

# Submission to the Consultation on Boosting the Commercial Returns from Research

(November 2014)

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## Introduction

### The Australian Institute for Innovation

This submission is made by the Australian Institute for Innovation whose purpose is to inform the development of innovation policy and programs. The Institute's Executive and Board have substantial practical and diversified experience relevant to the translation of research outcomes into products and services of value to industry and the community. Details of our organisation can be found at [www.a2i.org.au](http://www.a2i.org.au).

### Scope and Approach of Submission

Our submission first discusses the nature of innovation and commercialisation to provide a framework for then examining key issues and natural advantages that Australia brings to the translation task, and finally tables a recommendation for the mobilising of capital and resources that would power a reformation of research translation system.

Our intention in this Submission is to generate perspective on the issues, highlight key inflection points and offer a roadmap that will establish the innovation infrastructure and mobilise the resources required to secure a sustainable, successful translation activity.

Our own limitations impose a need to take some literary licence in presenting our material, and the reader is best advised to accept the commentary herein as a set of essays, connected but not necessarily fully ordered in sequence.

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## Opportunities Lost – An Australian Innovation Story

"Recently, I again had the pleasure of attending the excellent Tech 23 Innovation Showcase to learn about 23 innovative products and services looking for assistance with, and market engagement for, their commercial development. And again, I experienced the regret of the opportunities that are lost due to the unconnected and unpredictable arrangements we call our innovation system. The experience is like watching the movie "SLIDING DOORS", knowing what should happen but also knowing what is most likely to happen.

Consider Sound Scouts, a Tech 23 participant that is an innovative hearing test for children developed off the expertise of the National Acoustics Laboratory. Sound Scouts is a computer/tablet, game-based test that among other hearing metrics is able to detect cognitive hearing disorders including spatial processing disorder; virtually a hearing dyslexia. US data indicates that SPD causes learning difficulties in as many as 1 in 20 children.

Now we know there are broad consequences of learning difficulties. Sitting in a classroom frustrated by being unable to participate generates both short-term disruptive behaviours and likely, longer-term anti-social behaviours. And now we also have a teacher assessed improperly for poor output, not due to performance but due to a classroom environmental factor. Not to mention the morality of allowing this discrimination of disability to persist, especially in the knowledge that it is treatable.

So I witness an innovation that can change lives, improve the productivity of the workforce (yes the condition continues into adulthood), contribute to our goal of lifting learning outcomes, and has commercial value as an export to the world and so creating new jobs and export income.

So I imagine an innovation system where the representatives of AusIndustry who are present will leave the conference, and bring this to the attention of the Education Department who will engage to assess the innovation and consider how this innovative Australian start-up might be fit into their supply chain. They would of course immediately recognise not just the value of detection but also the value of building a national statistical profile of this condition.

And in a connected system, Sound Scouts would be introduced to Otifex, developing a treatment for Otitis Media with effusion, which can cause SPD. And because Sound Scouts has been accepted to present at the Serious Games Showcase and Challenge in Orlando Florida, which is a venue for the US Military Services to engage with new technologies relevant to manpower training and management, we would want them introduced to Neuromonics, which has dealt with the military supply chain on hearing technologies, and of course, hope that Austrade would offer assistance.

But unfortunately the other sliding door opens and everyone leaves and there is no pathway for this innovation to easily move into the education supply chain, no organised path to apply for investment and no support for the Showcase opportunity.

We call it an Innovation System but there is nothing systemic about it. There are bits and pieces of activity but *no broad predictable pathways to link ideas and inventions to risk funding and commercialisation expertise, or to link innovative start-ups to markets.* Instead we operate through silos and without any overarching national commitment.



Yet we can be much better. We can undertake a reformation if we recognise the power of Australian collaboration. We start with several key advantages: our relatively small size and a set of key connections that means that among us, we have, or should have, only 1% of separation, to use another movie analogy.

Another recent event, the Ebola challenge, illustrates these connectors. Had he chosen to do so, the Prime Minister could have made three phone calls and within one week had a full assessment on his desk, or that of the Chief Scientist, of our medical working knowledge of Ebola, and within a fortnight later, a set of collaborative proposals to harness our vast science and medical research resources to attack this enemy. Those three phone calls? To Dr Megan Clark, CEO at the CSIRO a, to Professor Brendan Crabb, President of the Association of Medical Research Institutes (which link through to our hospitals) and to Rob Chalmers, Chair of Knowledge Commercialisation Australia, which links our University technology transfer offices. In three calls, we can access 99% of our relevant knowledge base.

It is widely recognised that Australia measures poorly in global rankings in our ability to translate our research outputs and inventions into the high growth enterprises that bring jobs, productivity and improvements in health and welfare.

It is not that we lack the components to be successful – we have world-class research and technology skills, a highly-educated and creative community, substantial commercialisation experience and deep pools of capital, but we need a connected, collaborative innovation infrastructure offering predictable processes to support our innovative high growth enterprises. Governments have a role to play to facilitate the transition of our disconnected silos between into a true system of predictable pathways between investors and start-ups, and between start-ups and industry/markets. Let's hope their hearing passes the Sound Scouts test."

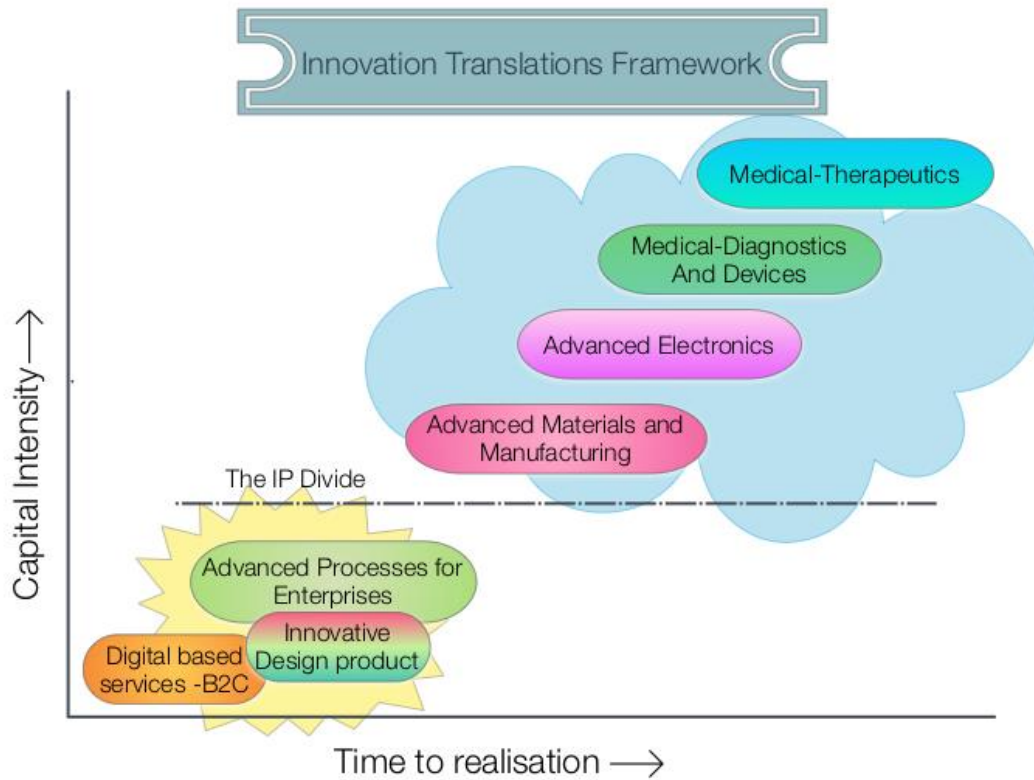
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To complete this story, Sound Scouts was developed from technology drawn from the National Acoustics Laboratory and has now obtained its clinical certification. In some follow up conversations with other parties, it has also been recognised that it may be likely that some proportion of our prison population cannot learn and settle into work because of cognitive hearing disorders. And we at the Institute did make the introductions to Otifex and Neuromonics but only due the luck of having these contacts from a previous role.

