



AAH Policy

RESPONSE TO THE *R&D TAX INCENTIVE REVIEW REPORT* OCTOBER 2016

The Australian Academy of the Humanities (AAH) welcomes the opportunity to comment on the *Research and Development (R&D) Tax Incentive Review Report*.

The Review Report recognises the need to make improvements to the program, including encouraging additional R&D expenditure and improving industry-research collaboration. The AAH appreciates that the co-chairs of the Review recognise the need to 'encourage research that would otherwise not take place'.¹ Bold thinking is required to address current deficits. This includes reconsidering current exclusions, and ensuring that changes to the scheme do not create new impediments to industry-research collaboration.

Our comments address two of the Review Report's recommendations, specifically:

- recommendation 1, the definition of eligible activities (which continue to exclude humanities, arts and social sciences (HASS) research as core R&D); and
- recommendation 2, the introduction of a collaboration premium to include the cost of employing new science, technology, engineering and mathematics (STEM) PhD or equivalent graduates in their first three years of employment.

The Review Report's conclusion that the scheme is not delivering against its stated objectives would indicate there needs to be more than just some fine-tuning of the program; there is every reason to explore other ways of achieving its objectives more effectively and at less cost to the community. We also therefore point to work undertaken by Bruce Chapman and Glenn Withers on the potential of income contingent loans to address these objectives.²

Humanities, arts and social science research

To maximise the potential of the R&D incentive, industry should be able to avail itself of all relevant legitimate research activity.

The exclusion of research in HASS from core R&D activities acts as a disincentive for industry to engage with a significant component of the Australian research sector. HASS researchers comprise 43% of the university-based research system, and HASS contributed 42% of the total number of units of evaluation in the Excellence for Research in Australia (ERA) initiative in 2012.³ Researchers in these fields are integral to the research system in

Australia, as well as being vital partners with their colleagues in the STEM fields in interdisciplinary and cross-disciplinary research collaborations. There is a significant, though currently under-realised potential in the HASS sector to contribute to the government's R&D objectives.

The Review Report claims its definitions broadly align with the *Frascati Manual* yet fails to take note of significant shift in the latest edition of that manual (OECD *Frascati Manual 2015*) in giving greater emphasis to role of HASS in R&D. The latest edition recognises that 'while the manual has always applied to all scientific disciplines, there is more emphasis on the social sciences, humanities and the arts, in addition to the natural sciences and engineering'⁴. Thus:

R&D is found in the social sciences, humanities and the arts as well as in the natural sciences and engineering. This manual gives greater emphasis than past editions to the social sciences, humanities and the arts. This requires no changes in the definitions and conventions, but it does require greater attention to the boundaries that define what is and what is not R&D.⁵

The baseline definitions of qualifying R&D in the *Frascati Manual* 'were originally developed for manufacturing industry and research in the natural sciences and engineering' so '[s]pecific problems therefore arise for applying them to service activities'.⁶ This problem is increasingly common in jurisdictions that are transitioning to service-based economies, and it calls for stronger guidance on the qualifying criteria. The OECD's *Frascati Manual* 6th edition conceded, though did not sufficiently address, the 'desire for better information on R&D in service activities'.⁷

A recent report from the Australian Council of Learned Academies (ACOLA), *Translating Research for Economic and Social Benefit - Country Comparisons* (2015) found that 'measures to encourage public sector researcher engagement can be structured in ways that create opportunities for those in the humanities, arts and social sciences' – 'at a minimum' the report finds 'it is important to ensure that HASS researchers are not excluded from generally available measures to encourage public sector researcher engagement with external parties'.⁸

Submissions to the earlier phase of the R&D consultation from both Universities Australia (UA) and the Innovative Research Universities (IRU) also single out this issue as a short-sighted impediment:

- 'The increased national focus on research-industry collaboration and research impact should not exclude the social sciences, arts and humanities. The creative industries, social sciences and humanities have driven innovations across the full suite of human endeavour including health care, urban planning and public policy. As such, further consideration should be given to broadening the scope of R&D activities eligible for support to include social sciences, arts and humanities'.⁹

- 'Include research in social sciences, arts and humanities where it meets standard tests of being a core Research and Development activity directly relevant to the business's future development'.¹⁰

Both of the above submissions, and others from organisations such as Telstra, are cognisant of shifts in innovation policy thinking and on-the-ground practice. While there is still very much a need to support institutionally structured R&D in the natural sciences and engineering, technological innovations are only one part of the mix. A growth area for Australia is in service innovation.

In Australia software innovation has also 'become a major tangible innovation activity with a high R&D content. In addition, an increasing share of relevant activities draws on the social sciences and humanities, and, together with advances in computing, leads to intangible innovations in service activities and products, with growing contributions from service industries in the business enterprise sector'.¹¹ The AAH recommends that the efficacy of Australia's R&D tax incentive provisions are examined to ensure that opportunities for cultural industries, digital R&D, design for social innovation and future service-oriented industries embracing social enterprises are maximised.

