# Knowledge Commercialisation Australasia (KCA) submission to the 2030 Strategic Plan for the Australian Innovation, Science and Research System

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Knowledge Commercialisation Australasia (KCA[1]) is the peak body leading best practice in industry engagement, commercialisation and entrepreneurship for research organisations. It represents a significant majority of the commercialisation offices of public sector research organisations across Australia, and works with similar bodies globally including the US, Europe and the UK to develop best practice in commercialising research, particularly at an early stage. This involves activities from licensing technology to existing companies, academic consulting to industry, conducting sponsored research and spinning out new companies and increasing a combination of these.

KCA is highly supportive of the approach to develop a clear 2030 Strategy for the Australian Innovation, Science and Research System. This will allow the development of a consistent set of National policies and programs that can evolve as the system evolves. It is essential that these have broad, ideally bipartisan support, so that all organisations and individuals within the system can be confident in the overall policy direction, and can act on the expectation of future programs being an evolution of current ones, not completely changed. One significant issue that has hindered the development of a vibrant and successful system has been the constant change in policy settings and programs over more than a decade at both a State and Territory level, and Federally. This has resulted in many parties becoming disengaged with the support mechanisms on offer as they cannot be confident that there will be support when they need it, or even be fully aware of the support available.

Our universities and associated medical research institutes are being encouraged and incentivised to engage more with industry by Government and this is welcomed. Whilst engagement through commercialisation of intellectual property is only one component of such engagement, it is recognised as an important catalyst for economic development activity. There is increasing evidence that this is happening on an institution wide basis, but there is an opportunity to develop and adopt best practice across the whole sector through judicious intervention.

KCA is particularly focused on Challenge 4: Maximising the engagement of our world class research system with end users.

## Investment Capital Access

A feature of the current Australian commercialisation landscape is the relative abundance of later stage investment capital compared with the past. Propelled by the Federal Government's National Innovation and Science Agenda, we now have nearly a billion dollars of new additional funds: $200m CSIRO Innovation Fund; $500m Biomedical Translation Fund managed by Brandon Capital; One Ventures and Bioscience Managers; a $200+m National Universities Innovation Group Fund with the Group of Eight Universities, the University of Auckland and the UK's IP Group. Most of this capital is directed towards follow-on investments, although some is allocated to earlier stage projects. The lack of follow on capital was a gap that was highlighted to the Federal Government through the experience of successful university developed spin outs including Fibrotech, Hatchtech and particularly Spinifex Pharmaceuticals. This gap has been effectively filled for the time being, and it is hoped that as more

[1] See https://www.kca.asn.au/

successes feed through the system, this area of investment will develop greater critical mass and become more attractive to large institutional investors.

There is also an increase in early stage venture capital supported by the Early Stage Venture Capital Limited Partnership scheme, particularly in areas linked to start-ups requiring relatively small scale early investments such as the many schemes managed by Artesian. ICT start-ups also now have access to significant support for expansion from a range of venture investors such as Blackbird, AirTree, Square Peg and Blue Sky, as well corporate venture from Telstra, Westpac, and NAB amongst many others.

For the right opportunities with the right management, there is currently significantly more accessible investment capital than has been available for a generation. The challenge now is to ensure that there are enough high-quality opportunities to attract the right management and investment.

**Proof of Concept Funding**

A noted gap in the commercialisation of intellectual property from universities and associated medical research institutes is access to proof-of-concept funding. The transition from competitive grant funded research to commercial licensing and venture backed start-ups is again noted as being the greatest barrier to successful commercialisation. Intellectual property as a tangible outcome of competitive grant funded-research is inherently immature and the investment market will generally not invest at this early stage. However, while there are few grant schemes beyond ARC Linkage and NHMRC Development which target the establishment of commercial proof of concept, the timeframe of these grants is not suited to most commercial opportunities in this setting. The Accelerating Commercialisation scheme under the Entrepreneurs' Program and some State-based schemes offer some support in this area, but again the timeframes are often not conducive to the majority of opportunities arising from public funded research. As a result, investments at this stage which bear the greatest risk fall to the university and their technology transfer and commercialisation offices to fund. Dedicated proof-of-concept funds are not at scale, and are only available on at best, an *ad hoc* basis across some universities. The net result is a significant number of commercial opportunities from grant-funded research are not commercially progressed.