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## A Innovation System Framework

The picture below illustrates the 'realms' of innovation sources that we need to deal with. These realms are dimensioned by reference to their Capital Intensity, that is, the amount of capital required to achieve translation, and the time to required to achieve some realisation of the translation.



Australian Institute for Innovation

In the lower left, we have the realm of the service software coders (think Aps to Freelancer, 99 Designs, Big Commerce or Envato) and innovative design products (think Ninja Blocks, Tzukuri or Lifx). This quadrant also includes the innovators of new processes for enterprises (think, of course, Atlassian). The presiding characteristics of these innovation realms is that they are typically creatively led, that is, a founder identifies and pursues a new concept or design that is known or reasonably presumed to fill a market need or want, and can be substantially developed from existing technologies (not the least of which has been the cloud infrastructure).

This is the world of the "*lean*" start-ups, and substantially, but not wholly, the domain of the entrepreneur.

As we move up and out to the right, we enter the world of innovation from research; the innovations that become possible from advances in materials, electronics, chemistry, biology, medical research, and often from an interaction of these research fields. The presiding characteristics of these '*innovation*' realms are that their applications are rarely immediately obvious and almost certainly IP protection is needed to have any chance of securing development funding. As one example of the former, UQ's second largest commercialisation revenue derives from a discovery that was not initially disclosed to UniQuest because the researcher thought it had no application.



This is the world of 'deep' IP, and substantially, but again not wholly, the domain of our publically funded research agencies: the Universities, the Medical Research Institutes, the CSIRO, DSTO and NICTA.

These innovation realms have three requirements in common if they are to be successful in their contribution to our economic prosperity; they require efficient access to capital (although rational allocation of capital is needed to assure sound economic stewardship of our limited risk-capital pool), and they need access to knowledge and experience across both the functional activities of proof of concept, IP management, start-up, scale up and expansion, and also across the dimensions of industry structure and industry practice. And they need to operate within a community that understands their challenges, celebrates their achievements and takes value from their failures.

## Highlighted Point

While these innovation realms have common needs, the means of delivery of this support needs to adapt to the circumstances of each clusters.

Our publically funded research agencies comprise less than 100 discreet organisations, represented by about 40 Universities, a similar cadre of Medical Research Institutes and a few specialised '*central*' research organisations. What is notable about these is their consistency of commercialisation infrastructure, which supports building collaborative structures around them.

In fact, the value of this collaborative approach is already evidenced through the Medical Research Commercialisation Fund, which, since 2007, has successfully supported funding and resource mobilisation for the commercialisation of the research outcomes of some 34 Institutes across 5 states. It is also evidenced by the successful, even though now discontinued or terminating university commercialisation collaborations of the Trans Tasman Commercialisation Fund and Uniseed.

These collaborations within our publically funded research organisations work because the commercialisation functions within these agencies share a common mandate, culture and work environment and importantly, while each individual unit has specialties and limitations on their knowledge, together they hold a world-class pool of commercialisation knowledge and experience.

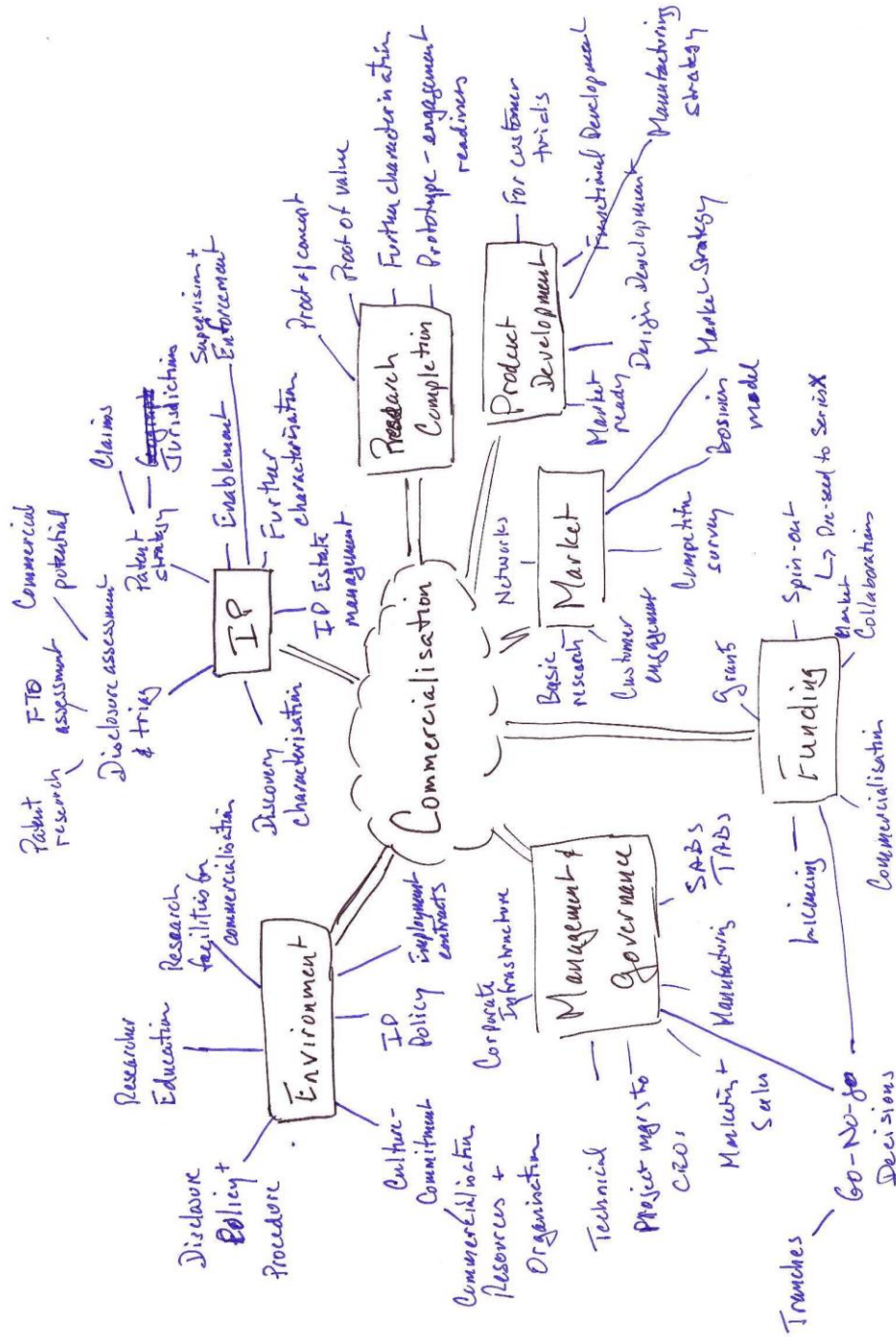
The lean start-up sector is less homogeneous and more diverse in culture, motivations and notably it is geographically diverse. These observations are not intended to detract from this cluster's important contribution to job creation, productivity advances and broader innovation contributions, but to highlight that different support delivery mechanisms are required when, for example, we want to support an incubator in say, Townsville as well as the many incubators/accelerators in Sydney.

