

Group of Experts on Climate Change- International Transport Networks UNECE

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www.wmo.int



WMO at a Glance

- WMO UN's Specialized Agency on *Weather Climate and Water*
- IMO in 1873 then WMO since 1951
- Composed of 189 Member states and territories
- Eight Technical Commissions (*CCI, CIMO, CAeM and JCOMM*) relevant to transportation industry

WMO's Vision & Mission

Vision:

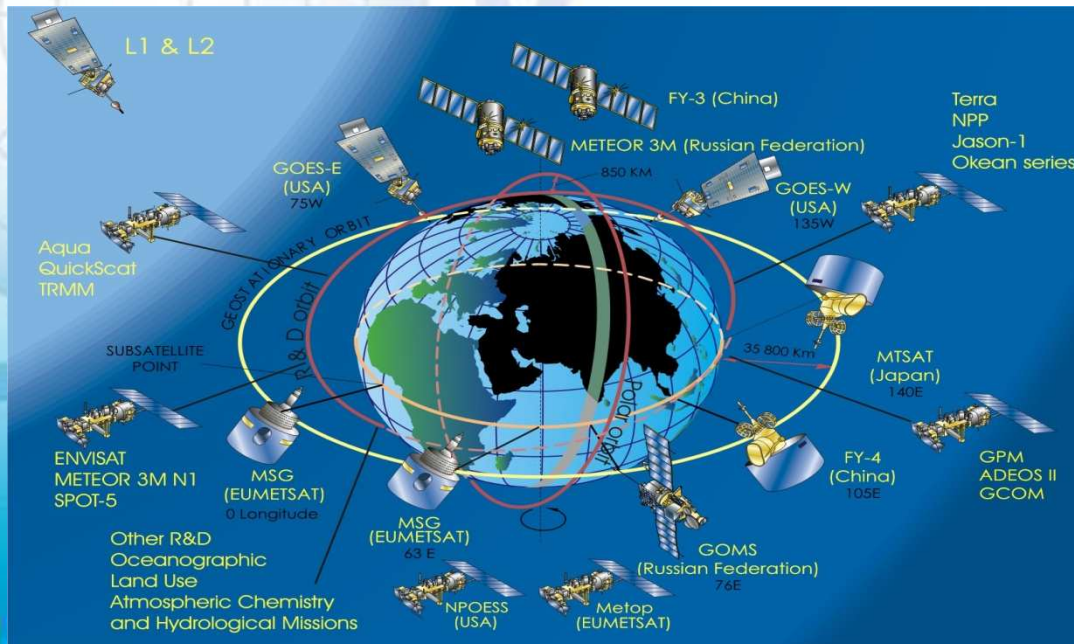
- leadership in expertise and international cooperation in weather, climate, hydrology

Mission:

- Facilitate establishment of observation networks
- Promote systems for rapid exchange of Met. Information
- *Further the application of Met. to aviation, shipping, water, agriculture, ...*
- Promote operational hydrology
- Encourage research and training

