



VLab strategic orientation and 2024-2025 progress highlights

Presented to CGMS-53 Plenary, agenda item 5

**Coordination Group for
Meteorological Satellites**



Executive summary of the WP

The VLab Management Group meets virtually every quarter and met in-person in January 2025 at CoE Oman.

VLab provided diverse satellite training opportunities to **over 7200 participants in over 100 training events** for calendar year 2024.*

The highlights of activities supporting the VLab strategy are reviewed here and include two new priorities for the HLPP to support succession planning and training development programs for CoE Trainers.

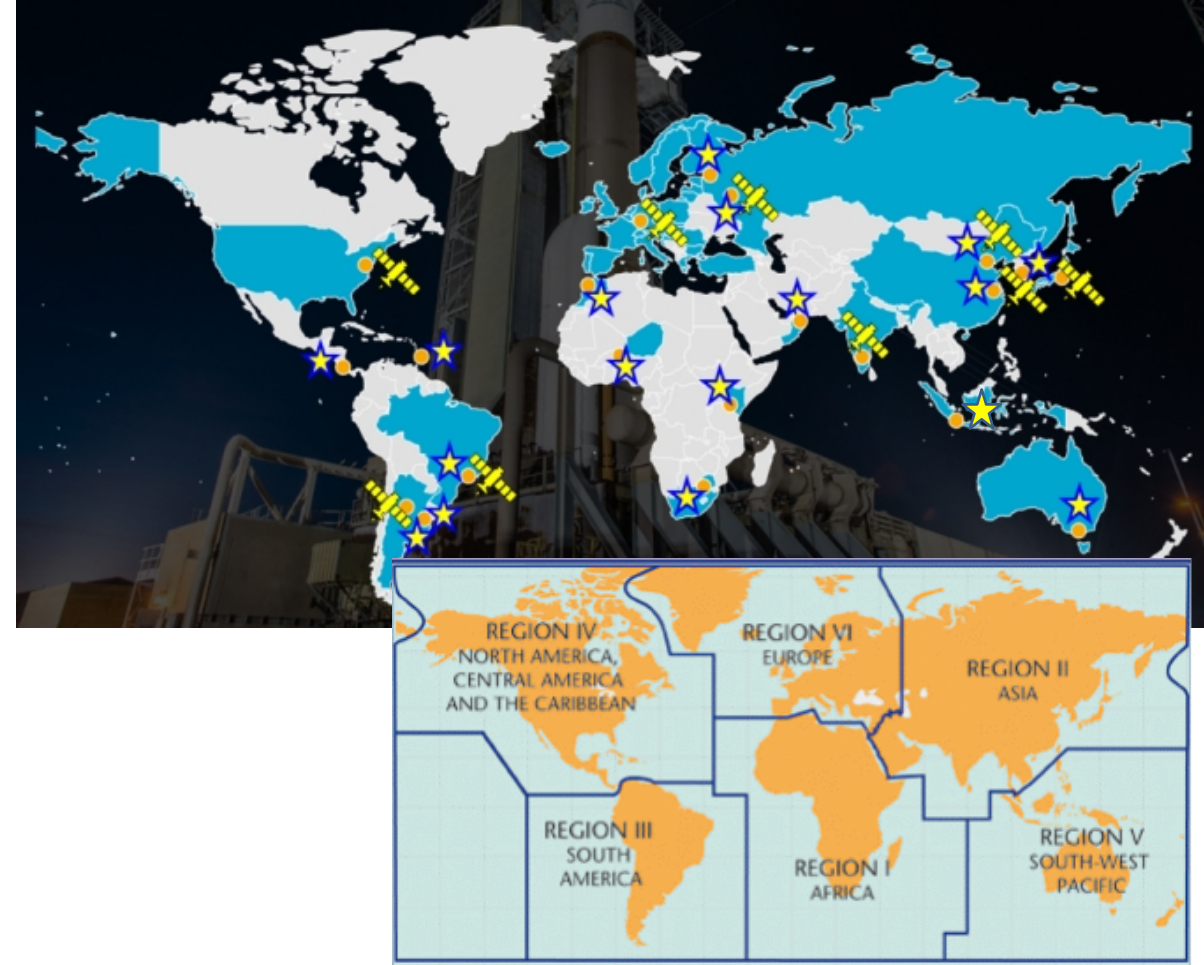
WMO-CGMS VLab overview

OUR MISSION: To improve weather, water, climate and environmental services by enabling WMO Members to utilize satellite data.