In our experience, the use of innovation contests, showcases and similar award programs are useful mechanisms in this cluster.

## Opportunities to Improve Deep IP Research Commercialisation

The mindmap below illustrates the activities encountered in every translation of research-generated innovation. It can also be interpreted as the knowledge and skills required for the translation of research

into commercial application, and as such, it will be important that the staff of the industry Growth Centres can demonstrate competency across these topics if they are to have success in facilitating research-industry interactions.



F. Cheever

We trust the activities here are generally familiar to the Review Panel conducting this Consultation, and so have not included within this submission a detailed treatise on the processes of commercialisation, however, we are available to the Review panel for further discussion if useful to the Panel.



From our experience and observations in connection with these activities, we can identify readily available measures to improve the translation process.

**Research Disclosure.** The translation of research requires in the first instance that the research outcome be known to those responsible for initiating the commercialisation process. Too often this simply does not occur for reasons that range from disinterest to philosophical objection to commercialisation or as in the example cited earlier, a conclusion of no apparent value. In a well functioning system, there should be no reasons for the lack of disclosure. We have long advocated that each Grant Application contained a simply attestation by the researchers involved: "*The relevant technology transfer office for our research is [enter office name and location] and we agree to disclose on a timely basis to this office the outcomes of our research as stipulated under the IP policies of our organisation.*" In short, send a message that the system expects disclosure.

**Commercialisation Training.** The paper references the value of commercialisation training for all researchers. We fully support this policy and observe that those Universities whose senior executive have embraced commercialisation, do conduct such training. Given this alignment, we here the practicalities of implementation. There is substantial experience across the system in commercialisation education and training, but as is typical of our system, all within silos. The Industry Department should establish a working group with the KCA to develop a participation-based "Certificated" commercialisation training program. This is a program that should not require more than 2-3 days per year, though would be supported with online reference material. It core should be seen as Nationally Mandated Program, though each institution should have some flexibility to incorporate "local" material. At a future point, Research Grant applicants would need to advise their current Certificate. And as a final comment, the best training programs incorporate speakers from industry, which adds one more useful interaction to the research-industry engagement system.

**Technology Transfer Policy.** We have expressed the view to the senior executives of many Publically Funded Research Agencies that they have a fundamental choice in technology transfer policy: price vs volume, that is, in each transaction the goal can be to achieve the best process for the commercialisation or to set the commercialisation on the right path, which incorporates the Open Access concept of getting the maximum volume of IP into a commercialisation pathway. We need to establish as an Australian Innovation Principle that the role of Technology Transfer within our publically funded research agencies is to ensure those research outcomes that have potential utility are placed into the commercialisation pathway optimal to realise this utility. This is not to prevent the institution from seeking a economic participation but to remove price as the overriding condition of transfer.

**Proof of Concept Funding.** The reason that price becomes a driver in technology transfer is that the Technology Transfer Office is a cost centre for the institution. This cost typically has three dimensions: the cost of the staff, the cost of patents and the cost of proof of concept funding. Most institutions support a Proof of Concept fund as part of their technology transfer budget but these are often highly constrained. We recommend that Government provide an incentive to adopt the Principle proposed in Item 3 above in the form of matching POC funding and also financial support for the out of pocket costs of attending trade shows and other industry functions, in Australia and overseas, which adds yet another useful interaction to the research-industry engagement system.



***Contests and Awards.*** Contests and Awards (when well run) are very useful in generating market feedback relevant to managing the translation pathway. Most Universities run such award programs. Modest Commonwealth support would both aid in raising industry participation and as a component of celebrating Australian innovation.

***Dual Advancement Paths for Researchers.*** The Consultation paper raises this issue, which is one almost always included in innovation policy discussion, not just in Australia, but across all developed economies. We agree with the need to develop dual advancement pathways, but propose here to re-direct the Review Panel to the thoughts of Alan Finkel and others, on this topic. Our one proposal is that as the paper does recognise the impact of financial incentives, it may be better to establish a "re-entry" grant to the host research institution for bringing back researchers who have stepped into the commercialisation pathway for a period of time. We prefer this approach to any modifications of the IP revenue sharing policies of our research agencies, as for the most part, we consider these to be appropriate in their current form, and have concern about possible adverse fiduciary impacts of change, especially to the example noted.

***Accelerated Linkage Grants.*** Industry engagement with research would be enhanced by accelerating the application and determination process for Linkage Grants. The direct means of doing this is to remove the decision process from a research-based review to a commercialisation-based review.





## Skills Expansion - A National Commercialisation Intern Program.

This program would provide the opportunity for:

- A. Individuals with relevant qualifications and interests to access over a 2-3 year period a rotation of intern roles within multiple commercialisation working environments offering a breadth and depth of commercialisation experience and on the job training; and
- B. Individuals holding entry to mid level employment within existing commercialisation offices to access a broader and deeper work experience.

Category A individuals would generally enter the scheme through a position with one of the more active technology transfer offices. These organisations have a higher level of activity and a greater capacity to train than smaller organisations, and therefore represent sound starting points for intern development. The interns would then progress through 2-4 further postings across other and potentially more diverse commercialisation organisations such as commercialisation advisory firms (including working with Case Managers) and spin out companies. Interns would be expected to be moving more towards full contribution roles.

Each posting would be for approximately eight months, with the actual time period informed by the intern's evaluated progress, the availability of relevant next positions and organisational needs (e.g. transactions in progress involving the intern).

Category A individuals would be recruited by their first employers, who would be responsible for, among other matters noted later, their base training and a recommendation of development path. It is not proposed to operate a general recruitment process.

Category B individuals would be sponsored by their employers. Single postings of 4-6 months would be sought, with these postings most likely arranged by direct negotiation between the sponsor employer and accepting office.

An administration panel would be established between the Department of Industry and representatives of the commercialisation organisations. This panel would vet the recruitment/sponsorship recommendations for candidate and pathway approval. It would receive progress reports and consult with host organisations on the continued intern development path. Its other roles are discussed later.

The quality of interns is seen as a key determinant of scheme success, and it is proposed that scheme candidates possess relevant academic qualifications and that candidates pass through an agreed vetting process.

Each host organisation would agree to appoint a specific mentor to oversight the intern. The mentor will work with the intern to set the expectations for the posting, develop a training path for the intern, ensure appropriate supervision of the work performed and provide regular feedback to the intern. The mentor will have primary responsibility to assist the intern identify the possible next postings, and endorse the intern's application to Commercialisation Australia for continuing financial support. The mentor will provide an



evaluation report to the panel prior to the end of the intern's posting. The panel will develop a pro forma reporting format for this purpose. The intern will also be required to submit an exit report on their experience.

The target of the scheme is to develop skills and generate experience in the transformation of new Intellectual Property into commercial application. This includes:

- Experience in developing and preliminary assessment of deal flow;
- Assessment of the intellectual property claims and identification and assessment of market opportunity;
- Assessment of IP and freedom to operate strategies;
- Interactions with researchers and commercialisation staff;
- Development of investment applications and presentations;
- Preparation of transaction structures and terms sheets;
- Development of technical, business and investment plans;
- Establishment of new entities;
- Exposure to investment documentation;
- Supervision of milestones; and
- Where possible, involvement in fund raising and exit transactions.

The experience would be gained in practical work on live projects and ideally include engagement with industry. Opportunity would also be sought to enrol the interns in relevant training and seminar programs, with this activity governed by panel guidelines.

