



World Meteorological Organization

EC PANEL OF EXPERTS ON  
EDUCATION AND TRAINING

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English  
**DRAFT 1**

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### AGENDA ITEM 3 : WMO GLOBAL CAMPUS

#### THE PANEL ARE INVITED TO:

- (a) Discuss and advise upon the WMO Global Campus Working Group methods, the WMO Global Campus Roadmap, and the remaining work plan for the feasibility study leading up to Cg-18.
- (b) Discuss progress and advise on aeronautical and climate services priority areas for WMO Global Campus.
- (c) Discuss progress and advise on WMO Global Campus tools and the WMOLearn portal
- (d) Consider how to better engage universities in WMO training activities, particularly with respect to operational training, climate services, human resource development, and research and Make recommendations on options for facilitating increased cooperation between training institutions and universities

## ITEMS FOR DISCUSSION:

### 3.1 WMO Global Campus Feasibility Study - Overview<sup>1</sup>

Following the EC Panel 27 decision to form a WMO Global Campus Working Group composed of members of the EC Panel of Experts on Education and Training, Panel 27 Action 08 (b) saw the Panel agree on the proposed future work plan for the feasibility study.

The WMO Global Campus Working Group, Chaired by Dr David Farrell and Dr Rich Jeffries, has been meeting monthly over the past two years for planning and documenting progress on this work plan. They are supported by a technical task team, led by C/TRA of the WMO ETR Office, a task team on QA processes which combines the technical task team and some Panel members, and by two members of the Working Group who are dedicated to addressing the priority areas in Aviation and Climate Services. Additional activities and task teams are under consideration.

The Working Group guides the activities of the feasibility study and has led the development of the WMO Global Campus Roadmap, which expands upon and replaces the previous work plan. The WMO Global Campus Roadmap is now in its final drafting stage and is available on the WMO Learn portal on the WMO public website. Updates will be made in the coming year as new activities are initiated or completed.

### 3.2 WMO Global Campus Contributions to Aeronautical Meteorology and Climate Services Training

#### Aeronautical Meteorology training

Early in the feasibility study, the task team led by Winifred Jordaan developed a table of BIP-M and BIP-MT education and training opportunities. The responses received from their call did not represent a comprehensive list, but did form a solid basis on moving forward.

Because the WMO Learn Events Calendar became fully live in September of 2017, it has been in use for aeronautical met training only a short time. Ms Jordaan has contacted community members to call their use of the calendar, and the CAeM also advertised the calendar in their most recent newsletter. SAWS has been the most active contributor, but it is hoped that the events calendar will become a primary mechanism for advertising training for the community.

Because the WMO Learn Resources Catalogue is still in development, the CAeM AMP Competency Training Mapping Database made available on their Moodle site, <http://www.caem.wmo.int/moodle/course/view.php?id=7>, remains the most up-to-date source for training. When the catalogue is operation, one priority will be to migrate those training resources to it, given available human resources.

#### Climate Services training

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<sup>1</sup> Reference:

[WMO Global Campus Roadmap \(v.3\)](#)

Since EC-Panel 27, the Competencies for the provision of Climate Services (CCS) have been developed, approved by EC-68 and included in the WMO Technical Regulations, WMO-No49. A document providing guidance on Competency Assessment is expected to be available before EC-Panel 29. This document will help Members identify training gaps, especially in the approximately 70 NMHSs which are at the Basic Capacity Level, according to GFCS. They are spread over all RAs, but Africa, Central and South America and SE Asia are the primary targets.

