



Education and training – Virtual Laboratory (VLab) strategic orientation for the future (including the HLPP)

Presented to CGMS-52 Plenary, agenda item 2

Executive summary of the WP

The VLab management group meets virtually every quarter and will meet in-person in January 2025 at CoE Oman.

The VLab Status Report is available for information on member activities over calendar year 2023.

Marcial Garbanzo, Technical Support Officer, provided examples of the SDR & VLab influence and benefits in the previous presentation.

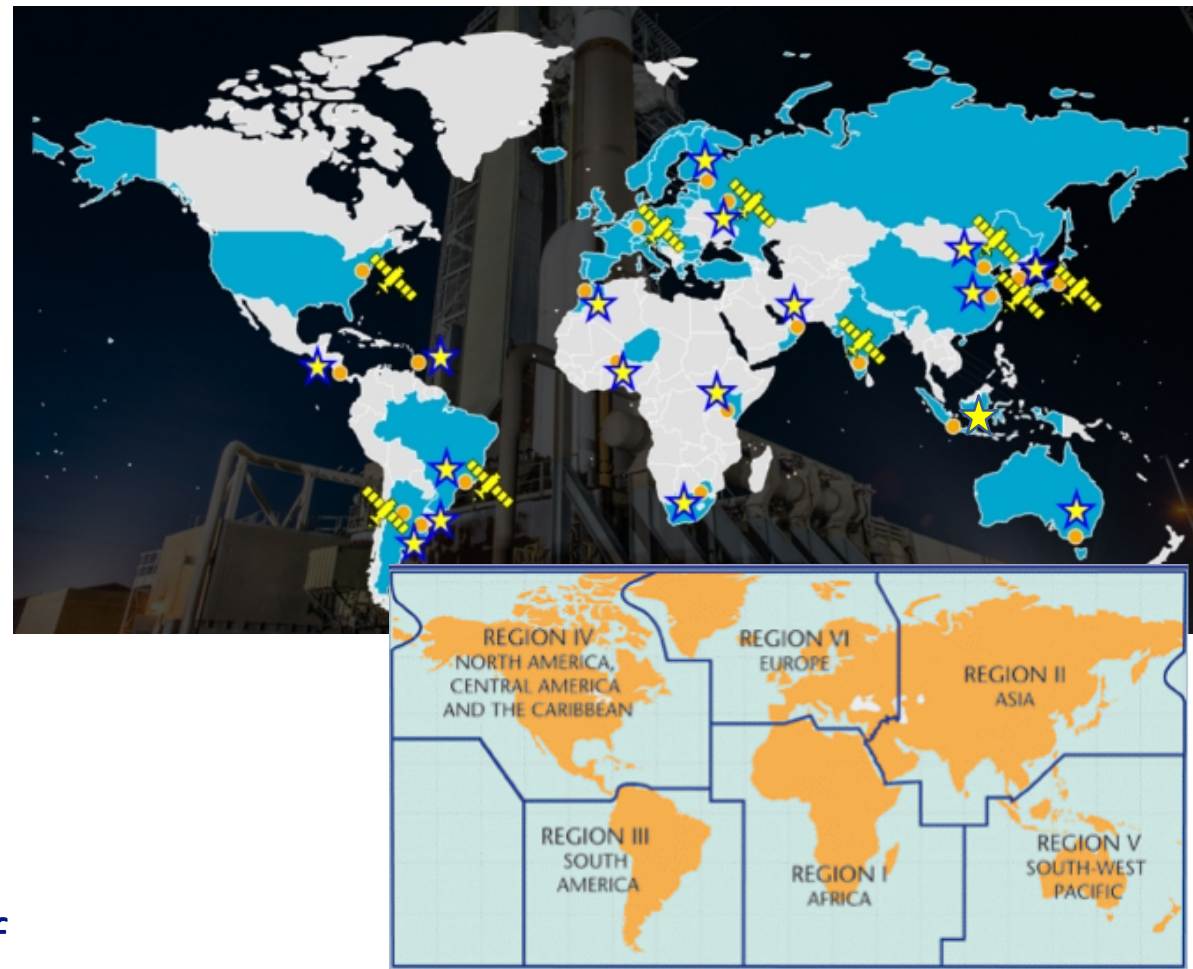
The highlights of the VLab strategy are reviewed here and include a new priority for the HLPP to support the UN Early Warning for All (EW4All) initiative.

