



Melbourne, Thursday 29 January 2026

**Subject: Funding and Resourcing for the CSIRO**

Dear Economics References Committee,

The ARC Centre of Excellence for the Weather of the 21st Century is deeply concerned by the proposed job cuts at CSIRO, especially those in the Environment Research Unit. 21st Century Weather is the third successive university-based national weather and climate research centre and has a long-standing collaboration with CSIRO climate research teams. CSIRO's leadership in developing and applying our national global climate model and in monitoring and predicting the future of carbon in a warmer climate are key examples of public good research aimed at maintaining the safety of every single Australian.

Climate change is upon us, affecting everyone everywhere, and deciding on the best path forward depends on having reliable information about the future of our climate. Climate models are the only tool that provides this information. Climate models are large computer simulations of Earth based on the fundamental laws of physics that contain everything from the Sun's radiation, the carbon cycle and clouds to ocean circulation, all expressed as mathematical equations. Australia's climate model, ACCESS-ESM, has been developed and deployed within CSIRO's Environment Research Unit for decades. The body of knowledge and continuity of research that CSIRO has brought to climate modelling are critical to our climate intelligence and cannot be replaced. Hence, any reduction in funding for this effort will not only reduce Australia's sovereign modelling capability, it will also seriously harm our capacity to make decisions about our future, because sourcing climate information from other countries' models is not an option.

ACCESS-ESM is the only global climate model built in the Southern Hemisphere and it is the only one calibrated to do well in our region. For example, through a bespoke representation of the Australian landscape and its unique vegetation developed at CSIRO, our model can estimate how much carbon our soils and vegetation can take up, thus making it crucial for an accurate calculation of their contribution to achieving our net-zero goal.

Importantly, the loss of sovereign capability inevitably comes with the loss of experts in building climate models, including the next generation, who will harness the power of new technologies and approaches, such as AI. This will quickly affect our ability to educate the next generation of scientists, setting Australian climate science and services back decades and disadvantaging our nation's competitiveness.



Recent cuts to climate science in the USA highlight the imperative to maintain and enhance our sovereign capability in climate modelling. The foundation for doing so is CSIRO's climate research, which provides a public good, is aligned with our national research priorities and enables us to make good decisions about how and where to mitigate and adapt to secure Australia's future. Without it, we risk losing critical intelligence in preparing our economy for the changes in weather and climate ahead.

We are happy to discuss any subject raised in this submission.

Professor Christian Jakob  
Director

Associate Prof. Ailie Gallant  
Deputy Director (Partnerships)

On behalf of the ARC Centre of Excellence for the Weather of the 21st Century

The ARC Centre of Excellence for the Weather of the 21st Century is a consortium of world-leading climate and weather researchers based across five Australian universities, together with major domestic and international partner organisations, including the Bureau of Meteorology and CSIRO.

21st Century Weather aims to address these challenges by answering a vital question:  
**How will Australia's weather transform as our climate changes?**

We will advance our understanding of atmospheric circulation and weather systems, and develop ultra-high-resolution climate models to enhance our understanding of Australia's weather and climate.

The foundational knowledge we create will enable policymakers, industry and communities to make better decisions, harness weather resources and help us prepare for high-impact weather.

## **Response to the Terms of Reference**

### **A. The nature of recent and proposed job and program cuts in the CSIRO**

21st Century Weather is deeply concerned by the proposed job cuts at CSIRO, especially those in the Environment Research Unit. Our members have a long-standing and deep collaboration with CSIRO's climate research teams, and we can provide significant insight into CSIRO's important contributions in the climate research area, which are now under threat.

Of particular importance is the leadership of CSIRO research in developing and applying our national global climate model, and in monitoring and understanding carbon in a warmer climate, further detailed in specific responses to the TOR, below.

### **B. The importance of public funding for public good science**

Safeguarding Australia's national security and economy depends on having reliable information about our future climate. This information is provided by climate models. The Australian climate model, ACCESS-ESM, is developed and deployed within CSIRO's Environment Research Unit.

The ACCESS-ESM is a unique and essential tool that underpins much of the data and information used by Australian governments and businesses for climate risk assessments, including for the Climate-Financial Disclosures Framework regulations. Removing or significantly reducing the climate research area at CSIRO will stagnate model development. This will likely lead to the loss of our sovereign climate modelling capability. Consequently, essential new and up-to-date data and information about localised or unexpected climate change is lost or outsourced (see C, below).

### **C. The importance of public resourcing of Australian sovereign scientific capability**

With increasing global geopolitical instability, maintaining and enhancing the sovereign modelling and research capability at CSIRO is essential. Removing the capability for modelling and model development within CSIRO's climate research team would leave us increasingly blind to future climate change. Overseas actors are already threatening Australia's ability to use alternative tools should a sovereign capability disappear (e.g. budget cuts at NASA and the National Center for Atmospheric Research in the USA).

### **D. The recruitment and retention of staff including senior and mid-career researchers, along with the training and career paths of early-career researchers**

CSIRO's team of scientists hold exceptional knowledge critical to maintaining our sovereign capability to produce climate intelligence. The proposed job cuts will not only reduce this expertise in CSIRO. It will very quickly damage our ability to educate the next generation of scientists, setting Australian climate science and services back decades and resulting in a competitive disadvantage for our nation. This will include crucial new fields

such as machine learning and artificial intelligence, which will be paramount to numerous other sectors of industry and public service.

#### **E. CSIRO's commercialisation of scientific research**

Direct commercialisation is an important aspect of modern research but cannot be its sole focus. Climate change research and the development of the modelling tools provide examples of indirect but vital publicly funded research for the public good. As described in B, CSIRO develops climate models that generate data underpinning Climate-Financial Disclosures legislation, thereby indirectly providing a benefit.

#### **F. The long-term capability needs of the CSIRO, including workforce, infrastructure and equipment**

Climate modelling and monitoring provide an underpinning national capability for government and businesses that must be maintained into the future. Science for model development benefits long-term net zero and productivity goals by providing guidance to government and industry to minimise the adverse effects of climate change and maximise opportunities. This will require a continuous funding stream to CSIRO climate change research efforts, paired with a significant upgrade of the national supercomputing and data infrastructure. Combined, these efforts ensure that we have both the tools (climate model) and capacity (computing infrastructure) that can provide increasingly more detailed and robust information over time, without stagnation or redundancy

#### **G. The role and independence of the CSIRO's leadership in making resourcing allocation decisions**

While autonomy in budget decisions within CSIRO is important, it remains critical for Australian governments to protect our communities and economy. Where CSIRO research directly contributes significantly to public safety, as with the climate research team, the flow of government funding to these areas must be protected and, where necessary, enhanced. This public good research must be of significant scale, align with the national research priorities and prioritise science over administration.

#### **H. the effects of these cuts on the program of scientific work conducted by the CSIRO, including in relation to:**

##### **iii. the particular burden of proposed cuts on the Environment Research Unit**

The proposed cuts are inconsistent with our nation's Science and Research priorities to protect and restore Australia's environment, and build a secure and resilient nation. The cuts will severely hinder CSIRO's capacity to support governments, businesses and communities to adopt new practices and actions that comply with the proposed Environment Protection and Biodiversity Conservation reform, the climate-financial disclosures regulations, and carbon modelling to achieve our net-zero ambitions.