

# WORLD CLIMATE RESEARCH PROGRAMME Update

*Michel Rixen  
WDAC6 meeting  
22-23 March 2017  
Frascati, Italy*



# WCRP's mission....

... is 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.

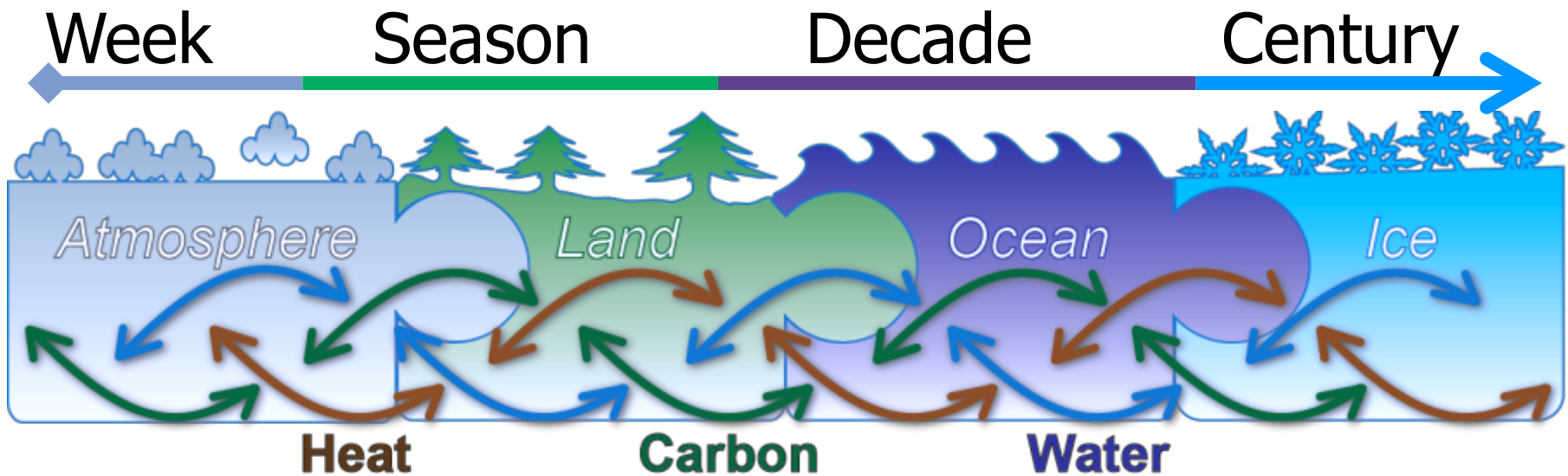
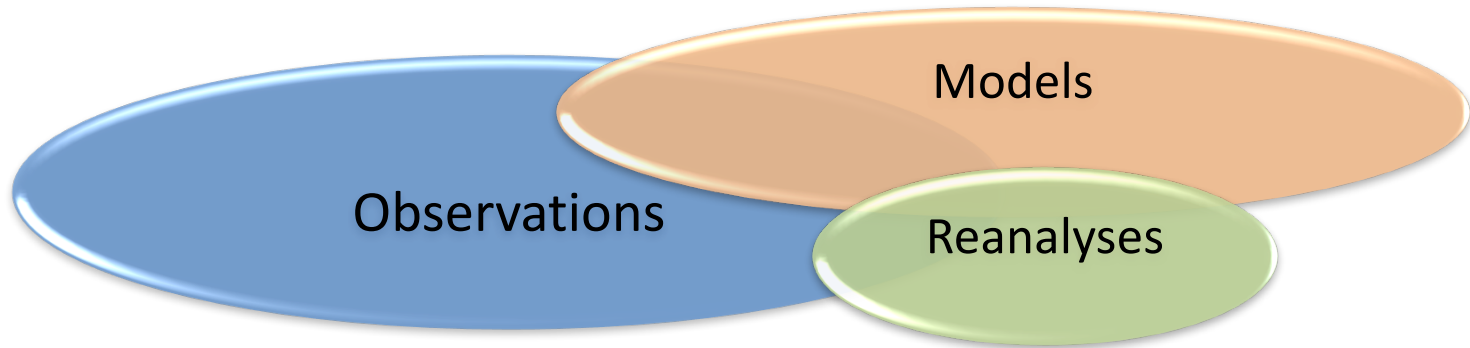
*The two overarching objectives of WCRP are:*

