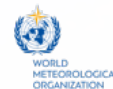




WORLD CLIMATE RESEARCH PROGRAMME

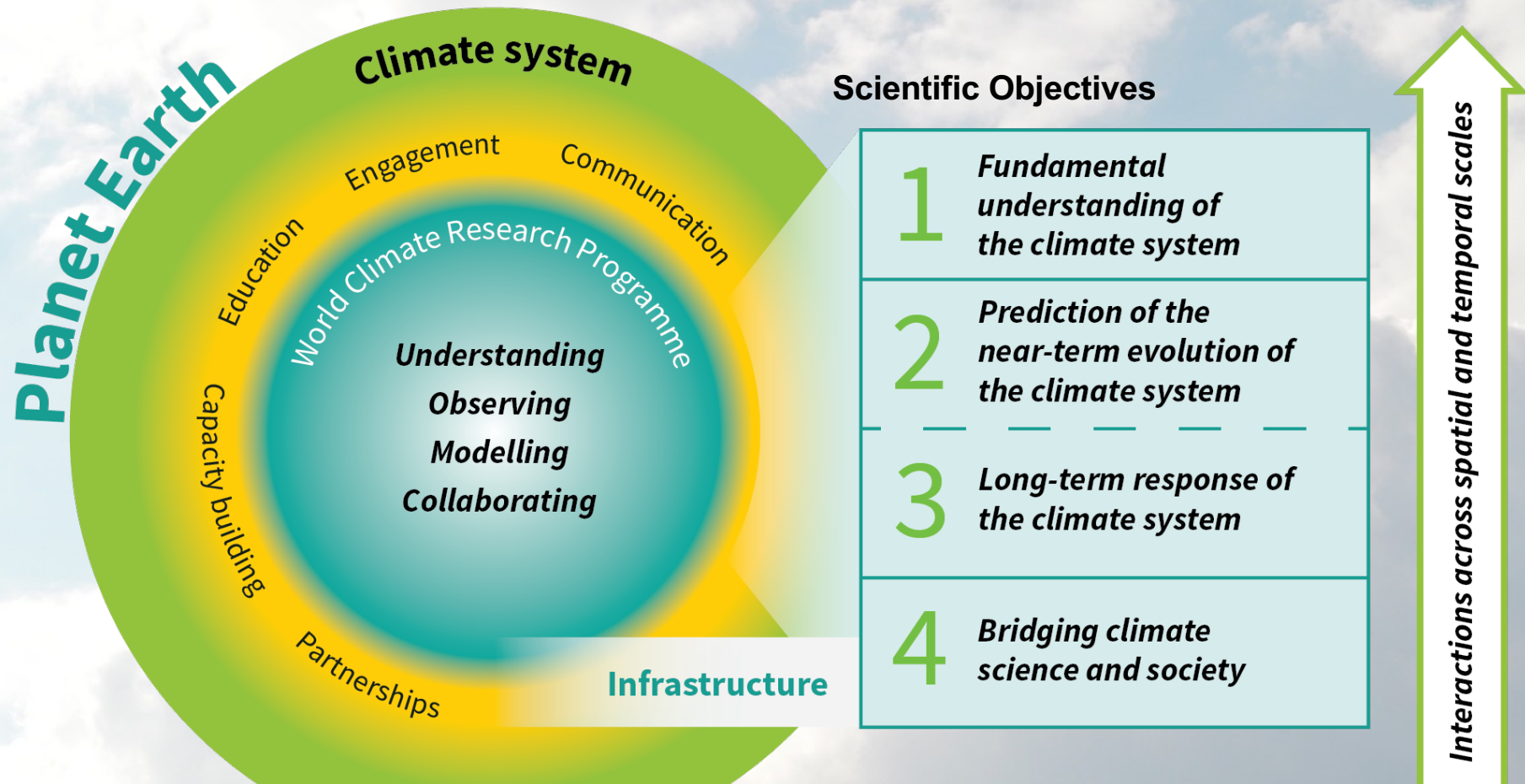
Nico Caltabiano
WCRP Secretariat



International
Science Council



Overview of the WCRP Strategic Plan



WCRP Structure



International
Science Council



Joint Scientific Committee (JSC)

WCRP Secretariat

Lighthouse Activities

International Offices

Core Projects and Research Communities

- Climate and Cryosphere (CliC)
- Global Energy and Water Exchanges (GEWEX)
- Climate and Ocean Variability, Predictability and Change (CLIVAR)
- Stratosphere-troposphere Processes And their Role in Climate (SPARC)
- *Earth System Modelling and Observations (ESMO)*
- *Regional Information for Society (RIfS)*

