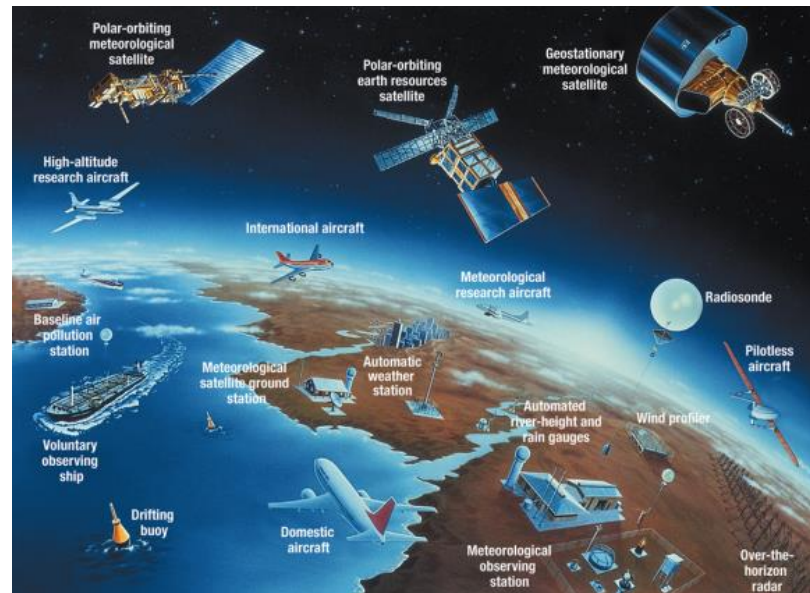


WMO Infrastructure & GCOS

Nir Stav, Director of Infrastructure & GCOS



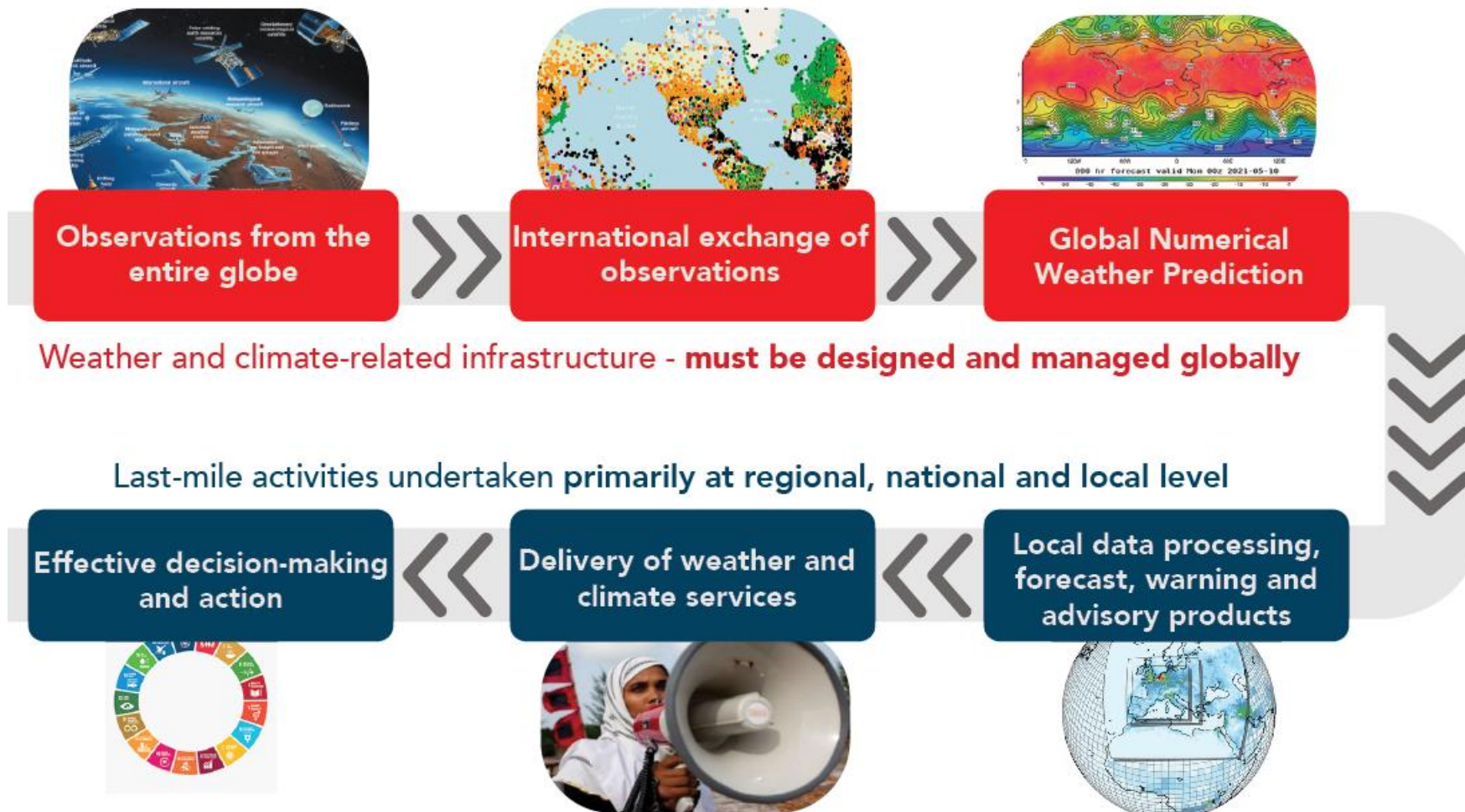
