

Submission in response to the discussion paper, “Boosting the commercial returns from research”

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The report cites data from a number of sources. Data for Australia is compared with data from other jurisdictions and OECD averages. The report states, “*we perform poorly by international standards in translating publicly funded research into commercial outcomes.*” The report does not identify or discuss some clear differences between Australia and a number of the comparator countries. These differences include Australia’s small population; the distance from Australia to large markets; Australia’s small manufacturing sector and the limited absorptive capacity of this sector; the significance of long term relationships between businesses and research organisations as a cornerstone of successful commercialisation of research outcomes; and, the low levels of understanding of intellectual property and activity in licensing among Australian businesses. While some of these differences are themselves issues to be addressed, others are factors that will not change. Recognising that there will always be some differences between Australia and other countries, there is significant opportunity for improvement in Australia’s performance in generating commercial returns from research outcomes.

Some factors raised in the discussion paper may not be problems. It is not clear that the small number of researchers in Australia working outside research organisations inhibits translation of research to commercial outcomes. It may be that when businesses are more active in innovation, especially new-to-market or radical innovation, that these businesses invest in having their own researchers. The employment situation for researchers in Australia may be a reflection of a lack of investment by businesses rather than any constraints on their opportunities to move between employment in industry and research organisations.

On the matter of the time taken to negotiate IP contracts, it is not clear that these negotiations are any more difficult when between research organisations and business than they are between two businesses.

Current rules for most Australian public research grants, including those from the ARC and NHMRC, require that the research organisation own the outcomes of the research, but do not constrain the manner in which this IP is commercialised. IP can be licensed or assigned. Typically, businesses seek assignment in preference to licensing IP because they see this as administratively simple and cost-effective. Negotiations between research organisations and businesses are complicated by this. In general, research organisations are reluctant to assign IP because it has been created using public funds and assignment may provide the assignee with a private benefit to the exclusion of the public.

One effective and immediate solution to these negotiations would be to emulate the “*Bayh-Dole*” legislation of the USA. Under Bayh-Dole, the research institution must own and manage the

outcomes of research conducted with US Government funding. Individual States in the US have enacted similar legislation. Under Bayh-Dole and the State laws, US universities and research organisations own the IP and can license rights to business but cannot assign those rights unless under exceptional circumstances. This system works and could easily be applied in Australia.

The cost of managing research outcomes is not mentioned in the discussion paper. In order to achieve translation of a research outcome to a commercial success, a research organisation is required to invest significant sums over an extended period. This investment includes having a sufficient number of skilled staff with expertise in this activity; ongoing education for researchers on the management of research outcomes in ways that enable successful commercialisation; investment in IP protection, including patent filings and other registrations; deal making between the research organisation and business; market data; legal fees; and, ongoing deal management.

Data from the National Survey of Research Commercialisation in Australia and from similar surveys conducted in other jurisdictions, especially the AUTM Survey in the USA and others in the UK and European countries, demonstrate that research organisations rarely achieve sufficient financial return from this activity to recover the organisation's investment. This is despite successfully getting research outcomes into commercial use. Australian research organisations receive no explicit funding for these activities. Investment in managing and commercialising research outcomes is a cost to a research organisation. There is no clear link between the level of investment and the size of the returns to the research organisation.

Following significant growth in investment in commercialisation capability by most Australian research organisations in the first few years of this century, anecdotal reports suggest that most, if not all, Australian universities have significantly reduced their investment in these activities in recent years to reduce costs and because there were insufficient additional benefits to the universities. This lack of investment inhibits successful commercialisation of research outcomes.

Research organisations might be encouraged to increase their current investment in IP management and commercialisation if they received some support. This support might be linked to the quantum of their grant funding. It should be noted that, while grant funds are allocated at one point in time, research outcomes and most of the costs of their commercialisation, are not incurred at that time, and may often be incurred years after the grant has been awarded.

Many of Australia's manufacturers are small businesses operating outside State capitals. Any action to improve the commercial returns from research outcomes must be designed to include these businesses.

As the paper observes, Australian businesses are generally reluctant to introduce new-to-market and radical innovation. They also have little, if any, contact with research organisations and few show any awareness of intellectual property, IP management, or commercial dealing in and with IP. These issues cannot be resolved quickly. A critical need is opportunities for long term engagement and interaction between research organisations and business with a focus on matters of specific interest to the businesses.

One means of addressing this may be to create of groups of businesses with similar interests and research organisations that have expertise on those areas of interest. The businesses in each group

could promote their needs in research to the research community, they could also be potential licensees of research outcomes. These groups could be as broad as the five sectors of the Industry Growth Centres Initiative, or they could be more narrowly specified. Members of each group would pay an annual membership fee linked to their turnover or profitability. In return for their membership, each could contribute to discussions on needs, and have privileged access to reports of new licensing opportunities from research organisations. The fees paid would support the services and may also contribute to the IP protection costs incurred by the research organisations. Research organisations could access funding for IP registrations for research outcomes of particular relevance to the specific group. Research organisations would be able to promote opportunities both for participation in collaborative research and for licensing of research outcomes, to members of the group. In order to allow sufficient opportunity for effective communication between the members and to try to achieve measurable outcomes, discounts, or additional benefits, should be offered to those who commit to membership over an extended period (at least 3 years).

Especially for SMEs, there needs to be support for education on intellectual property, its management and commercialisation provided directly to businesses at or near their workplaces. This requires lots of education to many businesses in a large number of locations across the country plus opportunities for businesses to receive direct support in parallel with their own investment in exploring and pursuing opportunities.

The recent discussion paper promoting the Australian Innovation and Manufacturing (AIM) Incentive is another consideration. Ensuring that this incentive is available to Australian businesses that are licensing IP from Australian research organisations would be a further inducement to commercial development of Australian research outcomes.

Kevin Croft is the Managing Director of **Croft IP**, a consulting company based in Albury where he works to assist Australian companies understand and use the intellectual property system as a tool for business growth. Having worked in both the public and private sectors, Kevin has more than 25 years' experience of the translation of research outcomes to business.

Kevin has direct experience of the commercialisation of research outcomes from Australian research organisations. Until 2005, Kevin was Deputy Director of the Business Liaison Office of the University of Sydney. As a consultant, Kevin was an external member of CSIRO's Commercial Executive Committee from 2007 to 2010. From 2004 to 2006, he was on the Board of the Association of University Technology Managers. From 2001 to 2009, he was a Trustee of the Licensing Executives Society of Australia and New Zealand. Kevin has undertaken a number of projects, especially on IP policy development and implementation for WIPO.