

## Supporting R&D in Australian business

Submission on the new R&D Tax Incentive second exposure draft

This submission argues:

exclusion of 'research in social sciences, arts and humanities' from core R&D [section 3335-30(f)] means that cases of genuine business R&D will be excluded from the new incentive;

business R&D which draws on research in humanities, arts and social sciences (HASS) can otherwise meet the definitions and criteria of core R&D;

there are already sufficient safeguards in the legislation which exclude non-R&D examples of HASS-based research and business activity—preventing spurious claims—and thus the exclusion is not necessary in order to achieve the objective of the legislation;

it is a category error to include research in HASS in the exclusion list since the list is designed to outline routine, standard and compliance activities that are by definition non-R&D;

the exclusion therefore plays no role other than deliberately blocking research and development in significant areas for Australian industry;

removing 335-30(f) from the exclusions list is an important step in achieving the goals of the legislation, for the benefit of Australian economy and society.

In responding to one of the key recommendations of the *Venturous Australia* report of the 2008 Review of the National Innovation System, the government has sought to update the previous R&D tax concession with a new R&D tax incentive. CHASS supports these reforms.

These arguments and our comments below are consistent with CHASS's previous submission to the R&D Tax incentive consultation paper released in September 2009<sup>1</sup>, and with the Council's existing policy position on the inclusion of humanities, arts and social sciences (HASS) Research, Design and Development in innovation programs.<sup>2</sup>

**Firstly, the general principles of the proposed new tax incentive are a significant and welcome advance in public support for research and development.** In the consultation and drafting process much headway has been made in making the tax incentive more usable by small to medium business, who have the most to gain from productivity growth and innovation, and much to contribute in the way of spill-over effects in their local and international markets.

<sup>1</sup> <http://www.chass.org.au/submissions/pdf/SUB20091118HH.pdf>

<sup>2</sup> In preparing this current response, CHASS has not undertaken full discussions with all member organisations, and therefore these comments should not be taken as an agreed position for the 83 organisations involved. These comments are consistent with the Council's existing policy position on the inclusion of HASS research and development in innovation programs, as found in CHASS's submission to the Review of the National Innovation System (<http://www.chass.org.au/submissions/pdf/SUB20080420SC.pdf>).

Clarifications to definitions and tests in the second exposure draft are important improvements in setting a standard and expectation for R&D in Australian industry which would allow transdisciplinary collaboration in new product and service development, and R&D in business process.

**However, the continued explicit exclusion of research in HASS is now even more clearly inconsistent with the aims of the draft legislation and with the Explanatory Materials.**

Knowledge production and transfer from HASS plays an increasingly significant part in innovative services-based business activity. This is particularly the case for:

- human services,
- design services,
- creative industries, and
- interactive software development.

As we argued in our previous submission, much contemporary innovation research now accepts that R&D in such services cannot be over-looked by advanced economies. In keeping with this, the latest edition of the OECD *Frascati Manual* (6th edition, published back in 2002) affirms that ‘social sciences and humanities are covered in the Manual’ in relation to R&D that produces ‘knowledge of man, culture and society’ and ‘R&D relating to the knowledge of behaviour and organisation’ (p48). Various national innovation policy documents have also acknowledged the need to involve HASS, including Australia’s *Venturous Australia* (2008), Canada’s innovation strategy *Achieving Excellence* (2002), the UK’s *Innovation Nation* (2008) and the briefing documents of European Union’s Year of Creativity and Innovation (2009).

Section 335-30 provides an extended, detailed list of activities excluded from qualifying as core R&D. The list mentions many forms of routine, standard, and compliance-driven activities that should clearly be excluded. This includes: market research, sales promotion, efficiency surveys, management studies, quality control, cosmetic changes to products and processes, pre-production and reproduction of existing project, routine medical care and statutory compliance.

But the exclusion at point (f) of “research in the humanities, arts and social sciences” does not fit with these categories. It is a category error to include research in HASS with routine, standard and compliance activities. Significant research in HASS is consistent with ‘principles of established science’ and utilises experimental activities ‘that are conducted for the purpose of generating new knowledge (including knowledge about the creation of new or improved materials, products, devices, processes or services)’ (Section 335-25).

Furthermore, the vast amount of research in HASS will be clearly excluded from qualifying for the R&D Tax Incentive because it is conducted in universities, non-profit and other public institutions. Clearly, such activities are quarantined from the tax incentive scheme because they occur in non-tax-paying agencies (as indeed all research in non-business contexts would be excluded, whether from HASS or from science, engineering, technology and medicine).

**We submit that there is full risk management in the proposed legislation which will ensure that only activities which meet the criteria are supported. Thus, there is no good reason to preemptively exclude activities and firms which draw on HASS research, especially when it is considered that much R&D and innovation now is recognised to occur in sectors informed by HASS research and expertise.**

HASS research-informed business activities should be able to submit that they meet the definitions and tests for core R&D as follows:

**use experimental procedure with scientific method and rigour** [2.11; 2.12; 2.15], that is “investigating causal relationships among relevant variables to test a hypothesis or determine the efficacy of something previously untried” using “an approach that proceeds from hypothesis to experiment, observation and evaluation and leads to logical conclusions”

**for the purpose of acquiring new knowledge and information** [2.16] which is **new to a field** [2.13; 2.18; 2.19] which is “not be deducible by a competent professional in the field on the basis of current knowledge, information or experience”

**with a risk of failure** [2.14], that is “a significant risk that the outcome of eligible experiments will not be the desired one.”

