Australian Government

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Parliamentary Standing Committee on Public Works
c/o Committee Secretary
Department of House of Representatives
PO Box 6021
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Submission No. 2
(Pawsey Centre)
SL Date: 25/03/2010

Proposed Pawsey High Performance Computing Centre for SKA Science – submission to the Parliamentary Standing Committee on Public Works

I am writing to you to express support for the submission made by CSIRO to the Parliamentary Standing Committee on Public Works in regard to the Pawsey High Performance Computing (HPC) Centre for SKA Science project funded under the Super Science Initiative announced in the May 2009 Budget. CSIRO is acting as centre agent for iVEC, an unincorporated joint venture between the CSIRO, Curtin University of Technology, Murdoch University, Edith Cowan University and The University of Western Australia.

The Super Science Initiative is managed by the Department of Innovation, Industry, Science and Research and provides a $1.1 billion boost for critical areas of scientific endeavour, including space science and astronomy, climate change, marine and life sciences, biotechnology and nanotechnology. These investments in research infrastructure involve collaboration between universities, government research agencies, independent research institutes and business.

The Super Science Initiative includes an investment of $80.0 million in a project to establish an infrastructure comprising three components. They are:

(a) the new building (Data Centre) to be constructed on CSIRO's land. The Data Centre construction is subject to approval by the Parliamentary Standing Committee on Public Works (PWC);

(b) the petascale HPC system, to be installed in the Data Centre, that meets the needs of both the radio astronomy research community and high-end researchers in other areas of computational and data-intensive science; and

(c) other works related to the project include a $14 million expansion to the HPC capacity at existing iVEC sites over the next 9 months. This expanded HPC capacity will be made available to the Australian research community and will enable Australian researchers to develop their expertise in effectively exploiting the power of computers in the 50 to 100 teraflop range. This HPC expansion is not considered within the scope of CSIRO's submission.

Subject to approval by your Committee, the Data Centre will be co-located with the Australian Resources Research Centre at the Western Australian Technology Park, Kensington, Western Australia. This building will be known as the Pawsey HPC Centre for SKA Science (Pawsey

Centre for short) after Dr Joseph Lade Pawsey (1908-1962) who is regarded as the father of radioastronomy in Australia and is one of the great pioneers in this field.

The Project is managed by a Steering Committee with overall responsibility for the planning and execution of the Project, chaired by Dr Mal Bryce (iVEC Board Chairman). Other members are Professor Andrew Rohl (iVEC CEO); Dr Tim Morrison (iVEC Board Representative); Mr David Toll (CSIRO Representative); Professor Brian Boyle (Australian SKA Coordination Committee Chairman); and a DIISR Representative as an observer.

This project is integral to the Government's support for the joint Australia-New Zealand bid to host the $2.5 billion Square Kilometre Array (SKA) radio-telescope. The Pawsey Centre will have a radioastronomy focus and be closely linked with the leading-edge Australian SKA Pathfinder (ASKAP) radiotelescope being built in WA as a precursor to the SKA project. The centre will go a long way towards demonstrating that Australia is ready to host the SKA. It will also boost Australia's wider research credentials by supporting work in other data-intensive disciplines, including mineralogy and chemistry.

It is the Department's view that the project represents robust value for money. This investment builds on relationships with institutions like the new International Centre for Radio Astronomy Research to assist with providing the data-crunching power needed to interpret information from the SKA Pathfinder and eventually contribute to the SKA itself.

The Department is confident of CSIRO's capacity to effectively and efficiently implement the project and will monitor the implementation of the project under the terms of a funding agreement with CSIRO, as centre agent for iVEC, signed on 4 December 2009.

Please do not hesitate to contact Clare McLaughlin, Manager, eResearch (phone: 02-6213 6375; email: clare.mclaughlin@innovation.gov.au), should you require any additional information or advice in relation to the project.

Yours sincerely

David Wilson
Acting General Manager
Research Infrastructure Branch
Science & Infrastructure Division

25 March 2010