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Mr Andrew McGowan  
Standing Committee on Infrastructure and Communications  
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Dear Mr McGowan

### **Submission on the National Broadband Network**

Curtin University has a long history of interest and activity in the development of tools to allow for utilisation of the internet to support government, business and social applications. These tools, that value-add to the existing basic infrastructure, through the provision of content, have the ability to transform the ways in which society interacts.

With the announcement in November 2009 that the Australian Government would establish a new company to build and operate a new super fast National Broadband Network that would connect 90% of all Australian homes, schools and workplaces, Australia stood on the verge of a new era in connectivity and equitable access to critical services that would be accessible independent of geographical location.

Whilst the development of the National Broadband Network is vital, an equally important (and in the long term the most important) aspect of this nation building initiative is the soft infrastructure challenge that will enable Australians in all walks of life to harness the power of the new high speed network.

If the potential of the new National Broadband Network is harnessed effectively Australia stands to gain significantly in terms of:

- global competitiveness;
- increased productivity;
- a major stimulus to innovation;
- the online content revolution;
- the transformation of service delivery, especially health and education;
- its capacity to achieve a low carbon future; and
- greatly enriched opportunities for community development especially in regional Australia.

Through these gains, Australia will be able to develop more sustainable communities (especially in regional centres) with critical mass and access to major city-quality levels of education, health, business and government services. The NBN has the potential to stop the drain of families to larger centres if there is sufficient investment in development of relevant and accessible content. The NBN will also open up larger markets to business operating in regional centres.

Equally, the NBN has the power to transform the way universities operate in an environment where students demand continuous connectivity and ubiquitous portability. Curtin University is leading the way in development of a virtualized teaching and learning environment with development of award winning products such as iPortfolio and Curtin Mobile.

Universities will also look to harness the power of the NBN through development of improved research environments where researcher connectivity will be increased and virtual laboratories and eResearch tools will be more accessible, robust and easier to use. Curtin is already taking a leading role in eResearch initiatives such as NeCTAR and AURIN and will continue to build on its existing involvement in projects such as the iVEC managed Pawsey HPC Centre currently being developed to support the nation's high performance computing and data storage needs, with a particular focus upon radio astronomy and SKA science.

Curtin University is also an active participant in projects such as AUSCOPE, Integrate Marine Observing System (IMOS), Terrestrial Ecosystem Research Network (TERN) and the Population Health Research Network (PHRN), all of which will benefit from the implementation of the NBN.

The decision of the Federal Government to be heavily involved in developing Australia's next generation networks will have major international implications. A highly successful National Broadband Strategic Research Facility, demonstrating how to most effectively harness the power of the new networks, could also play a very significant leadership role in a global context.

Curtin would like to express its interest in contributing to an **Australian National Broadband Strategic Research Facility**. The proposed Research Facility would have as its focus:

*The provision of content for the National Broadband Network (NBN) to bring about a paradigm shift in the Australian way of life by providing major city levels of service, especially those services delivered by Government, to all Australians.*

This would be achieved through:

- Conducting high impact research into the economic, environmental and social applications of the National Broadband Network;
- Developing strategies to maximise productivity increases and job creation opportunities
- Develop strategies for the delivery of high quality government and business services to all Australians;
- Investigate carbon footprint reduction strategies through utilisation of the National Broadband Network; and
- Establish Australia as an exemplar for the development of online content for use on Broadband Networks.

Curtin University is ideally situated to participate in the proposed Research Facility. It has high quality research in the areas of telecommunications (Western Australia

Telecommunication Research Institute), new media (Centre for Culture & Technology), digital online content management (Institute for Multi-Sensor Processing and Content Analysis), sustainability (Curtin University Sustainability Policy Institute), eLearning (the Centre for eLearning), Health Innovation (Curtin Health Innovation Research Institute), electronic markets (Curtin Business School) and public policy (John Curtin Institute for Public Policy). Through its partners nationally and internationally, Curtin has the capacity to engage in joint research and training programs across Australia. Its close ties with the resource sector position Curtin to produce crucial innovation with key industrial partners who are facing many human challenges in regional Australia that can be overcome through maximizing the opportunities provided by the NBN.

Curtin would welcome the opportunity to contribute further to development of research infrastructure that will develop the content critical in ensuring the success of Australia's investment in the NBN infrastructure.

Kind regards

**Professor Linda Kristjanson**

Deputy Vice Chancellor, Research and Development