework for personnel performing hydrological observations** has been developed by SC-MINT/ ET-Hydrometry

- **Reason for development:**
  - The development of this competency framework was requested by SC-MINT and the Hydrology community.
  - After consultation between ET-TMM and ET-Hydrometry, it was concluded that the existing competency frameworks with proposed updates for instrumentation, calibration, and observing programme/network management are applicable to hydrological applications.
  - However, considering the specific technical skills and operational requirements for hydrological observations such as streamflow measurements, rating curves, it was agreed that a separate and dedicated competency framework is necessary for personnel performing these observations.

Development process and consultation

- **The update of the four existing competency frameworks** has been carried out by SC-MINT Expert Team on Transition to Modern Measurement (ET-TMM)
- **The new competency framework for personnel performing hydrological observations** has been developed by SC-MINT Expert Team on Hydrometry (ET-Hydrometry)
- **Consultation and Collaboration**
  - SC-MINT/ET-Hydrometry
  - SC-MINT/ET-TMM
  - Capacity Development Division
- **Further consultation planned:**
  - SC-MINT Exec and SC-MINT Expert Teams
  - Standing Committee on Earth Observing Systems and Monitoring Networks (SC-ON)
  - Capacity Development Division
  - WMO Members through Members' review process (June to Aug)
- Planned submission to **INFCOM-4 for approval in November 2026**

Current status and request to the Panel

- Initial draft of the updates to the **existing competency frameworks (Annex I. A-D)**, and **new competency framework for hydrological observations (Annex II)** have been prepared.
- Final versions after consultation with relevant entities will be **ready by April/May 2026** for further review and consultation process.

Request to the Panel:

- The Panel is invited to provide initial feedback and advice on scope / structure / consultation process by **15 March.**
- A request to the Panel for final review and recommendation is planned for **mid August.**

Thank you

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