**which can be very practical** [2.17], related to knowledge or information about the creation of new or improved materials, products, devices, processes or services... “ and “the experiments may entail the direct production or use of an actual material, product, device, process or service.”

**pursued for ultimate commercial objectives** [2.21]

CHASS therefore proposes the following amendments:

- 1) **Remove the HASS exclusion from R&D activities** [335-30(f) of the Legislation]
- 2) **Confirm, within the Explanatory Materials, that businesses and activities satisfying the various criteria for ‘core R&D’ and for ‘R&D entities’** [as found in the Legislation and Explanatory Materials] **can include, for example, human services, design services, creative industries and interactive software development.** CHASS could assist in developing such additional short case studies as currently appear in the Explanatory Materials; the Annex to this submission offers some preliminary draft examples.

With this new R&D tax incentive, the government can make good on the Prime Minister’s desire, as stated in the final remarks of the Australia 2020 Summit, to ‘put to bed’ the ‘false dichotomies’ that puts arts/creativity/culture on one side, and industry/economics/innovation on the other. April 19, 2010

## **ANNEX: EXAMPLES ILLUSTRATING BUSINESS R&D USING RESEARCH IN HASS**

We have provided four hypothetical examples to illustrate that HASS-based businesses can meet the definitions and test for core R&D:

### **Elderly Media ~ services to aged care providers**

An aged-care service provider, who runs a business catering to telecommunications needs of multiple retirement homes in capital cities in Australia, wishes to generate knowledge and practical experiments in delivering a new form of age-care that combines high-levels of online care and community interaction, in which mobile devices and social networking services can enable aged residents to travel more and participate in community life beyond retirement home facilities without fear of being far away from medical help and professional care. This approach would also aid those residents who have significant blindness and/or deafness as text and text-to-speech services can be mixed into these social-digital technologies.

If successful, the business provider can make sales to existing and future aged-care providers, increasing client bases and counselling their knowledge via consultancy to other aged-care providers and social media services nationally and internationally.

#### Core R&D activities:-

Software interaction design experiments, testing and trialling customised elderly social-media services, in several existing sites, which mixes teams of researchers and developments in social media coding, and social media design and ethnographic testing together with public health specialists.

### **Parent-Child-Coaching (PCC) ~ Parental Coaching Service**

PCC is a commercial service provider delivers parental coaching (as a start-up spin off from university-based systems like the Triple P Positive Parenting Program) via after-schools and social health markets. They seek to make a substantial investment in trialling a new approach compatible for parents who have children with mental disabilities. This requires intensive trialling with various parents and children and mental health carers, based on hypothesis that the successful PCC model needs to change its delivery and content and evaluative processes to include third-party mental health carers who are such a big part of the parent-child connection. The risk is that the PCC will not be adaptable and transferable, but the promise is commercial gains, diffusion of positive social impact, and a radical change in mental health and parent coaching for those nations which have a mental health care marketplace. The process and service deliveries needs rigours testing and to draw on international and national research in psychology because of the very high health and welfare costs of failure for children and families.

Core R&D activities:-

Counselling-psychological services tested with new evaluative procedures.

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## **BollySuits ~ International Fashion design**

BollySuits is a international fashion design firm which seeks to develop a new form of internationally-appropriate business wear fusing Western-European and Indian formal wear. This requires significant R&D in fashion design, with several hypotheses tested in terms of which elements of each clothing culture are best to fuse. BollySuits has conducted preliminary market research to suggest that the growing market of the Indian business class, as well as Indian-based Western business people, would be attracted to this new clothing product. Bollysuits asks cultural specialists to develop specifications, model likely patterns of cultural acceptance and development, and links these researchers work closely with clothing designers and other creative industry specialists as well as the manufacturers and distributors to envisage, design, specify, make and adapt the new businessware. If successful, this R&D would lead to a new product line with potential for multi-million dollar sales to an ever-increasing market. There are however great unknowns and possibilities of failure of basic hypothesis.

### Core R&D activities:-

Creating various prototype designs in conjunction with culturally-specific knowledge formation around clothing traits and tastes, in the context of business and formal wear, and suitability for existing scaled-up manufacturing plants. Core R&D expenditure is thus fashion design teams in collaboration with socio-historical trend researchers.

## **PingDigi Co ~ Games Developer**

PingDigi Co is an online games provider who currently delivers first-person roleplay action games online, with a substantial subscription base for their full version games and click-thru advertising base for the free lite versions. They seek to invest in a new gameplay interaction model that takes developments in sonar ping technologies used in marine farming and the military, and apply them to new smartphone GPS capabilities. Their R&D investment is not in basic hardware (which exists) but in trialling and testing gameplay scenarios that adapt sonar ping system to create group games in urban spaces.

### Core R&D activities:-

Game design, which goes through rigorous experimentation and testing of hypothesis of sonar ping use as attractive and thus commercial gaming platform. Significant experimental design in testing and measuring human response to scenarios, software and tracking second and third stage developments over time, not just at product launch.