



A Vision for WCRP

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WCRP's Mission

To facilitate **analysis** and **prediction** of Earth system **variability** and **change** for use in an increasing range of practical applications of direct **relevance**, benefit and value to **society**.



5 Foci



1. **Observing changes** in the components of the Earth system (atmosphere, oceans, land and cryosphere) and in the interfaces among these components;
2. **Improving our knowledge** and understanding of global and regional climate variability and change, and of the mechanisms responsible for this change;
3. **Assessing and attributing significant trends** in global and regional climates;
4. **Developing and improving numerical models** that are capable of simulating and assessing the climate system for a wide range of space and time scales;
5. **Investigating the sensitivity of the climate system** to natural and human-induced forcing and estimating the changes resulting from specific disturbing influences.

12 Vision Statements



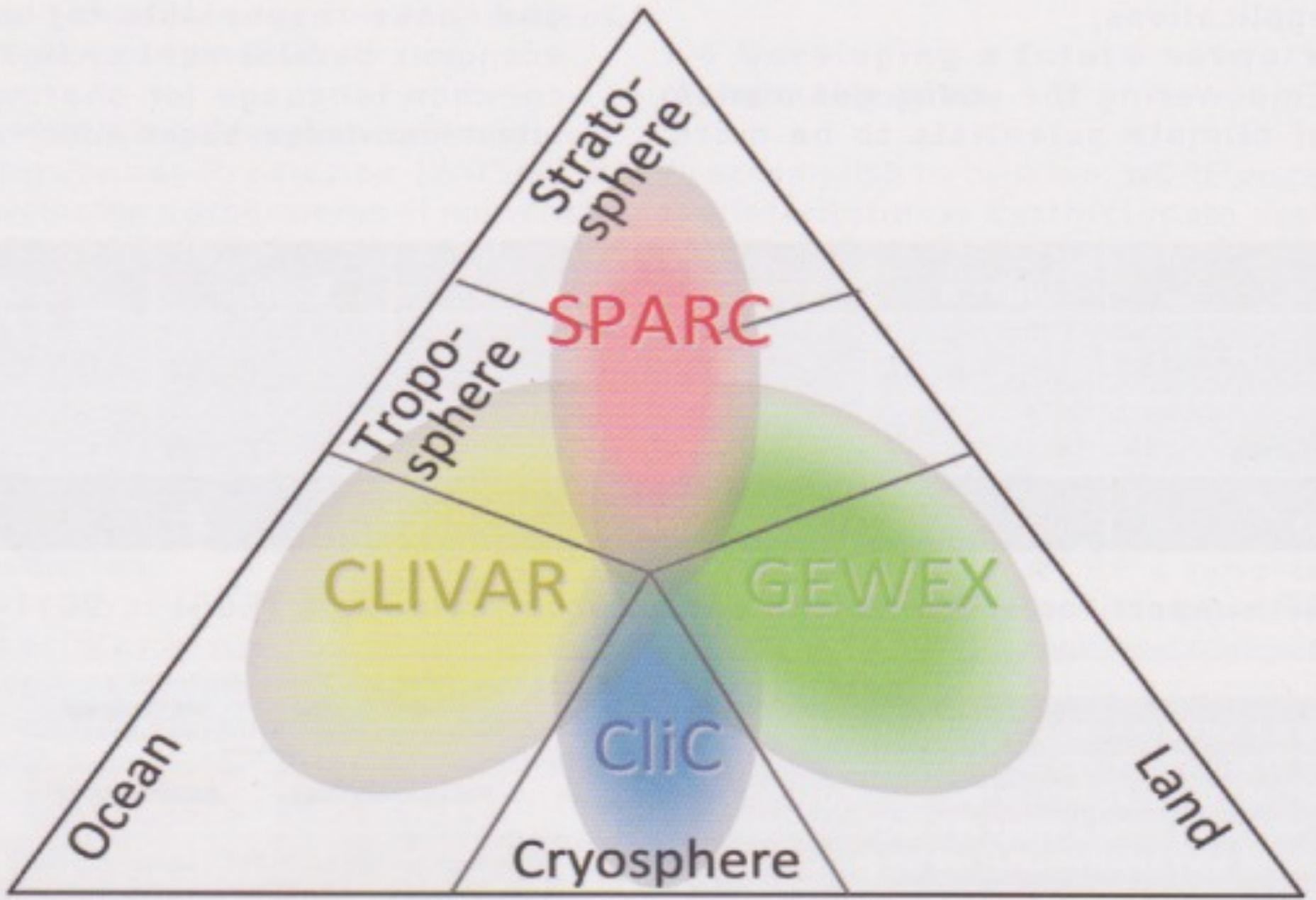
1. Support Frontier Research



- Our first objective is to develop activities in support of the most **advanced** fundamental research dealing with the dynamics and physics of Earth's components and the interactions between these components. It is to assess how these fundamental processes affect the **dynamics of the Earth system** and how they are perturbed by human activities.
- A **expanded focus** should be developed on issues related to natural (internal) modes of variability, and seasonal-to-decadal predictions

2. Support the 4 Core Projects

- CLIC
- CLIVAR
- GEWEX
- SPARC
- Reassess how the **integration** of their science can support the overall mission of WCRP
- Reassess how the contributions of WCRP **Working Groups** can support the goals of the core projects and grand challenges



3. Make the Grand Challenges Successful

- Activities around the grand challenges will be **central** to the success of WCRP.
- A grand challenge is an activity that mobilizes the scientific community around a **focused** single **question** that is **scientifically challenging** and **societally relevant** with the hope that it can be (at least partially) answered with approximately **5 years**.
- The question must therefore be **clearly stated**. Addressing the question may request some **broader** perspective and contributions