WORLD
METEOROLOGICAL
ORGANIZATION

GCOS Steering Committee, Geneva, 4/7/24

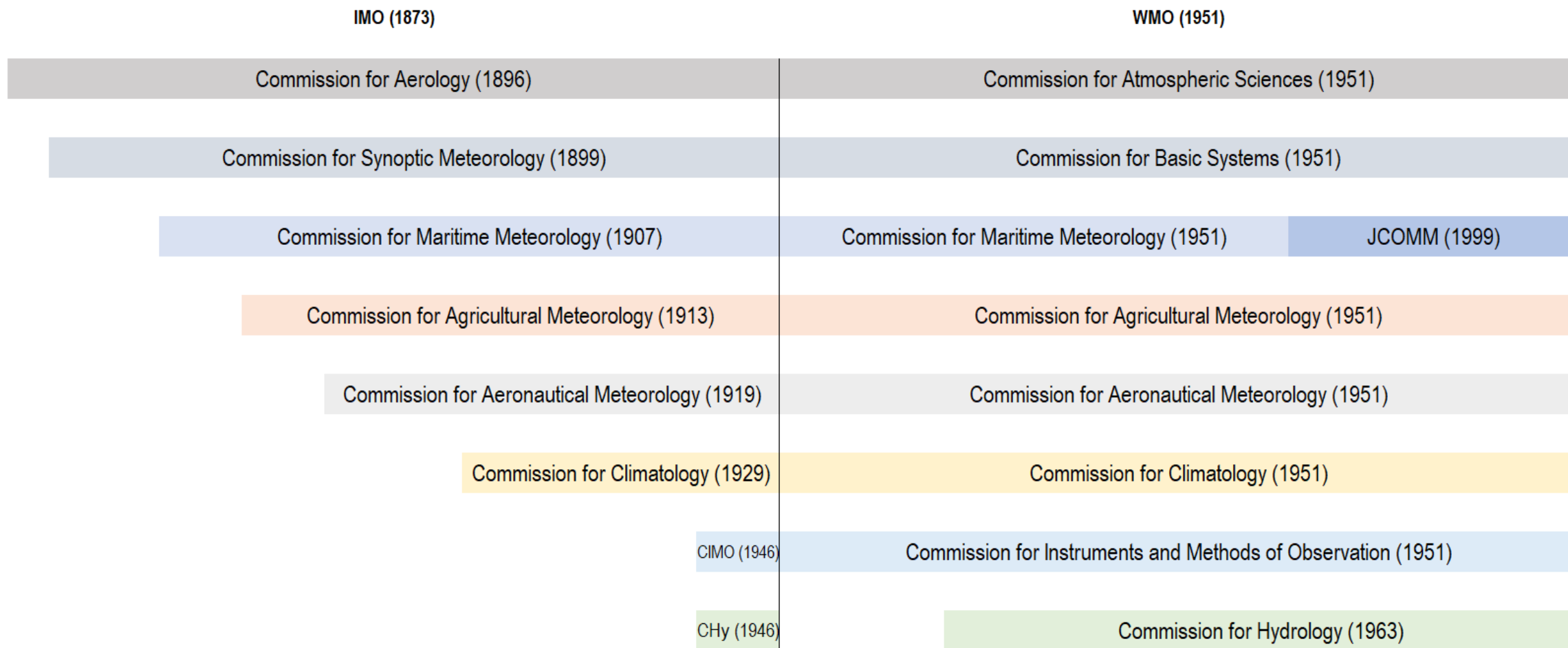
WMO 101



