Discussion Paper: Boosting the Commercial Returns from Research

Australian Government: Department of Education and Department of Industry

Central Queensland University submission: November 2014

CQUniversity welcomes this paper and the questions it raises for discussion. The importance of the measures and concepts proposed in the discussion paper cannot be overstated, since the 'Excellence in Research for Australia' exercise is an example of how quickly Universities will align their activities and structure to obtain the best possible outcomes for their organization and for Australia. With this in mind, any new programs or '*auditing*' processes designed to foster, measure and reward research engagement with industry needs to be carefully considered, particularly with regard to where the real issues reside and how new incentives will drive behaviour. We have outlined below our position on a number of key points posed in the paper.

Setting national priorities for research

CQU endorses the establishment of national research priorities as a way of providing strategic focus to research. However, as noted in the Wills Report from 1999 which is still valid today, '*curiosity driven, investigator-initiated, peer-reviewed fundamental research is the foundation of our current success and it must remain so. It must underpin our research effort as it does in other successful research countries*.' Therefore CQU is of the view that national research priorities are imperative but allowance must also be made for funding of research areas that may not necessarily be included in those priorities at the time. Furthermore, it is important to set enduring priorities so that the research sector has sufficient time to align their respective strategies, focus and structure to build critical mass and research activity around the national priorities, and then deliver on them.

Creating stronger incentives for research-industry collaboration

It is clear that incentives and rewards need to be in place for both industry and research organisations if greater research engagement is to occur. This touches on the metrics used for allocating research block grant funding to universities. Universities need funding recognition for engaging and delivering on commercially-aligned research, so the metrics used for allocating block grant funding need to reflect this i.e. patents, industry funding received (component of Cat 3), publications in industry-sponsored media and researcher/industry coauthored papers etc. Patents as a university KPI could be added as a university driver in the 'solution space', but it should be noted that 80% of patents are never progressed. Only patents showing investment and ownership by industry partners should be valued in such a scheme. A heavy reliance on patents as an

outcome is likely to drive patenting behavior such that the outcomes for commercialization are significantly less than anticipated, devaluing the worth of patents. Commercial investment into research activity, such as industry funding, is one metric that will drive research investment in the right direction and is supported by CQUniversity as reflective of industry-researcher engagement.

We also want to emphasise that a readjustment of the way block grant funding is allocated should not come at the expense of reducing the support provided to undertake fundamental research. Australia has an excellent reputation for undertaking high quality fundamental research which may be compromised by the reallocation of block grant funding, if resources are taken away from this endeavor, i.e.' *robbing Peter to pay Paul*'.

There needs to be caution when proposing to consolidate current funding programs as there is the risk of losing engagement from some players in the industry sector. 'Industry' represents a heterogeneous mix of organisations of varying scale and different needs and capacity to engage in research projects; programs designed to bring industry and researchers together need to reflect this '*heterogeneity*'. For example, a large multinational will have the expertise and resources to commit to long-term projects requiring substantial cash commitments (e.g. CRC programs) whereas many SME's will want to engage in research projects with less commitment (e.g. Research Connections). The scope of programs designed to support industry-researcher collaboration should cover these different levels of commitment.

There needs to be a national system of facilitating/brokering engagement between researchers and industry. It can be difficult for industry, particularly SMEs, to find the right door in Universities for establishing a connection and in many cases researchers are not necessarily the best negotiators and/or listeners of industry-based research needs. It may be that the proposed Industry Growth Centres will take on such a role.

Supporting research infrastructure

CQUniversity support the proposed measures, noting that getting access to infrastructure is problematic and often an expensive exercise for regional universities. We ask that consideration is given to locating relevant national infrastructure in regional areas e.g. agriculture-based infrastructure and facilities. Not only would this improve access to highly utilized facilities for regional universities, but also support the communities themselves.

Providing better access to research

CQUniversity supports the proposed measures and particularly welcomes the release of an IP toolkit.

Increasing industry-relevant research training

This is highly supported by CQUniversity and we look forward to a review in this space. It is worth considering the allocation of Commonwealth scholarships designed specifically for fostering RhD training in industry. Such scholarships would only be awarded to projects where industry involvement is clearly evident. Also, the involvement of industry practitioners in coursework, or workshop, modules of RhD training is suggested.

Measurement of outcomes

CQUniversity supports the improvement of metrics used to capture industry engagement and knowledge transfer, as stated earlier in this submission.