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*.



Strategic Objectives that VLab seeks to support

OBJECTIVE 1.1 Improve the availability of Earth observation data ...

OBJECTIVE 1.2 Provide support to achieve readiness for the next generation of satellites ...

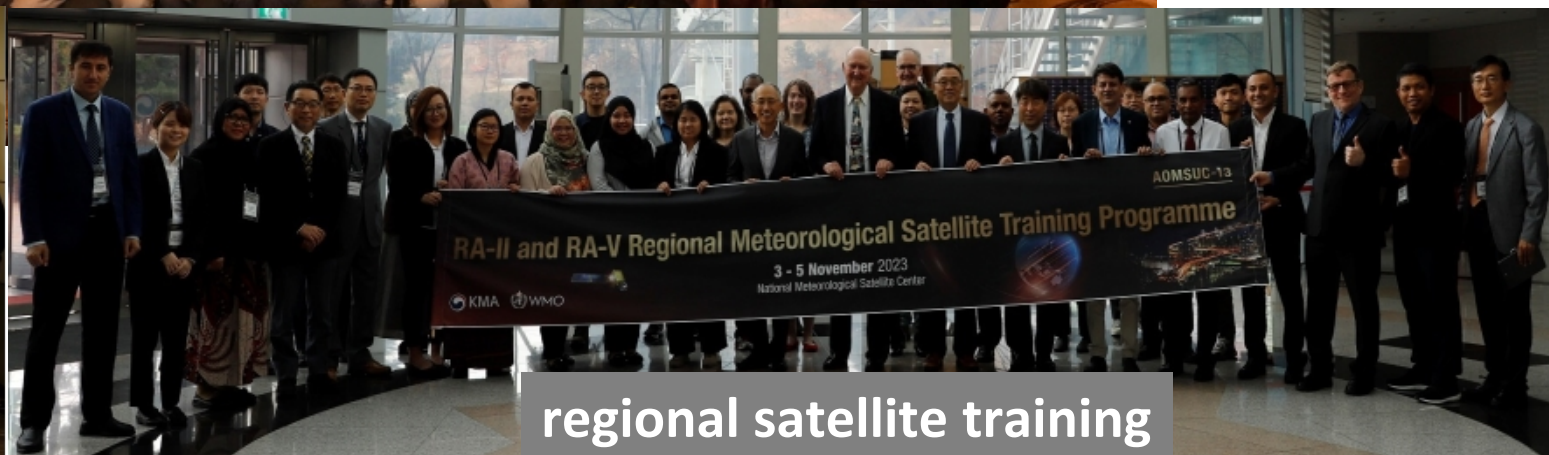
OBJECTIVE 1.3 Continue to support primary and “backup” data delivery...

In collaboration with CGMS, WMO SSU and WMO Satellite Data Requirements Groups

AND

Supports high level objectives (EW4ALL, climate aspects)

13th Asia-Oceania Meteorological Satellite Users' Conference hosted by the Korea Meteorological Administration (KMA)



Strategic Objectives that VLab seeks to support

OBJECTIVE 2.1 Transfer the improved scientific understanding and technological advances ...

OBJECTIVE 2.2 Promote the uptake of satellite data in research and institutions.

OBJECTIVE 2.3 Respond to new and emerging service demands for weather, water and climate. ...

VLab Training is crucial to maintain a satellite focus

Strategic Objectives that VLab seeks to support

OBJECTIVE 2.4 Increase the diversity and quality of services ...

OBJECTIVE 2.5 Achieve the competence, quality control requirements, and professionalism ...

OBJECTIVE 2.6 Work with WMO Education and Training Programme ...

OBJECTIVE 2.7 Grow social community projects ...

