

# WCRP matters and implications for WGNE

**WGNE 30<sup>th</sup> session**  
**23-26 March 2015**  
**NCWCP, College Park, MD, USA**

**M. Rixen, WCRP JPS, Geneva**

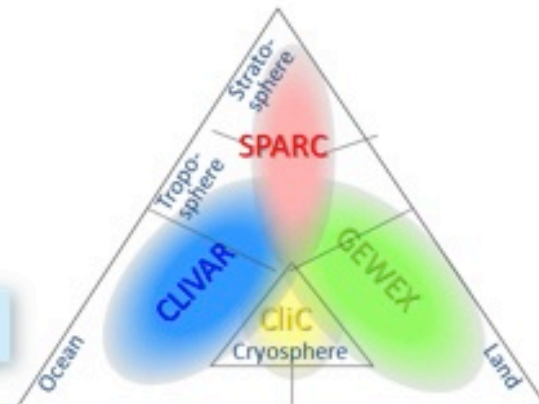
# Mission & Objectives

-  **World Climate Research Programme** supports **climate-related decision making** and **adaptation planning** by coordinating research required to improve
- (1) climate predictions and
  - (2) understanding of human influence on climate

*“for use in an increasing range of practical applications of direct relevance, benefit and value to society”*

*(WCRP Strategic Framework 2005-2015).*

# WCRP Organization



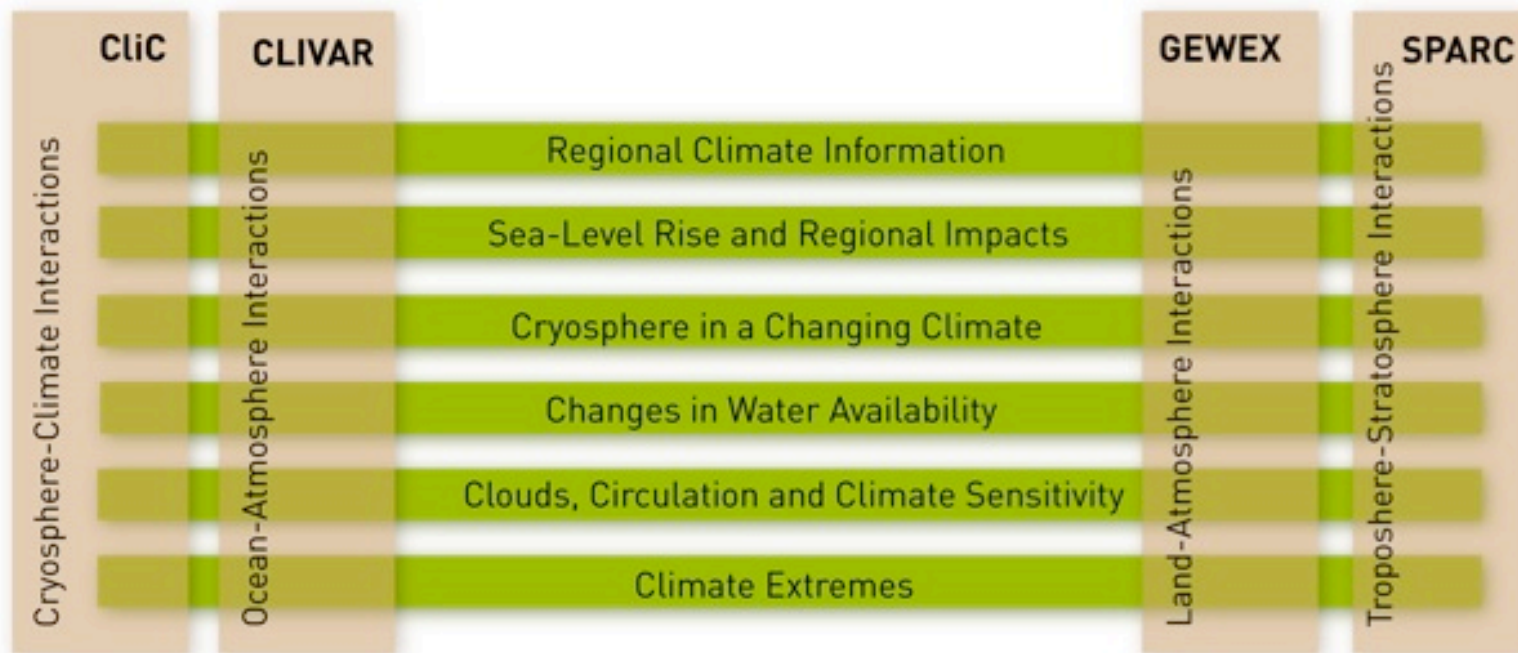
Joint Scientific Committee

Joint Planning Staff

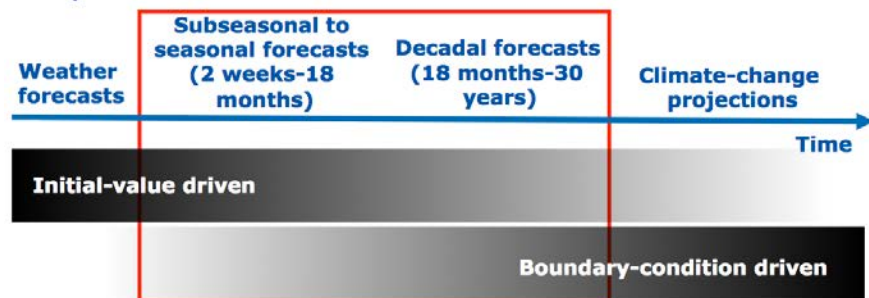
Modeling Advisory Council

Data Advisory Council

**Working Groups on:** Coupled Modelling (WGCM), Regional Climate (WGRC), Seasonal to Interannual Prediction (WGSIP), Numerical Experimentation (WGNE)



