Australian Government

Australian Government response to the Senate Select Committee into the Scrutiny of Government Budget Measures:

Third Interim Report

MARCH 2017

Recommendation 1

2.104 The committee recommends that the Auditor-General investigate the use of private emails by CSIRO, as part of its processes to determine staffing reductions, in order to establish whether the CSIRO Executive has met its record keeping obligations in managing a significant restructure.

Response: Noted.

The Auditor-General, as an independent officer of the Parliament, responded directly to the Senate Select Committee in relation to this recommendation in a letter which was tabled on 12 October 2016. A copy of that letter is appended to this response.

Recommendation 2

2.105 The committee recommends that the CSIRO Board delays the implementation of the proposed job cuts and undertakes a thorough review of the deep dive process and outcomes in light of the evidence received by this committee and feedback from staff and stakeholders.

Response: Noted

The Government is confident that the implementation of the recommendations from the EY *Independent Review of CSIRO's Science Prioritisation and Implementation Process,* commissioned by CSIRO management, will result in improved governance and engagement processes, and will effectively address the concerns raised by the Committee.

Recommendation 3

2.106 The committee recommends that the government direct the CSIRO to cease implementation of its proposed restructure in light of the upcoming election and evidence that the alternative government would set different priorities for CSIRO through the Statement of Expectations process.

Response: Noted.

The former Minister for Industry, Innovation and Science, The Hon Greg Hunt MP, consulted widely on the new Statement of Expectations which further articulates the Government's priorities for CSIRO. In developing these expectations, the Hon Greg Hunt MP consulted with key stakeholders to ensure the new statement reflects a balanced set of priorities and a direction consistent with community expectations of CSIRO. The Government has now provided CSIRO with the new Statement of Expectations and the Hon Arthur Sinodinos MP looks forward to receiving CSIRO's Statement of Intent on how it will deliver the requirements of the Statement of Expectations in due course.

Recommendation 4

3.95 The committee recommends that a suitable independent agency be tasked with investigating the economic value of CSIRO climate measurement and research, including the return on investment for Australia and the benefits of better timed and placed adaptation and mitigation measures.

Response: Noted.

Recognising the importance of climate research, the Government has established the independent National Climate Science Advisory Committee. The Committee is being tasked with advising the Australian Government on a nationally aligned and integrated approach to climate science, which will inform the direction and sustainability of Australia's climate science capability and research priorities. The Committee's Terms of Reference include

advising on Australia's climate science priorities, capabilities and resources, including a stock-take of existing capabilities and options to address any gaps; and considering consolidation of commitments from key climate science delivery agents for current and future resourcing of the strategy.

The Committee comprises senior representatives from across Australian climate science research, investment and policy agencies and institutions. See http://www.science.gov.au/scienceGov/CouncilsCommitteesWorkingGroups/CouncilsAndCommittees/Pages/default.aspx#.

Recommendation 5

3.96 The committee recommends that the Department of Defence reports to the Minister of Defence and the Minister for Industry, Innovation and Science on the future ocean intelligence requirements needed to maintain tactical advantages for all its operations, including the entire operating life of the future submarine fleet.

Response: Noted.

Background

The operating environment of a submarine is fundamentally different to that of a surface ship or aircraft. For reasons of maintaining a clandestine posture, submarines often operate for extended periods without transmitting messages or emitting any other form of electromagnetic or acoustic signature.

Submarines rely upon their passive systems above and below water to maintain situational awareness and safety, and upon timely and accurate intelligence and environmental data from their own and third party sources.

For submarines, a detailed knowledge and understanding of both the near and far-field ocean environment is critical to maintaining both safety and, equally as important, a tactical capability advantage against regional adversary submarines.

This same oceanographic information can be used by other Defence maritime assets to refine the performance of sensors and thereby aid the detection of adversary submarines. Additionally, submarines are sometimes constrained in their ability to raise any kind of antennae above water without considerable risk of detection. This can impose restrictions on the use of GPS and maintaining an up to date navigational position. The use of inertial navigation systems and accurate seabed mapping to maintain navigational safety is essential under these circumstances.

Nature of submarine operations

The nature of submarine operations, therefore, affords limited opportunity for a submarine to 'see' or actively sense the surrounding environment in which it is operating. As such, a detailed prior knowledge of all aspects of the ocean environment is critical to determining how the environment will affect the ability of a submarine to conduct operations, including those of an adversary. Prior knowledge of the features and physical aspects of a submarine's operating environment is a major component of 'ocean intelligence'.

