



## WMO OMM

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

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16 March 2020

Annex: 1 (available in English only)

Subject: Announcement and Call for Abstracts for the 2020 WMO Technical Conference on Meteorological and Environmental Instruments and Methods of Observation (TECO-2020)

Action required: To distribute the announcement to interested parties, and to submit abstracts of papers via the WMO website as soon as possible, but **not later than 30 April 2020**

Dear Sir/Madam,

I am pleased to inform you that the World Meteorological Organization (WMO) is organizing the 2020 WMO Technical Conference on Meteorological and Environmental Instruments and Methods of Observation (TECO-2020) with the theme: *Sustainable fit-for-purpose measurements – a foundation of the WMO Earth System approach*.

TECO-2020 will be held in Paris, France, at Paris Expo Porte de Versailles, Hall 7.1, from 21 to 24 September 2020.

The Conference will take place in conjunction with the Meteorological Technology World Expo 2020 organized by UKi Media & Events, from 22 to 24 September 2020. It will also include the presentation of the 2020 Professor Dr Vilho Väisälä Awards.

This event is for all those involved with instruments and methods of observation from National Meteorological and Hydrological Services, 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 at strengthening the WMO Integrated Global Observing System (WIGOS) measurement community by enhancing knowledge of environmental measurement techniques, methodologies and related quality procedures, sharing information on the latest developments in instrumentation and measurement techniques, and at fostering collaboration among WIGOS stakeholders, including manufacturers, research institutions and academia.

To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO

cc: Hydrological Advisers to Permanent Representatives  
 Presidents and vice-presidents of technical commissions  
 Presidents of regional associations  
 Director General, ASECNA  
 Executive Secretary, HMEI

An International Programme Committee (IPC), chaired by Mr Bruce Hartley, the last vice-president of CIMO, will oversee the Conference and will be responsible for the selection of papers for oral presentations or poster displays.

The purpose of this letter is to announce the Conference and to invite submissions of abstracts. Those wishing to present an oral or poster presentation at TECO-2020 are kindly requested to follow the instructions provided in the [Annex](#) or on the conference website which is accessible from: <https://community.wmo.int/activity-areas/imop/TECO-2020>.

For technical reasons, consideration can only be given to abstracts in English, of less than **300 words**, which are submitted online before **30 April 2020**.

Lead authors of papers selected by IPC will be advised in June 2020 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 less developed countries, who are presenting papers.

I should be grateful if you could make this announcement widely known within your respective Service and beyond.

Yours faithfully,



(W. Zhang)

for the Secretary-General



*The World Meteorological Organization is pleased to announce*

## **The 2020 WMO Technical Conference on Meteorological and Environmental Instruments and Methods of Observation (TECO-2020)**

**Paris, France, 21-24 September 2020**

**Theme:** *Sustainable fit-for-purpose measurements – a foundation of the WMO Earth System approach*

The following main topics will be addressed at the Conference:

### **1. Innovative measurements, techniques and integration**

- *New developments and innovations in instruments, techniques and technologies, including overcoming challenges to make them sustainable,*
- *Integrated approaches,*
- *Newly developed or improved algorithms,*
- *Opportunities and risk management of low-cost sensors and systems,*
- *Updates on innovative initiatives and programmes (such as Hydrohub, Project X).*

### **2. Intercomparisons and characterisation of instruments and methods**

- *Instrument intercomparisons – methods, techniques, performance, analyses and results,*
- *Characterization of new instruments and measurement methods,*
- *Performance of instruments under harsh environments and in extreme weather conditions,*
- *Characterization of new and crowd-sourced data sources, such as radio links, vehicles, cellular phones,*
- *Transition of research-based observing systems and techniques into sustained operation.*

### **3. Traceability of measurements to recognized standards**

- *Mechanisms to ensure measurement traceability to recognized standards,*
- *Development and maintenance of standards and standard procedures,*
- *Field inspection and verification methods and procedures,*
- *Calibration methods and procedures applied in the laboratory and in the field,*
- *Measurement uncertainty in the laboratory, the field, and overall,*
- *Protocols for, and experiences and results from inter-laboratory comparisons.*

### **4. Measurement quality assurance and quality control**

- *Techniques and procedures for quality assurance (including maintenance, verification, and preventive and corrective measures),*
- *Quality control mechanisms - the ideal and actual experiences,*
- *Experiences with implementation and operation of quality management systems,*
- *Mechanisms for assessment of measurement qualification and indicators in support of various application areas.*

## 5. Capacity development towards quality measurements and sustainability

- *Organization experience with personnel competences related to installing, operating, calibration and maintenance of equipment,*
- *How to identify gaps in competency frameworks and what action can be taken,*
- *Experiences with training activities and outreach material,*
- *Best practices for tendering processes and purchasing of systems,*
- *Experiences with capacity development projects, including with donors and funding agencies.*

## 6. Advancing measurements in support of WIGOS vision 2040

- *Best practices for addressing user measurement requirements with existing technologies,*
- *Addressing challenges for user requirements where suitable technology does not exist,*
- *Approaches for addressing user requirements in data-sparse areas,*
- *Integration of measurements (space-, aircraft- and surface-based) through collaboration with different entities at national, regional and global levels,*
- *Experiences with Public-Private Engagement,*
- *Opportunities and challenges with artificial intelligence, big data and crowdsourcing (Internet of Things),*
- *Implementation of environmentally-friendly and sustainable measurement equipment technologies.*

TECO-2020 will be conducted in English only. All information concerning the Conference, including the Abstract Submission Form, is available on the following WMO/IMOP website: <https://community.wmo.int/activity-areas/imop/TECO-2020>.

The deadline for submission of full papers and posters in their required format will be provided in the acceptance letter to be sent to authors of selected abstracts, in June 2020. 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 **30 April 2020**.

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

### **The WMO Secretariat**

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