Ongoing Activities and Fora

- Fixed-term projects
- Conferences and workshops
- Reference datasets, evaluations and benchmarking
- Diversity and capacity building: ECRs, regions
- Rapid updates, syntheses, assessments, gap analysis
- Communications and outreach

WCRP Lighthouse Activities

Explaining and
Predicting Earth
System Change

My Climate
Risk

Digital Earths

Safe Landing
Climates

WCRP
Academy

WCRP Lighthouse Activities are the major and new scientific approaches, technologies, and institutional frameworks – required to meet society’s need for robust and actionable climate information

<https://www.wcrp-climate.org/lha-overview>

WCRP Lighthouse Activities

Explaining and Predicting Earth System Change

To design, and take major steps toward delivery of, an integrated capability for quantitative observation, explanation, early warning and prediction of Earth System Change on global and regional scales, with a focus on multi-annual to decadal timescales.

My Climate Risk

To develop a new framework for assessing and explaining regional climate risk to deliver climate information that is meaningful at the local scale.

Safe Landing Climates

To explore the routes to climate-safe landing 'spaces' for human and natural systems, on multi-decadal to millennial timescales; connecting climate, Earth system and socio-economic sciences. Explore present-to-future "pathways" for achievement of key SDGs.

Digital Earths

To develop a digital and dynamic representation of the Earth system, optimally blending models and observations, to enable an exploration of past, present and possible futures of the Earth system.

WCRP Academy

To determine the requirements for climate research education and to build enabling mechanisms. The Academy will work with WCRP core activities and established climate education providers, including universities, to achieve this.

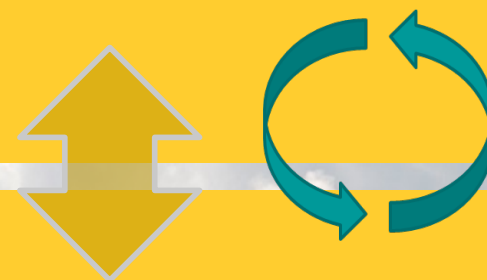
New WCRP Core Projects

WCRP Earth System Modelling and Observations

Modelling, observing and model – data fusion science and technologies.

Unite and strengthen the following communities and groups, and their work:

- WCRP Modelling and Data Advisory Councils: WMAC and WDAC
- Working Groups / Projects on:
 - Coupled Modelling (WGCM) incl. CMIP (CMIP & Infrastructure Panels)
 - Numerical Experimentation (WGNE)
 - Sub-seasonal to Interdecadal Prediction (WGSIP)
 - S2S Prediction Project



WCRP Regional Information for Societies

Science and capability needed to provide societally-relevant climate information for regions.

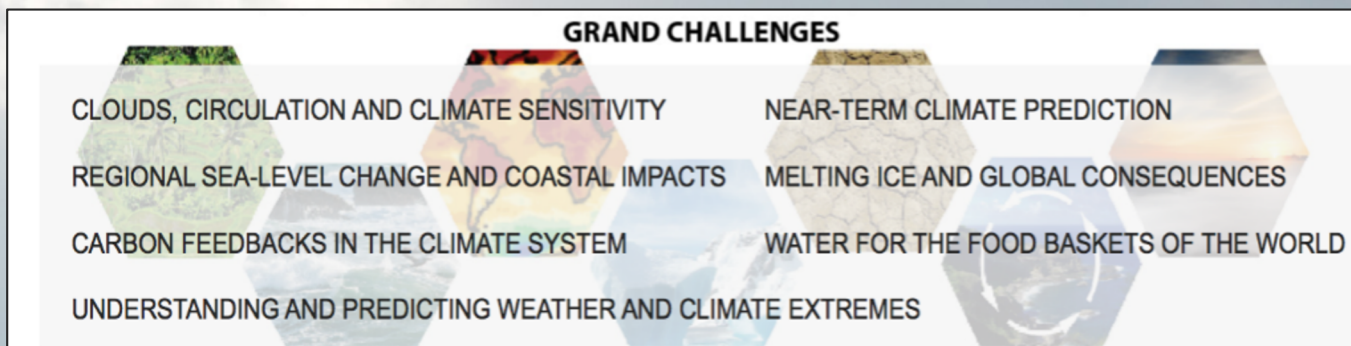
Unite and strengthen the following communities and groups, and their work:

- CORDEX (science and application of regional climate downscaling)
- Working Group on Regional Climate (WGRC)