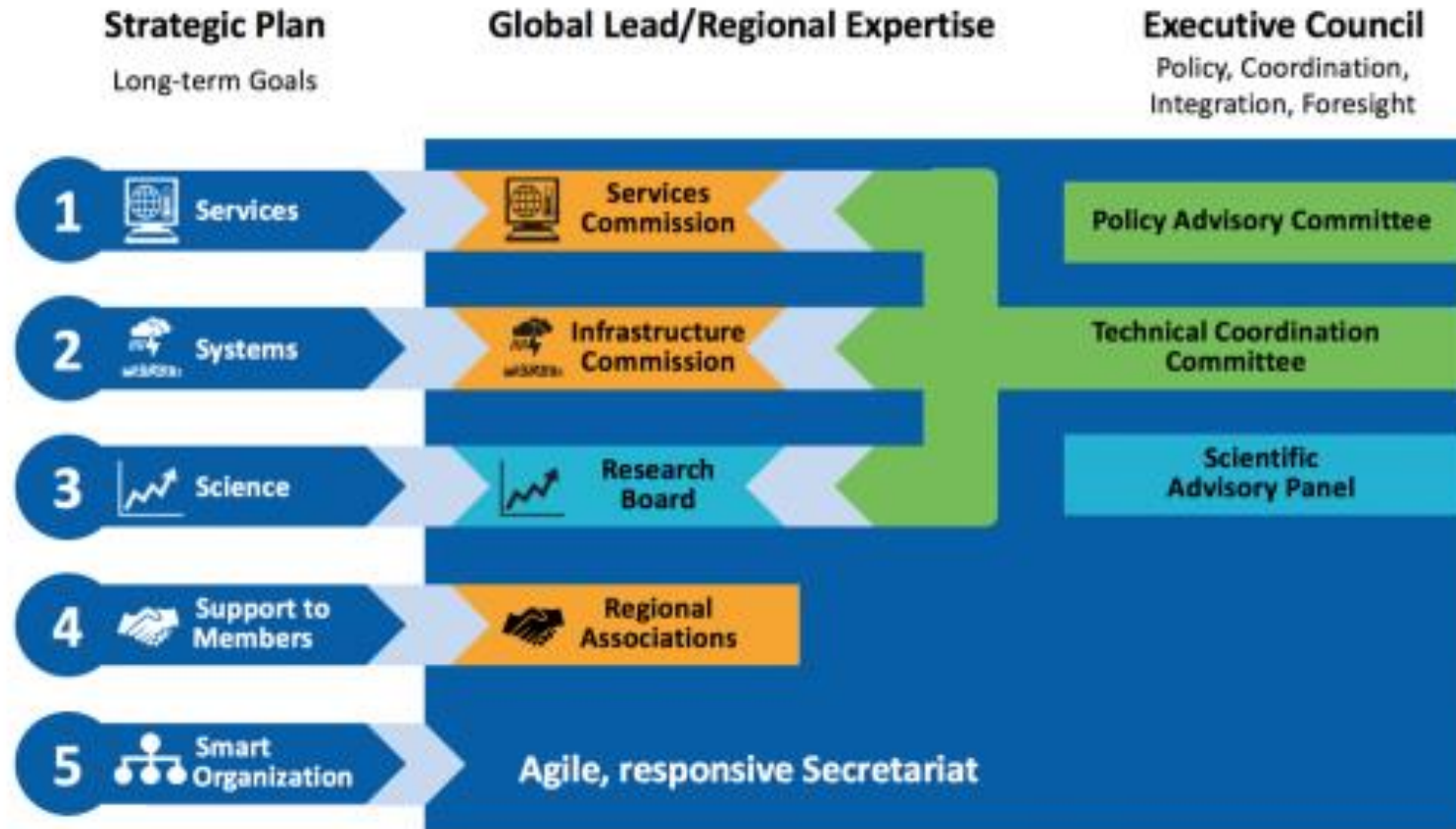
Successful application of weather and climate services depend on a functioning meteorological value chain