OUR LONG-TERM GOALS:

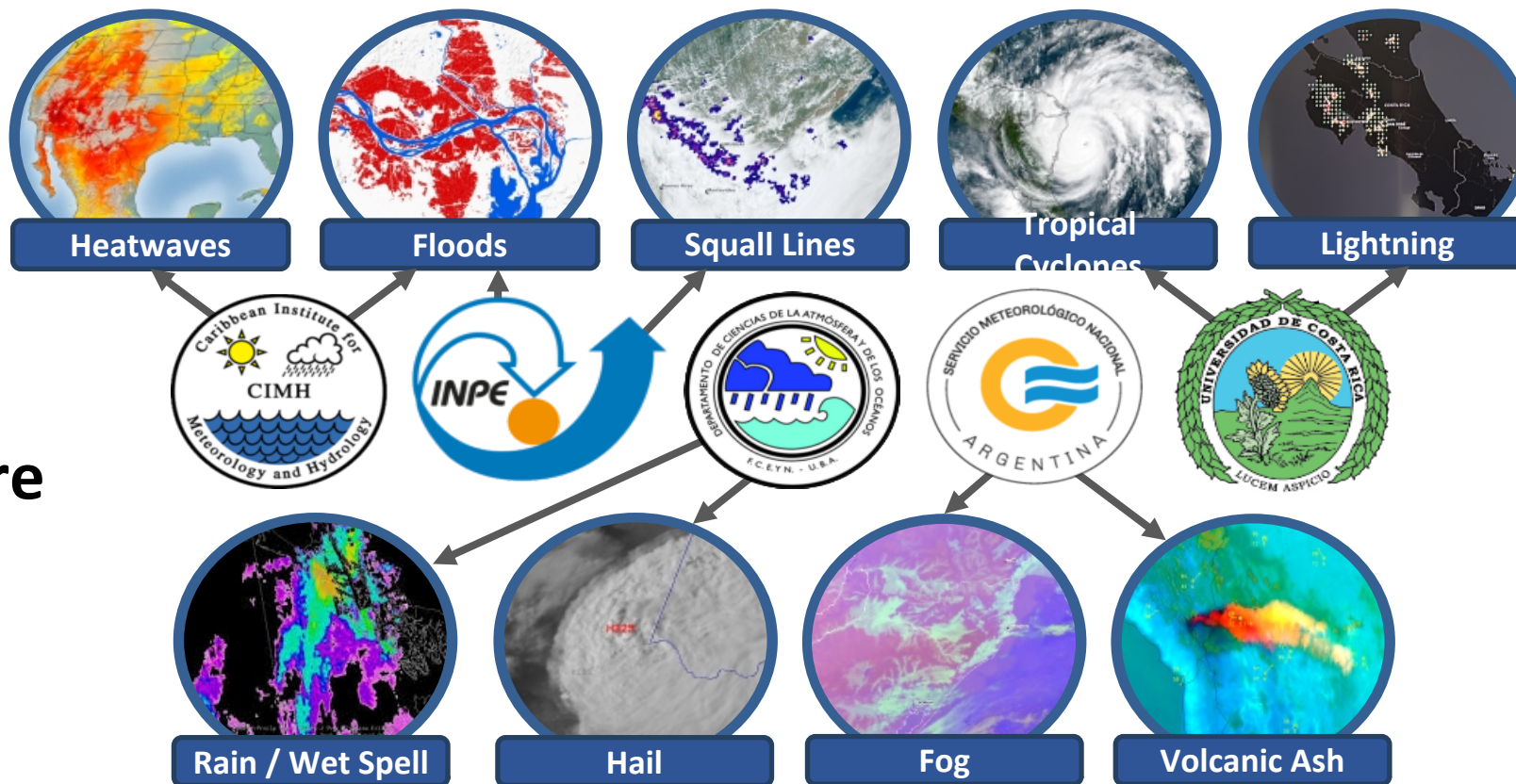
1. Continuously improve the utilization of data from the space-based component of WIGOS for services that are increasingly reliant on satellite data;
2. **Globally share knowledge, experience, methods, and tools related to access and usage of satellite data, especially in support of WMO Members that have *limited resources*.**

**Coordination Group for
Meteorological Satellites**



Pilot Project in Support of EW4All in RA-III and RA-IV

Ongoing
work we are
proud of!