WMO monitoring and observations

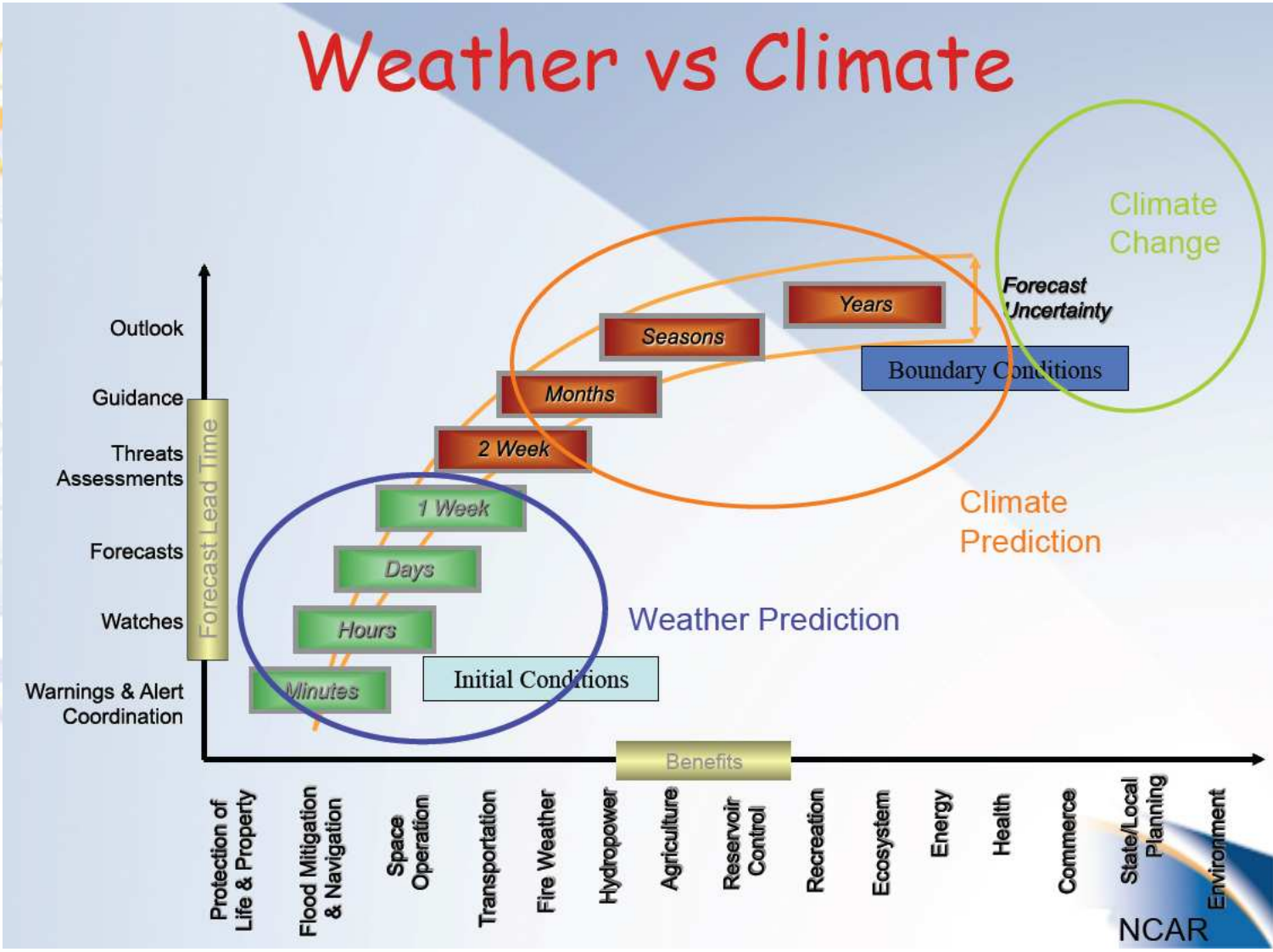
- ✓ WMO Integrated Global Observing Systems (WIGOS) implementation
- ✓ WMO Information System (WIS) development



