

# Working Group on Subseasonal to Interdecadal Prediction

Welcome and introduction

WGSIP 25/WGNE 39 4-8 November 2024 Toulouse, France





- ~1995: Originated as CLIVAR Numerical Experimentation Group-1 co-chaired by Neville Smith and Mark Cane
- ~1999: Becomes CLIVAR Working Group on Seasonal-to-Interannual Prediction
- 2005: WCRP Task Force on Seasonal Prediction formed, mandate transferred to WGSIP in 2007
- 2007: WCRP Workshop on Seasonal Prediction, Barcelona
- 2007: CHFP proposed
- 2012: CLIVAR → WCRP governance of WGSIP
- 2013: International workshop on seasonal to decadal prediction, Toulouse
- 2016: School on Climate System Prediction and Regional Climate Information, Dakar
- 2017: Becomes Working Group on Subseasonal to Interdecadal Prediction
- 2018: International Conferences on Subseasonal to Decadal Prediction, Boulder
- 2019: International Young Scientists School on Subseasonal to Decadal Prediction, Moscow
- 2021 WCRP Workshop on Extremes in Climate Prediction Ensembles, Busan and online
- ~2023 WGSIP becomes component of new ESMO Core Project





# Past meetings

Session	Dates	Location
NEG-1 1st	26-29 February 1996	Montego Bay, Jamaica
NEG-1 2nd	12-15 May 1997	Hamburg, Germany
NEG-1 3rd	9-12 November 1998	Palisades, USA
WGSIP 4	9-12 November 1999	Bologna, Italy
WGSIP 5	1-3 November 2000	Buenos Aires, Argentina
WGSIP 6	5-7 November 2001	Budapest, Hungary
WGSIP 7	19-22 November 2002	Cape Town, South Africa
WGSIP 8	5-7 November 2003	Honolulu, USA
WGSIP 9	14-16 October 2004	Exeter, UK
WGSIP 10	13-16 February 2006	Wellington, New Zealand
WGSIP 11	7-8 June 2007	Barcelona, Spain
WGSIP 12	12-14 January 2009	Miami, USA
WGSIP 13	29-31 July 2010	Buenos Aires, Argentina
WGSIP 14	12-14 September 2011	Trieste, Italy
WGSIP 15	24-26 September 2012	Hamburg, Germany
WGSIP 16	10-12 March 2014	Exeter, UK
WGSIP 17	13-14 September 2015	Norrköping, Sweden
WGSIP 18	23-25 November 2016	Dakar, Senegal
WGSIP 19	9-12 October 2017	Exeter, UK
WGSIP 20	21 September 2018	Boulder, USA
WGSIP 21	29-31 May 2019	Moscow, Russia
WGSIP 22	28-30 October 2020	Online
WGSIP 23	16-17 November 2021	Online
WGSIP 24	27-29 March 2023	Reading, UK



#### **WGSIP** members



June-Yi Lee co-Chair PNU Korea



Constantin Ardilouze\* CNRM France



**Leon Hermanson**Met Office
UK



François Massonnet UCL Belgium



Hongli Ren CMA China



**Ángel Muñoz** co-Chair BSC Spain



Johanna Baehr U Hamburg Germany



Debbie Hudson BoM Australia



Andrea Molod\* NASA USA



**Yuhei Takaya** MRI Japan



Bill Merryfield co-Chair emeritus ECCC Canada



Masilin Gudoshava\* ICPAC Kenya



Stephanie Johnson ECMWF



Marisol Osman\* CIMA/UBA USA



Jin Ho Yoo\* APCC Korea

\*Welcome!





## **Invited experts**

Dragana Bojovic BSC (Spain)

Anca Brookshaw ECMWF/C3S

Caio Coelho CPTEC (Brazil)

Jon Robson\* U Reading (UK)

Scott Osprey\* U Oxford (UK)

Veronica Torralba BSC (Spain)

Oliver Watt-Meyer Allen Institute for Artificial Intelligence

(USA)

Priyanka Yadav\* NASA/U Maryland (USA)

\*Remote participants







#### Joint Scientific Committee (JSC) CMIP-IPO Ongoing Activities and Fora **Lighthouse Activities** Fixed-term projects **CMIP** WIP · Digital Earths Coupled Model WGCM Rapid updates, syntheses, · Explaining and Predicting Earth System Change Infrastructure Panel Intercomparison Project assessments, gap analysis (EPESC) Conferences and workshops • Global Precipitation Experiment (GPEX) WGCM Diversity and capacity Obs4MIPs My Climate Risk (MCR) Working Group on building: ECRs, regions WCRP Secretariat Coupled Modelling · Research on Climate Intervention Communications and Safe Landing Climates (SLC) outreach **ESMO Scientific** WGNE WGORC **Steering Group Core Projects** Offices • Atmospheric Processes And their Role in Climate (APARC) **ESMO** International Climate and Cryosphere (CliC) Project Office (IPO) • Climate and Ocean Variability, Predictability and Change (CLIVAR) International · Earth System Modelling and Observations (ESMO) WGSIP > including the Coupled Model Intercomparison Project (CMIP) Working Group on Subseasonal to Global Energy and Water Exchanges (GEWEX) Interdecadal Prediction · Regional Information for Society (RIfS) ▶ including the Coordinated Regional Climate Downscaling Experiment (CORDEX) DCPP Decadal Climate Support **WCRP Academy** Prediction Project





#### WGSIP's role

- Scope of climate prediction has expanded tremendously in recent years
  - Range of time scales (subseasonal to decadal)
  - Modelling capabilities and scientific understanding
  - Global services through WMO, etc.
- Nonetheless there remain many major challenges to be addressed:
  - Scientific understanding of sources or predictability, capturing in models
  - Improving/refining existing approaches → serving stakeholders
  - Harnessing the AI/ML revolution
  - ...
- As part of WCRP's mission to coordinate international climate research, WGSIP aims to be the "glue" that facilitates collaboration and information exchange across the global climate prediction community to advance subseasonal to decadal climate prediction science and services





### WGSIP 25 objectives

- Report on & assess recent progress and developments in the climate prediction community
- Facilitate awareness of climate prediction-related activities elsewhere in WCRP to explore opportunities for coordination & collaboration
- Report progress on and take stock of ongoing WGSIP activities addressing research gaps & operational needs
- Identify and formulate 2-4 new focus areas for WGSIP activities during 2024-2029 to address research & services needs/gaps
- Advance the planning of
  - Capacity building event in late 2025
  - Major climate prediction conference on 2026
  - ESMO S2S Panel



