



National Environmental Science Program



# NESP 2 Climate Systems Hub and ACCESS

Simon Marsland | CSIRO

# NESP 2: 2021-2027 – 4 Hubs

- Climate Systems Hub (Simon Marsland)
- Resilient Landscapes Hub
- Marine and Coastal Hub
- Sustainable Communities and Waste Hub

<https://minister.awe.gov.au/ley/media-releases/149-million-commitment-environmental-science>



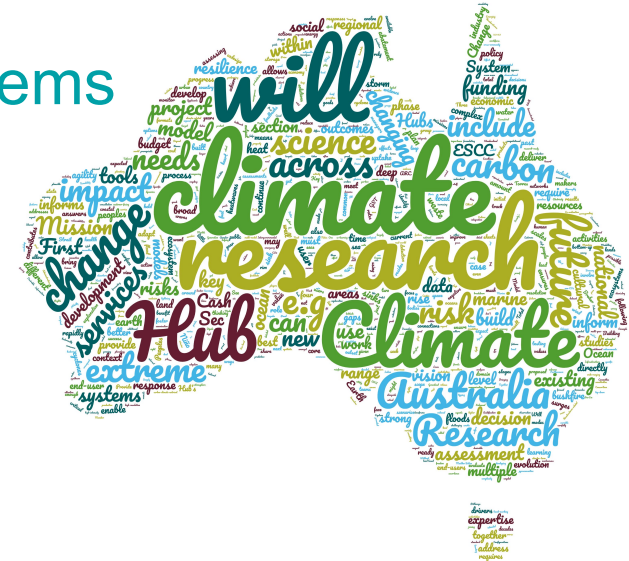
# NESP 2: 2021-2027 – Four X-Hub Missions

- Climate adaptation (Sarah Boulter)
- Threatened and migratory species and ecological communities
- Protected place management
- Waste impact management



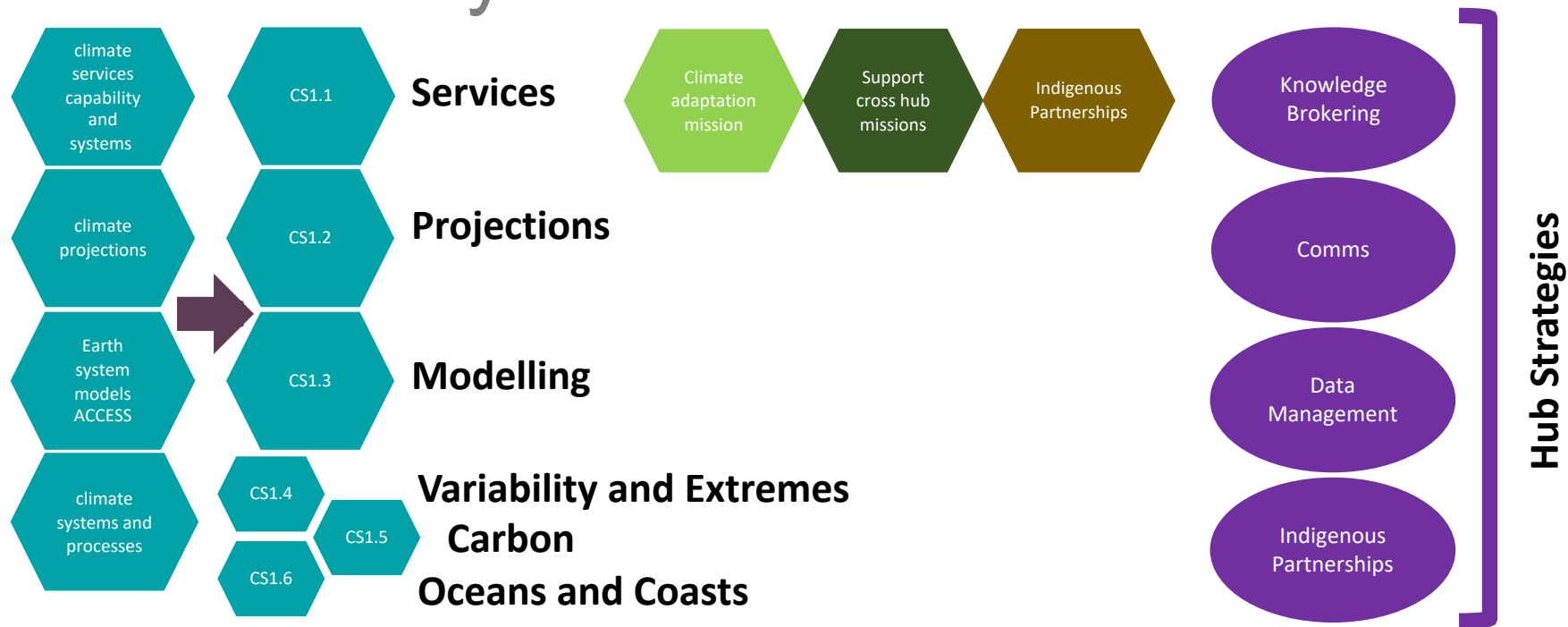
# Climate Systems Hub – research scope

- Climate Services Capability and Systems
- Climate Projections
- Earth System Models ACCESS
- Climate Systems and Processes



## Climate Systems Hub Research Scope Overview

# Climate Systems Hub – RP2021



# RP2021 Project CS1.3

## Earth System Modelling with ACCESS

- 1 July 2021 – 30 June 2022
- Leads – Tilo Ziehn (CSIRO), Hongyan Zhu (BoM)
- Co-design (front loaded 1<sup>st</sup> 6 months)
- 3 key research areas



# RP2021 CS1.3 - ACCESS

## Key research areas

- CMIP6 future scenario large ensembles
- 2°C overshoot
- Analysis, evaluation and documentation
  - Reversibility, climate/carbon cycle, land-based carbon mitigation, tropospheric ozone, climate drivers, climate change
  - New UM physics, e.g., CoMorph (conv.)



# ACCESS Celebrations

- Recent success of CMIP6 submission
  - 42 institutes, 110 models published to ESGF
  - ACCESS-CM2 100TB, 9.5M downloads
  - ACCESS-ESM1.5 320TB, 14.9M downloads
- New opportunities
  - Climate Systems Hub
  - ACCESS-NRI
  - ARC COSIMA-II







## FOR MORE INFORMATION

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