May 18, 2022

Australian Government
Department of Education, Skills and Employment

By Email: RBGrants@dese.gov.au

RE: Research block grant reform to boost incentives for greater university and industry collaboration (consultation paper)

The Australian Industry Group (Ai Group) welcomes the opportunity to provide a brief submission on the above consultation paper.

Ai Group is a peak national employer association representing and connecting thousands of businesses in a variety of industries and sectors across Australia. Our membership and affiliates include private sector employers large and small from more than 60,000 businesses employing over 1 million staff.

General Comment:

- Incentivising and rewarding universities for industry collaboration is important, but all frameworks should consider that some universities may be better resourced, or better placed (geographically, financially etc.) than others to capture industry partners, and the system should be carefully considered to avoid creating or magnifying disadvantage.
- Government can incentivise/support better industry-university collaboration through a focus on mutual benefit between businesses and universities. This involves consideration of cultural issues, such as overvalue of IP by universities and the difference in pace between a faster moving private sector and a traditionally slower moving research process.
- Some research is not necessarily valuable from a commercial standpoint but is immensely valuable to the well-being of the Australian public. Although this point is less applicable to the RBG discussion, all reform should be holistic.

Specific Comment:

How does industry decide which universities to engage with for research and development and what metrics or rankings play a role in this decision-making process?

Once an employer has identified a specific business problem that requires research for their solution, the decision as to which university to approach can be influenced by a number of factors. Major influences include a university that has knowledge and expertise in the relevant discipline/field; pre-existing relationships/partnerships for research, calibre of PhD students, previous partnerships on work integrated learning or co-design; and close geographical location.

Research strengths highlighted through the ERA and other world-based rankings that use metrics of quality and quantity of academic publications and citations across all disciplines, can have a bearing once a university is identified as having research expertise specific to a company's problem. They assist in steering a company towards a compatible collaboration.

However, the ability of the university to explain how their applied research services are relevant can be a deciding factor for engagement and one which ultimately drives research translation. At an Ai Group forum in April 2022, a member commented that the university contact they approached about a possible partnership was unable to explain how their mathematical modelling services for manufacturing would be applied, therefore the company was unable to imagine the benefits 'at the coalface'. Another Ai Group member business reported confusion about how to source a university to partner with for research in the first instance.

More awareness is needed by companies of existing metrics and rankings on high quality research that can assist in decision making once they are considering a university partner. For some (particularly smaller companies), there is still a gap in knowledge around how and where to start the search for a relevant university, and how to approach them when they do find one of interest.

Is industry more likely to collaborate with a university that ranks highly in research quality indicators, such as ERA rankings?

As outlined above, the starting point for businesses is often identifying those universities with the specific research expertise required for meaningful application in their organisational context. Rankings would provide a guide when deciding between a few universities with similar research capabilities. However, where strong relationships already exist, and/or previous PhD student involvement has been valued, and/or successful outcomes have been achieved between a company and a university, or where proximity is paramount, rankings are not as important.

Are there any additional metrics, rankings or data that would be useful for industry in deciding which universities to engage with?

A major goal of the URC Action Plan is accelerated and deeper research collaboration between industry and industry researchers. Many successful partnerships achieve longevity: they are established over time and based on mutual trust, benefit, and communication.

Given employers have expressed to Ai Group barriers to contacting universities, Australian companies seeking research engagement would benefit from information identifying which universities have developed streamlined communications that enable a company to easily approach them and articulate their research problem(s). Dedicated university guidance should take companies through different expectations relating to outcomes and commercial imperatives, time horizons, IP, and ongoing management.

The URC Action Plan places high importance on the increased roll out of PhD and masters by research students through a new National Industry PhD Program. This aspect relates to the RTP within the RBG funding. The RBG funding consultation paper refers to the need to develop a new breed of research entrepreneurs.

If industry is to be encouraged to invest, it needs to be confident of students' discipline-specific and enabling capabilities. Companies considering embedding graduate research students will benefit from data on the pathways taken by previous students in relevant disciplines at the universities under consideration.

Employers will want information on the span of relevant capabilities they need in PhD candidates as they develop, such as: relating theoretical knowledge to practical industry application; understanding of types of projects that will solve the problem and what it will achieve for the company; knowledge of industry technology systems; knowledge of business strategy and operations; complex problem solving; design thinking; being agile, flexible and creative in the work environment; and communicating effectively.

Will the proposed 'government' and 'industry' funding drivers and changes to the RBG funding framework have the effect of increasing universities' collaboration with your organisation?

In April 2022, an Ai Group member commented on a perception that universities have an interest in collaborating with larger businesses. Notwithstanding that small and medium sized enterprises can have investment constraints, an increase in the involvement of business from these latter sectors is important in achieving the URC Action Plan.

Universities must work to align goals for a small company. These needs/goals often do not align with many of the longer-term university research models (for example, research to produce a small change in productivity on a product line quickly). One support for universities could be aimed at bringing a group of SMEs together in a related research specialisation, to generate scale.

The proposed RBG funding model 'incentivises a greater share of funding towards the transitional and commercialisation phases of the research pipeline'. An important component in achieving this is a National Industry PhD program that involves PhD and masters by research students with the broad span of capabilities required to work in, and with, industry to take a research project to commercialisation. Universities, with industry, need to develop these technical and generic capabilities throughout the engagement

If you have any further questions regarding this submission, please contact our Advisor, Rachael Wilkinson (rachael.wilkinson@aigroup.com.au).

Sincerely yours,

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