



## **Submission on the Commonwealth Commercialisation Institute**

The Australian Services Roundtable (ASR) congratulates the Rudd Government on its proposal to create an Institute dedicated to supporting commercialisation of research in Australia and enabling Australian business to capture the full value of Australian ideas.

ASR also welcomes the Government's acknowledgement that commercialisation occurs in all sectors of the economy including services.

ASR is very pleased to provide input into the development of the Institute and in particular welcomes Minister Carr's personal invitation to do so. This submission is an initial response to that request.

### **Objectives of the Institute**

The generation of ideas in the services sectors involves a wide range of creative people; including designers, authors, and business process analysts, as well as researchers. ASR believes that this should be noted in the objectives for the Institute. As they read at present, it could be misconstrued that R&D is the only wellspring for innovative ideas, and this certainly is not true for many businesses in the services sector, where innovation is also part of core business processes, and where fostering of innovation in other industries is a key part of the services delivered. Nonetheless, services businesses experience the same difficulties in commercialising ideas as do those producing goods.

ASR also requests that the objectives be modified to include explicit recognition of the role that innovation within the business environment plays in creating economic growth and employment and trade opportunities.

### **Improving Commercialisation Practice in Australia**

The originality, quality and ingenuity of Australian ideas are frequently commented upon in international research and business circles. The failure in too many cases to translate these into Australian business successes is a consequence of weak commercialisation processes, particularly in small companies, universities and research institutions.

The discussion paper correctly identifies a failure around 'proof of concept'.

An inadequate approach to demonstrating 'proof of concept' by small companies, universities and research institutions is limiting their access to commercial sources of finance. In recognition of this several years ago a Proof of Concept checklist based on Australian and international best practice

was developed by a Proof of Concept Taskforce, chaired by Professor Chris Fell, AM; and supported by commercialisation leaders from business, venture capital, government, university and CSIRO. The checklist developed by the Taskforce was designed to serve as a guide to best practice, see table A.

A measure of the efficiency of commercialisation process is the time and resources required to determine 'Proof of Concept'. Improvement in Australia's commercialisation processes would:

- stop waste of resources on non-commercial projects that would have been terminated had the Proof of Concept checklist been applied
- direct more resources to those ideas with a chance of commercial success
- increase funding for commercialisation from venture capitalists and large companies.

Promotion and implementation of the Proof of Concept checklist by the *Institute* would make a major contribution towards building the capacity of research, business and finance to collaborate and assist Australian enterprises deliver new-to-market innovations.

The checklist is in effect a Rosetta Stone that enables creative people with ideas to talk in the language of business and finance. Development of a Proof of Concept metric to measure the performance of public sector commercialisation units should also be considered.

In the CCI's design, ASR considers that an important principle should be the impact of its funding on the overall performance of Australia's commercialisation processes. A clear objective of the Institute should be to improve commercialisation practices in Australia over time, and this should be a performance indicator for the CCI.

### **Enhancing the Role of Design in Innovation**

The role and contribution of design to innovation is becoming more widely recognised. This is a result of economists better quantifying and understanding the factors that contribute to increases in multifactor productivity.<sup>1</sup>

Australian design is recognised for its quality in industries as disparate as fashion and ICT, architecture and engineering. It makes a critical contribution to Australia success in manufacturing from consumer goods to automotive.

Further development and enhancement of Australia's advanced design capabilities is a key part of Australia's strategy to establish itself as the regional high value services centre. It is critical that the policy objectives and the operational principles for the CCI fully reflect the potential for increased innovation outcomes from commercialisation of design.

### **Understanding and Measuring Innovation and Commercialisation Processes**

"Innovation in business processes, changes in organisational behaviour, management practices and marketing are not captured in Business Expenditure on R&D (BERD) data, but can nevertheless be considered as significant innovation in many services businesses."<sup>2</sup>

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<sup>1</sup> See for example the writings of Jonathon Haskel for [NESTA](#) and [CeRiBa](#) and [briefing on measurement of innovation](#) by the US Bureau of Economic Analysis. The Productivity Commission is also examining this [issue](#).

The importance of these forms of innovation for the services sectors highlights the need for broader measures of services innovation and commercialisation.

ASR recommends that the CCI use Multi-Factor Productivity (MFP) as a measure of services innovation and commercialisation.<sup>3</sup> Just as the services sectors are now seen as the dynamic, major part of the economy – and not simply a residual that is left once manufacturing, mining and agriculture has been measured; no longer is MFP considered an unexplained residual, but recognised as being derived from market sector spending on knowledge and intangible assets, including but not exclusively R&D.