Coordination Group for
Meteorological Satellites



RA-I Meteosat-12 (MTG) Satellite Training

- Customised Meteosat-12 (MTG) FCI level 1c and level 2 data disseminated via EUMETCast Africa, which form the MTG Africa data service, were **released publicly on 6 March 2025**.
- Training to support MTG usage in RA-I:
 - PUMA capacity development
 - Satellite training activities
 - MTG Course for Satellite Image Interpretation (online, English, 17 Mar-4 Apr 2025; French, 31 Mar - 18 Apr 2025)
 - Mastering MTG Satellite imagery for Forecasting (face-to-face, English, 12-16 May 2025)
 - Webinars
 - Support the African Regional Focus Group

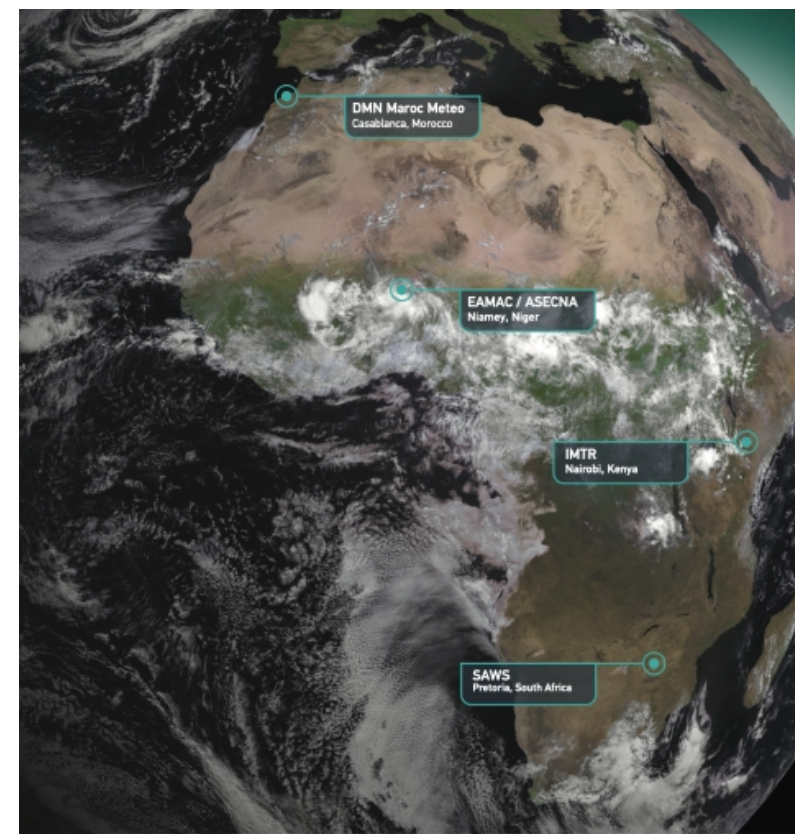


Image from EUMETSAT



Leveraging New Technology: Opportunities Ahead



Action WGIV/A53.06 CGMS members are invited to develop and provide Jupyter Notebooks for each satellite product with clear instructions on downloading, processing, and visualizing the product.

Two hands-on sessions at VLMG-11

- Use of Jupyter Notebooks to enhance display and manipulation of GEO and LEO data.
- AI technology in training: for website navigation, training content organization, AI podcasting, and more!

Supports VLab Objectives 1.2, 2.1-2.3

**Coordination Group for
Meteorological Satellites**



Addressing Succession Planning Gaps

- **Loss of expertise** due to position changes, retirements, and external job opportunities.
- **Shortage of trained meteorologists & trainers.**
- Budget constraints in many regions limit virtual and in-person training.
- A desire for better coordination across institutions.

Implication for Satellite Operators

- Untrained users = underutilized satellite products.
- Desire for continued investment in long-term capacity building.

NEW HLPP 7.2.3 SatOps and CoEs to coordinate and collaborate on succession planning. Many members are experiencing staff shortages due to employee turnover and retirement.