To ensure the safety and effectiveness of submarine and other maritime operations, Defence requires comprehensive foundation ocean intelligence relating to hydrography, oceanography and meteorology within the littoral and deep ocean domains of Australia's areas of interest. Defence requires operationally reliable access to dynamic information for a range of large-scale ocean features, such as currents, fronts, eddies and internal waves.

Equally important to Defence are ocean parameters such as colour, temperature, and salinity, and the overall assessment of the ocean's optical, biological and acoustic properties. In order to maintain tactical advantage and superior decision-making, this information needs to be accurate, relevant and be available to decision makers in a timely manner, which must be before that of any potential adversary. Defence also needs to ensure it has systems to compile, distribute, view and use the information to enhance knowledge of the operational environment and to support operational requirements.

Ocean forecast systems

Ocean forecast systems, such as Australia's BlueLink system, require comprehensive ocean information and data with which to generate the various models and derived parameters. Continued operational utility of these forecast systems relies heavily on the underpinning science and continued exploitation of current and future observation sensors, platforms and systems. Information superiority can be obtained through rapid uptake and exploitation of new technologies, such as adaptive and autonomous platforms (ocean gliders and ocean buoys/floats) and satellite-based remote sensing capabilities.

The scientists and organisations that provide much of Australia's ocean modelling and forecasting capabilities are also part of an international community. However, it is critical for Defence's operational requirements that Australia maintains sovereign capabilities through such organisations as the Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation, whilst also meeting any international obligations. The Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation are world leaders in instrumentation, observations, data assimilation and modelling.

Defence requirements for ocean intelligence

As platforms, sensors and weapons across Defence's maritime capabilities, such as the Future Frigates, Submarines and Maritime Patrol Aircraft, become increasingly reliant on ocean and atmospheric data, access to accurate, relevant and timely ocean intelligence will become increasingly critical. The Relocatable Ocean Atmosphere Model (ROAM), which the Commonwealth Scientific and Industrial Research Organisation administers, already provides high-resolution model data to Defence. However, Defence needs improved models that use increasingly accurate and denser data sets from next-generation observation and sensing capabilities.

Increasingly important to Defence is the ability to use such models in an environment of little or no direct communication with enterprise-level systems, which is particularly important for submarine operations. As such, Defence requires systems and models that provide ocean intelligence across a range of operational conditions from full connectivity to communications denied operations.

The continued expertise of national scientific organisations, such as the Bureau of Meteorology and the Commonwealth Scientific and Industrial Research Organisation, are critical to Defence achieving information superiority in the maritime domain through ocean intelligence. Ocean intelligence is critical to the safety, planning, execution and effectiveness of Defence operations.

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Audit Office

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Dear Dr Laing

Inquiry into the Scrutiny of Government Budget Measures

I am writing in relation to the *Senate Select Committee on the Scrutiny of Government Budget Measures (third interim report)*, which included a recommendation directed towards the Australian National Audit Office (ANAO).

The Committee recommended (Recommendation 1) that the Auditor-General investigate the use of private emails by CSIRO, as part of its processes to determine staffing reductions, in order to establish whether the CSIRO Executive has met its record keeping obligations in managing a significant restructure.

I have considered the Committee's recommendation and the matters outlined in the report, which included information provided to the Committee by the CSIRO advising that:

- an internal investigation was undertaken by the CSIRO;
- the investigation found that private email accounts were used by 17 officers to discuss proposed job cuts;
- it was determined that using private emails was contrary to internal CSIRO policy, but not illegal; and
- Dr Alex Wonhas (Executive Director, CSIRO) confirmed that the relevant documents had been subsequently transferred to the corporate systems to ensure official records were not lost.

Given these circumstances, the ANAO's current resourcing levels and other performance audit priorities, I do not intend to commence an audit at this time.

The CSIRO is the subject of regular review by the ANAO. Recent audits include *Administration of the Commonwealth Scientific and Industrial Research Organisation's Gift to the Science and Industry Endowment Fund*, tabled in February 2016. Information on our forward work program for 2016–17 is available on the ANAO website.

Yours sincerely

Grant Hehir
Auditor-General of Australia

For queries regarding this correspondence please contact external.relations@anao.gov.au.