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**Submission to  
House of Representatives Standing Committee  
on Infrastructure & Communications**

**Inquiry into the Role and Potential of the  
National Broadband Network**



*February 2011*

Submitted by

**the Association of Professional Engineers, Scientists and Managers, Australia  
(APESMA)**

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***What is APESMA?***

The Association of Professional Engineers, Scientists and Managers, Australia (APESMA) is an organisation registered under the Fair Work Act 2009 representing over 25,000 professionals including professional engineers, scientists, veterinarians, surveyors, architects, pharmacists, information technology professionals, managers and transport professionals throughout Australia. APESMA represents a large proportion of the diverse range of technology management professionals who will be engaged in the implementation of the National Broadband Network (NBN) initiative.

***What is the ITPA?***

APESMA represents several thousand members working directly in Information Technology through its special interest group - the Information Technology Professionals Association (ITPA). These IT Professionals will play a fundamental role in designing, constructing and maintaining the NBN.

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The Association of Professional Engineers, Scientists and Managers, Australia (APESMA) is committed to protecting and advancing the interests of its members, a significant proportion of which are technology management professionals. This includes presenting their views and interests in relation to infrastructure projects across a range of industries including telecommunications, and the National Broadband Network (NBN) is clearly such an initiative.

On behalf of our members, we consider it critical that we play an active and considered role in responding to Australia's current infrastructure and communications challenges. The NBN is visionary, will provide huge economic and social benefits for Australian broadband users, and has the potential to meet some of these fundamental challenges.

We thank you for the opportunity to make a brief submission to this Inquiry on the role and potential of the NBN, particularly in relation to leveraging the potential offered by the NBN to expand Australia's existing telecommunications technology and product industry.

**Chris Walton**  
**APESMA Chief Executive Officer**



**Introduction**

It is widely acknowledged that a consistent, reliable, high-speed national broadband infrastructure will be a critical enabler of not only improved innovative capability, economic growth and productivity for Australia but also of individual and community engagement and enhanced service access. The NBN will provide the infrastructure for realising, as Stephen Conroy put it in **Australia's Digital Economy: Future Directions**, all the activities that networked technology makes possible.

The issues of the supply of skilled labour, e-security, addressing the digital divide not only in rural and regional Australia but for particular socio-economic groups in cities, along with the need to ensure openness, user control and flexibility - must be considered alongside the fundamental focus on design and construction. While APESMA acknowledges the critical importance of these areas, this submission will focus on flagging the potential of the NBN to develop not only a highly skilled and specialised design and construction industry, but to provide a basis for significant expansion of our telecommunications and product export industry. It therefore focuses on item (f) of the Terms of Reference – the capacity of the NBN to impact Australia's export market.

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**Development of an advanced design and construction industry**

Construction-related services and the design, building and maintenance of the NBN will require the rapid ramp-up of a design and construction industry by as much as 25,000 personnel over the 10-year period of the project to cope with the rollout of fibre and wireless networks to pass 10 million premises in 10 years. The employment and services revenue increase that this design and construction industry will derive from the NBN will be significant. The difficulty with a primary focus on the investment, stimulus and employment arising out of the design and construction phase is that it will be once-off with only minor follow-on work after 2020 – that is, once the construction phase of the project is complete, much of the wealth creation and many of the jobs involved in this phase of the NBN will inevitably wind down.

**Expansion of our telecommunications and product export industry**

In 2008, the ICT sector contributed \$6.6 billion worth of ICT goods and services to Australia's significant export earnings. APESMA is of the view that the potential exists to leverage opportunities to develop the ICT technology products industry throughout the construction phase of the NBN rollout to drive improvement to our ICT export capacity long-term.

Australia's NBN is world-leading in its wholesale, open-access architecture comprising a mix of fibre, wireless and satellite technologies that are transparent to the retail services that will operate over them. Given this globally leading initiative, it is inevitable that during the rollout of the NBN, various problems unique to an open-access, multi-technology architecture will need to be solved, not just once, but for each new generation of NBN technology. There is thus an opportunity for Australia's telecommunications technology and product industry to help the NBN Co solve these problems in product form and then to export these products to global markets that are also evolving towards open-access broadband architectures. With appropriate capital investment, the technology and product industry offers very positive revenue/employee ratios with estimated sustainable potential growth rates of 50 per cent per annum due to export sales. There currently exists an Australian product industry with relevant NBN product design capabilities that can leverage the NBN to innovate and export niche product solutions for open-access fibre, wireless and satellite markets globally.

APESMA and the ITPA suggests that in spite of there being an existing world-class Australian telecommunications product industry in Australia, overseas equipment suppliers are likely to exclude Australian players throughout the NBN project unless concerted action is taken. We



believe that a pro-active NBN industry plan which includes a technology and product industry component as well as design and construction could help create a sustainable advanced Information and Communications Technology export industry for Australia, extending wealth-creation and employment opportunities well beyond the 10-year construction phase of the NBN.

Upon completion of the NBN, this approach will have the added advantage of a domestically-located workforce for aid in the support phase of the project.

**Summary**

In APESMA's view, including a technology product industry plan in addition to a plan for the design and construction phase of the NBN rollout is a fundamentally important way of creating sustainable Australian export potential, long-term employment growth and maximising the contribution of technology management professionals in this emerging area. It will provide a unique opportunity to ensure a genuinely positive economic return on taxpayers' \$43 billion investment in the NBN, as well as a sustainable support initiative for years to come.

**Further information or clarification**

APESMA would welcome the opportunity to further discuss this submission and Mr. Paul Davies would make himself available to speak to this submission to the Committee if required.

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**Submission preparation and contact details:**

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