

Business
Council of
Australia



submission

The Incentive to Innovate: How BCA Members Innovate in Australia and Their Experience with the R&D Tax Incentives

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Working to achieve economic, social and environmental goals that will benefit Australians now and into the future

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The Business Council of Australia (BCA) is a forum for the chief executives of Australia's largest companies to promote economic and social progress in the national interest.

About this submission

In January 2016, 60 members of the BCA responded to a survey on innovation intensity. The survey was commissioned to inform our engagement with government during the implementation of the National Innovation and Science Agenda (NISA). The implementation of the NISA involves important decisions concerning approaches and incentives to encourage innovation. This submission is based on the survey results and the BCA's work on innovation policy.

Summary

BCA members are critical to Australia's innovation ecosystem:

- Innovation is core to their success as companies:
 - 78% have a dedicated innovation program.
 - 75% invest in translating research and innovation into commercial opportunity.
 - 40% invest in pure research.
- BCA members draw from across Australia's innovation ecosystem:
 - 64% use external firms or institutions to prompt innovation or supply a service.
 - 51% purchase technology, machinery or equipment as part of their innovation strategy.
 - 56% of members source more than 25% (by value) of their technology, equipment and services needs from within Australia.
 - 30% of members source between 25% and 50% of their technology, equipment and services needs from small and early-stage businesses.
- Incentives matter for BCA members eligible for R&D tax incentives:
 - 38% say that improved R&D tax incentives would boost their innovation efforts in Australia.
 - 60% see an immediate or eventual reduction in Australian R&D if the program is curtailed.

Recommendations

To make the R&D tax incentive more effective we recommend that:

- ▶ Changes to the R&D tax incentive consider the flow-through effects. Restricting access to the incentive risks a reduction in procurement across the ecosystem and may hamper the development of stronger ties between firms and the research community. As demonstrated by our research, individual BCA firms contribute to the larger ecosystem. Large firms use smaller agencies and firms to innovate.
- ▶ Targeted changes to eligibility based on Technology Readiness Levels (TRL) could shift the balance between research and the translation of research. The Australian system is good at the former but poor at the latter and, without an effective translation capability, our ability to deliver a return on our research investment will be compromised.
- ▶ Reducing administrative complexity and cost, including through pre-registration as the issues paper suggests, could open more funding for R&D.

- ▶ The business and research communities need greater clarity around the issues that concern government and consultation on the options. Equally, it is important for government to be clear that the incentive structure has implications at both corporate and project levels. For example, depending on circumstances, it could be individual researchers or financial managers within a firm choosing the direction of R&D investment.
- ▶ Changes to the incentive structure should provide a transition period to allow firms, suppliers and researchers to develop options for Australian procurement.

Survey outcomes

BCA members are critical to Australia's innovation ecosystem

Of the firms surveyed, 100% identified a clear link between their corporate strategy and innovation strategy. Additionally, 78% have a dedicated innovation program; many of the remainder comment that innovation is now a core program imbedded in the business.

Innovation is taking place across the spectrum of commercial activity, from new products and services; to advanced manufacturing methods and the introduction of robotics; to digital delivery of services and new logistics processes; to knowledge management systems and collaborative ventures. The use of incubators – external and internal – has quickly become a pervasive innovation platform, used by 68% of respondents.

‘The strategic roadmap for our business uses innovation strategies to deliver growth – to drive productivity and reduce operating costs, improve capital allocation, improve products and services in our core business operations and to invest in business models which exploit new technology.’ – survey comment

Seventy-five per cent of the firms invest in commercialising technology and 40% invest in pure research, that is, the funding needed to establish basic principles and concepts. Sixty per cent said risk appetite was no barrier to innovation, though 25% said risk appetite was an issue.

BCA members draw from across Australia's innovation ecosystem

Sixty-four per cent use external firms or institutions to prompt innovation or supply a service, and 51% acquire technology or machinery from external suppliers.

Fifty-six per cent of members buy more than 25% (by value) of those goods and services from within Australia.

Thirty per cent of members buy between 25% and 50% of their technology, equipment or services from small or early-stage businesses.

One potential concern: while 74% of respondents collaborate with public research organisations including universities, which is well above the national average, 26% do not and of those working with public institutions, less than 10% source more than 25% of their external advice or technology from public research organisations.

Of those working with public institutions, 25% worked with global institutions; 22% with CSIRO; and almost 20% with the University of Melbourne. The remainder represented a large number of institutions at lower levels of engagement.