## The Allocation of Research Block Funding

One translation '*improvement*' which we want to highlight is a recommendation *to not adopt* the policy of allocating grants on the basis of patents, though as we observe in our commentary below, this is not to disregard patents altogether. Our reasoning is that a simple patent metric fails to improve outcomes (and is more likely to detract from desired outcomes) where a more comprehensive evaluation will serve to raise the standards of good practice.

## The Research Context

Good Research serves the community on two broad fronts.

It informs the path of follow-on research, identifying both prospective lines of enquiry and invalid lines of enquiry, in both cases stimulating an interaction of thinking and reflection. The merits of this research output is measured through publications and citations [but this measurement might usefully be extended to awards and other recognitions].

Ultimately the value of research is only articulated through its translation to utility, which can take the form of innovative goods and services, or better policy and practice, for example, an output of a cancer treatment or insights into healthy eating.

## Evaluating Research Translation

The development of the measurement of translation outcomes need to be consistent with good policy principles and recognise the many subtle elements that interact in the translation process.

Good policy recognises that its purpose is to achieve an end, not simply to set a device and that good policy avoids encouraging inappropriate behaviour. What we are trying to achieve (economy-wide) is to raise our innovation efficiency, that is, the level and quality of our translation outputs achieved from our inputs. In this case, taking too narrow an approach, or one that emphasises a few narrow measures instead of the whole of the academic-connected commercialisation system risks a self-interested skewing of activity towards those measures rather than bringing attention to the full development of the commercialisation processes.

Achieving translation success requires an orchestration of many talents, brought together in collaborative harmonic interactions, and with a critical first agreement about the objective of the system. We believe the appropriate goal of commercialisation within the university sector (and generally where research is publicly funded) is to ensure that research outputs that have potential value to the community are guided into commercial development in that path that optimises the chance of translating that research output into utility for the community. An economic return should be captured where available but not at the cost of placing price above translation utility.

Like publications and citations, measures of patents or commercialisation income have a natural attraction because they appear to be easily measured and appear to represent comparable data. However, while these are common measures across technology transfer activity, they are not either so easily measured or comparable. Do we measure patents lodged or as some surveys follow, the conversion of PCTs into granted patents, and in this measure, was the abandonment of a provisional patent a failure or the result of a well-informed assessment that the research output was unlikely to produce any utility or value. Similarly, as implied earlier, commercialisation income levels might be enhanced in the short term by seeking the "best" price but at the expense of placing the output into less capable governance, and thereby reducing its chances of ultimately delivering value to the community.

A university or institute commercialisation system differs from the applied research activities of the private sector in ways that challenge efficient technology transfer. By its nature, to be effective, a country's research portfolio requires a highly diversified, multi-dimensional, independent set of pursuits because it is not possible to predict which research will generate an output of utility. Moreover, often researchers, while experts within their fields, are not aware of the needs and opportunities of industry or other systems. As exemplified earlier, the second largest licensing income for one major Australian university is the result of the commercialisation of a research discovery that the researcher had not disclosed to the Technology Transfer office in the belief it had no value.

And as noted above, for Technology Transfer offices the top line metric is the number of disclosures, and just getting researchers to report their disclosures and engage, can be a significant challenge.

On the other side, Australian industry is typically not proactive in engagement. Universities start with different levels of industry engagement and there is a risk that industry-related metrics alone could generate



an auto-correlation effect in funding allocation, that is, historic anomalies could become persistent in forward research funding where the goal is to achieve greater industry engagement across the system.

A central driver of commercialisation resides within the staffing, funding and processes of the Technology Transfer office. These require a more subjective assessment, and here the goal should be again to raise good practice across all universities.

Drawing on this perspective, we support the inclusion of commercialisation metrics as an input to research funding, but encourage both a nuanced approach to measurement and a recognition that across the system we should adopt a process popularly described as one of co-opetition.

## **Recommendation**

We need to allocate research funding to ensure a portfolio of good research across a diversity of research fields, and it is reasonable that some evaluation of the translation process be weighed onto this funding. However, the evaluation of our translation activity should include both broad data inputs of commercialisation activity (already collected by KCA) and assessment reviews of commercialisation practices and processes, to be overseen by an experienced advisory panel, part of whose role should be to encourage good practice standards.



## The Contributions of the Industry Growth Centres

The Industry Growth Centres have three key roles to play.

1. The Centres should establish a Showcase process to bring new innovations to the attention of relevant users within their industry. Because there will be categories of innovation, the Centres will need to organise categories of users from within their industry base so that this will not be one but likely several Showcase processes.
2. The Centres should operate as think-tanks to identify and analyse profiles of industry blockages and opportunities that might be addressed through innovation. This activity would operate on an industry wide basis (or logical sub-segments) or respond to specific user enquires. This process might also include, on a Centre basis or across the Centres, developing policy and practice papers to platform new practices, such as address red tape.
3. The Centres should establish engagement units that develop and operate protocols to allow innovative new enterprises and established industry players to engage with each other in the trial of new technologies.

While each industry will have specific connections it needs to build, it is obvious that there will be many overlapping activities of the five Centres, such as staying abreast of the general innovations arising from research and entrepreneurial invention. It will be more efficient for the technology transfer and incubator/accelerator units to deal in the first instance with a common collection entity than have to provide repeated presentations five times over.

Finally, a key outcome of the Centres will be to document their experiences through case studies, and from these draw further recommendations for system improvement.



## The Elephant in the Room

The single most critical missing element today for improving our translation of research-generated innovations is not canvassed in the Consultation paper. This is the lack of long-term, patient, risk capital to support translation. Without investment capital, rationally allocated, our innovation system will remain a ship lying dead in the water.

The Government's recently proposed policy to impose a venture capital investment requirement on Chinese applicants under the Significant Investor Visa program is an indictment of our local Superannuation Trustees and is a counter-productive policy risking a significant loss of Australian Innovations to non-Australian hands.

## Where are the local investors?

As one segment of our superannuation industry, our 90 Government and Industry Superannuation Funds, and the Future Fund hold \$680 billion dollars, which one would think would allow some risk taking. But with two exceptions only, we have not had a single new commitment to support the translation of Australian innovation for over 5 years now. And moreover, many of these funds have closed the door even to any consideration of how they might engage to achieve profitable investment in Australian innovation.

There are plenty of excuses: it's too small to deal with; it costs too much when the Government is telling us to cut costs; it requires long-term investment when the Government is telling to remain liquid (except of course, to invest in long-term, illiquid Government infrastructure); and the big excuse - venture capital in Australia has recorded poor returns.

All the excuses are inexcusable but the last needs to be specifically rebutted, on two fronts. First, by definition, this statement rests on the premise that past returns predict future performance, which implies that the funds that make up this pool admit to being incapable of forward-looking analysis. That's a sad indictment, if true. Second, when critically examined, the assertion is false. Australian venture investment has not embraced a single model, and some models have proven successful.

The problem with the Venture Visa policy is that it supports a flow of investment capital that it will be indifferent to its impact, thus likely to distort markets, or end up in sham schemes, or add nothing to the mobilization of resources to support our innovative new growth enterprises, or impair the integrity of our IP, or most likely, have all of these impacts.

For the Government's part, before we hang the "Going-out-of-Business" sale sign on our innovation door, the Government should sit down with these Trustees to negotiate a path forward. After all, it is an exercise that should be a walk in the park compared to dealing with the Senate. We add to this submission, the Institute's roadmap to achieving this end, a national innovation translation fund, under the title of the Emerging Enterprises Fund of Australia, although recent developments suggest that it is the National Universities Commercialisation Fund that is now critical to implement.