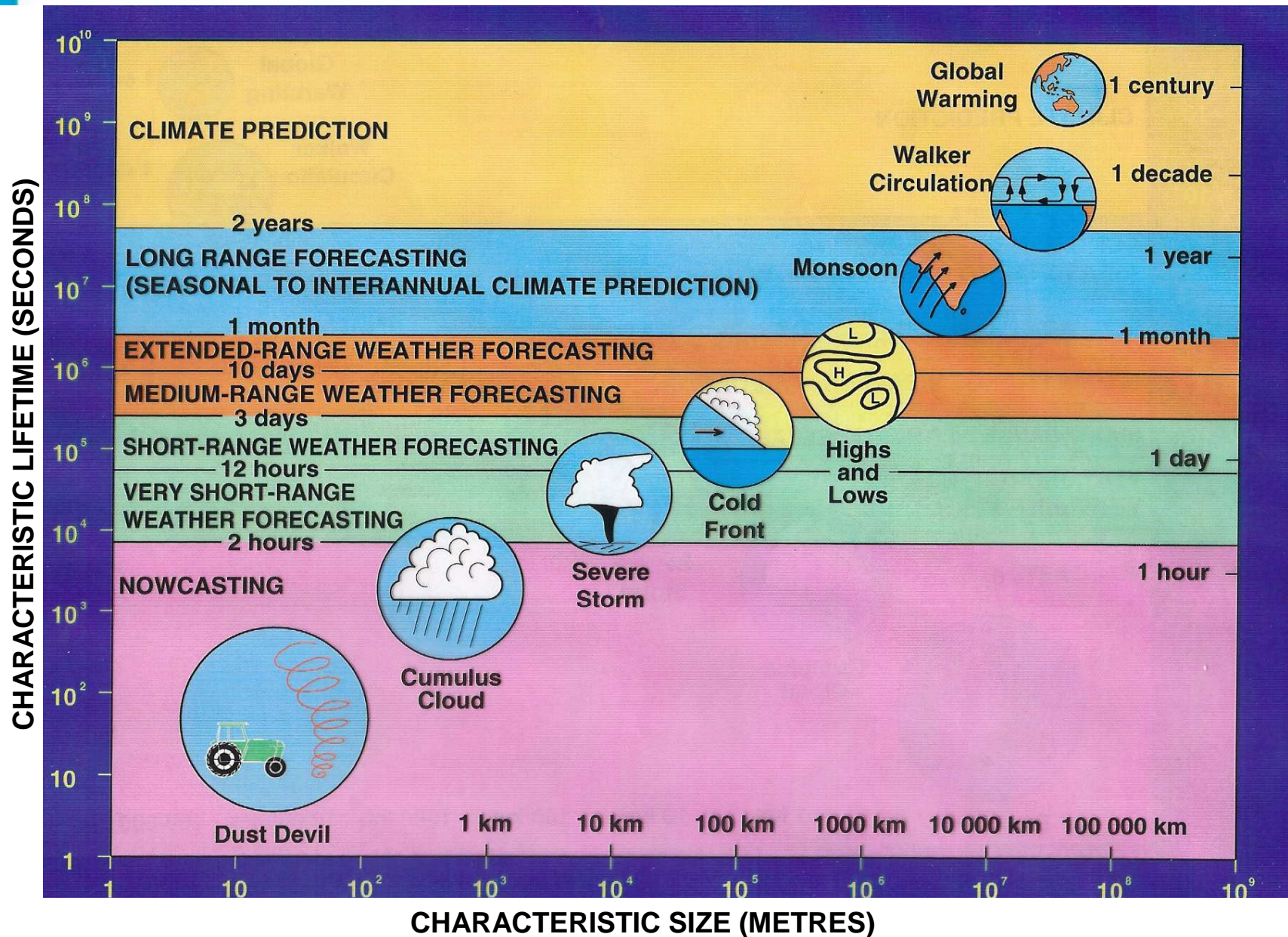
- ✓ Support to the IPCC and UNFCCC
- ✓ Disaster risk reduction
- ✓ Sustaining the needs of the developing world