History of the WMO Technical commissions

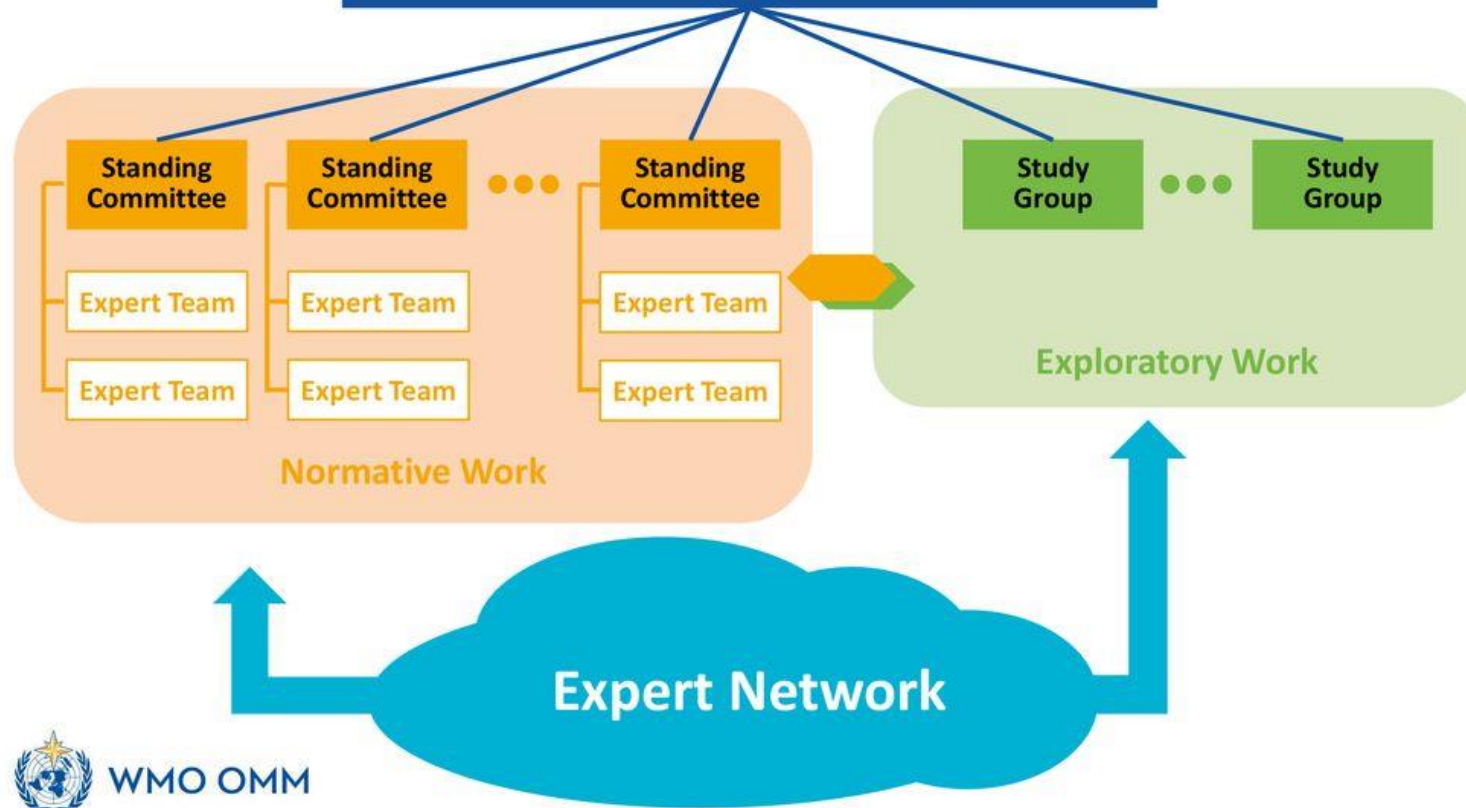


WMO Structure (after the reform)