to determine the predictability of climate

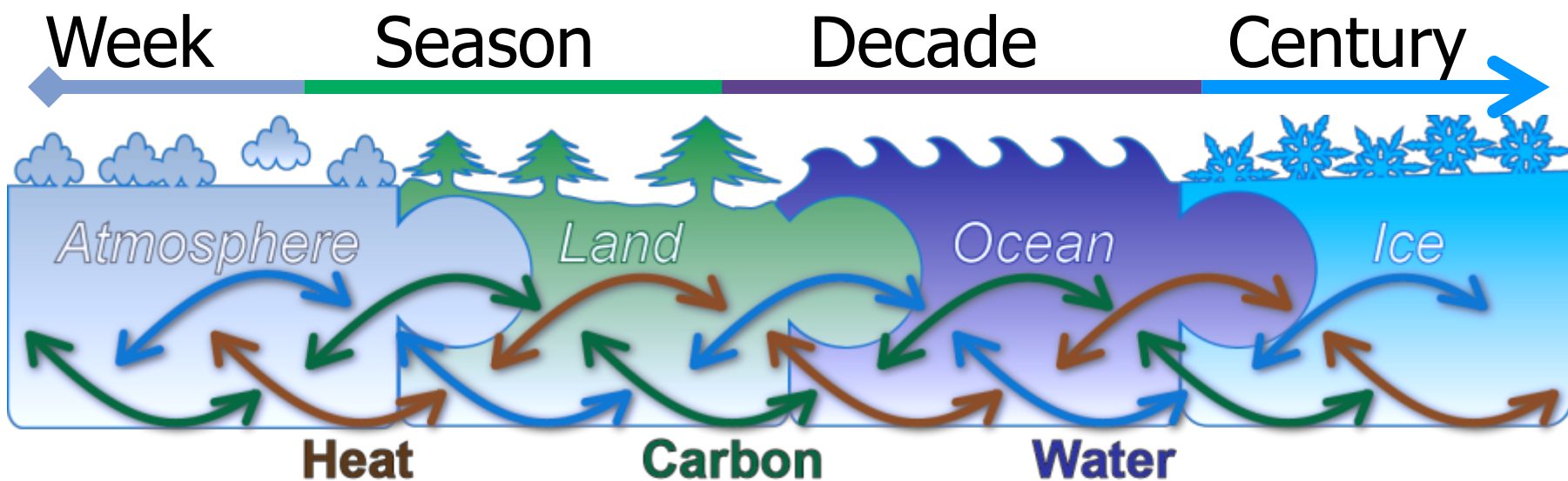
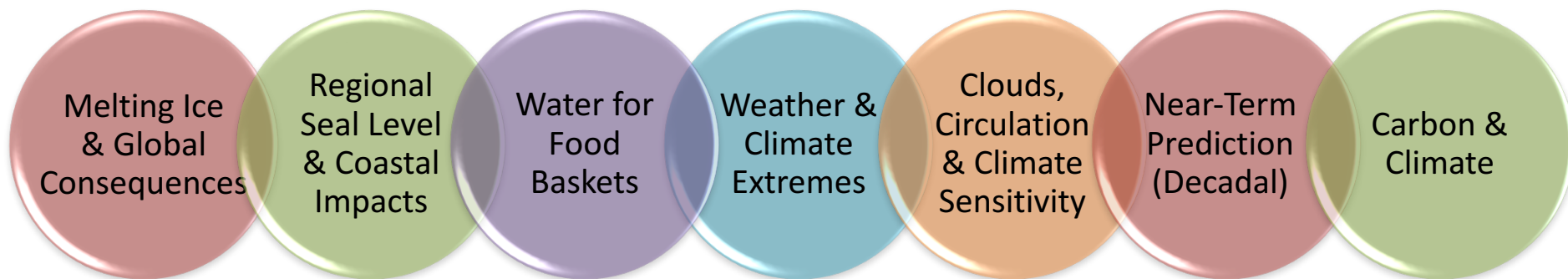
to determine the effect of human activities on climate