WCRP Organization

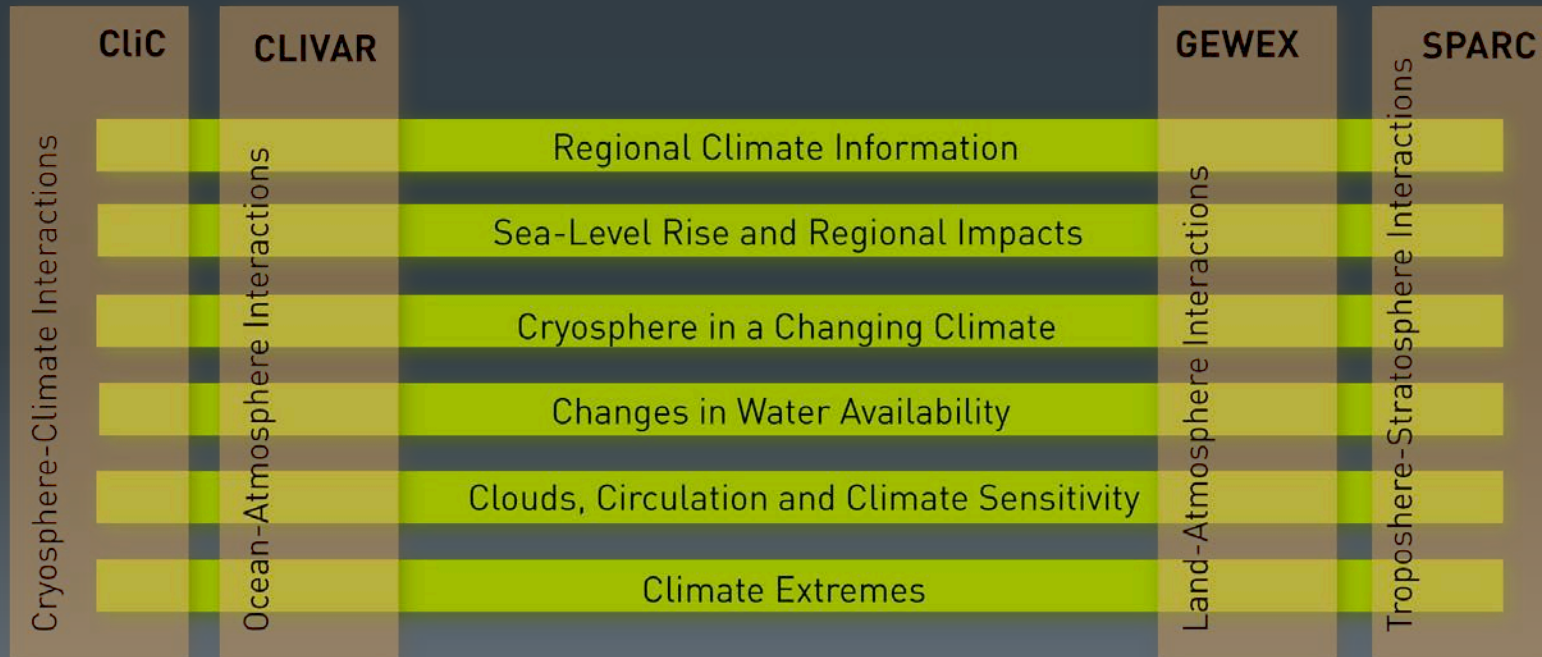
Joint Scientific Committee

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)



4. Introduce New Research Themes

- The WCRP-IPCC meeting in Bern has highlighted several new themes:
 - Climate modes of variability, climate cycles, seasonal-to-decadal predictions
 - The dynamics, physics and biogeochemistry of the ocean
 - The biogeochemical cycle of carbon and other elements
 - Aerosols, clouds, atmospheric chemistry
 - Urbanization and climate change

5. Develop an active interface between WCRP and “downstream” activities

- I suggest that we establish a permanent process by which WCRP synthesizes relevant scientific information and provides this information to relevant institutionalized groups including:
 - IPCC
 - Future Earth
