# Science for Services: towards seamless prediction of the Earth System

**WMO OMM** 

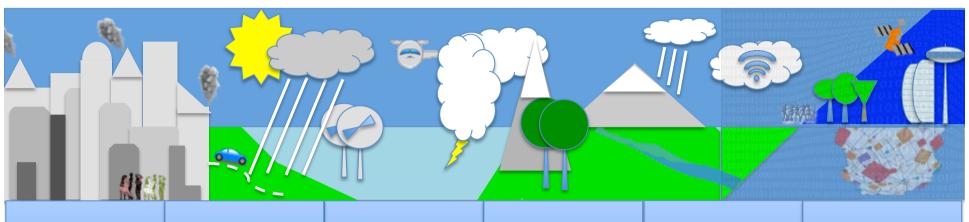
World Meteorological Organization
Organisation météorologique mondiale

Commission



**Atmospheric Sciences** 

### **Addressing six Societal Challenges**



URBANIZATION
Research and
services for
megacities and
large urban
complexes

Integrated
GHG
Information
System:
Serving society
and supporting
policy

WEATHER
and its socioeconomic
effects in the
context of
global change

WATER
Modelling and predicting the water cycle for improved DRR and resource management

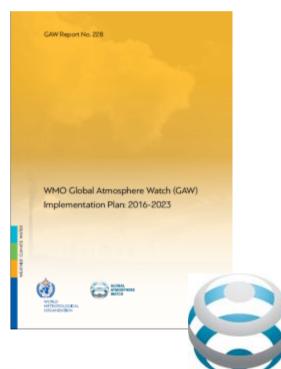
AEROSOLS
Impacts on
air quality,
weather and
climate

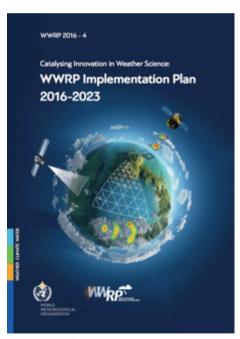
EVOLVING
TECHNOLOGIES
Their impact
on science
and its use



#### CAS is home to

- Global Atmosphere Watch
- World Weather Research Programme
- Working Group on Numerical Experimentation, joint with WCRP









### **Key elements of Science for Services**

- Integrated research approach with co-design and coordination of activities between programmes
- Interactive model for transferring research to operations
- Coordinated Regional activities
- Scientific advances across the research spectrum
  - from basic to applied
- Academic and operational research communities working together

Coordinating modelling activities between WCRP, WWRP and GAW essential for future progress



### WMO Science Agenda will be defined by the upcoming Science Summit and CAS Session

#### Organised around five themes:

**Seamless prediction in 2023:** Improving predictive capacity across weather, climate, water and environment.

**Future infrastructures:** Planning and investing in future infrastructures (computing, data-handling, observations).

**Science for services:** Developing and implementing a new interactive model for integrating research and operations.

**Nurturing scientific talents:** Guaranteeing the sustainable development of science; breaking through geographical, gender and age barriers; ensuring institutional continuity and transfer of knowledge.

**Innovation and resources:** Catalyzing innovation and mobilizing resources in weather, climate, water and environment research globally and locally.





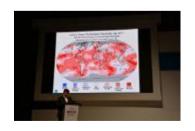




### WMO Science Agenda will be defined by the upcoming Science Summit and CAS Session

Bringing together renowned scientists from different disciplines in public and private sector to address key questions for each theme and derive concrete outcomes, identify roadblocks, and define priorities.

Feeding into decision making in CAS session and recommendations to WMO Executive Council and Congress















## More information at: http://meetings.wmo.int/CAS-17/

Thank you

Merci



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