# Scope and tools



# Focus



# WCRP Structure

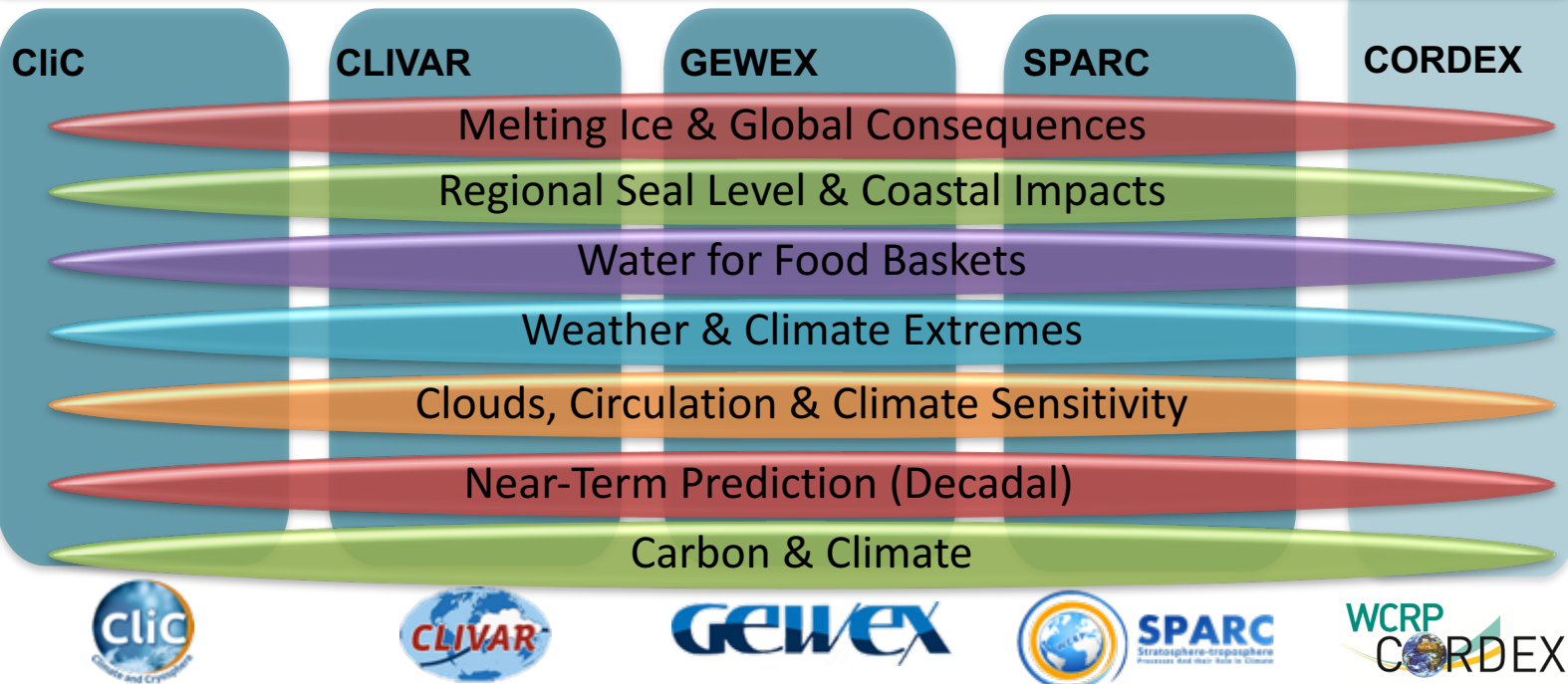
Joint Scientific Committee

Joint Planning Staff

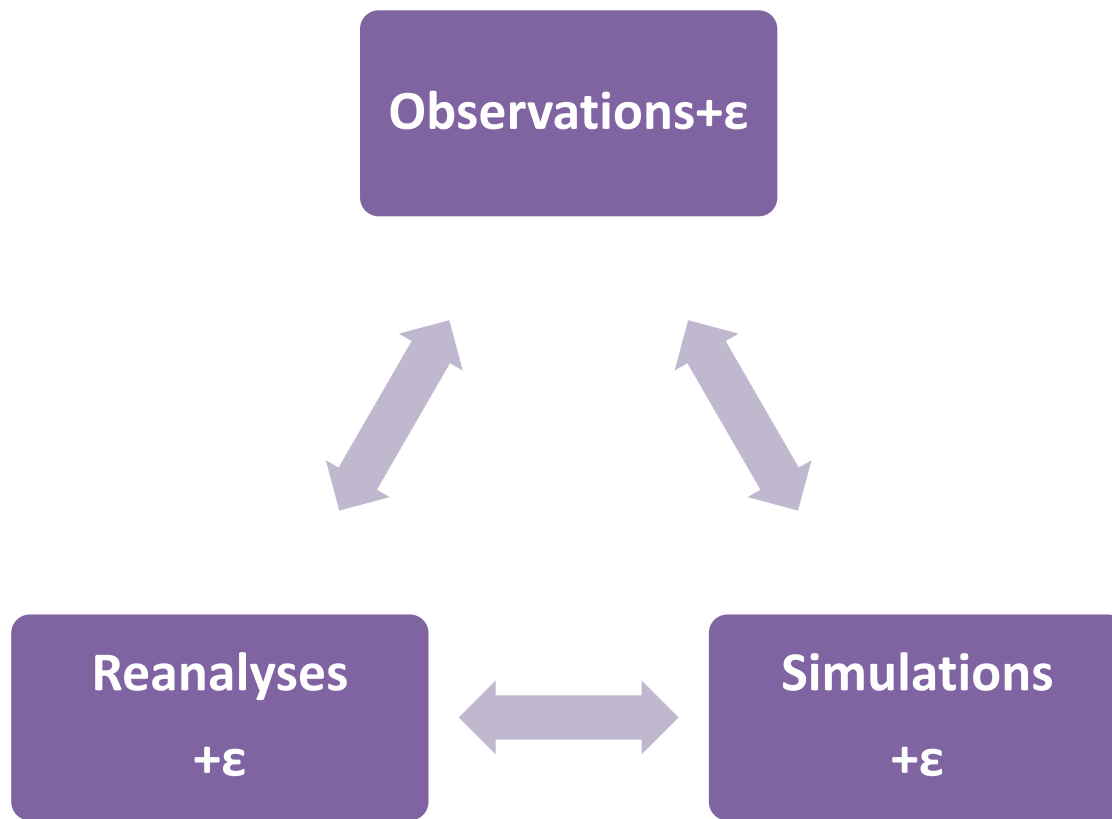
Modeling Advisory Council

Data Advisory Council

**Working Groups on:** Numerical Experimentation (WGNE), Sub-seasonal to Interdecadal Prediction (WGSIP), Coupled Modeling (WGCM), Regional Climate (WGRC)



# WCRP vision for a data infrastructure: Earth System Grid Federation



# WCRP Strategy

- Draft “WCRP Ahead” document as reference for the WCRP sponsors’ review and JSC38 session
- Current dialogue within WMO towards integrated science and technology strategy, e.g.
  - possible overarching Science and Technology Advisory Council comprising some of the best minds in the field
  - possible replacement of CAS by an agile Research Implementation Group