## The Role of Commercialisation Collaborations in Translation Investment

The concept of commercialisation collaboration is to establish organisations that bring scale, predictability and information to the process of intermediating investment between our large pools of capital and our innovative new growth enterprises, which includes commercialisation projects pre-incorporation, start-ups, enterprises at the scale-up phase and those at the early expansion phase.

The prime example of this approach, active in the market today, is the Medical Research Commercialisation Fund, which provides translation funding to 34 of Australia's Medical Research Institutes, across 5 States (we understand soon to be 6). All parties to this collaborative arrangement benefit from, among many other attributes:

- the aggregation of a deep pool of knowledge, experience, and contacts covering science, IP, competitive developments and market interests, that is brought to bear on not only the allocation of investment capital to translation opportunities, but also the formulation of the commercialisation strategies;
- the efficiencies of process that are developed, importantly including the existence of an "*always open*", predictable investment application process available to the participating Institutes;
- a scale that makes it efficient for industry to engage with the organisation; and
- collaborative processes that platform the transfer of information, knowledge and experience across the research and technology transfer units of the participating institutes.

Government funding is critical to the collaboration though its enablement of capability, which might be best described as ensuring an adequate management and operational infrastructure.

The key observation of the MRCF experience is that this collaborative structure is very powerful.





## Appendix 1 - The 10 Critical Changes to Transform our Innovation System

(First Issued July 1012)

### Overview

Ten key changes are needed to energize our innovation system. These changes fall into two groups: systemic changes, and cultural changes. Systemic changes relate to addressing market failures. These can be addressed through policy and program changes. Cultural changes relate to the redefining the importance we place on supporting our New Growth Enterprises (NGEs). These can be influenced by policy but will require changes in the attitudes brought by government and business in their interactions with our New Growth Enterprises.

### Systemic Change 1 - Funding

Funding is the lifeblood of an innovation system. Our system is starved of capital. We need to secure superannuation and other institutional investment to support the commercialisation of innovation and the expansion of NGEs. The investment funds by definition must represent long term and patient capital. But the form of funding is also critical.

The investment capital must be at risk so that efficient capital allocation is maintained both in the interests of the investors and the economy. The capital must be available at all stages of the start-up, scale-up and growth stages of NGE development; and the system must ensure facilitated connections between these stages.

While some government incentive or risk mitigation might be required to encourage long term commitment, this should not come with the investment restrictions attached to today's IIF program, because these inhibit the connections between stages, and constrain the responsive system that is needed.

The Innovation Investment Pool should operate through the flexible allocation of discretionary investment funds to early commercialisation and venture creation and expansion by qualified managers. It should be responsive in its allocation to market needs and opportunities. In this connection, and for other reasons, the US VC 10 year model does not work for Australia<sup>1</sup>.

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<sup>1</sup> And there is now strong evidence that it is no longer working well in USA - Kauffman Foundation, May 2012



## **Systemic Change 2 - Capabilities**

The innovation programs of more than 25 years have failed to deliver to the Australian economy at any one time the required set of innovation capabilities; that is, skilled and experienced people available and accessible across all investment stages, domains, and geography to support our innovators and New Growth Enterprises. Further there needs to be a predictability, consistency and accountability in the processes and performance of our capability resources.

It is time to stop hoping this will happen of its own accord, or through narrow programs, and make it happen through a comprehensive and outcome-driven effort. In our opinion this can be done through establishing, on a 10 year forward basis, a minimum \$50 million annual Capability Fund.

The formation of the array of Capabilities required to support innovation activity in the economy is analogous to other core infrastructures in our economy. It is as appropriate for public funding as roads or research. The funding contemplated, spread among the States and the Commonwealth, is easily accommodated.

This also needs to be a program run in an agile and close-to-market organisation under the guidance of outcome principles and not specific prescriptions. While direct government administration of market programs is usually done in a professional manner, it is consistently unsuccessful in adapting to market dynamics, and therefore often fails to achieve the target outcomes. Accordingly it should be operated against national outcome objectives but administered alongside the market-oriented Innovation Investment Pool.

## **Systemic Change 3 - Collaboration**

Collaboration is essential across the whole of our innovation system if we are to achieve effective scale in our resources and global presence and also provide the means for socializing our knowledge and networks.

Some collaborations will likely need to be permanent - see Systemic Change 4; others will be temporary to achieve interim objectives. The fostering of collaborations needs to be a specific objective of the Capability Fund, and one that we emphasize again will only be achieved through an agile, market-oriented organisation.

## **Systemic Change 4 - Connect Innovation to Commercialisation**

We need to connect the dots between research and invention, on the one hand, and commercialisation capability and capital markets, on the other. This should be addressed across several fronts.

Though the resources of the Investment and Capabilities Pools we need to facilitate the expansion of the collaborative seed funds that support the transition of our discoveries and inventions from both our publicly funded research organisations and the flow coming through the State sponsored technology incubators (as a group). These seed funds would be organised around life sciences and ICT, materials, processes, and other technologies.

In the ideal system, we would provide government co-funding of our formal Technology Transfer Offices but in conjunction with a revamp of the TTO objectives. Specifically, we should emphasise the goal of the



successful transition of discovery to commercial pathways, and not to the end of short term profit maximisation on each transition.

We can act immediately to take steps in relation to all research grants to the Publicly Funded Research Organisations (PFRs) to require timely and full disclosure of discoveries for potential Commercialisation. We can provide compulsory commercialisation training for all post-docs within our academic institutions, and, if possible, to all university undergraduates in the technology faculties.

The Capability Fund would also operate programs to assist the Publicly Funded Research Organisations (PFRs) in bringing disclosures to light through co-sponsorship of innovation completions and similar programs.

## Systemic Change 5 – Commercialisation Resources

We need to build system-wide resources that support the many players in the innovation and commercialisation systems. Such resources would serve among other purposes to:

- map our resources for ongoing planning of our innovation skills mobilisation;
- leverage customer discovery resources;
- create good practice guidelines,
- map and mobilise our technical advisory boards;
- operate a national innovation intern program;
- support the development of innovation commercialisation through longitudinal case studies to capture and learn from our experience at both the entity level and the system level;
- Operate a showcase program to present the Australian innovation infrastructure and NGEs to the world; and
- Explore opportunities for the developments within NGEs to provide signposts for the creation of new manufacturing industries.

## Systemic Change 6 - Clusters

Physical proximity provides a better environment for startup entities. A cluster approach facilitates the sharing of resources, knowledge and experience. We need to expand the physical infrastructure that is available to our managers and incubators to create clusters of start up entities. It is also important that these are set up so that access is based on merit, not a need to meet a rent role or a quantity-based KPI metric.

## Our Innovation and Commercialisation Culture

Across our Government, industry and media communities, the level of understanding of, and commitment to, making our innovation commercialisation system a centrepiece of our economy is poor, and consequently



we deliver a poor commercialisation culture. There are exceptions to this observation, and worthy ones, but there are too few with too little voice and impact.

We have had only three or four politicians within recent times that have expressed any real commitment to innovation. And regrettably none are able to lead from the front today.

We fail persistently to be effective in setting a vision and seeing it come to reality.

The worst aspect of our cultural gaps in the innovation commercialisation system is that, in most cases, the effort to address the gaps is actually easily within our means and carries little cost.

## **Cultural Change 1 – Removing Barriers**

One element of our cultural gap is reflected in our political and bureaucratic lethargy to removing barriers to the innovation commercialisation processes, and to exploiting opportunities for improvement. The headline current example is the taxation of start-up equity and equity options, although this is only one of many such examples.

It is obvious to even those with only a rudimentary understanding of innovation commercialisation practice that such equity practices are critical in the start-up world to attract and reward the “sweat” that is inevitably needed to drive NGEs.