 - GFCS
 - Climate Information Providers (e.g. ECMWF CCCS initiative, national climate services, meteo. services)
- This **interface** should support **two-way** interactions and information exchanges

6. Enhance the Regional Presence of WCRP

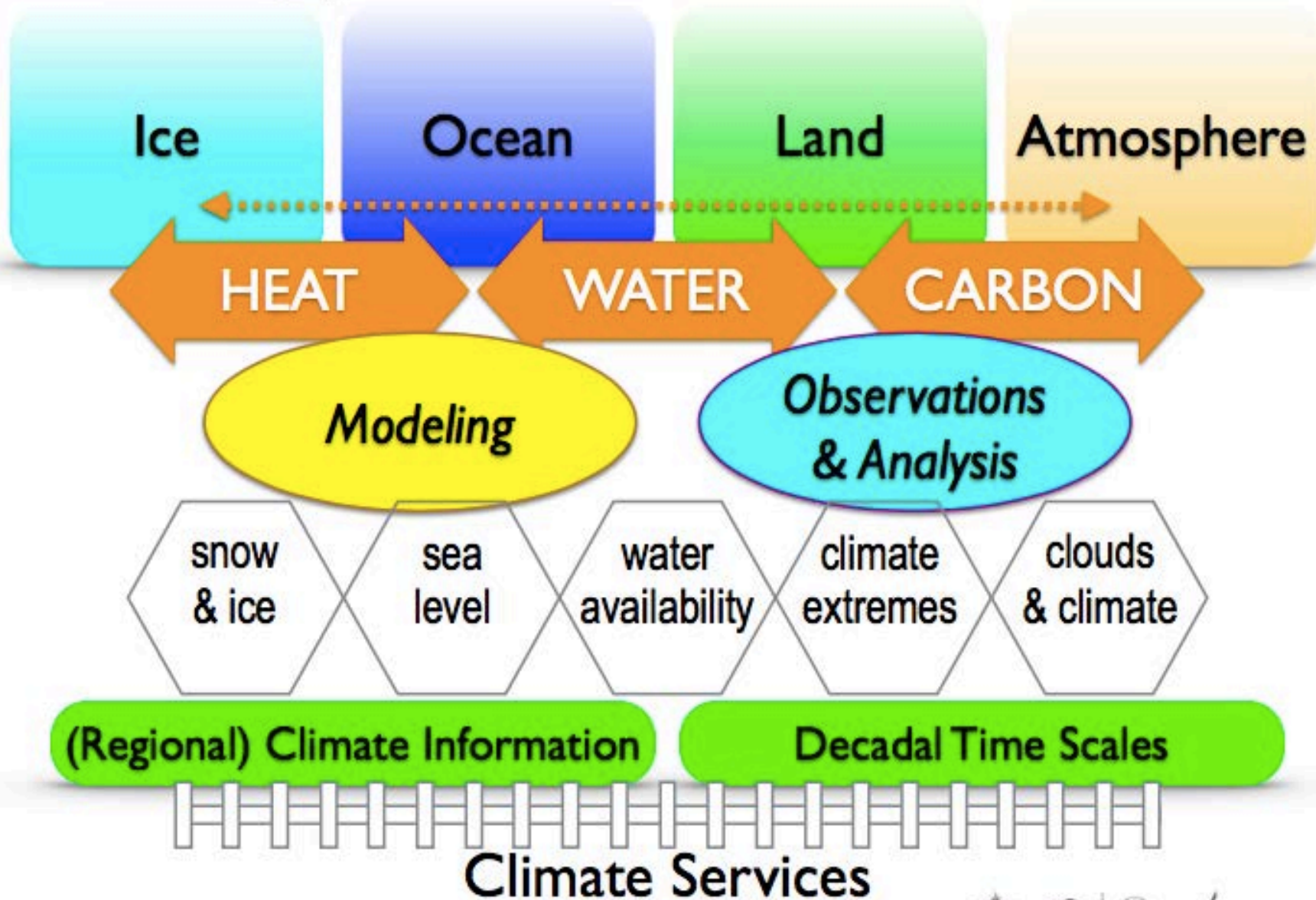
- WCRP remains primarily a “northern/western” hemisphere activity.
- I suggest that we develop a multi-year strategy that supports the organization of **regionally focused activities** with related workshops and symposia organized in **cooperation** with regional institutions (e.g., space agencies, meteorological services) to attract and **involve regional scientists**.
- Climate Research for Development (CR4D) in Africa and Latin America Climate Change (LACC) initiatives are excellent examples of such projects.