In this regard, the WMO Global Campus should enhance access to Climate Services E&T by:

1. **Encouraging new institutions to engage in the Global Campus initiative.**  
There are many institutions which offer specific training in Climate Services, including RTCs, national training centers, and international organizations.
2. **Supporting and further developing successful ideas by adapting them or replicating them in different languages,** such as the Climate Services Tool Kit, the Météo France Course on Climate Services or the CCI workshops, which have trained large numbers of NMHSs
3. **Useing the WMO Global Campus to promote and disseminate training approaches which can multiply the effect of training.** In addition to blended-learning and distance learning, use of the expected WMO Learn Resource Catalogue to make course materials from different events would be of enormous help. It can especially aid in the compilation of training resources in local languages and, specially, in WMO languages.
4. **Implementation of a Global Campus activities to help with competency management (e.g. tracking for QMS purposes) and for the recognition of education and training achievements.** This can take the form of a badging system or predesigned learning paths resulting in transcripts with equivalences to a credits system (e.g. ECTS)
5. As ETR needs in the field of Climate Services are maturing, **the WMO community and more specifically those universities attached to RTCs should network to foster and monitor the creation of higher education programs** adapted to WMO Competencies for the Provision of Climate Services and following the BIP-CS, whenever it becomes available.
6. Noting that human and economic resources specifically dedicated to the Global Campus initiative are very limited, **the quest for human and economic resources should be part of the Global Campus activities for Climate Services.**

### 3.3 WMO Global Campus Tools and WMO Learn

2017 saw the implementation of the WMO Learn portal to host WMO Global Campus information and to point to external tools and resources, where appropriate. This portal resides on the WMO public website at <http://learn.wmo.int>.

- At mid-year, the WMO Learn Events Calendar, hosted by CIMH, was made operational, and was further refined into 2018. This Calendar shares the same database structure and API as the EUMETSAT VLab calendar, which allows the two databases to automatically share confirmed events. This calendar is currently being promoted to RTCs and others to ensure a wide collection of upcoming events.

- The WMO Learn Resource Catalogue is currently discussing with PMD, the service provider that hosts the WMO E-Library: <https://library.wmo.int/>. Joining with this platform looks like a very promising option, with its links already in place to all WMO guidance material, and also its use of standard metadata schema with import, export, and harvesting capabilities for existing resources. Costing and procedures, including submission standards and human resources requirements, are being discussed by the ETR Office and the WMO Librarian and Procurements office, with external advice from Technical Task Team members.
- Climate Services and Aeronautical Meteorology training events and learning resources, as priority areas, are being actively sought for inclusion in the Events Calendar and, eventually, the Catalogue.
- Quality assurance processes are in place for the Events Calendar, and draft processes have been documented for the Catalogue.
- A variety of promotional materials have been proposed, including articles for WMO publications, a brochure or flyer, and announcements via widely disseminated letters.
- A mechanism for using open digital badges as a consistent method to recognize achievement of education and training in qualification and competency areas is being explored.
- Other mechanisms for promoting collaboration and sharing and best practices in education and training innovations are under discussion, include publications and a database of experts.

### 3.4 WMO Global Campus and University Input to WMO Education and Training Programme<sup>2</sup>

Contributions of universities to WMO education and training activities have been extensive and key to the implementation of activities associated with priority areas of the Organization. Generally, university based experts play various important roles in the development and delivery of continuing education training needs. Nonetheless, quite a number of WMO Regional Training Centres do not have close-enough working relationship with universities.

With the increasingly changing socio-economic and technological challenges, and the need for meteorological and hydrological services to keep up with these developments, it is important to ensure that there is closer synergy between all facets of training institutions for meteorological and hydrological services experts in Member countries. Universities being at the cutting edge of tertiary teaching and research, as part of their fundamental preoccupation, have inalienable role to play in the development of human resources in meteorological and hydrological services through formal education. The challenge of integrating research and training in meteorology and hydrology is even

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#### <sup>2</sup>References:

[Meteorological training for the digital age: A Blueprint for a new curriculum \(SHORT\)](#)  
[Meteorological training for the digital age: A Blueprint for a new curriculum \(LONG\)](#)  
[Basic Instruction Packages via a Distributed Learning Network](#)  
[Regarding a shared Online BIP-M Curriculum](#)  
[EUMETLearn ERASMUS+ Project Proposal](#)

much higher in least developed and developing countries than it is in the developed countries.

This agenda item will focus on university collaborations, changing roles in higher education, cooperation between training institutions on one hand, as well as between training institutions and WMO on the other. The Panel is therefore requested to look into how to bring universities closer into the into fold of WMO training activities, particularly with respect to operational training, climate services, human resource development, and other WMO priority areas.