Equally obvious is that this form of compensation within NGEs creates no imposition on the tax base. To the contrary, the failure to have a vibrant NGE sector certainly will have an adverse impact on our future tax base and the current absence of such a vibrant sector has a marked impact on it today.

Our poor innovation commercialisation culture is evidenced by not recognizing, that for most NGEs, this tax barrier could be fixed almost overnight by simply exempting those issues made by any organisation that is eligible for the R&D Tax Incentive Rebate. This requires no new administrative process, is clearly specifically targeted to the appropriate point of relief and could be enacted within weeks if we really wanted to demonstrate a commitment to our NGEs.

## **Cultural Change 2 – Recognition of Commercialisation Outcomes**

The inputs component of our innovation system is strong, with discoveries, inventions and innovative visions flowing from the over \$8 billion a year allocated to support formal research down to the informal Maker/Hacker studios and inventors’ backyards. One of our persistent challenges is to connect these inputs with the pathways that can transform them to innovation outputs. In the formal research setting, cultural change is required within the University sector to reduce the barriers to this successful transformation.

By its nature, research is most often a semi-serendipitous affair and it would be counter-productive to attempt to seek only outputs of commercial application from our research. However, where such discoveries and inventions emerge from the research process, our research organisations need to adopt a dual path of advancement and recognition that rewards both the achievement of knowledge but also the achievement of outcomes.



Organisations such as the CSIRO, and many of our leading Medical Research Institutes, embrace this dual path, and as a consequence, consistently are able to deliver a valuable flow of economic, industry and social applied outcomes from their research efforts.

## Cultural Change 3 – Purchasing from NGEs

Some efforts are being made within governments to encourage NGE engagement as suppliers to government but these are still well short of facilitating government as an evangelist customer. We need to adopt the SBIR mentality and roll out programs that remove the departmental financial and staff personal risk that goes with being a developmental customer<sup>2</sup>.

To achieve this end, we need to develop a forum for sharing NGE experiences in this pursuit of government as a customer, and especially as a development customer. This can be added to the list of desirable system resources.

On the other side, government would benefit greatly to engage with the innovation commercialisation community as background to its policy formulations to understand what the future might, or could, look like across education, health, safety and social dimensions.

## Cultural Change 4 – Big Business and NGEs

A simple change is proposed in the context of innovation commercialisation and big business. We should encourage every listed company to include in their annual report:

- The percentage of the past year's revenue that came from new products, services or markets, and their goals for the coming year;
- The percentage of their cost of goods sold, and services sourced, that came from NGEs, and it would be useful here to provide one story about the value add of this NGE product or service;
- A description of the partnerships and collaborations operating during the year past, and the year coming, to develop innovative solutions to existing problems or productivity opportunities; and

We should encourage our institutional investors to include such practices within their expectations for good governance.

What we know in many areas of social policy is that it is behavioural change that leads attitude change.

## It Can Be Done

These actions taken together would transform our economy from one based on depleting resources into a sustainable economy growing from sustainable innovative intelligence and implementation capacity.

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<sup>2</sup> For example, most large US Government contracts include financial bonuses to prime contractors for bringing new technology to bear through the use of NGEs as sub-contractors.



# Australian Institute for Innovation

The exciting aspect of the proposals is that in the context of our circumstances as a country of only 22 million people:

1. This is an Australian solution to Australian conditions and circumstances. There is no point importing a system developed within a different economic and cultural setting.
2. This cost of developing this National Innovation Infrastructure, being spread among the States and the Commonwealth, is readily affordable;
3. Not only can it be done, but also it could be up and running within 12 months if we just make the commitment.

The critical question is will we have the vision and courage to accept the challenge to build an economy whose growth is extracted from both mines and minds.

## Appendix 2 - THE EMERGING ENTERPRISES FUND of AUSTRALIA (EEFA)

### Building Collaborations to Power Innovation

#### Explaining Australia's Innovation Shortfall

There are many policy objectives that relate to innovation. Arguably the central socio-economic objective is that *'innovation'* will lead to improved productivity and employment growth<sup>3</sup>. However, notwithstanding a broad innovation policy agenda that mounts extensive support for innovation inputs, Australia's innovation efficiency, being the transformation of these inputs into the outputs of new products, services, businesses and even industries is poor. Australia's innovation efficiency ranking fell to 116th of 142 countries measured in the 2013 Global Innovation Index<sup>4</sup>.

Key data evidences that the cause of this transformation failure in Australia lies in a shortfall of a cadre of entities that we term innovative new growth enterprises (NGEs). These NGEs, which are typically start-ups, drive the commercialisation of new discoveries, inventions and ideas, and in performing this activity, are pivotal to job creation and productivity.

#### The Shortfall Evidence

New research this year from the Marion Ewing Kauffman Foundation, a major US-based supporter of emerging enterprises, reaffirms the conclusions of many earlier studies that NGEs play the pivotal role in transforming innovation inputs of discovery, invention and ideas into innovation outputs of jobs and productivity. **Most remarkably, the finding of the Kauffman report<sup>5</sup> is that these NGEs generated the whole of the US job growth over the 30 years 1980-2010.**

In the context of this finding, and the earlier studies confirming the importance of this group of enterprises, a 2010 OECD report identifies that Australia has a significant shortage of small- and medium-sized enterprises, with its industry structure heavily weighted to micro and large enterprises. Australia sits near the bottom of the OECD's 30 country ranking, alongside Greece, Spain, Turkey and Mexico, rather than the UK, USA, Canada, Germany, Japan and Norway which are at the top of the list for this vital group of enterprises. Australia struggles to have even a small percentage of:

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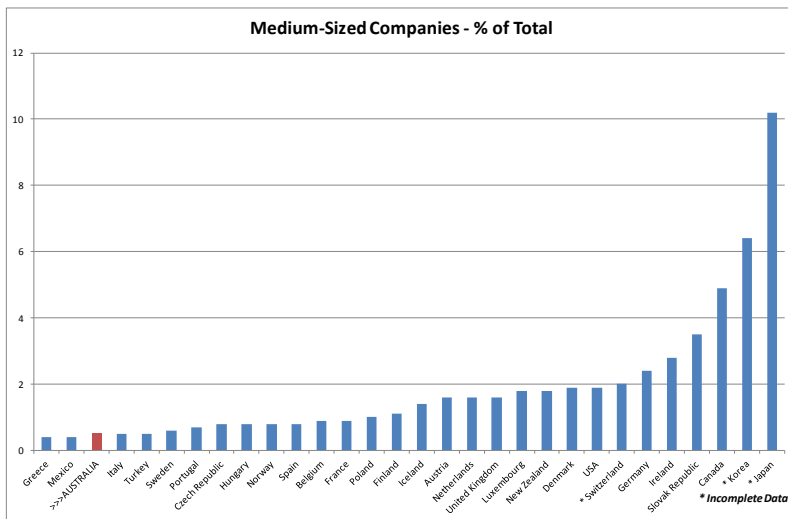
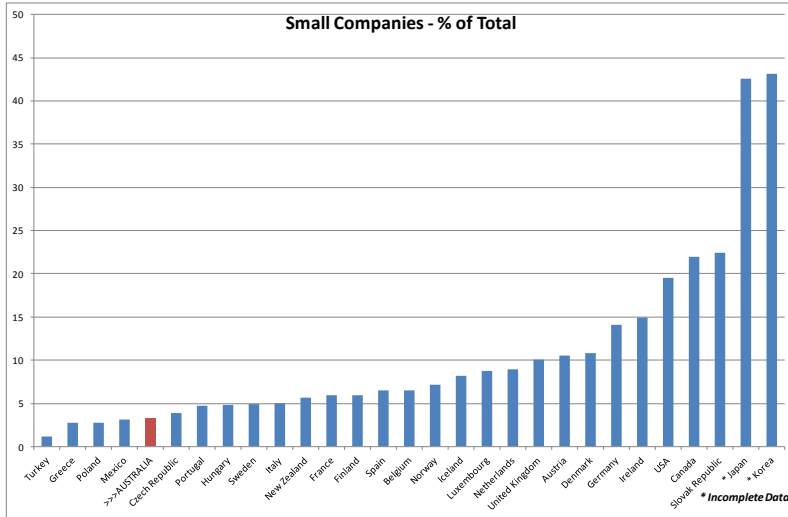
<sup>3</sup> See 2011 Australian System Innovation Report, Commonwealth Government "In the medium to long term investments in innovation (both tangible and intangible) and their spill-overs can explain up to around 90% of labour productivity growth."