7. Develop a Sustained Capacity Development Program

- Capacity building initiatives by WCRP lack coherence with no long-term perspective.
- Our relation with START does not seem to be a sufficient approach.
- A **JSC group** could think about the most appropriate approach towards a sustained capacity building activity and how to integrate it into the WCRP strategy. (see agenda of JSC-36)

8. Simplify the Structure of WCRP

- The current structure of WCRP is **complex** and is the result of historical developments.
- Time has come to make the structure more **efficient**, exempt of too much duplication and service clear objectives with noticeable **deliverables**.
- For example, The WCRP Modeling Advisory Council (WMAC) could become the coordination body for many Working groups on modeling questions.





9. Favor Diversity

- Geographic diversity
- Disciplinary diversity
- Gender balance
- Develop a strategy attract a **new generation** of scientists
- Better involve key world-class **institutions** dealing with earth system science or operational activities in the activities of WCRP.

10. Develop a New Public Relation Approach

- I propose that we establish a working group to develop within the next 6 months a **modernized plan** towards an efficient communication strategy for WCRP and its different projects. We will hear this morning about communication and outreach strategies.
- More efficient relations with national funding agencies, key research institutions and operational activities (incl. climate services) and other stakeholders much be established.

11. Enhance the Role of the JSC Members

- Regular involvement through **periodic teleconferences**
- Effective regional role of JSC members as **ambassadors** of the Program in their part of the world.
- Leaders of **think tanks** that could lead to new initiatives by WCRP.
- Other?

12. Develop a long-term Funding Strategy

- The current **funding for WCRP** and its different projects and working groups is not sustainable.
- The competition for funding with other programs becomes an issue.
- **New sources of revenue** need to be identified.
- New funding will be granted only if WCRP's relevance is made clear with appropriate deliverables
- A **JSC working group** could suggest ways to increase the WCRP budget.



And finally.....

- A second Climate conference in **2018**? (Follow-up of the Denver conference).
- If so, around which theme? Grand Challenges? Definition of new grand challenges?
- This conference introduces a deadline and an **horizon** for ongoing initiatives.

Thank You