Technical commission structures

Management Team

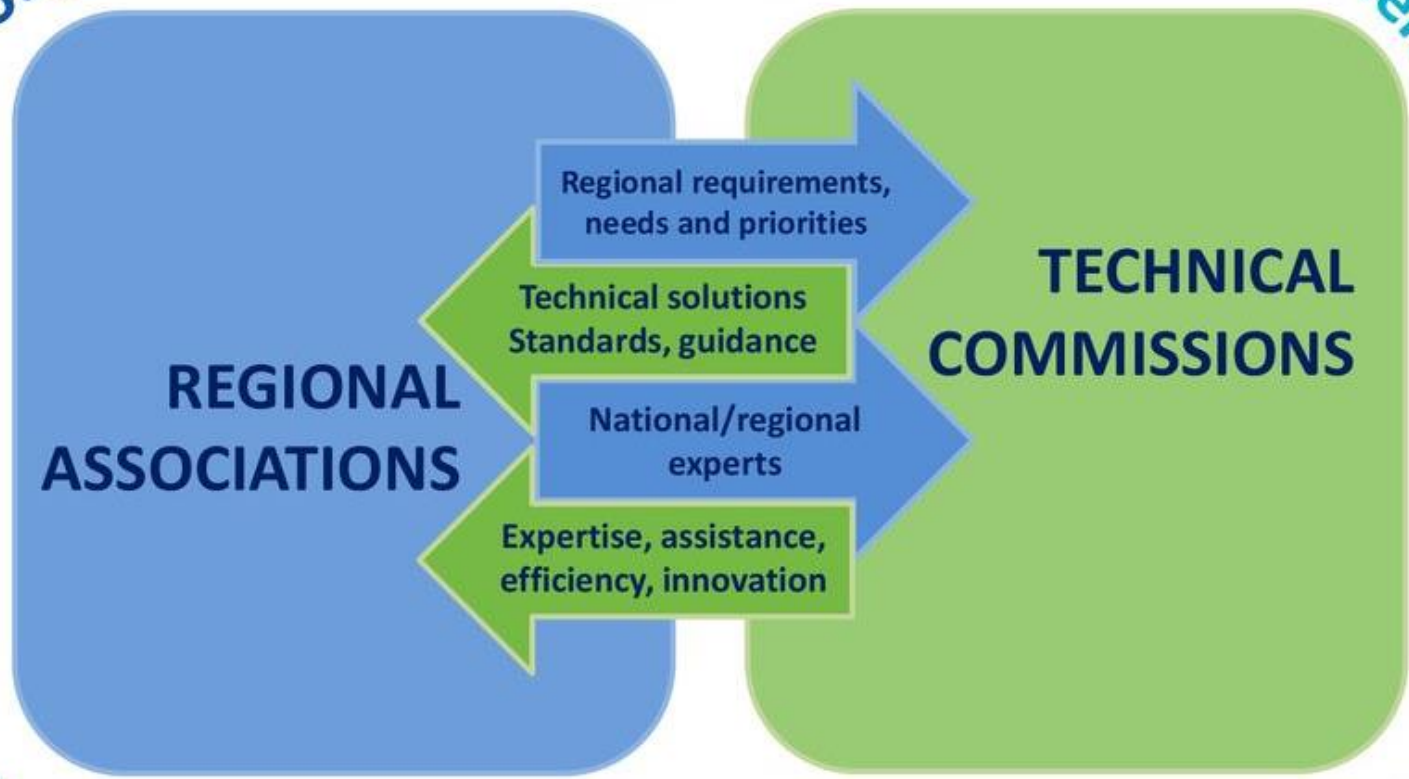


WMO OMM

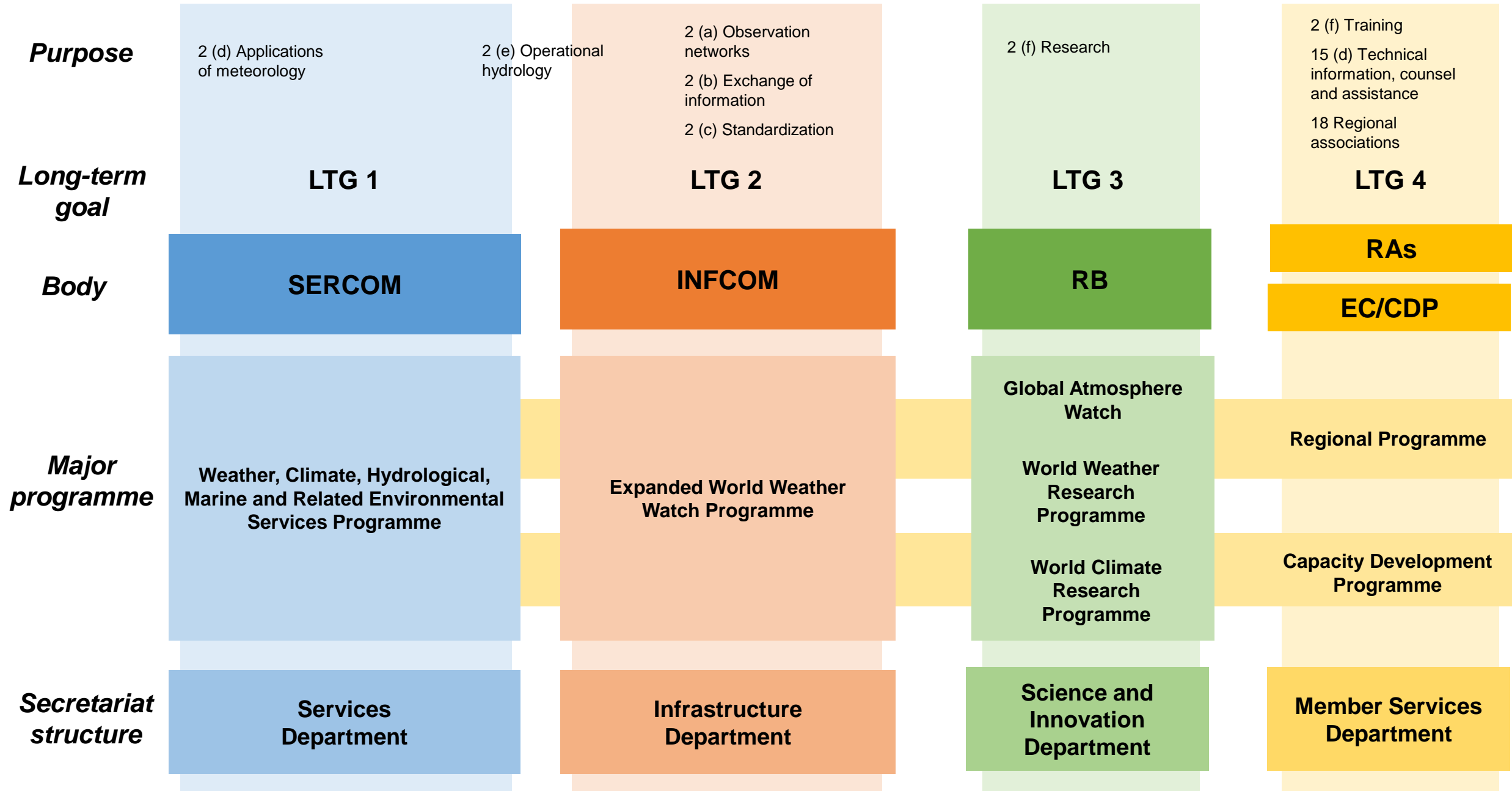
Political and economic regional groups

Congress / EC

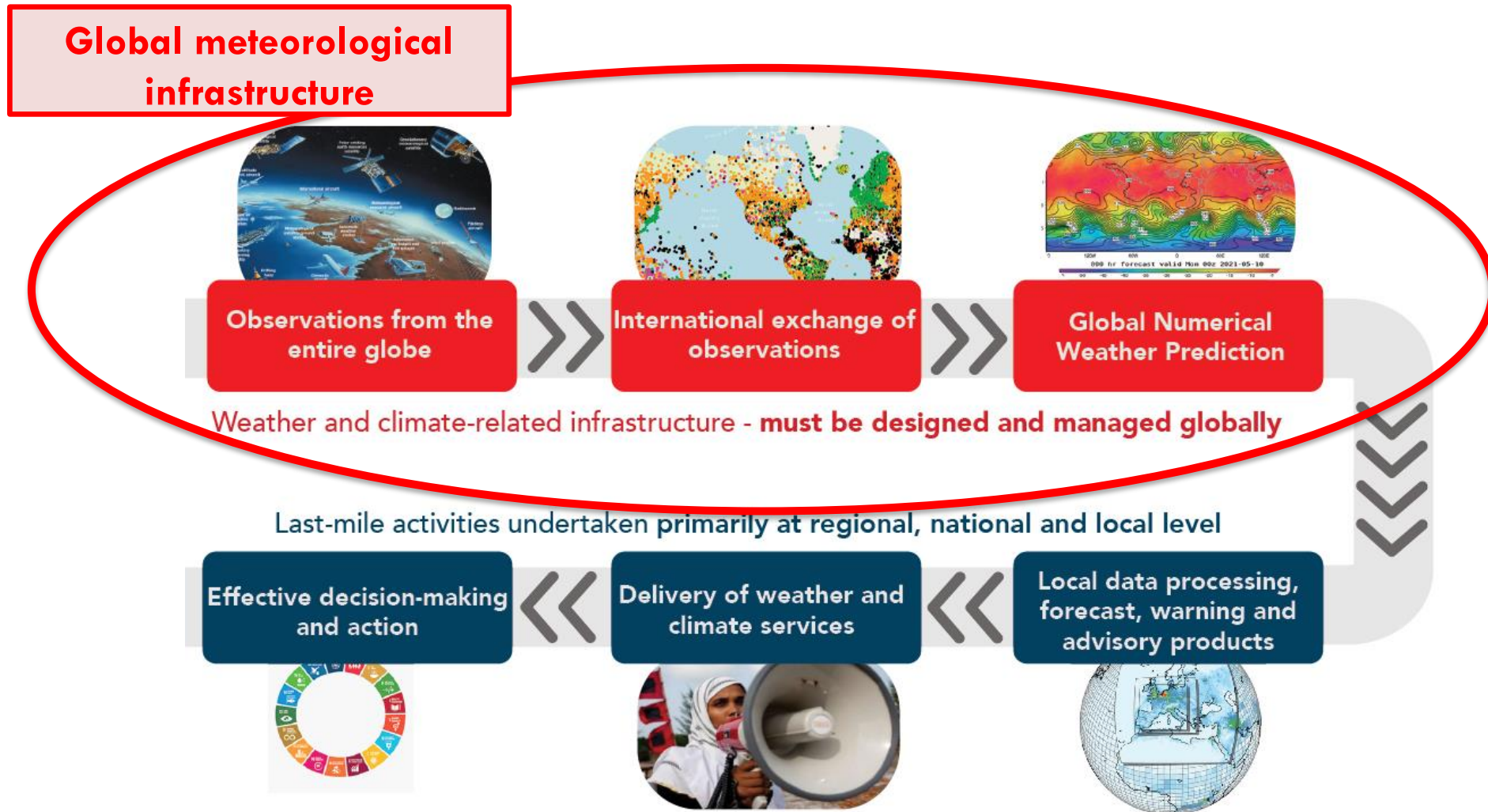
Scientific and technical communities



Alignment of WMO Convention purposes, long-term goals, bodies, major programmes and Secretariat structures



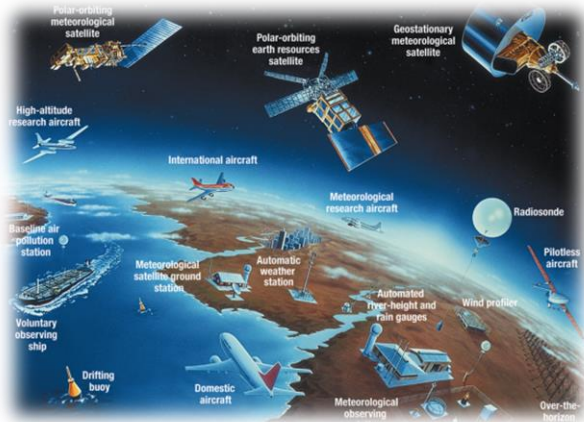
Successful application of weather and climate services depend on a functioning meteorological value chain