Sixty-seven per cent of respondents did not have a formal process to identify where they could engage with research institutions; 36% said communication with Australian institutions was poor and the awareness of research capability low; and 16% said a greater level of commerciality in public research organisations was needed to increase collaboration.

Incentives matter

Sixty-three per cent reported that government policies, programs and processes impact their innovation efforts.

Fifty per cent of those respondents reported that the R&D tax incentive had an impact on their innovation investment. Of the respondents who currently qualify, 38% said that an improved R&D tax incentive would boost their innovation efforts in Australia.

Sixty per cent report that an immediate or eventual reduction in Australian R&D will occur if the program is curtailed. This concern was pronounced in the manufacturing, energy, gas production and distribution, and telecommunications sectors.

**‘We are a global firm and we locate our research people based on a variety of factors. However Singapore is becoming a hub because they offer significant tax benefits for locating researchers in their country.’
– survey comment**

Thirty-one per cent reported that the innovation ecosystem, particularly regulatory settings and policy consistency, had an impact on their innovation efforts.

‘The viability of our manufacturing footprint and supply chain and our innovation program more broadly is dependent on our ability to operate in rational regulatory environments, where we have the confidence to invest for the future and grow our business.’ – survey comment

Twenty-four per cent said that a commercial focus or better incentives for researchers would improve collaboration with the private sector.

Setting the right incentives

Investment in R&D occurs along a spectrum, starting from pure research and extending to the commercialisation and application of technology. As the knowledge created from this investment is disseminated it generates additional benefits, and these spillovers often

have public good characteristics. The public good characteristics tend to decrease as R&D progresses along this spectrum, so there is a stronger rationale for government to support investment earlier in the development cycle.

Australia has a strong record when it comes to pure research, however, we have not been as successful at translating our innovations into commercial opportunities. There are a number of drivers in the current system that create this imbalance, which was recognised in the formulation of the National Innovation and Science Agenda (NISA). There is an important role for government to create the incentives for translation and commercialisation.

The R&D Tax Concession was introduced in 1986. It aimed to make eligible companies internationally competitive by encouraging innovative products, processes and services and by promoting technological advancement and strategic R&D planning. The concession was broad-based and market-driven, reflecting the government's policy objective to increase commercialisation of new process and product technologies.

The R&D Tax Incentive replaced the R&D Tax Concession from July 2011. It has four objectives:

- Boost competitiveness and improve productivity across the economy.
- Encourage industry to conduct R&D that may not otherwise have been undertaken.
- Provide business with more predictable, less complex support.
- Improve the incentive for smaller firms to engage in R&D.

We understand that government is concerned with the cost and focus of the tax incentive. Apparently there has been marked growth in the cost of the refundable element of the R&D Tax Incentive, which is not relevant to BCA members. Anecdotally there are also concerns that the non-refundable component has been applied in some cases to activities inconsistent with the philosophy underpinning the program.

In either case, the data to substantiate any changes – and specifically, to illuminate what is driving the growth in the program and the associated results from that investment – is needed to form a view. Changes to the program should be based on analysis. For example, a 2014 study for the European Commission (EC) concluded that there is no inherent advantage in a grant scheme over a tax incentive, and that a well-designed tax incentive scheme can deliver similar benefits for lower cost.

Rewarding R&D intensity

If the growth in the refundable component is being driven by the cost of administrative complexity (for example, the costs to individual firms from applying to and accounting for the program), then an immediate priority would be to implement a less complex system. Reducing administrative complexity and cost could open up more funding for R&D. The issues paper canvasses a pre-registration system, for example.

If the growth in the non-refundable component is a concern, then a clearer definition and targeting of the incentive could be considered and developed to reward R&D intensity, though eliminating a broad-based concession altogether could have significant flow-through implications for the innovation ecosystem, given the procurement patterns identified in the BCA survey.

Similarly, reducing the cap of \$100m for the non-refundable offset could have significant flow-through implications for the innovation ecosystem. At current corporate tax levels, for firms planning on investing in R&D the marginal cost increase compels them to consider offshore investment, and that is particularly true for companies with global operations.

We would welcome the opportunity to discuss the options for rewarding R&D intensity. Conceptually we would suggest two components to the measure: eligibility based around technology maturity using an estimation of the Technology Readiness Level (TRL); and concession levels that increase with consistent investment in innovation.