- Increased convergence of visions between weather, climate and environmental communities towards seamless research (e.g. CCMM workshop, PPP-PCPI, S2S, MJO, Cg-17, OSCs, HIW-GC Extremes, etc)



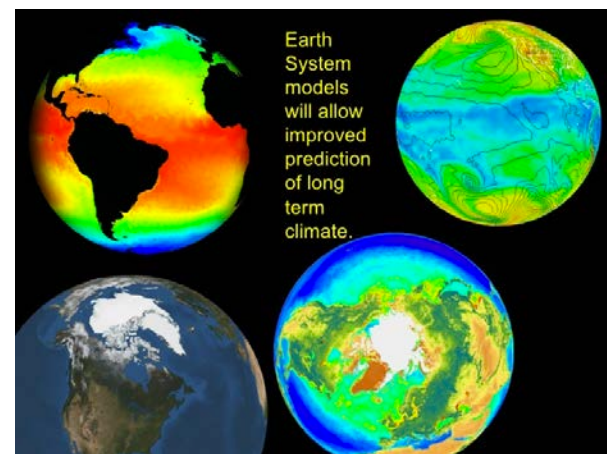
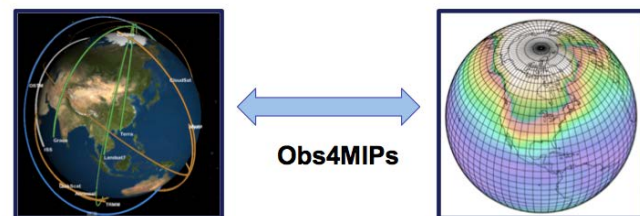
- Strategic challenges:

- Critical mass of research: new complexity in process understanding
- Seamless value chain beyond numerical modeling itself (observations, metrics, verification, dissemination, research vs operations/services, etc)
- Governance: currently still largely fragmented
- Shrinking resources: think smart, innovative approaches, breaking cultural and organizational barriers



# WCRP Data Advisory Council

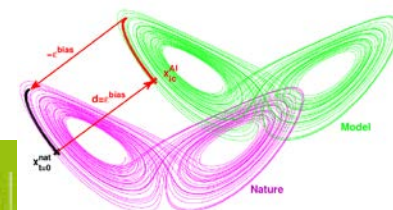
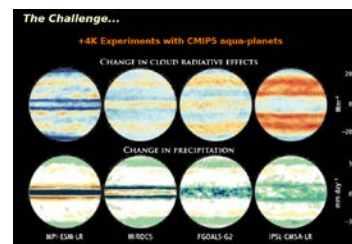
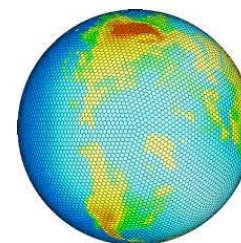
- Data dissemination and archive: Earth System Grid Federation, obs4MIPs and ana4MIPs
- Flux task team: support interfacing Earth System components through coupling
- Earth System Reanalysis: reference for further model development
- WDAC4: ECMWF, 2-3 July 2015





# WCRP Modeling Advisory Council

- Summer school on Model Development, MPI, 15-26 June 2015
- WCRP/WWRP International Prize for Model Development
- WMAC4: WMO, 9 April 2015 (JSC36)
  - Urban complexes, megacities
  - Systematic errors and transpose-CMIP
  - Initial shocks and drifts in climate predictions



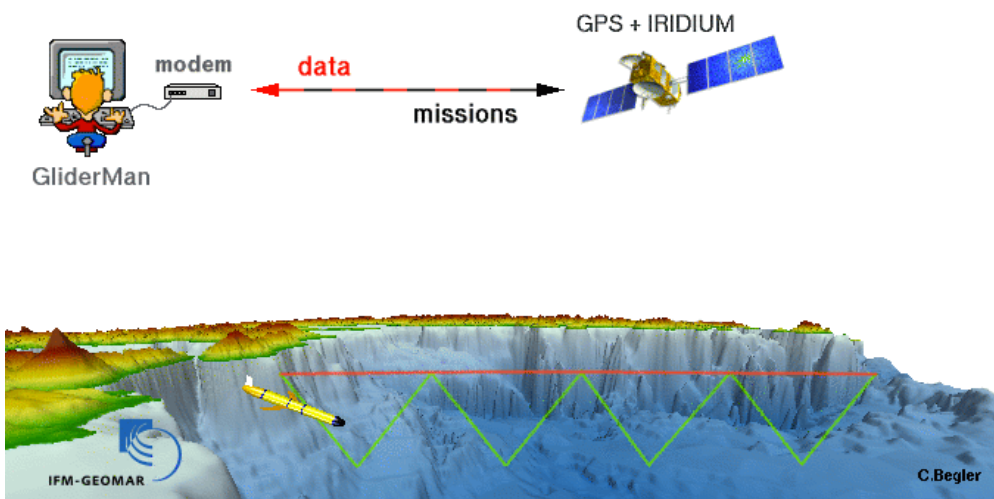
# Thank you for your attention!

Special thanks to NCEP, Michael Ek and  
colleagues!



# WCRP – Polar Challenge

Be the first to complete a 2000 km continuous mission with an autonomous underwater vehicle (AUV) under the sea ice



<http://www.wcrp-climate.org/polarchallenge>