Expanded WWW programme

WIGOS

WMO Integrated Global observing System



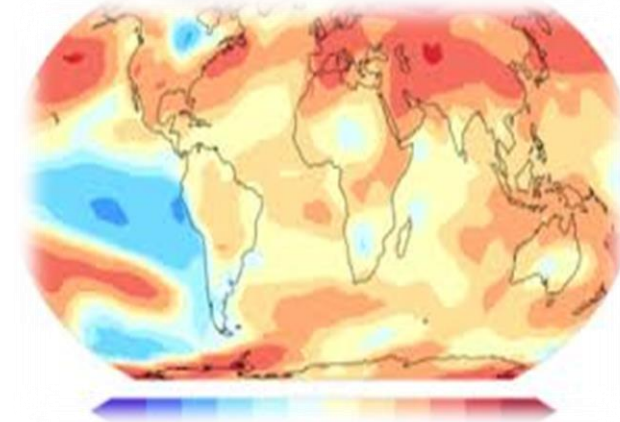
WIS

WMO Information System



WIPPS

WMO Integrated Processing and Prediction System



Development and implementation of globally coordinated component systems: the WMO Integrated Global Observing System (**WIGOS**), the WMO Information System (**WIS**) and the WMO Integrated Processing and Prediction System (**WIPPS**)

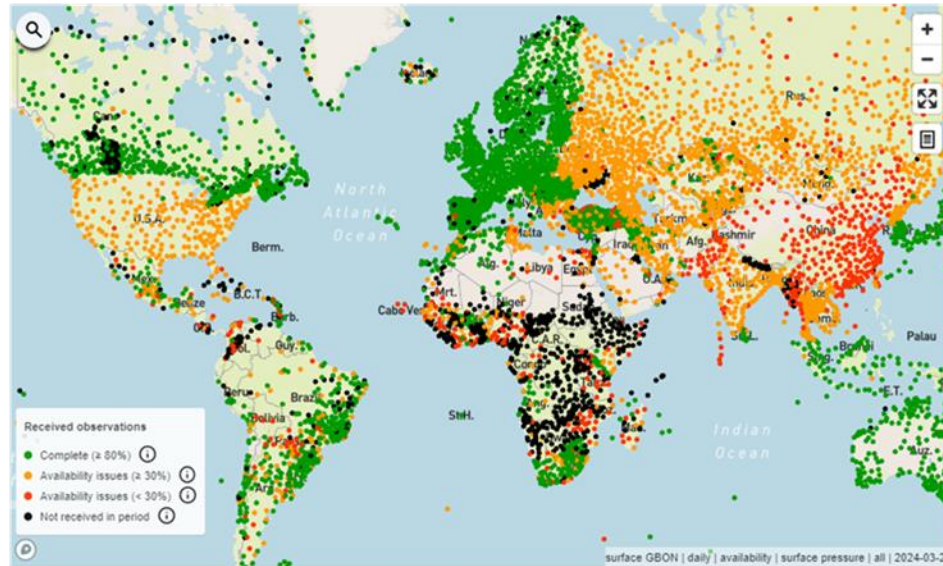
Guides & Manuals



Manual on WIGOS

- a) specifies the implementation and operation of WIGOS;
- b) facilitates cooperation in observations among Members;
- c) ensures adequate uniformity and standardization in a & b

Manual → specifies the obligations of Members



Guide to WIGOS explains and describes WIGOS practices, procedures and specifications and aims to assist the technical and administrative staff



Guide → provides guidance material to regulations

Need to be compliant
→ SHALL
→ SHOULD



Members of WMO

provides assistance to be compliance

WMO Infrastructure & GCOS



Successful delivery and use of climate services depends on all elements in the value chain working properly

Climate-related infrastructure – must be designed and managed globally

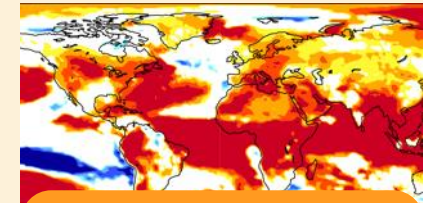
GCOS addresses observations and data exchange but is informed by the needs of the whole value chain