In recognition that more work is needed to clarify understanding of these relationships, ASR supports an extension to design principle 9 to make it clear that the CCI can fund research and initiatives to better measure, understand and improve innovation and commercialisation in Australia.

The Intellectual Property Research Institute of Australia (IPRIA) based at the University of Melbourne in a relatively short period of time has done much to increase the understanding, creation, use and exploitation of intellectual property in Australia. A National Innovation Research Centre similarly could help increase understanding of innovation and commercialisation processes in Australia, thereby helping to direct efforts to improve their efficiency and effectiveness.

ASR also advocates that the CCI funds sectoral Innovation Roadmaps, in conjunction with the Innovation Councils and/or business organisations. ASR is facilitating the commissioning of an economic consultant group to undertake a feasibility and scoping study for a Services Roadmap [terms of reference attached]. The scoping study aims to pool expertise on services innovation and services innovation datasets between government, research organisations, business and academia and to develop practical cost effective ways of addressing critical gaps.

International work suggests that the some of the key underdeveloped services innovation metrics may include:

- expenditure on knowledge and intangible assets such as:
  - development of new business models
  - the creation of artistic and literary originals
  - design of new products (goods and services)
- more comprehensive data on the characteristics of the innovation workforce beyond the traditional researcher category.
- services sector MFP
- measures of the international activities of Australian services businesses.

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<sup>2</sup> Department of Innovation, Industry, Science and Research 2009, *Services Sector: Overview of Structural Change, Industry Brief 2007-08*

<sup>3</sup> The [Australian Bureau of Statistics](#) defines multifactor productivity (MFP) as that part of the change in production that cannot be explained by changes in the measured inputs of capital and labour. 5216.0 - Australian National Accounts: Concepts, Sources and Methods, 2000, chapter 27.

## **ATTACHMENT**

### ***TERMS OF REFERENCE SERVICES ROADMAP – FEASIBILITY AND SCOPING STUDY***

A short feasibility and scoping study for a Services Roadmap is proposed (around three-months).

The objective of the Roadmap is to build an information base on services commercialisation that will help realise the vision of Australia as a regional high value-added services centre.

The scoping and feasibility study will examine information needs to further commercialisation opportunities in:

- Knowledge-based tourism
- Education services
- Health and wellbeing services
- Financial services
- The Built Environment
- IT and Broadband applications
- Technical services
- Distribution services
- Transport and logistics services
- Resource and agricultural services
- Culture, entertainment and media

Australia has a good set of official statistics and the extent to which these can be used, including by data mining via consultancies will be considered in the feasibility study, as will the possibility of supplementing these with business data. It is also recognised that in many areas there are specialist groups working on commercialisation opportunities, eg the Built Environment Innovation Council and the Information Technology Innovation Council. The scoping and feasibility study will consult with such groups to identify information gaps that might systematically addressed through the Services Roadmap.

The information resources the scoping and feasibility study will consider for inclusion in the Services Roadmap will include:

- Domestic operations, including value-add, employment and labour force characteristics, innovation activities
- Measures of competitiveness, innovativeness and comparative advantage of Australian services sectors
- Case studies of leading Australian firms in the identified sectors
- Exports and growth potential of export markets
- Measures of the operations of foreign affiliates of Australian companies, and related factors relevant to the economic benefit of Australia

## Table A: Proof of Concept Checklist

- A clear description of the concept to be proven.
- A well constructed design for proof of concept testing that yields reproducible results, and addresses the needs of the appropriate investment market.
- Results of searches and analysis to determine the ownership of intellectual property rights of the technology relevant to the concept, and consequently protectability and freedom to operate.
- A cost / benefit analysis that provides an initial estimate of the costs to develop the concept versus the likely rewards. The rewards (impact) could include economic, social and environmental benefits, or public goods.
- Evidence that the market or end-user opportunity for the concept proof is real and demonstrable. Primarily, this could take the form of feedback from potential licensees or investors, letters of support from an industry partner (private or public sector), an executed transaction such as a licence agreement, or an option to licence. A secondary alternative could be a substantial review of the market and industry needs, and challenges where the proven concept may be applied.
- A clear description of the strategy for commercial exploitation of the proven concept that is realistic in terms of the market opportunity targeted and its market relevance at the time the product, process, business model or services is anticipated to be available, given the known current state of the market (this would require further specification for each institution and for particular technologies).
- Results of an analysis of competitors including those in the pipeline, those in commercial use, and those described in the patent literature that makes clear that the concept overcomes the limitations of the alternatives / competitors.