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Update on Super Science Research Data Storage Infrastructure ($50 million)

Dear Research Sector Stakeholder

Thankyou for your submission to the Department of Innovation, Industry, Science and Research in response to the discussion paper concerning the $50 million Super Science Research Data Storage Infrastructure (RDSI) project.

I would like to provide you with a summary of the feedback received and advise you of the next steps in the process of implementing this project. I would also like to update you on related eResearch infrastructure investments recently finalised by the Department.

Feedback received

The feedback received in response to the RDSI discussion paper was encouraging. More than 50 submissions were received from universities, research institutions, IT companies and individuals. The Department appreciates the effort that has gone in to developing these responses. The submissions have provided the Department with an understanding of data storage requirements across the sector and preferences for eResearch tools and services more broadly.

The submissions indicate broad support for the objective of improving the availability of quality research data for sharing, collaboration and re-use, and the opportunity to reduce institutional data storage costs.

Overall, the sector's feedback indicates that of the models proposed, 'Building on Regional Strength' was the preferred model on the basis that:

- it was perceived to have the most favourable risk management characteristics;
- it would support flexibility, diversity and innovation;
- it had the greatest potential to realise co-investment;
- a regional/precinct distribution would enable data to be co-located with data-intensive facilities; and
- it would naturally establish sector custody of project and data assets.

The two other models proposed also received some support. The 'New Peak National Capability' model was favoured by some respondents for the likely cost efficiency and simplicity it would offer in terms of governance and decision making. In respect of the 'Industry Partnerships' model, a number of respondents suggested that the project would require the services of commercial providers, regardless of the chosen model.

The majority of respondents commented on the need to provide a coherent view of data held by the project and some support for the concept of 'storage as a service', whereby institutions or research communities could seek storage from a service, not necessarily a particular node. There is also strong support for national, sector-based governance in any model.

Some of the submissions noted the limited application of the Super Science funding, resulting in a practical requirement for the implementation model to maximise co-investment opportunities to support activities outside of the scope of the funding (ie, operation and maintenance of the storage infrastructure, and labour costs associated with curation and content management). The feedback also indicated that mechanisms to ensure the longevity and continuation of the RDSI are significant issues that should be addressed.

Next Steps

On the basis of feedback received, the Department is developing a regional implementation model. This model will result in a data storage infrastructure that is implemented through a small number of nodes. It will seek to achieve a consistent user experience across the infrastructure and, to the extent possible, deliver technical compatibility across the nodes.

The implementation of this project will be guided by robust sector-based governance structures and will explicitly allow for the expansion of data capability at each node for other research, academic or broader purposes supported by other sources of funding.

The Department separately sought and received expressions of interest from institutions prepared to take on the Lead Agent role for this project. The level of interest confirmed that this is a project with strong support, and the capacity to make a significant difference for the research sector.

No decision has yet been made as to the Lead Agent as it will depend to some extent on the implementation model that is developed. The Department is also not able to progress the funding agreement until after the conclusion of the current caretaker period.

We will work to refine the model through the next few weeks with the goal of putting funding arrangements in place shortly thereafter.

Related eResearch developments

A large number of responses to the discussion paper raised the interdependencies between the RDSI investment and other investments in research networks and eResearch collaboration infrastructure. I would therefore like to update you on the implementation of these related eResearch projects.

The Department has now concluded funding agreements for the remaining eResearch investments under the Super Science Initiative.

National e-Research Collaboration Tools and Resources (NeCTaR)

The Department recently concluded a funding agreement for the $47 million investment in eResearch collaboration infrastructure (now known as NeCTAR) with the University of Melbourne. That project aims to enhance research collaboration by enabling the seamless connectivity of research instruments, analysis systems and data resources, and by providing a national capability though which researchers can develop, publish and access research enabling software tools, and operate those tools in secure and shared environments.

The Project will:

- Provide Australian researchers with new 'research cloud' applications, data and server capabilities;
- Assist researchers develop, integrate and re-use enhanced data finding, mining and analysis tools; and
- Facilitate the development of intellectual capability relating to the use of virtualised cloud systems to support research.

That project is currently in the early establishment stages. In the coming months, the University of Melbourne will undertake public consultation on the activities proposed above.

The existing NCRIS funding for the Australian Research Collaboration Service (ARCS) will continue through to June 2011. ARCS has committed to maintaining its existing services during the period. ARCS infrastructure and services may be adopted and adapted within the NeCTaR project as determined by the project board, following the University of Melbourne's consultations.

National Research Network

In July, the Department concluded a funding agreement with the University of South Australia concerning the $37 million National Research Networks Super Science project. That project will extend and upgrade the Australian Research and Education Network (AREN) to connect regional research data centres with each other, with new and existing high performance computing (HPC) centres, with data-intensive facilities and other high volume sources of primary research data. An Overview of that project has been sent to identified stakeholders recently. If you have not received that document and would like a copy, please let me know.

It is expected that both the eRCI project and the National Research Network project will work closely with the RDSI once implementation arrangements are in place.

The complete set of investments now includes research network enhancements through the NRN project, a very significant lift in computational modelling and data-intensive research capabilities through the expansion of the National Computational Infrastructure facility at the ANU in Canberra and the development of the new Pawsey Centre in Perth, the establishment of a common authorisation and single sign-on capability through the Australian Access Federation, enhanced data management through the Australian National Data Service (ANDS) and the further development of national eResearch collaboration technologies and resources through the eRCI project.

The RDSI forms the final investment and will strengthen data intensive research and data driven collaboration by substantially increasing capacity for research data holdings, and by supporting appropriate access, analysis and data sharing capabilities for those holdings.

The Australian eResearch Infrastructure Council (AeRIC) will develop strengthened co-ordination between these elements as they come on stream.

Please direct any questions or queries concerning this letter to Clare McLaughlin, Manager eResearch via email at Clare.Mclaughlin@innovation.gov.au or by phone (02) 6213 6375.

Yours sincerely

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