Observations from the entire globe



International exchange of observations



Global climate modelling

GLOBAL ACTIVITIES

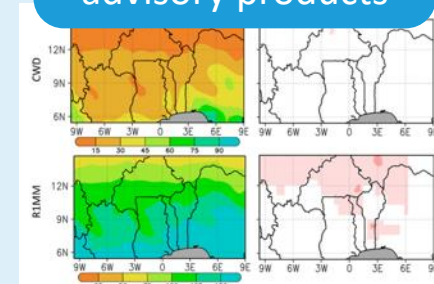
Effective decision making and action



Delivery of climate services

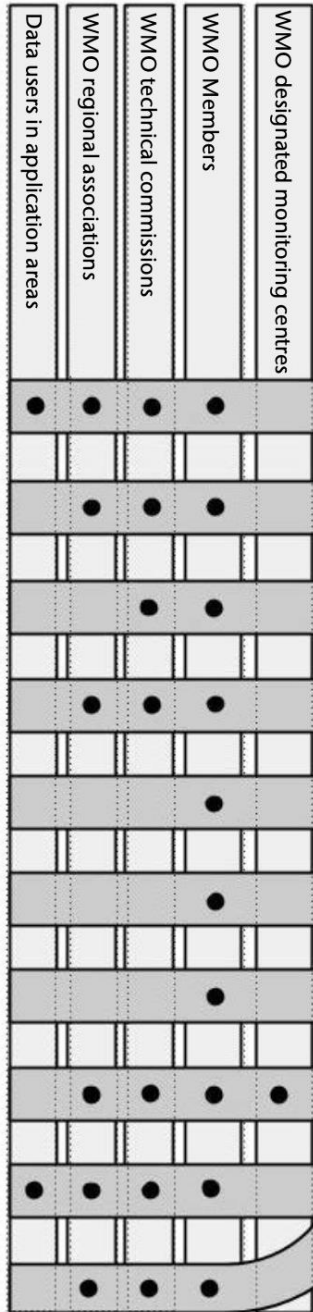


Local Data Processing, forecast, warning and advisory products

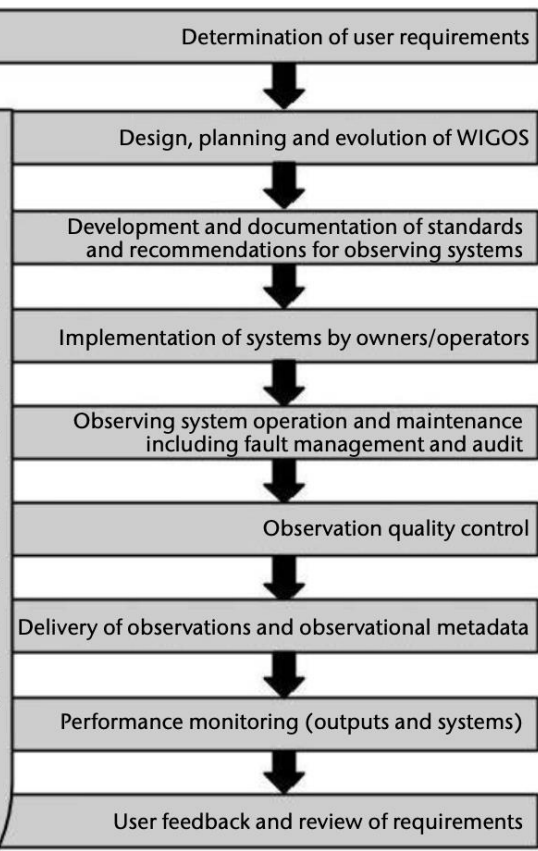


Last-mile activities undertaken at regional, national and local level

WIGOS Processes and Roles



Processes Roles ●



Capacity development

Requirements

Design

Standards / best practice

Implementation

Quality

Delivery

Monitoring

Feedback/review

WIGOS Networks

SC-ON

WIGOS
Measurement
SC-MINT

Members
& partners

WIS
SC-IMT

AOPC and WMO

AOPC members contribute to many of the WMO activities:

- GBON and SOFF: Support the initial GBON; working with the SOFF Secretariat to consider the expansion of SOFF to support GCOS; a GCOS member (Peter Thorne, Deputy Chair of SC), part of the SOFF Advisory Board
- Data Climate Management: work together with WMO (INFCOM and SERCOM) on requirements for global climate data centers
- GSRN: The GSRN is being implemented by a task team jointly with GCOS and SC-ON and in collaboration with SC-MINT
- Tiered Networks: lead the original WMO task team producing a concept note approved at INFCOM-2; lead the workshop on the establishment of 2nd task team to implement concept
- Daily Climate: collaborate with WMO for the implementation of the exchange of Daily Climate
- Rolling Review of Requirements: actively collaborates with JET-EOSDE on the application area “Atmospheric Climate Monitoring”

OOPC & WMO

OOPC has become a broker body under the WMO Earth System Approach:

- Well positioned due to its strong bonds to GOOS and to WCRP
- Many experts sitting in teams across the three programmes
- OOPC helps connecting WMO with biogeochemical experts (relevant for G3W)
- Cryosphere: Co-custodianship of Sea-Ice. Sea-Ice expert shared between OOPC and GCW.
- GBON ocean sub-group and definition of requirements for GBON compliance in EEZs (SLP and SST)



OOPC Responsible for RRR - Rolling Review of Requirements:

- AA 3.1 3.1 Ocean Forecasting and Real-Time Monitoring
- AA 3.3 Oceanic Climate Monitoring and Services



At the Secretariat level, OOPC officer well integrated in WIGOS activities related to ocean, including connection with IOC/UNESCO



TOPC & WMO

TOPC has a unique position under the WMO Earth System Approach:

- Monitoring of climate change and impacts on land
- Land contribution to the Global Greenhouse Gas Watch (G3W)
- Biosphere: no counterparts in WMO
- Cryosphere: GCW is ex-officio member
- Hydrology: TT EarthHydroNet Task Team, INFCOM-3 Decision on Hydrological Data Centers (see following slide)
- GBON expansion to hydrological variables for climate applications

TOPC Responsible for RRR - Rolling Review of Requirements:

- AA 4.2 Hydrological and Terrestrial Climate Monitoring
- AA 5.3 Cryospheric Climate Monitoring



Thank you.



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