## DRAFT AGENDA

Monday, 3 April		Tuesday, 4 April		Wednesday, 5 April		Thursday, 6 April		Friday, 7 April	
09:30 - 10:30	(09:30 – 11:00) Weather-Chemistry-Climate (JSC Officers, CP Co-chairs, WMO/CAS, WWRP, GAW) Room VIII	(09:30 – 10:45) Core Project parallel sessions (all JSC, CP Co-chairs and IPOs, all interested participants)		09:30 Regional scoping (decisions) 09:50 CORDEX report 10:10 CMIP report Room IX		09:00 Information & Business • Communication • Urban climate activities • JPS report (Other Partners' reports) Room IX		Additional as required Room VIII	
		CliC Room IX	GEWEX Room VIII						
Tea/coffee break									
11:00 – 12:30	break	(11:15 – 12:30) Core Project parallel sessions (all JSC, CP Co-chairs and IPOs, all interested participants)		11:00 ECR activities & Capacity Development 11:20 WMAC report 11:40 WDAC report 12:00 Report of Tuesday CP parallel sessions Room IX		11:00 Business • Finances • Succession planning • Response to review Room IX		Additional as required Room VIII	
	(11:30 – 13:00) JSC Strategic discussion (all JSC, CP Co-chairs, CP IPOs) Room VIII	CLIVAR Room IX	SPARC Room VIII						
Lunch break									
END OF SESSION									
13:30 - 15:30	Lunch break	13:30 Official opening (WMO, ICSU, IOC)		13:30 Grand Challenges Room IX		JSC Executive Room VIII			
	(14:00 – 15:30) JSC Strategic discussion cont. (all JSC, CP Co-chairs, CP IPOs) Room VIII	14:00 UNFCCC 14:15 IPCC 14:30 Vision & setting (Chair JSC) Room: IX							
Tea/coffee break									
16:00 – 17:30	JSC Strategic discussion cont. (all JSC, CP Co-chairs, CP IPOs) Room VIII	16:00 GCOS 16:30 PAGES report 16:50 Report of Monday meetings Room IX		16:00 Discussion: Science coordination & priorities Room VIII		JSC Executive cont. Room VIII			
	Self-organized dinner								

Meeting rooms VIII and IX are at the session's disposal throughout the week 3-7 April 2017 and can be used for breakout sessions, if required.



# WCRP Budget

- Budget pressure on WCRP:
  - Reduced sponsors' and national contributions
  - 2 FTE Admin Assistants now paid from our Trust Fund
- Impact on observations, data and modeling activities:
  - From 200K to 80K a year
  - Impact to be conveyed to JSC

# WCRP Data Policy

## Summary

(published Jan 2017)

The following is a summary of the **World Climate Research Programme (WCRP) Data Policy**. WCRP encourages **promotion** of and **open access** to scientific data. Where research data is **fully owned by WCRP**, including any of its projects or bodies, these data should be made **freely available**, through adequate mechanisms and to the maximum extent possible. Where WCRP projects hold the **copyright to databases** that they created from external data sets, it is encouraged to make the database available under an appropriate **open-access license**. Where **WCRP-related projects** rely on research data by external providers, WCRP **encourages data owners** to make these data **freely and openly accessible** to the maximum extent possible. This implies that data are:

- Available free of cost
- Accessible
- Published via citable, persistent and traceable means
- Complete, quality controlled, with mechanisms for error reporting in place
- Published and equipped with meta-data in ways that make the data discoverable, intelligible, assessable and usable

WCRP also calls upon data users to ensure **attribution, citation and recognition of the origin and producers** of research data.

Open and free access to data should be the **standard** that we adhere to and promote across the WCRP

# WCRP-GCOS Data Prize

## WCRP/GCOS International Data Prize 2016



Dr. Kate Willett from the Met Office Hadley Centre has been awarded the WCRP/GCOS International Data Prize 2016

We are pleased to announce that Dr. Kate Willett from the Met Office Hadley Centre, UK, has been awarded the WCRP/GCOS International Data Prize 2016.

The Prize Committee, consisting of representatives from WCRP, the Global Climate Observing System (GCOS) and their joint panels the Atmospheric Observation Panel for Climate (AOPC), Terrestrial Observation Panel for Climate and Ocean Observations Panel for Climate (OOPC), was greatly impressed by her outstanding contribution in supporting the development of data sets for climate research.

- 12 nominations received
- Selection committee: GCOS Chair, WDAC Co-chairs, AOPC Co-chairs, OOPC Chair and TOPC Chair
- Sugg received: ensure recognition of those behind the scene

# Some relevant events

- USA elections 8 November 2016...
- WDAC6, 22-23 March 2017, ESRIN/ESA, Italy
- JSC38, 3-7 April 2017, Paris, France
- WGNE Systematic Error Workshop, 19-23 June 2017, Montreal, Canada
- Sea-Level Conference, 10-14 July 2017, Columbia University, New-York (NY) - USA
- WCRP Earth System Model Evaluation workshop, 31 July – 4 Aug 2017, Aspen, USA
- Pan-WCRP Modeling meeting and WMAC6, 9-13 Oct 2017, Exeter, UK
- International Conference on Reanalysis, 13-17 Nov 2017, Rome, Italy



# POLAR CHALLENGE

Be the first to complete a  
2000 km continuous mission  
with an Autonomous  
Underwater Vehicle (AUV)  
under the sea ice.

