WEATHER CLIMATE WATER
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WMO OMM
World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

1950-2025
SCIENCE for ACTION

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附件： 1（仅以英文提供）

主题： 2026 年 WMO 仪器和观测方法技术会议”（TECO-2026）公告及摘要征集

要求采取的行动： 将公告分发给有关各方，并于 **2026 年 5 月 1 日**前尽快通过会议网站提交论文摘要

尊敬的先生/女士，

世界气象组织（WMO）正在组织 2026 年 WMO 仪器和观测方法技术会议（TECO-2026），主题为：

“地球系统测量与技术的发展”。

TECO-2026 将为交流地球系统测量方面的技术知识、业务经验和创新提供一个独特的全球平台。会议将于 2026 年 10 月 5 至 8 日在荷兰阿姆斯特丹 RAI 阿姆斯特丹会议中心举行，与 CloserStill 组织的、2026 年 10 月 6 至 8 日的气象技术世界博览会同期举行。2024 年和 2026 年 Vilho Väisälä 教授博士奖也将在会议期间颁发。

本次活动面向来自国家气象和水文部门(NMHS)、环保机构、从事测量的其他国家和国际组织、研究机构和学术界、私营部门（特别是仪器制造商和测量提供商）和其他感兴趣的个人等所有仪器和观测方法相关人员。

会议旨在通过以下方式加强 WMO 全球综合观测系统（WIGOS）测量领域：

- 加强对观测与测量技术、方法学和相关测量质量管理与可追溯性程序的认识和理解，
- 分享有关仪器和测量技术最新发展的信息，
- 促进 WIGOS 利益相关方（包括 NMHS、公共和私营机构、制造商、研究机构和学术界）之间的协作。

致： WMO 会员常任代表

抄送： 水文顾问
各技术委员会的主席和副主席
各区域协会的主席
研究理事会的主席和副主席
ASECNA 总干事 | HMEI 执行秘书

会议将由 WMO 基础设施委员会测量、仪器和溯源性常设委员会主席 Jane Warne 博士主持的国际计划委员会(IPC)监督，并由它负责筛选用于宣讲或海报展示的论文以及制定会议安排。

本函的目的是宣布此次会议并邀请提交论文摘要。请希望在 TECO-2026 上宣讲或做海报展示的各方按照附件或会议网站上提供的说明操作。

因技术原因，我们仅考虑在线提交、不超过 300 字、于 **2026 年 5 月 1 日**前收到的英文摘要。

我们将在于 2026 年 6 月向 IPC 选定论文的主要作者提供拟发表于会议论文集的论文或海报的格式及提交截止日期的进一步说明。会议有可能向来自最不发达国家、获选并正在提交论文的与会者提供有限的资助。

望您能在贵部门内并向其他相关机构和利益相关方广泛散发此公告。

谨上

寇·巴雷特女士
代秘书长

WORLD METEOROLOGICAL ORGANIZATION
WEATHER CLIMATE WATER

WMO TECHNICAL CONFERENCE ON INSTRUMENTS AND METHODS OF OBSERVATION (TECO-2026)

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:

The WMO Secretariat

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