<sup>4</sup> The Global Innovation Index 2013, The Local Dynamics of Innovation, [www.globalinnovationindex.org](http://www.globalinnovationindex.org), Johnson Cornell University, INSEAD, WIPO, et al.

<sup>5</sup> Tech Starts: High-Technology Business Formation and Job Creation in the United States, Ian Hathaway, August 2013 (Kauffman Foundation Research Series) <http://www.kauffman.org/>



- Micro enterprises moving to small;
- Small enterprises moving to medium; and
- Medium enterprises moving to large



Source of data: SMEs, Entrepreneurship and Innovation, OECD, 2010

## Required Catalysts Are Missing

The OECD report highlights that patient investment capital and start-up capabilities are critical to the development of these new growth enterprises. Critically, these catalysts of funding and capability are poorly mobilised in Australia.

Institutional venture investment has virtually disappeared notwithstanding investor recognition of the importance of new innovative enterprises. Investors understand that significant risk exists today in the



concentration within the Australian Equity indices that, for example, has approximately 65% of the ASX200 earnings generated by only 12 stocks and 55% of market capitalisation in only two sectors.

Long-term investors recognise that new innovative enterprises serve to refresh the market with modern, profitable, fast-growing organisations that create jobs, exports and economic growth. These outputs re-charge and boost investment returns through new listings, through the insertion new productivity tools into established enterprises and through the acquisition of these new growth enterprises by listed companies.

Superannuation funds and other institutional investors have stepped back from venture investing because:

- The headline performance record of venture investment has been poor;
- The Funds believe that a disparity exists between the interests of General Partners and Limited Partners, leading to manager behaviours and a lack of transparency that are not in the investors' interests; and
- As Funds themselves have grown, allocation to, and supervision of, individual managers is seen as an inefficient use of internal management resources.

## A Change in Approach Is Required

Commonwealth Innovation policy has sought to encourage venture investment through matching investment and grant programs and tax-advantaged investment structures. State Governments sponsor programs to provide NGEs with access to information and advice.

These programs individually have had varying degrees of success but it is evident from the efficiency ranking and industry structure data that they have had no systemic impact. Their weakness is that predominantly the investment programs are manager-centric and the capability programs firm-centric, and consequently do not act to mobilise systemic activity.

In respect of venture investment programs, this manager-centric weakness has been exacerbated by the application of the traditional venture capital fund model. This model creates small isolated silos of management teams that individually are capability constrained yet need to operate in complex circumstances that require significant inputs of information, knowledge and experience, and require efficiency in deal generation to release resource for investment management. This leads to under-informed decisions, and skill mismatches, both in investment selection and investment development.

Observations over time by the Australian Institute for Innovation have witnessed that the embedded mechanisms of the traditional VC model motivate the manager behaviours that are contrary to the investors' interests. These observations are confirmed in other research conducted by the Marion Ewing Kauffman Foundation<sup>6</sup> and in a corresponding Harvard Business Review article<sup>7</sup>.

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6 "WE HAVE MET THE ENEMY... AND HE IS US", (Lessons from Twenty Years of the Kauffman Foundation's Investments in Venture Capital Funds and The Triumph of Hope over Experience), Marion Ewing Kauffman Foundation, May 2012

7 "6 Myths about Venture Capitalists", Harvard Business Review, May 2013



## Collaboration is Australia's Best Path

Australia's weakness in commercialisation is inherently a commercial challenge, not a scientific or research barrier or a lack of translation skills. We lack consistent investment funding but equally, we lack effective organisation. Fortunately it is within our reach to change this condition, to enable a more dynamic and effective system.

The EEFA is an industry transformation process to promote a different venture investment model based on observable evidence that:

- a more collaborative structure achieves this enhanced mobilisation of resource leading to better investment decisions and system outcomes, and
- a better alignment and governance structures are possible.

This proposal is built upon the insights of Kauffman, the Institute's observations and the experience of precedent collaborative arrangements, notably the Medical Research Commercialisation Fund.

## EEFA is a New Systemic Approach – A Node-Centric Model

Australia's advantages lie in its size that provides many more connections than separations, and in its broad sense of common purpose within its innovation community. The EEFA model builds on these connections and their many embedded innovation resources through a structure that is built around nodes of common culture and practice rather than a manager-centric system.

Three core Nodes will create strong linkages and collaborations within:

- established technology parks, incubators, accelerators and merit-based awards programs for access to private Innovators with world class inventions, discoveries, innovations and ideas;
- the Commercialisation arms of Australian Universities; and
- the Commercialisation arms of Medical Research institutes<sup>8</sup>.

A fourth Node will operate to fund external manager organisations in order to widen the EEFA access to deal flow, to widen EEFA geographical coverage and to retain niche skills.

The EEFA will access the Consensus Model<sup>TM</sup> advisory panel. Initiated in 1999 Consensus has conducted in excess of 400 evaluations across multiple technology domains. The unique judging process has proven to identify winners before they become worldwide successes. Out of the 120 award recipients, 80% have gone on to expand to achieve worldwide sales.

Building on the Node and Consensus resources, the EEFA will mobilise collaborative investment processes that bring wide knowledge and experience to bear on investment selection and investee development decisions, and will make broader system contributions. The model is highly efficient for transaction

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<sup>8</sup> The EEFA anticipates providing continuing support or co-investment for the existing Medical Research Commercialisation Fund

generation. The EEFA structure also enables transparency to allow effective oversight and a better alignment of investment manager behaviour with the investors' interests.

## EEFA Structure – Designed for Success

The EEFA is structured as Public-Private Collaboration that decouples the operating budget from the fund size, bringing many important benefits.

- It allows the operating budget to be set properly against the tasks required including providing system benefits beyond those delivered under the self-interest approach of the traditional management fee terms.
- This removal of the management fee from the investment commitment acts as an incentive for investors to invest in the NGE sector but more importantly increases the available investment funds by as much as 25% and positions the EEFA for changes in manager accountabilities of value to both investment and policy outcomes. This is also the lowest cost-to-government incentive arrangement.
- It enables EEFA to adopt “*fast-track*” and “*fail-fast*” procedures in order to maximise the potential for successful investment outcomes:
  - Fail-fast: Since fees will not be based on funds invested, there will not be any pressure to continue to invest in poorly performing assets – sending good money after bad;
  - Fast-Track: Very small amounts of equity funding can be allocated after preliminary due diligence which is more cost effective than extensive due diligence and stops the enterprise from being damaged by “*capital starvation*”.
- It is proposed that Governments finance the EEFA Operating Fund on a grant basis. This avoids contingent liability and allows for the program delivery cost to be negligible, while enabling a market-driven program.