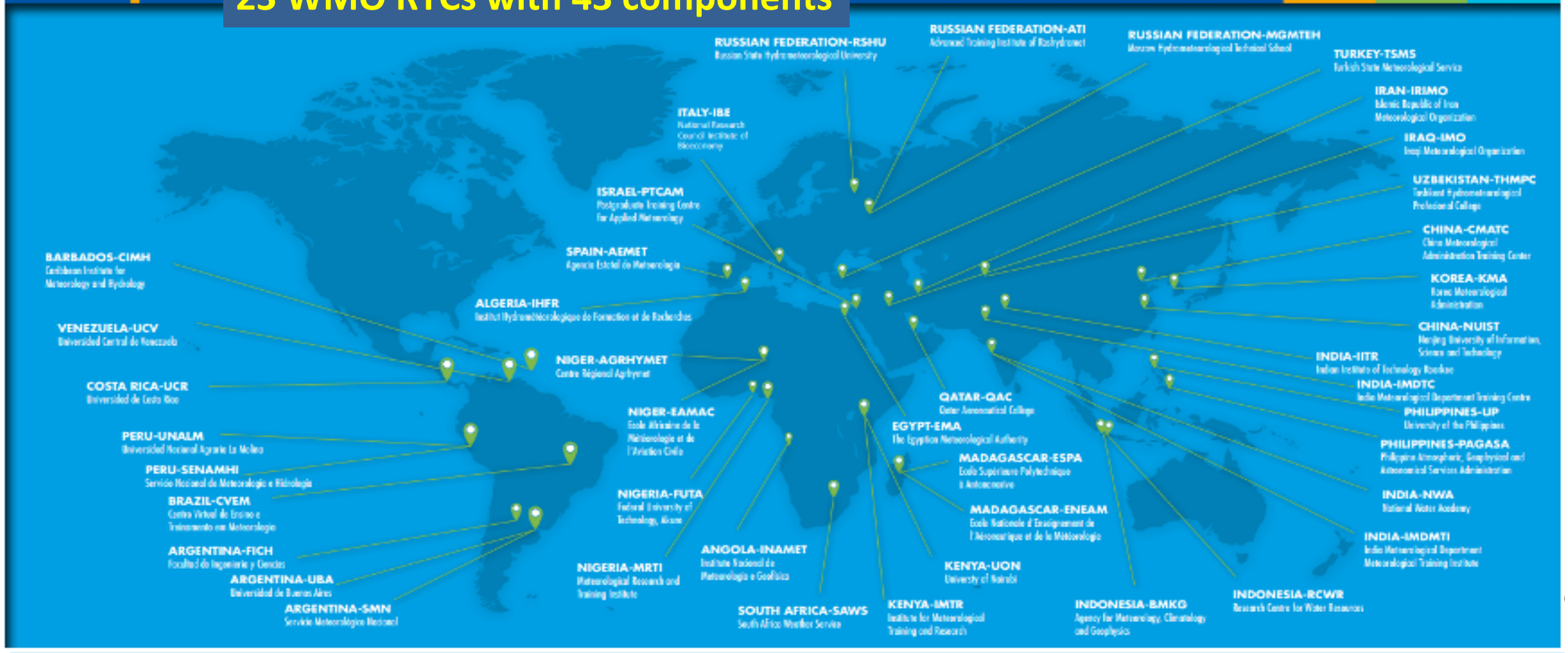
Leverage other programs with similar objectives to benefit all partners.