A seamless transition from weather to climate prediction

Weather vs Climate

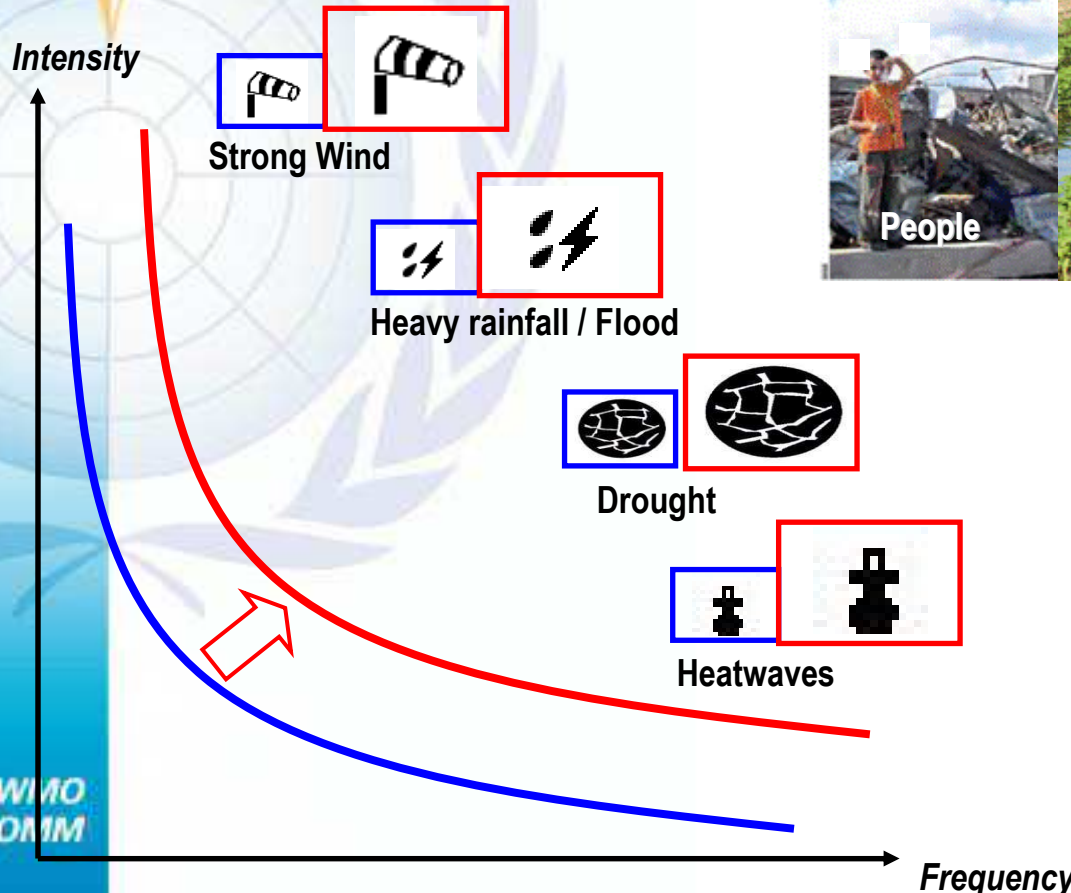


TIME AND SPACE SCALES OF CLIMATE PHENOMENA



IPCC 4th Assessment: Socio-economic Impacts of Climate-Related Extremes on the Rise !

Hazard intensity and frequency increasing linked to climate variability and change!

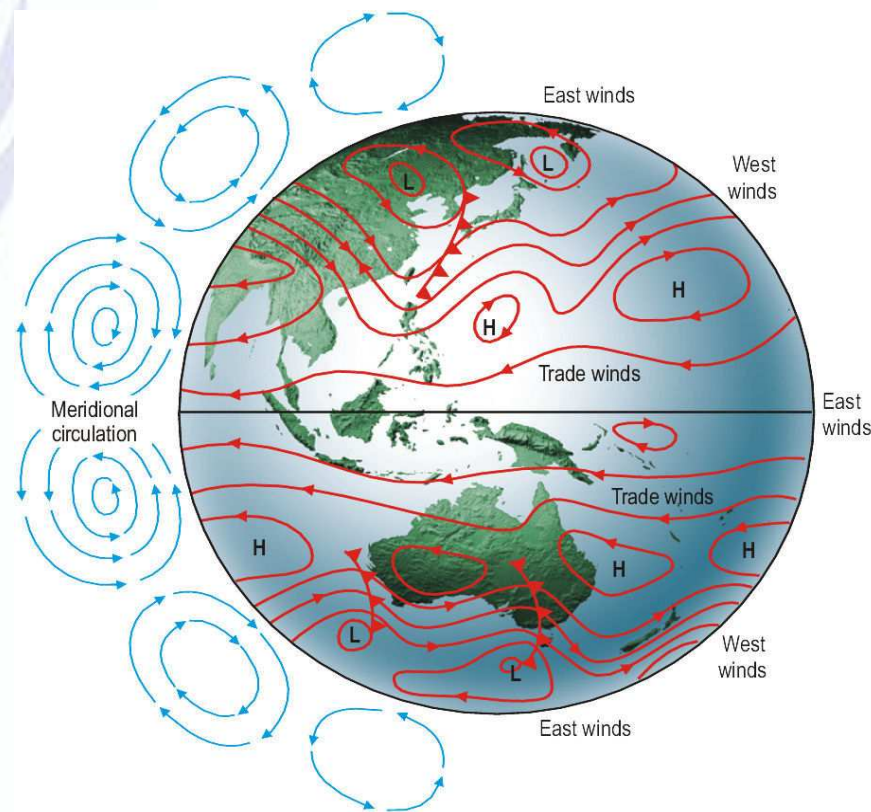


Vulnerability and exposure on the rise !