Supports VLab Objectives 2.4 - 2.6

Promoting Earth Systems Approach: Enabling Satellite Skills

Chapter 1 of the Compendium of WMO Competency Frameworks (WMO-No. 1209)

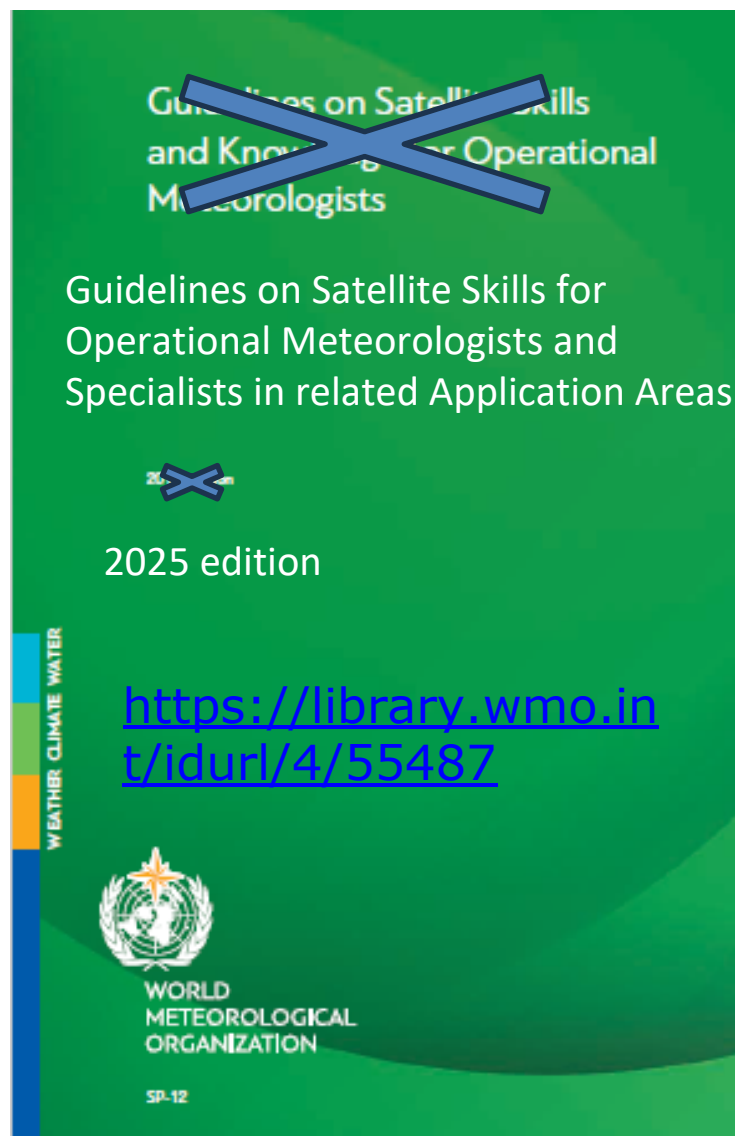


Finishing Step:

Approval by INFCOM members

1. Satellite Skills for Operational Meteorologists
2. Satellite Skills for Provision of Climate Services **New!**
3. Satellite Skills for Provision of Agrometeorological Services **New!**

**Coordination Group for
Meteorological Satellites**



Updated HLPP 7.2.3

.... Link training materials to the 2025 update of 'Guidelines on Satellite Skills for Operational Meteorologists and Specialists in Related Application Areas'

**Supports VLab
Objectives 2.5 and 2.6**



How space agencies can **interact** with and support the VLab

Know who your training partners are.

<https://wmo-sat.info/vlab/vlab-centres-of-excellence/>

- Coordinate with them to identify means to raise awareness of near real-time data, products and/or selected case study data as well as new products and to enhance feedback mechanisms
- Collaborate with VLab Centres of Excellence on training activities

NEW HLPP 7.2.4 SatOps and CoEs to establish agreements to collaborate on training development programs for CoE trainers.

How space agencies can interact with and **support** the VLab

Contributions to the VLab Trust Fund enable:

- Funding of the VLab Technical Support Officer (TSO) to assure the smooth and coordinated continuous running of the VLab activities,
 - ❖ ‘Regular’ Trust Fund contributions are uncertain this year
 - ❖ Any extra funds will be used to initiate Pilot Projects
- Support for personnel involved in VLab activities to attend Management Group meetings and User Conferences.
- Support for early career personnel to attend training events, regional conferences, or to developing training resources for VLab Members.

VLab Co-chairs

Dr. Bernadette Connell (*CIRA, Colorado State University*) and Mr. Wen Bo (*CMA Training Center*) will step down as VLab Co-Chairs in 2025.

To fill these positions, the following nominations have been received:

- ✓ **Mr. Xian Di** (*NSMC, CMA, China*) – representing CGMS
- ✓ **Ms. Zamzam Hamed Al-Rawahi** (*DGM-CAA, Oman*) – representing WMO

Proposal for New Centre of Excellence in New Delhi, India

We received an application to become a new VLab Center of Excellence from the India Meteorological Department (IMD).

We look forward to being able to solicit your approval next year.