PhDs to facilitate industry-research collaboration

A number of the earlier submissions to the R&D current consultation process make the point that there is an opportunity for additional 'incentive[s] for firms that demonstrate they will be drawing PhD or post-doctoral students into their firms for the purposes of supporting translation'.¹² The AAH sees value in tax incentives for employing PhD graduates but challenges the R&D Tax Incentive Review Report recommendation that these should be STEM-only. Both the Business Council of Australia (BCA) submission and the submission from the Australian Technology Network of Universities (ATN) recommend the value of PhD incentives for intensity but neither of these organisations single out a STEM-only approach.

Industry does not talk in terms of HASS and STEM. These disciplinary configurations are essentially meaningful for the supply side of the ledger. Industries are interested in the skills and talents they need to support R&D development whether the demand is to meet product, process, or design innovation. The future of innovation across all sectors of the economy will increasingly require interdisciplinary collaboration. Health service delivery will rely, for example, as much on technical as service innovation.

A recent report from ACOLA has examined this issue in detail. *Skills and Capabilities for Australian Enterprise Innovation* (2016) focuses on how some of 'Australia's most innovative companies mix technical and non-technical skills to meet innovation challenges and grow in the face of volatility of markets, digital disruption, increasing global supply and value chains, and service sector models for the economy'.¹³ It finds that 'the Government's major policy instrument to incentivise enterprise innovation, the R&D Tax Incentive, could be refined to ensure a proportion of the incentive devoted to 'profit contingent' loans is coupled with pre-requisites for skills development measures or for collaborative arrangements'.¹⁴ This would apply across the STEM and HASS spectrum, with industry determining its R&D skills needs.

The eligibility test should not be subject to arbitrary discipline exclusions but rather whether or not the activity meets the definition of R&D.

The AAH recommends:

1. Widening eligible core activities to include humanities, arts and social sciences research (R&D Tax Incentive Review Report Recommendation 1).

The AAH is not proposing a dilution of the strict eligibility tests to all claims for public support for private R&D activity, what we do propose is the removal of the arbitrary exclusion of HASS research as core activity when it would otherwise meet the definition of research activity. The OECD's *Frascati Manual 2015* gives specific plain-English examples of what constitutes R&D in the full range of disciplines – including in the humanities (history, languages/linguistics, and music).¹⁵

2. Remove the reference to 'STEM PhD or equivalent graduates' (R&D Tax Incentive Review Report Recommendation 2).

The AAH questions why the Review Report would effectively include a disincentive to both firms and researchers who would benefit from HASS-specific research and translational capabilities. To apply for a collaboration premium to include the cost of employing new PhD graduates in their first three years of employment, the test for eligibility should be whether the R&D activity itself meets the required definition.

An expanded scheme (inclusive of HASS and STEM) has the potential to drive cultural change at a national scale, seeding the development of a next generation PhD workforce, capable of building links across both industry and academia.

3. Consideration is given to more direct measures of support for industry R&D, specifically more structured support for humanities, arts and social sciences.

The UK has invested in two programs which are designed to promote the potential of arts and culture R&D: a three-year Digital R&D Fund for the Arts¹⁶; and the Arts Council England and Nesta have now launched a Digital Arts and Culture Accelerator – a pilot program to 'explore whether a tech accelerator model can transfer into the arts and cultural sector, to support innovative new ideas from organisations that do not ordinarily take on commercial or social investment'.¹⁷

4. Improving the guidelines to clarify eligible activity.

At the very least, Australia's ambiguous and potentially discouraging guidelines should be amended to give explicit examples of where HASS research *is* within frame of the current R&D provisions. Plain English advice and exemplars with respect to HASS research are needed. For example, the New Zealand's Inland Revenue advice is:

If a business is developing an innovative product and the development process satisfies the definition in section LH 7, the development is not excluded simply because the product is used in the arts or humanities. For example, if a business develops computer software for use in the film industry in a process that satisfies the criteria in the definition, the software development is not excluded under this paragraph. Similarly, if a business develops and manufactures innovative ceramic glazes, the development is not excluded under this paragraph because glazes are used in the visual arts.

With regards to meeting the current definition of R&D support activity, again the New Zealand model gives specific guidance with respect to HASS:

As with the other exclusions, this [HASS] research is excluded from being a SIE activity only. When research in these fields is required for development of a new product or process, the research can be an eligible support activity. For example, if research into human behaviour is required for the development of an innovative product, the research can be an eligible R&D support activity.¹⁸

5. Consideration is given to an income-contingent loan scheme to support R&D activity – of the kind proposed by Bruce Chapman and Glenn Withers and detailed in the *Skills and Capabilities for Australian Enterprise Innovation* report (ACOLA, 2016).