Access to proof-of-concept funding remains a significant barrier to the effective commercialisation of university and associated-medical research institutes intellectual property. The creation of a National Proof-of Concept Scheme which was light touch and locally administered would be a very desirable intervention with considerable, quantifiable benefit to the National innovation landscape. An excellent example of such a scheme is the NZ Pre-Seed Accelerator Fund[2] where decision making is effectively devolved to the local level of approved commercialisation entities which have pre-approved decision making processes with matched funding provided by the institutions. These can be individual commercialisation offices, or networks in order to gain scale. This program has been successfully run since 2003 and has delivered both the flexibility required for individual opportunities as well as accountability through approved investment processes. It is noted that a secondary effect in the way these funds are operated is the skill building in commercial opportunity assessment that occurs at the local level. A review of the performance of the Pre-Seed Accelerator fund in 2014

[2] See http://www.mbie.govt.nz/info-services/science-innovation/investment-funding/current-funding/pre-seed-accelerator-fund

showed that it had created 460 high-technology jobs, $188 million of external investment into research organisations and potential export earnings of $3 billion[3].

**Recommendation 1**

Establishment of a devolved proof of concept funding scheme, similar to the NZ Pre-Seed Accelerator Fund, to enable rapid, local decision making for advancing opportunities to the point at which they can be commercialised.

**Third Stream Funding for Capability and Capacity Building**

The second area of need exists around improving capability, and increasing the capacity of commercialisation offices of universities and medical research institutes. There are skills gaps across the innovation ecosystem that could be addressed with sufficient training, but that training requires funding, both to be developed and delivered, and then attended. The size of commercial teams also requires attention, with many of our Australian commercial offices being significantly under resourced, some only having a team of two people to service an entire institution around commercialisation, industry engagement and student entrepreneurship. Without training and access to funding independent of institutional funding, we will continue to see the same outputs, and without a critical mass of experienced commercialisation teams, we will not see the step change in success from our technology transfer and commercialisation offices that we all desire.

The UK addressed this same issue with the introduction of bipartisan supported third stream funding in their Higher Education Innovation Fund.[4] This fund has been in place for more than a decade, and has facilitated the development of a vibrant knowledge exchange sector in UK Higher Education Institutions, and has enabled each Institution to develop a strategy that is unique to its context and goals. There is also a vibrant practitioner led training and professional development system in the UK through PraxisUnico[5], which runs a range of professional development courses to upskill commercialisation and knowledge exchange staff in all areas from commercialisation through business development and industry engagement. This enables practitioners to progress through to recognition as a Registered Technology Transfer Professional (RTTP). RTTP was developed by the Alliance of Technology Transfer Professionals (ATTP)[6] as a globally recognised professional designation. KCA is a founding member of ATTP, and is supportive of practitioners working towards earning RTTP recognition. KCA also developed a world first skills framework for commercialisation practitioners with funding from the Professional Services Council[7] that has attracted significant interest globally. However, in order to fully utilise this framework, new courses need to be developed and delivered, and currently there are insufficient resources to do this. Further to this, many research organisations do not have the funds to support the professional development of their commercialisation practitioners.

An Australian third stream funding program for our university and medical research institutes would help to address these capacity and capability issues by developing a critical mass of well-trained

[3] https://www.kiwinet.org.nz/Investment/PreSeed10YearReview
[4] See http://www.hefce.ac.uk/ke/heif/
[5] See https://www.praxisunico.org.uk/
[6] See http://attp.info/
[7] See https://kcaincorporated.wordpress.com/2016/09/09/world-first-career-framework-for-technology-transfer-professionals-published/

commercialisation professionals with the skills necessary to translate the high quality basic research in the Australian research system.

**Recommendation 2**

Establishment of system wide third stream funding for supporting the development of additional commercialisation capacity and development and delivery of worldwide recognised training and support for developing best practice in commercialisation.