There are various definitions of TRL in use around the world. For illustrative purposes, the UK system is outlined in the table below:

TRL Level	Description
1	Basic principles observed
2	Technology concept and/or application formulated
3	Analytical and experimental critical function and/or characteristic proof of concept
4	Component validation in laboratory environment
5	Component validation in relevant environment
6	System model or prototype demonstration in a relevant environment
7	System prototype demonstration in an operational environment
8	Actual system completed and qualified through testing and demonstration
9	Actual system proven through successful operations

The structure of the intensity incentive could follow this form:

1. A base level of R&D tax concession for eligible applications continues to stimulate innovation across the economy.
2. For eligible applications with TRLs between 1 to 3 and 4 to 6, differentiated higher levels of concession could apply.
3. If a firm invests consistently over a longer period (say three years) in TRL 1 to 3 and 4 to 6 innovation, then the highest concession levels could recognise that commitment to the Australian ecosystem.

The outcome would be to reward consistent investment in R&D for the transition stages of technology development, while retaining some incentive for eligible applications across the economy.

Targeted changes to eligibility based on Technology Readiness Levels could shift the balance between research and the translation of research. The Australian system is good at the former but poor at the latter and, without an effective translation capability, our ability to deliver a return on our research investment will be compromised.

This is also an area where you might consider a complementary incentive aligned with the Review of Research Policy and Funding Arrangements conducted by Ian Watt. For

example, an additional incentive for firms that demonstrate they will be drawing PhD or post-doctoral students into their firms for the purposes of supporting translation.

We would advocate that investment in software continue to be eligible for a tax incentive, recognising that the purpose of the investment must align with the objective of programme, i.e. an investment in business as usual software would not have the same merit, and there is a basis to distinguish between investments based on their purpose.

Transition and grandfathering

If the government decides on change, then there are two significant implementation risks:

- An announcement that undermines the perception of a consistent and predictable policy framework for planning.
- A transition that does not allow for firms and researchers to explore other paths to maintain collaboration.

‘Recent (5–7 years) flip-flops and revolving door successive governments do raise questions on the global stage on the stability of Australian government policy. [It] creates inherent investment challenges when companies have less certainty of policy being seen through to end of political terms. This is at odds with what should otherwise be a ‘mature’ market (therefore creates risk on investment/true innovation).’ – survey comment

For that reason, we recommend that applications currently in process and investments already approved as eligible remain under the current framework. Further, we suggest that any new system be subject to consultation and once announced, that there is a 12-month transition period before the new system applies.

Conclusion and next steps

We share the government’s ambitions for Australia articulated in the NISA and strongly support the view that innovation funding is about driving economic growth and not about a budgetary solution. Consequently, the immediate priority is a clearer understanding of the problem. We would welcome the publication of data to assist our appreciation of the government’s concerns and particularly, an analysis of the data from the standpoint of a TRL scale to understand the outcomes from the current scheme.

We also would welcome a restatement of the government’s purpose with the tax incentive. This should provide clarity on the balance between the funding of pure research (where Australia has historically performed well) versus the process of translating research into commercial opportunities (where we have not). We believe that support for the translation phase is essential to the innovation economy and consistent with the direction of the Ian Watt reforms, particularly the ambition to educate and employ students with STEM degrees within Australia.

The undertaking of research and development takes place in the context of a global environment. Now more than ever, individuals and business can choose where to undertake their investment. The focus of the global economy on the opportunities from innovation provides Australians and Australian firms with options to pursue their research and translation agendas overseas. We must have a competitive R&D tax incentive, within our broader innovation framework, to compete.

Through this analysis, if the growth in the refundable component is the issue and it is being driven by the cost of administrative complexity, then an immediate priority would be understanding the root cause of that complexity and determining the options for a lower cost system. The issues paper canvasses a pre-registration system, for example.

If the growth in the non-refundable component is a concern, then a clearer definition and targeting of the incentive could be considered to reward R&D intensity through a TRL scale.

We would welcome the opportunity to engage on the options for this measure, though we caution that eliminating a broad-based concession altogether, or reducing the cap of \$100m for the non-refundable offset, could have significant flow-through implications for the innovation ecosystem, given procurement patterns. At current corporate tax levels, for firms planning on investing in R&D the marginal cost increase compels them to consider offshore investment, and that is particularly true for companies with global operations.

If change is needed, we recommend that applications currently in process and investments already approved as eligible remain under the current framework. Further, we suggest that the implementation of any new system be subject to consultation and once announced, that there is a 12-month transition period before the new system applies. Finally, once the framework is set, it must be maintained for a long period to foster the perception of a stable innovation ecosystem. Success overseas in this policy area has been underpinned by established frameworks maintained for long periods.

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