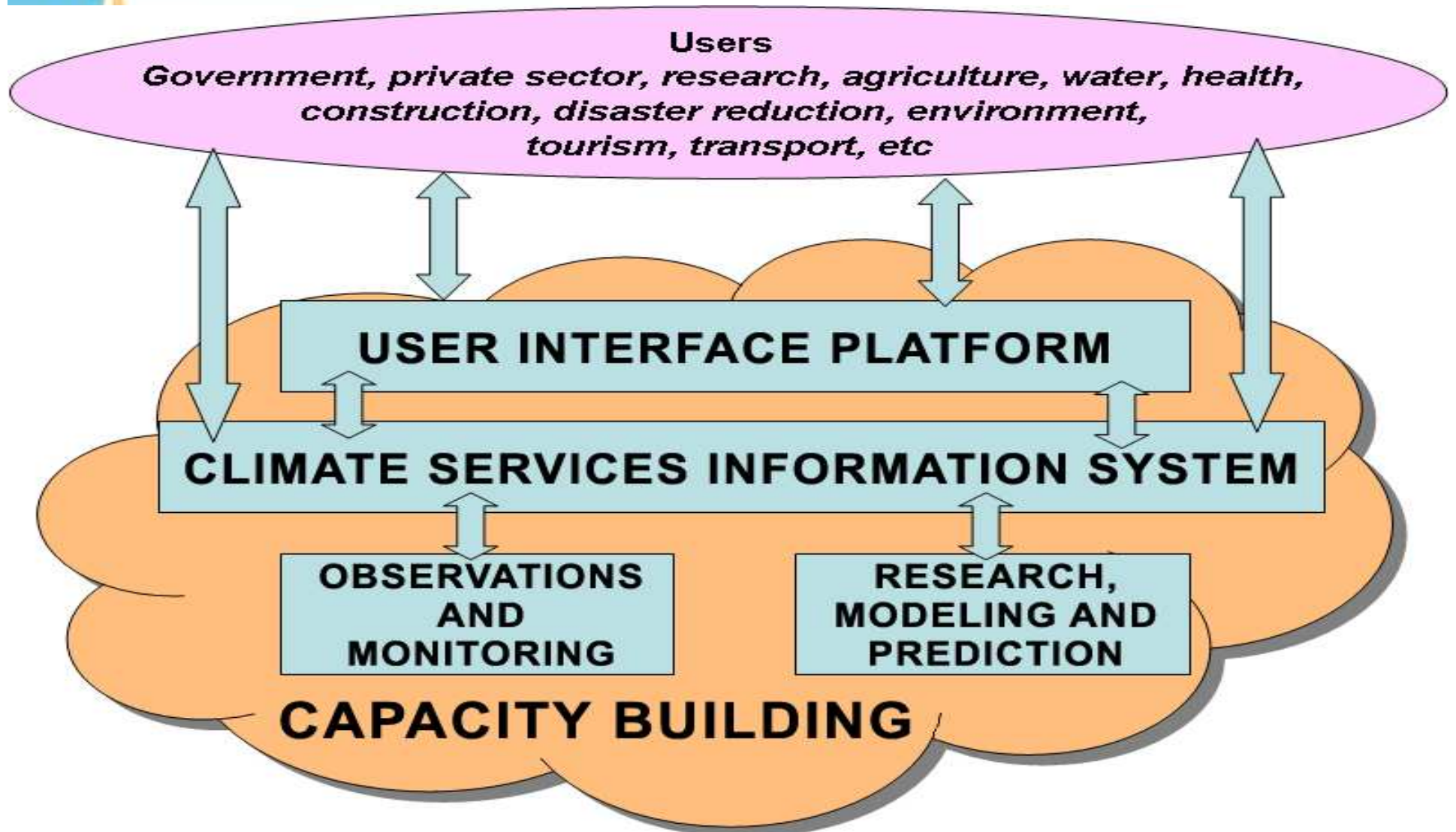
Need for
Multi-sectoral risk
management

Global Framework for Climate Service (GFCS)

