



**Submission to Review of National Innovation System
from the Australian Meteorological and Oceanographic Society (AMOS).**

Background

On 22 January 2008, the Minister for Innovation, Industry, Science and Research, Senator Kim Carr, announced a wide ranging review of Australia's national innovation system (www.innovation.gov.au/innovationreview/Pages/home.aspx), and called for submissions from interested parties. The Australian Meteorological and Oceanographic Society (AMOS) submits the following, in respect of one of the Review's Terms of Reference in the context of climate change research. The relevant Term of Reference is: "Identify regulatory and other barriers to innovation and recommend ways to minimise these". This submission indicates how changing a regulation associated with Australian Research Council Linkage Projects would significantly enhance the innovative, collaborative science Australia needs if it is to cope with climate change.

Declaration of Interest

The Australian Meteorological and Oceanographic Society (AMOS) is an independent Australian scientific society that supports and fosters interest in meteorology, oceanography and other related sciences (www.amos.org.au/). The Society helps all those with an interest in the environment including research workers and professionals, those whose work is affected by, and affects, the atmosphere and oceans, and those who simply want to keep up with new findings. It provides support and fosters interest in meteorology and oceanography through its publications, meetings, courses, grants and prizes, and represents the views of its members to Government, institutes and the public. Many of its members are involved in climate change research and the Society has a position statement on this subject (www.amos.org.au/publications/cid/3/parent/0/pid/3/t/publications). The Society wishes to draw the attention of the Review to a barrier to Australian research on climate change resulting from the Australian Research Council (ARC) regulations regarding *Linkage Projects*.

Submission

The ARC *Linkage Projects* scheme (www.arc.gov.au/ncgp/lp/lp_default.htm) supports collaborative research and development projects between higher education organisations and other organisations, including within industry, to enable the application of advanced knowledge to problems. Proposals for funding under *Linkage Projects* must involve a collaborating (Partner) organisation from outside the higher education sector. The collaborating organisation must make a significant contribution (equal to, or greater than, the ARC funding), in cash and/or in kind, to the project. *Linkage Projects* aim to (inter alia) encourage and develop long-term strategic research alliances between higher education institutions and industry in order to apply advanced knowledge to problems, or to provide opportunities to obtain national economic or social benefits, and support collaborative

research on issues of benefit to regional and rural communities.

There are increasing numbers of university academics with interests and expertise in undertaking groundbreaking research to increase our understanding of Australian climate change, its impacts, and ways to adapt to climate change or to mitigate the increases in greenhouse gas emissions driving climate change. Much of this research requires the use of complex computer models of the climate system. Two government research organizations, the CSIRO and the Bureau of Meteorology Research Centre, have recently agreed to a partnership, The Centre for Australian Weather and Climate Research (CAWCR), to ensure that Australia remains a world leader in climate, weather and oceans research so that it can meet the severe weather and climatic challenges that continue to confront the nation. This new centre will be the focus for the development and application of climate change models. These models require computer resources that are beyond the reach of universities in Australia and thus much strategic climate change research must, of necessity, include researchers in CAWCR. Collaborative research projects on climate change linking CAWCR's climate modelling capacity and capability with the specific discipline expertise of a wide range of Australian university researchers would enhance Australian understanding of the causes, impacts, and policy implications of climate change. This research would lead to innovative approaches to the problems of climate change facing Australia.

However, current ARC rules for *Linkage Projects* effectively preclude collaboration between CAWCR and university academics in climate change research requiring major modelling infrastructure and capabilities. Partner organizations for *Linkage Projects* cannot be organizations that the ARC considers to be funded substantially from State, Territory or Commonwealth Government sources where the ARC considers such funding is provided mainly for research or research-related activities. This regulation rules out CAWCR as a Partner organization for Linkage Projects, thereby providing an artificial impediment to university-based researchers abilities to provide innovative solutions to climate change problems.

The ARC regulation regarding Partner organizations restrains innovative research and solutions to Australia's climate change problems, by precluding the ARC funding of academic researchers in collaborative climate change research involving Australian climate models.

We propose that, with regard to research proposals related to climate change, that the ARC regulation be removed, so that academic researchers can seek funding under the ARC Linkage Projects scheme, with CAWCR providing cash and/or in-kind support as a Partner organisation. This simple change would facilitate Australian research to address what the Federal Government calls "the challenge of our generation" and also the "opportunity of our generation"

(<http://www.environment.gov.au/minister/wong/2008/pubs/tr20080206.pdf>).

Without a relaxing of the regulations governing Partner organisations in Linkage Projects, the AMOS believes that the opportunity for Australia to undertake the innovative research needed to understand and accommodate and restrict climate change will con-

tinue to be severely hampered, by limiting collaboration between government research agencies and academia.

In addition, this change to ARC Linkage regulations could be considered for all areas of national research priority, of which climate change is one, as a way of promoting a truly national effort to address these issues.

Submitted by

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