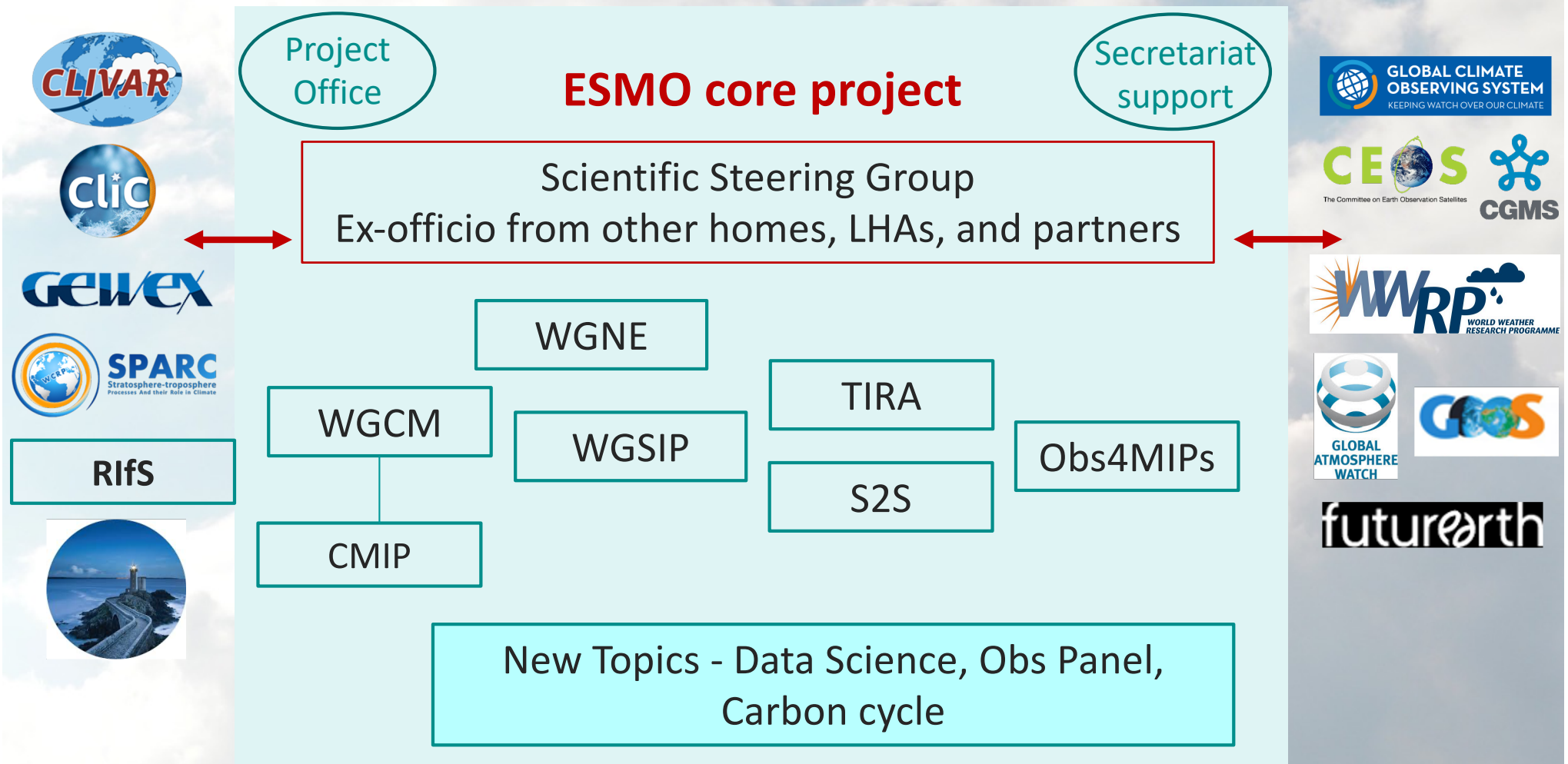


WCRP Grand Challenges

will “sunset” by 2022; i.e. transition to other research activities and/or conclude.



ESMO: Initial Structure



Broader stakeholders like UNFCCC, IPCC, GFCS (C3S), IOC-UNESCO, ISC, WMO, NMHSs, Regional Climate Centres, etc.

Regional Information for Society

1. Overview

Strategic goals and outcomes

Objective: Enhance societal value of regional climate information

Core principles: Facilitate and catalyze research for actionable information.

Undertake this through research on:

- Integrating the best available science
- Incorporating decision contexts
- Engaging within a co-creation/co-production framework

Science foci: Research questions relevant to regional information about the physical climate system, co-production, social sciences, communication, ethics and values.

Foci include:

- Understanding climate drivers of regional climate variability and change related to impacts
- How to better integrate across the approaches to producing climate information
- Learning from society's decision makers, policy communities, and other stakeholders to enhance physical climate science research agendas and activities

Consolidation of the new WCRP: Timeline

