



Our ref.: 6563310/2026/ESDP/MINT/TECO-2026

9 March 2026

Annex: 1 (available in English only)

Subject: Announcement and call for abstracts for the 2026 WMO Technical Conference on Instruments and Methods of Observation (TECO-2026)

Action required: To distribute the announcement to interested parties, and to submit abstracts of papers via the conference website as soon as possible, but **not later than 1 May 2026**

Dear Sir/Madam,

The World Meteorological Organization (WMO) is organizing the 2026 WMO Technical Conference on Instruments and Methods of Observation (TECO-2026) with the theme:

"Developments in Earth System Measurements and Technologies".

TECO-2026 will provide a unique global platform for the exchange of technical expertise, operational experience, and innovation in Earth system measurements. The Conference will be held in Amsterdam, the Netherlands, at the RAI Amsterdam Convention Centre from 5 to 8 October 2026, in conjunction with the Meteorological Technology World Expo, organized by CloserStill, from 6 to 8 October 2026. The 2024 and 2026 Professor Dr Vilho Väisälä Awards will also be presented during the conference.

This event is for all those involved with instruments and methods of observation from National Meteorological and Hydrological Services (NMHSs), environmental agencies, other national and international organizations dealing with measurements, research institutes and academia, the private sector (especially instrument manufacturers and measurement providers) and other interested individuals.

The conference aims to strengthen the WMO Integrated Global Observing system (WIGOS) measurement community by:

- enhancing knowledge and understanding of observing and measurement techniques, methodologies, and associated quality management and traceability procedures for measurements,
- sharing information on the latest developments in instrumentation and measurement techniques,
- fostering collaboration among WIGOS stakeholders, including National Meteorological and Hydrological Services (NMHSs), public and private agencies, manufacturers, research institutions, and academia.

To: Permanent Representatives of Members with WMO

cc: Hydrological Advisers
Presidents and vice-presidents of technical commissions
Presidents of regional associations
Chair and vice-chair of the Research Board
Director General, ASECNA | Executive Secretary, HMEI

An International Programme Committee (IPC), chaired by Dr Jane Warne, the chair of the Standing Committee on Measurements, Instrumentation and Traceability of the WMO Infrastructure Commission, will oversee the Conference and will be responsible for the selection of papers for oral presentations or poster displays, and developing the conference programme.

The purpose of this letter is to announce the Conference and to invite the submission of abstracts. Those wishing to present an oral or poster presentation at TECO-2026 are kindly requested to follow the instructions provided in the [annex](#) or on the [conference website](#).

For technical reasons, only abstracts submitted online, in English, not exceeding 300 words and received **by 1 May 2026**, will be considered.

Lead authors of papers selected by the IPC will be advised in June 2026 with further instructions concerning the format and submission deadline for papers or posters for publication in the Conference Proceedings. Limited financial support may be available for selected participants from least developed countries, who are presenting papers.

I would be grateful if you could disseminate this announcement widely within your Service and to other relevant institutions and stakeholders.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Ko Barrett', with a long, sweeping flourish extending to the right.

Ms Ko Barrett
for the Secretary-General



The World Meteorological Organization is pleased to announce that the

**2026 WMO Technical Conference on
Instruments and Methods of Observation (TECO-2026)
will take place in Amsterdam, the Netherlands,
from 5 to 8 October 2026**

Conference Theme: Developments in Earth System Measurements and Technologies

The following main topics will be addressed at the Conference:

1. Emerging measurement technologies and integrated observing approaches

- New developments and innovations in instruments, methods, techniques and technologies for Earth system measurements,
- Integrated observing approaches combining in situ, remote sensing, and non-traditional data sources,
- Advanced measurement algorithms and signal processing techniques,
- Opportunities and challenges related to artificial intelligence, machine learning, big data, Internet of Things (IoT), and crowdsourced observations,
- Transition of innovative measurement technologies and methods from research to sustained operational use,
- Best practices for data transmission, data exchange and data formats.

2. Ensuring measurement quality through standardization, traceability, instrument maintenance and calibration

- Traceability of measurements to recognized international standards,
- Best practices for ensuring measurement traceability,
- Calibration methods and procedures, including for surface and space-based remote sensing observing systems,
- Implementation of ISO/IEC 17025 in calibration laboratories, including interlaboratory comparisons,
- Collaboration between NMHSs and the metrology community (Regional Instrument Centres, National Metrology Institutes, ...)
- Challenges and best practices related to the evaluation of measurement uncertainty,
- Experience with the implementation of siting classification and measurement quality classification schemes,
- Quality management systems and quality control procedures for observations,

- Preventive and corrective maintenance, including field verification activities,
- Implementation of calibration results in operational systems.

3. Characterization, testing and performance of instruments and methods

- Characterization of instruments and measurement methods,
- Testing and verification procedures for instrument performance,
- Outcomes and lessons learned from instrument intercomparisons,
- Instrument performance under harsh environments and extreme weather conditions,
- Long-term performance monitoring and stability of instruments and observing systems.

4. Operational and environmental sustainability of observing systems

- Development and operation of cost-effective, robust, and sustainable instruments and observing systems,
- Design and operation of environmentally sustainable and energy-efficient observing systems,
- Use of environmentally friendly materials, components, and technologies in observing systems,
- Operation and maintenance strategies,
- Life-cycle management of instruments and observing networks, including environmental sustainability aspects,
- Best practices for operation of observing systems under diverse environmental conditions, including extreme weather events,
- Spare parts and consumables management practices.

5. Modernization of observing systems and capacity development

- Modernization of observing systems and related infrastructure,
- Experiences from capacity development projects, including donor-funded initiatives,
- Best practices for tendering, procurement, contracting, supply and installation of observing systems and instruments,
- Competencies and skills development for personnel involved in the design, installation, operation, maintenance, and calibration of observing systems,
- Training activities, outreach materials, and e-learning tools and platforms,
- Collaboration between NMHSs, research institutions, academia, and industry.

TECO-2026 will be conducted in English only. All information concerning the Conference, including the Abstract Submission Form, is available [here](#).

The deadline for submission of the extended abstracts and posters in their required format will be provided in the acceptance letter to be sent to authors of selected abstracts, in June 2026. Papers accepted for presentation will be published in their original form (without editing) in the WMO Instruments and Observing Methods Report series.

Abstracts of proposed papers, not exceeding **300 words**, in **English only**, should be submitted, using the electronic version of the Submission Form, via the above-mentioned web links, not later than **1 May 2026**.

Should you have any further questions, please do not hesitate to contact:

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