12 VLab CoEs are collocated with WMO RTCs

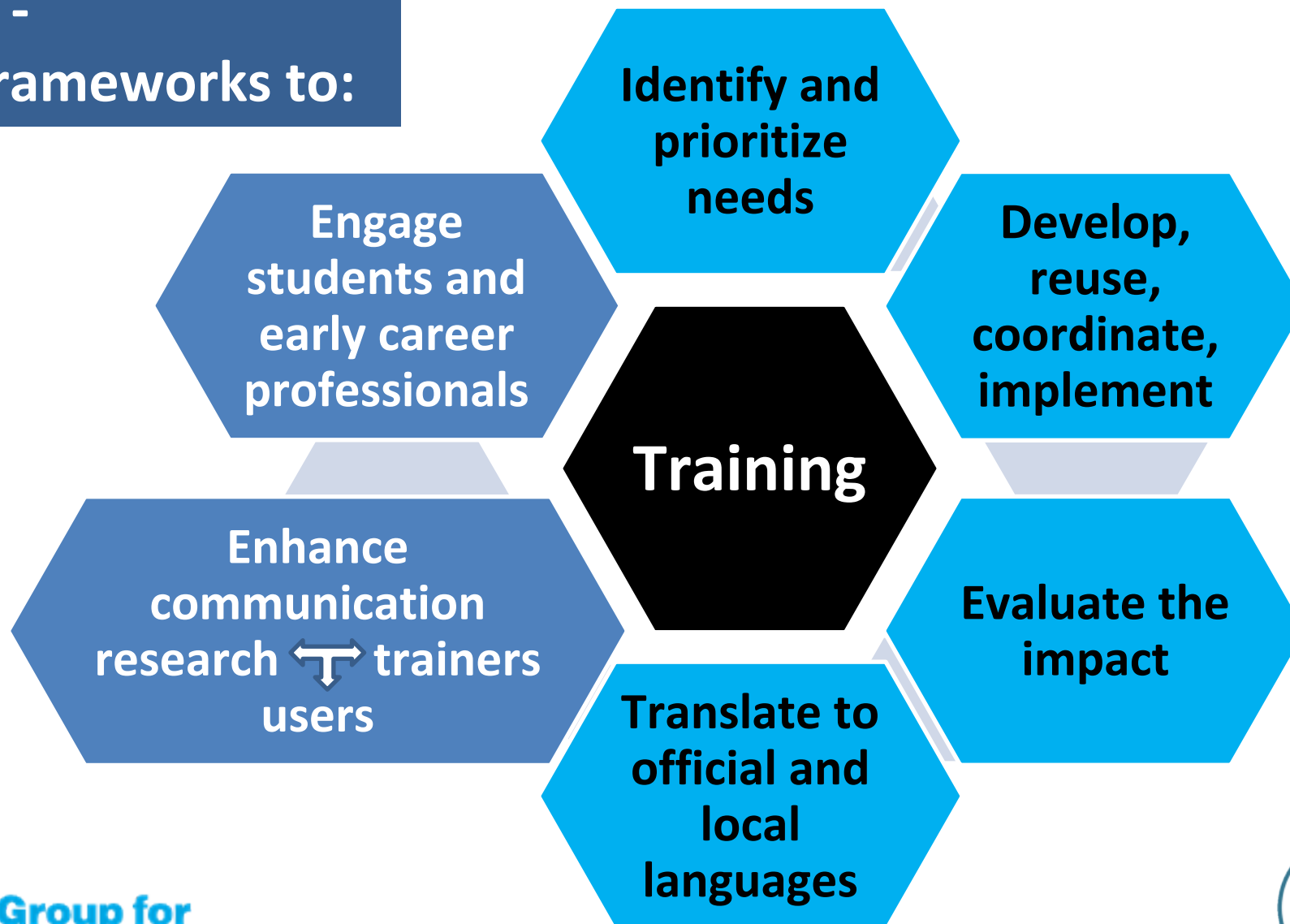
WMO REGIONAL TRAINING CENTRES

23 WMO RTCs with 43 components



Approach -

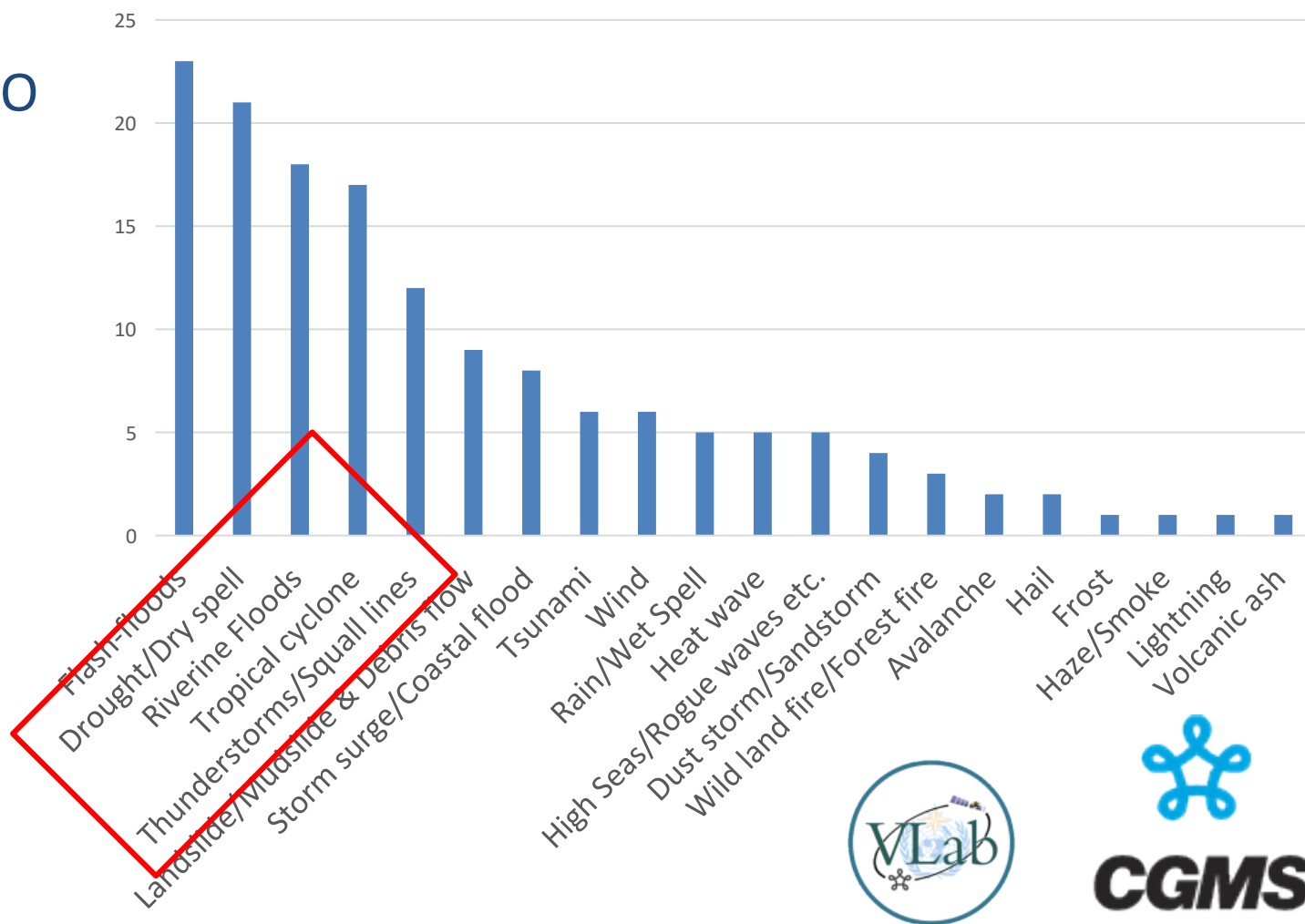
Provide Frameworks to:



EW4ALL: Priority hazards

- Based on the results of the **Rapid Assessment** conducted by the WMO Secretariat, VLab initial priority hazards focus on **Floods, Drought, Tropical cyclones, and Thunderstorm/squall lines**.
- The country decides on the
- For more information: [Early Warnings for All Dashboard \(wmo.int\)](https://www.wmo.int)

Number of countries that identified the hazard as one of 5 priorities



VLab in support of EW4ALL

Create **regional** online training materials to support the use of satellite data for priority hazards (flood, drought, tropical cyclone, thunderstorm/squall lines):

- **WMO Regions III & IV** (South America and North America, Central America and the Caribbean): Argentina, Barbados, Brazil, Costa Rica
Centres of Excellences **PILOT**
- **WMO Regions II & V** (Asia and South-West Pacific): Australia, China, Indonesia, Oman, Republic of Korea, Russia Centres of Excellence
- **WMO Region I** (Africa): Kenya, Morocco, Niger, South Africa

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.
- Coordinate to enhance feedback mechanisms
- Collaborate with VLab Centres of Excellence on training activities

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,
 - Support for VLab personnel 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.
- ❖ Due to COVID restrictions and a gap in the TSO position, the Trust Fund is currently sustained with regular contributions.
- ❖ Accumulated funds will be used to initiate the Pilot Project

Key issues of relevance to CGMS:

- Training is ongoing; it takes the whole community of managers, researchers, trainers, and users to increase the impact and return on effort and monetary investment.
- Training in support of the UN Early Warning for All (EW4All) Initiative.

To be considered by CGMS:

For action:

New Priority for **HLPP: 7.2**

- Ensure the availability of satellite data and products and training in their usage for monitoring regional priority hazards to address the UN Early Warnings for All initiative.