We encourage the Review Report to address the findings in the *Skills and Capabilities for Enterprise Innovation* report, which suggests that:

a proportion of the incentive devoted to ‘profit contingent’ loans could be coupled with prerequisites for skills development measures or for collaborative arrangements. There are two possible reasons for rethinking the basis of government subsidies in the R&D area, to move away from total reliance on grants and towards loans of this type: (i) the difficulties associated with establishing causal links between subsidies and value-added innovation behaviour implies concern with monitoring and establishing the connection between subsidies and R&D outcomes; and (ii) loans systems, particularly generously designed loan systems, have the great potential for achieving similar outcomes as grants at far less cost to taxpayers.¹⁹

The justification for such a scheme is at the heart of the Review Report’s objectives of ensuring that the government is not simply funding things that would happen anyway, and works also to address existing disincentives (including compliance costs) which effectively exclude precisely the kind of SME the R&D incentive is intended to help. An additional advantage of such a scheme is that there would be a financial return for government investment.

We would be happy to elaborate on any of the feedback in this submission. Please direct your initial enquiries to our Executive Director, Dr Christina Parolin.

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President

The Australian Academy of the Humanities (AAH) is one of Australia's four Learned Academies, established to advance knowledge and the pursuit of excellence in the humanities for the benefit of the nation. A key role of the AAH is to provide independent expert advice to government and policy makers, promoting the social significance of humanities scholarship and its vital importance in shaping effective public policy.

NOTES

¹ B. Ferris, A. Finkel and J. Fraser, 'Statement Review of the R&D Tax Incentive', 28 September 2016, <http://www.chiefscientist.gov.au/2016/09/statement-review-of-the-rd-tax-incentive/>

² Chapman, B. and Withers G. (February 2016), 'Innovation Financing and the R&D Scheme: Different Ways of Thinking About University Research and Industry Linkages'. Available from <https://www.business.gov.au/Assistance/Research-and-Development-Tax-Incentive/Review-of-the-RandD-Tax-Incentive/Previous-submissions>

³ Turner, G. and Brass, K. (2014) *Mapping the Humanities, Arts and Social Sciences in Australia*, Australian Academy of the Humanities, Canberra, p.2
http://www.humanities.org.au/Portals/0/documents/Policy/Research/MappingProject/txt/Mapping_HASS_Aust_FinalReport_All_Oct2014.pdf

⁴ OECD (2015) *Frascati Manual 2015*, p. 43. Available from <https://www.oecd.org/publications/frascati-manual-2015-9789264239012-en.htm>

⁵ OECD, *Frascati Manual 2015*, p. 44.

⁶ Quoted in Cunningham, S. (2013), *Hidden Innovation: Policy, Industry and the Creative Sector*, University of Queensland Press, p.40.

⁷ Quoted in Cunningham *Hidden Innovation*, p. 40.

⁸ Bell, J, Dodgson, M, Field, L, Gough, P and Spurling, T (2015). *Translating Research for Economic and Social Benefit: Country Comparisons*. Report for the Australian Council of Learned Academies, p.18.
<http://www.acola.org.au/PDF/SAF09/SAF09%20Full%20report.pdf>

⁹ Universities Australia (March 2016) 'Submission to the Review of the R&D Tax Incentive', p.7. Available from <https://www.universitiesaustralia.edu.au/Media-and-Events/submissions-and-reports/Review-of-the-R-D-Tax-Incentive/Review-of-the-R-D-Tax-Incentive#.WBfgBMnD-zQ>

¹⁰ Innovative Research Universities (March 2016), 'Response to the Government's National Innovation and Science Agenda – Submission 2: Research & Development Tax Incentive Review', p. 3,
<http://www.iru.edu.au/wp-content/uploads/2016/03/IRU-NISA-response-2-RD-Tax-Review.pdf>

¹¹ Cunningham, *Hidden Innovation*, p.46

¹² Business Council of Australia (March 2016) 'The Incentive to Innovate', p.8. Available from <http://www.bca.com.au/publications/the-incentive-to-innovate>

¹³ Cunningham, S., 'Skills and Capabilities for Australian Enterprise Innovation', presentation at Australian Council of Learned Academies workshop, 'Navigating Expertise: Lessons from the Securing Australia's Future Program', 2 November 2016, National Portrait Gallery, Canberra.

¹⁴ Cunningham, S., Theilacker, M., Gahan, P., Callan, V. and Rainnie, A. (2016) *Skills and Capabilities for Australian Enterprise Innovation*, Australian Council of Learned Academies, pp. 12-13,
<http://www.acola.org.au/pdf/saf10/Full%20report.pdf>

¹⁵ OECD, *Frascati Manual 2015*, pp. 56-7.

¹⁶ Digital R&D Fund for the Arts, see <http://artsdigitalrnd.org.uk/about/>

¹⁷ Digital Arts and Culture Accelerator <http://www.nesta.org.uk/project/digital-arts-and-culture-accelerator>

¹⁸ New Zealand Inland Revenue Department, 'Activities excluded from SIE activities (Schedule 21, Part C)', <http://www.ird.govt.nz/technical-tax/legislation/2007/2007-108/2007-108-activities-excluded/>

¹⁹ Cunningham et al., *Skills and Capabilities for Australian Enterprise Innovation*, pp. 12-13.