



Theme 4 Preparatory Workshop: Data exchange for Earth System Monitoring and Prediction

28 October 2020 - 14h00 to 16h00 CET (online)

The purpose of the online Preparatory Workshop on "***Data exchange for Earth System Monitoring and Prediction***" is to have an initial discussion on Earth system monitoring and prediction as a policy driver, data requirements and data maturity. A fundamental principle of seamless prediction is that the Earth-system exhibits a wide range of dynamical, physical, biological, and chemical interactions involving spatial and temporal variability continuously spanning all weather/climate scales. Over the next decades, we expect a better integration of observing systems to support optimally global and regional Numerical Earth-system Weather-Climate Prediction (NEWP) systems. An integrated observing network will meet the demands of weather and climate forecasting spanning time scales of minutes to decades in a cost-effective manner. One of the important challenges of NEWP for the next decade is to gain access to, and/or invest in, required observations and modeling resources from a range of earth-system components (e.g. oceans, cryosphere, and biosphere). Communities external to WMO are leading development in some of these areas. WMO policies, practices, and activities that support, intersect, and advance such activities could effectively leverage these efforts. Assessing the optimal investment balance across this range of observations and associated NEWP capabilities should be founded on evidence-based tools whenever possible (requiring new earth-system assessment capabilities).

Workshop Format

The workshop will feature invited presentations in which the speakers will provide a range of different perspectives on the overall topic guided by the following questions:

1. What are the data needs and requirements to move to a seamless Earth System Monitoring and Prediction?
2. In recognition that these data may be developed, coordinated, and/or supported by organizations outside of WMO, how can we encourage data access and provision for multiple user needs?
3. Could WMO coordinate efforts to develop a community of earth-observing system assessment/design (e.g. OSE/FSO) best practices to help NMHSs and other communities to take informed decisions in their investments?

Following the presentations, a Q&A session involving all Workshop participants and moderated by the Co-Chairs will take place.

The Workshop will conclude with a brief wrap-up session during which the Co-Chairs will aim to draw out salient points captured during the presentation and subsequent discussion.

The expected outcome will be: A report to the WMO Data Conference in November, summarizing views on which elements of the current WMO Data Policy do or do not work, what we think will need to change, and how.

Workshop Co-Chairs:

- Dr. Gilbert Brunet, Chief Scientist and Group Executive Science and Innovation, Bureau of Meteorology, Melbourne, Australia and Chair of the Science Advisory Panel, WMO
- Dr. David Legler, Director, Global Ocean Observing and Monitoring Program, NOAA

Time	Item /Title	Speaker/Presenter
14:00–14:10	Welcome and opening remarks from Workshop Co-Chairs: <i>“Data exchange for Earth System Monitoring and Prediction”</i>	Gilbert Brunet David Legler
14:10-14:20	Introduction from WMO: “Data exchange and data policy from the WMO Convention via Resolutions 40, 25 and 60 to Resolution 42”	Anthony Rea Lars Peter Riishojgaard Jürg Luterbacher
14:20–14:35	Invited presentation 1: Observational Data Requirements for Earth system prediction.	Stephen English, ECMWF
14:35–14:50	Invited presentation 2; Data providers perspective (ARGO)	Toshio Suga, Tohoku University, Japan
14:50–15:05	Invited presentation 3: Observing System Design through Impact Studies; the NWP experience	John Eyre, Met Office, UK
15:05–15:20	Invited presentation 4: Observing System Design through Impact Studies; Developments in ocean/coupled Model Systems	Elisabeth Remy, Mercator Ocean International
15:20–15:45	Q&A; discussion	Moderated by the Co-chairs
15:45–16:00	Wrap-up	Co-chairs; Secretariat Lars Peter Riishojgaard Jürg Luterbacher

Link to register to workshop on theme 4

https://zoom.us/webinar/register/WN_he_sjv5jTs6uUMahCa1OGg?_xzm_rtaid=aF4i3yO5QBqIhJtOqWW9uQ.1601022383503.52ff8a9bab0a206efd056ba6f451a052&_xzm_rhtaId=333