Universities Australia Submission to the 2015 Defence White Paper
29 October 2014

Universities Australia (UA) welcomes the opportunity to provide a submission to the 2015 Defence White Paper. Universities make an essential contribution to defence science and technology and provide the skilled graduates that are essential for growing our defence capability. In collaboration with public research agencies and industry, universities are undertaking cutting edge research to deliver technology-based solutions for defence issues.

In this submission, UA highlights the need for ongoing investment in defence science and technology and for greater collaboration, both domestically and internationally, to ensure Australia is equipped to meet the challenges of the future.

Defence science and technology

Investment

Australia’s investment in defence science and technology has delivered clear benefits not only to our Defence forces, but also to industry and society more generally. In order to stay at the forefront of defence capability, Australia needs to maintain and grow its investment through a coordinated and strategic approach.

UA has long advocated for public investment in research and innovation that is predictable, strategic and long-term. A stop-start, fragmented approach is inefficient, reduces the potential return and creates an uncertain environment for researchers, end-users and institutions.

Along with other nations, Australia is experiencing difficult fiscal circumstances, but in recognition of the critical role of science and technology, many nations are continuing to grow their investment. A sustainable base of science and technology is needed so that Australia can not only develop solutions, but can also adapt technologies developed internationally to suit local requirements.
However, there is a need to improve the translation of the excellent science and technology projects undertaken in Australia into deployable solutions for defence. The Defense Advanced Research Projects Agency (DARPA) in the United States provides a very successful model that could be considered for application to Australia. DARPA takes a portfolio approach, with projects spanning basic research to the creation of full-scale technology demonstrations, in collaboration with companies, universities and the US Department of Defense. Key factors that characterise its success are ongoing government commitment and the acceptance of risk, as well as a ‘free to fail’ culture that supports high-risk but potentially very high return projects as part of the portfolio approach.

Achieving our goals for defence science and technology is also reliant on a healthy research and innovation system more broadly. The 2014–15 Budget contained a number of cuts to science, research and innovation programs. UA is concerned about the impact of these cuts on Australia’s future prosperity and international competitiveness.

In addition, addressing the need for a long-term, sustainable model to fund major research infrastructure continues to be one of the most pressing issues for government in supporting and building a powerful research and innovation capability. The additional funding of $150 million for the National Collaborative Research Infrastructure Strategy in the 2014–15 Budget is welcome, but an ongoing commitment must be made, informed by the planned review of research infrastructure provision and requirements.

Collaboration

Strong collaboration, both domestically and internationally, is a feature of high-performing research systems. The sharing of scientific insight, knowledge and skills leads to ground-breaking research and development.

The Defence Science and Technology Organisation (DSTO) has established the university Defence Science Partnerships (DSP) to strengthen university collaboration on improving defence capability. The DSP provides a coordinated and targeted approach to collaboration in strategically identified key technology areas, with a framework that gives universities a simple and consistent way to partner with DSTO. UA welcomes this initiative and is committed to working with DSTO to continue to grow the number of partnerships under the DSP.
It is well-recognised that collaboration between researchers and industry is an area of weakness in Australia’s innovation performance. UA is concerned about the impact of the $80 million cut to the successful Cooperative Research Centres program and the funding cut from industry research and development support in the 2014-15 Budget.

Improving industry and research collaboration cannot be achieved without Australian Government leadership and initiatives to support strong linkages. UA looks forward to working with the Australian Government to progress the discussions in this area and will be providing a submission to the consultation paper on enhancing commercial returns from research announced in the Industry Innovation and Competitiveness Agenda.

International collaboration is an essential element of Australia’s innovation and research effort. International research collaboration provides Australian universities with increased leverage for engaging with industry, both domestically and overseas, by providing incentives for key international firms to invest in Australia.

Highly-valued research partnerships are often underpinned by robust government-to-government agreements and the development of strategic relationships. International challenges require the development of a shared agenda for cooperation based on mutual interests and priorities, complementary strengths and targeted action by research institutions.

There is an enduring need for government programs that facilitate Australia’s international science engagement. Australia’s investment in this area is lagging compared to other countries. Australia has two dedicated funding programs to support international science collaboration, one with India and another with China. These are important initiatives, but the lack of funding to support international science relationships with other countries is leading to missed opportunities to collaborate at a strategic level with leading research countries and key partners.

Yours sincerely,