**CHF 500,000**

Compete for the Prize!  
Become a co-sponsor!

[www.wcrp-climate.org/polarchallenge](http://www.wcrp-climate.org/polarchallenge)

Co-sponsors:



# POLAR CHALLENGE



## CONTEXT

The cryosphere plays a fundamental role in the climate system.  
We need much better monitoring and prediction capabilities for the  
polar regions.



## CHALLENGES AND OPPORTUNITIES

Polar observations are expensive, risky and sparse. We can expand  
AUVs' endurance, navigation and communication capabilities to operate  
under the sea ice.



## VISION

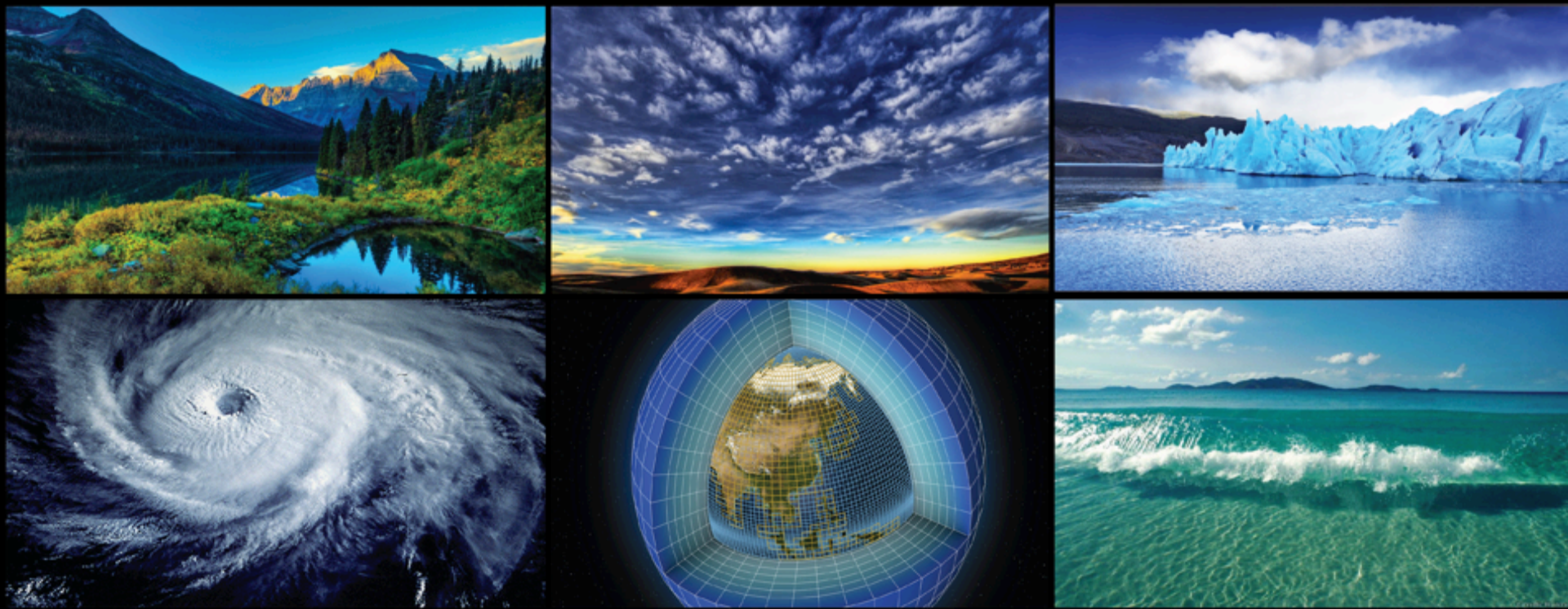
A cost-effective, sustainable and autonomous polar ocean monitoring  
system to drive a new era for climate research and services.

# Last but not least

Many thanks to ESRIN for hosting us!

Special thanks to Pierre-Philippe and colleagues for all their help!





# WORLD CLIMATE RESEARCH PROGRAMME

*Thank you for your attention!*