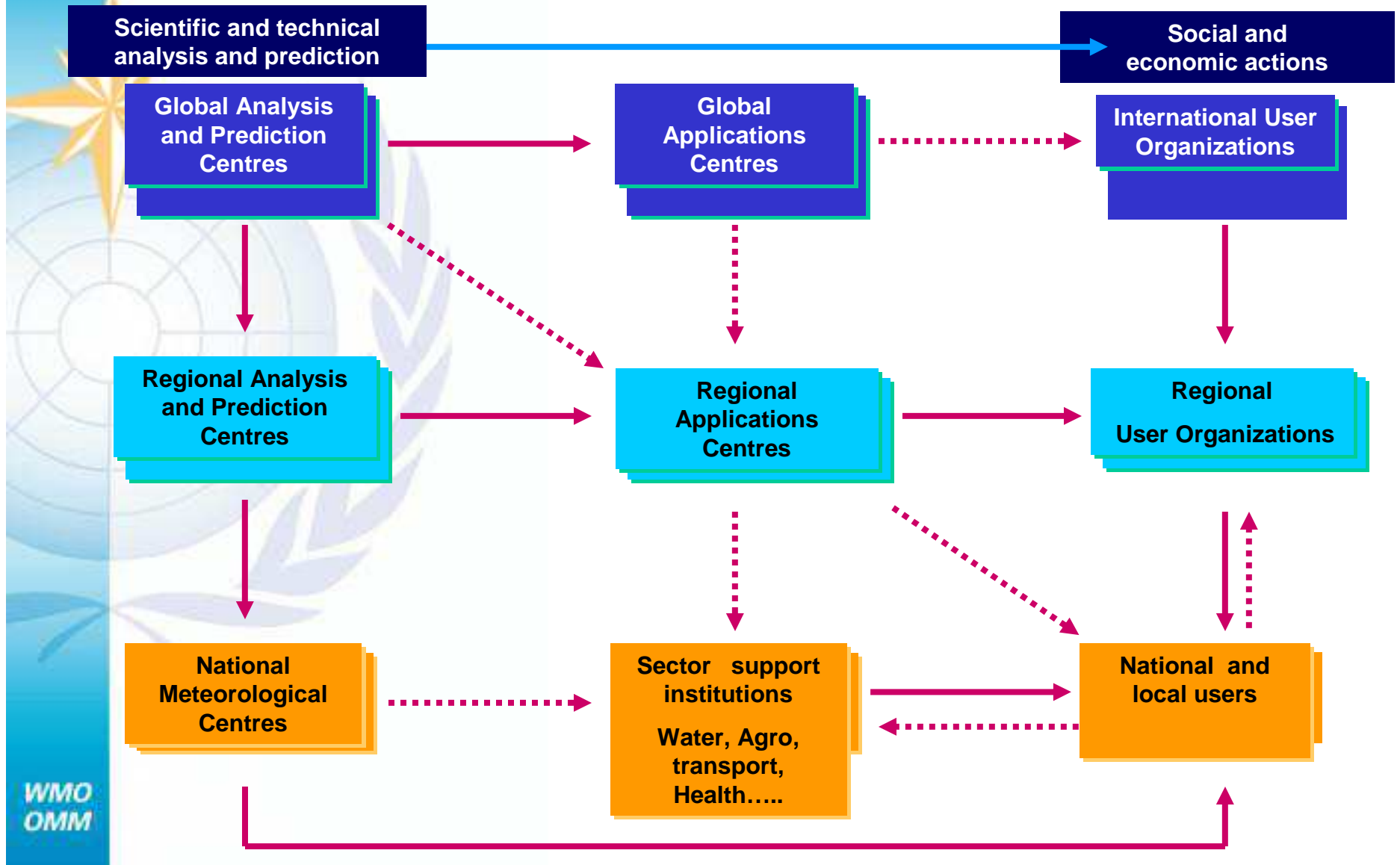
“ Enable better management of the risks of climate variability and change at all levels, through development and incorporation of science-based climate information and prediction into planning, policy and practice.”



Components of the GFCS



Climate information flow from producers to end-users



EWENT

Extreme Weather impacts on European Networks of Transport

EWENT:

- Evaluate the efficiency, applicability and finance needs for adaptation and mitigation measures.
- The tolerability of the estimated risks and related costs resulted by extreme weather

Weather affects the ***operation*** of the transportation systems that we all rely on ... ***Climate***, on the other hand, affects transportation ***infrastructure***.

M. McGuirk et al.



Conclusion

- Transportation is a highly sensitive sector to weather & climate
- WMO and NMHSs provide technical and scientific knowledge for transportation
- Science defines: Geographic scale, timeframe, intensity/frequency of effect with higher degree of certainty
- Adaptation efforts in transportation sector needs multi-sectoral partnership



Thank You

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