

# World Climate Research Programme: Climate Science for Society

WCRP Joint Scientific Committee

The World Climate Research Programme (WCRP) leads the way in addressing frontier scientific questions related to the coupled climate system — questions that are too large and too complex to be tackled by a single nation, agency or scientific discipline. Through international science coordination and partnerships, WCRP contributes to advancing the understanding multi-scale dynamic interactions between natural and social systems that affect climate.

## Strategy

The WCRP Strategic Plan 2019-2028 is based on the critical need for fundamental climate science, that will prepare society for challenges that we may not yet foresee. The plan outlines our vision and mission (below), our scientific objectives (right) and the critical infrastructure to implement the plan (below).

**Our Vision:** A world that uses sound, relevant and timely climate science to ensure a more resilient present and sustainable future for humankind.

**Our Mission:** WCRP coordinates and facilitates international climate research to develop, share and apply the climate knowledge that contributes to societal well-being.

**Critical Infrastructure:** The infrastructure essential to implementing this plan in the coming decade requires commitment and investment across national and international programs, from the science community, funding agencies, and other partners. Most vital is enhanced support for a WCRP research community which embraces diversity, demands equality and builds capacity for the future. Key areas of infrastructure are:

- I. A hierarchy of simulation tools
- II. Sustained observations and reference data sets
- III. Need for open access
- IV. High-end computing and data management

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

## Implementation

The WCRP Strategic Plan 2019-2028 will be operationalized by the WCRP Implementation Plan, which will be finalized in 2020. Development of the WCRP Implementation Plan will involve input from the whole WCRP community and our partners to ensure that there is strong support for the future of the Programme.

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

## 40 Years of Climate Science

In 2020 WCRP will celebrate 40 years of climate science. This is both a time of celebration, looking back at the many success stories of WCRP, and a time to refocus and look to the future. We invite you to take part in the WCRP 40th Anniversary Symposium on **8 December 2019**, which will include keynote talks and will officially launch a new phase of WCRP Science. It will open a WCRP Climate Science Week at the American Geophysical Union (AGU) Fall Meeting in San Francisco.

[www.wcrp-climate.org/wcrp-agu2019](http://www.wcrp-climate.org/wcrp-agu2019)

#WCRP40

40 YEARS CLIMATE SCIENCE



# WCRP 40

World Climate Research Programme #WCRP40

## WCRP Scientific Objectives

# 1

### Fundamental understanding of the climate system

We will support and facilitate the advancement of sciences that enable an integrated and fundamental understanding of the climate, its variations and its changes, as part of a coupled physical, biogeochemical, and socio-economic system.

# 2

### Prediction of the near-term evolution of the climate system

We will push the frontiers of predictions and quantify the associated uncertainties for sub-seasonal to decadal time scales across all climate system components.

# 3

### Long-term response of the climate system

We will quantify the responses, feedbacks and uncertainties intrinsic to the changing climate system on longer (decades to centuries) timescales.

# 4

### Bridging climate science and society

We will support innovation in the generation of decision-relevant information and knowledge about the evolving Earth system.