## EEFA Governance

The EEFA Board will be comprised of persons nominated by the Foundation Collaboration Partners<sup>9</sup> subject to those persons having relevant experience to the oversight of investment operations. The role of the Board will be to ensure the EEFA adheres to its mission and the interests of its direct stakeholders, to ensure appropriate management resources are in place, to counsel the management, to oversight the investment process and to assure the integrity of the EEFA accounting and administrative operations.

As an organisation, the Emerging Enterprises Fund of Australia Ltd will:

- Be a not for profit company,
- Will through wholly-owned subsidiaries act as General Partner of the EEFA VCLP, and for investments falling outside the VCLP regulations, as Trustee for the EEFA unit Trust, and

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<sup>9</sup> The Investors, Governments, Collaborators within the Nodes and the Australian Institute for Innovation, with directors appointed in respect of the interests of each of these groups



- Have its own management team.

The EEFA is designed around transparency of decisions, including the requirement on the investment management teams, and external managers, to present their investment recommendations to the Board prior to execution. This Board will provide comprehensive reports to the Investors, in satisfaction of the Stronger Super duties.

## Investment Scope and Management

The EEFA is intended to fund innovation-based new growth enterprises through their start-up, scale-up and expansion phases. Investment Guidelines have been drafted to define these stages, including investment limits and hurdle returns per stage, which in other terminologies are referred to as pre seed/seed, Series A and Series B-D.

The EEFA will recruit dedicated investment teams, with applicable experience in these development stages to service each of the Nodes, employing these directly or as contractors. The investment managers will be compensated on the basis of negotiated salary, plus a carried interest in the in the portfolio investments at typically 10-15% of equity held by EEFA funds. The components of reward will be weighted to this performance fee.

Presuming full Government participation, the investment managers will be located across all States. They will undertake traditional investment duties but will carry these out within the prescribed EEFA routines.

## The Collaborative Advantage - The EEFA CIRC's and Consensus Panel™

The central distinguishing feature of the EEFA process is the use of a standing Collaborative Investment Review Committee (CIRC) for each Node. Each CIRC will be comprised of a peer group of experienced personnel from the Collaborating Parties in each Node, the investment managers and where deemed useful, independent advisers.

An CIRC has three roles.

- To assess at its preliminary stage, each investment proposal for its commercial potential and integrity, in order to assist the investment managers in selection, and importantly to advise the managers of key due diligence issues and potential sources of information and contacts to assist the potential portfolio company.
- The CIRC reviews with the Node investment management team the team's recommendation to invest or to decline, and again advises it observations on the team's assessment and further input of resources to assist the prospective portfolio company.
- In the same manner the CIRC also review the managers' recommendations to release tranche moneys, or to provide follow-on investment.

This CIRC process provides the managers with substantive information inputs, far greater than any single team could access, and with efficiency. It imposes a peer group discipline on the formation work done by



each investment sponsor, and adds to the cumulative knowledge and experience of each of the Collaborating Parties.

The complement to the CIRC's will be the EEFA's own due diligence unit centred on access to the Consensus Panel. The Consensus Panel, now with over 130 members, provides connection to industry experts.

The Panel's advice will be sought in respect of start-ups in the ICT and related fields, with emphasis on the market need. This advice will not only inform investment selection but more, business and product configuration. EEFA management will broaden the panel over time, across domains and internationally.

This collaborative networking across EEFA's own management, the CIRC's and the Consensus Panel will mobilise not less than 350 innovation-experienced personnel, harnessing this community resource for profitable investment selection and market-intelligent portfolio company development.

The CIRC's and the Panel make defining contributions to the investment process, nonetheless, the investment management teams will remain accountable for investment selection and portfolio management.

### EEFA Outcomes

On the last available annual data (2011), the publicly funded research agencies, The Universities and Medical Research Institutes, reported over 1500 new discovery and invention disclosures which generate up to 80 opportunities for consideration annually. For the innovator/inventor sector, market participants estimate the annual start-up flow at over 250. The EEFA will access this deal flow from this activity through its Collaborating Partners.

The investment proposals flowing from the Partners own stage-gate activities will be triaged by through the CIRC's, Panel and the EEFA investment management teams. From this process, and based on the experience of the Institute Directors and others, the EEFA normalised forecast investment activity is:

Sector	Formal Research	Innovators/Inventors
New & Follow-on Investments	15-25	15-45
Range	20	30
Median		
Total Investment Activity	Range: 30-70 Median: 50	
	Annual \$s Invested \$65 m. - \$100 m.	



## Key Benefits

### For Investors

#### Key Benefits

The EEFA provides long-term investors the opportunity to capture returns additional to the listed markets, through investment in innovation-based, high growth enterprises.

The return to investors from investment in the EEFA will be enhanced by:

- Efficient capture of a wide deal flow through access to a deep deal pool of Australian intellectual property;
- Investments made based on highly informed decisions, fostered by the deep resources and sound processes embedded in the EEFA;
- The removal of the fee burden on investors, favourably impacting both absolute dollar profits and Internal Rates of Return;
- A better alignment structure, enabling management to adopt fast-fail risk management and removing the drivers of dysfunctional manager behaviours;
- Scaled central services around due diligence, industry engagement and portfolio administration that bring both efficiencies and support investee business development; and
- Independent not-for-profit oversight of the managers and investment processes, fully consistent with the Stronger Super standards.

#### Overcomes These Problems

Disenchantment with traditional venture capital model for commercialisation of intellectual property driven by:

- Poor investment returns relative to international VC performance over the past 30 years;
- VC fees being linked to fund size rather than investee performance;
- Size of VC fees being too high compared to size of funds invested;
- VC fee structures acting as disincentive to 'fast fail' of unsuccessful investees;
- Manager may have an incentive to prematurely exit profitable investees;
- Lack of transparency of manager performance;
- Inability to remove poor-performing managers; and
- An absence of experienced mentoring and advice for Australian businesses seeking investment.
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#### How Much?

\$750 million over 10 years.





## For Governments

**Key Benefits** The EEFA is an industry transformation program, which mobilises capital and capabilities, and establishes predictable processes, to support the development of innovative new growth enterprises. The program has wide benefits and advantages.

- EEFA will support the creation of Australian jobs. Those jobs will be in new/emerging industries and in developing productivity assets for existing industries;
- The risk of new jobs and enterprises moving overseas will be significantly reduced;
- EEFA will leverage the \$5 billion+ of public funds currently expended on science and technical research annually and provide the next step funding to complement existing Government programs supporting commercialisation (e.g. R&D tax concessions and rebates, State Government incentives, Commercialisation Australia);
- EEFA forecast activity in capability mobilisation and investment pace significantly exceeds past government investment-incentive programs
- The direct cost for each government is modest, the program delivery cost for all governments is negligible, and no contingent liabilities are incurred;
- The tax base is not adversely affected and should be significantly enhanced;
- EEFA will be a highly transparent operational model with strong governance, and is based on a known precedent.



## Australian Institute for Innovation

### Overcomes These Problems

- High growth and medium sized firms are recognised as being the engine of employment growth. Australia is ranked in the bottom 3 of OECD nations in number of medium firms<sup>10</sup>.
- Public Funds applied to support high growth enterprises carry significant financial, administrative and reputation risk which Governments are not well resourced to manage.
- Lack of Australian long-term capital to support commercialisation of Australian IP, particularly early stage enterprises seeking funding in the \$100,000 to \$2 million range.
- Investment through Commercialisation Australia (and other government programs) has little opportunity for “next-phase” investment from within Australia.
- Australian high growth enterprises are being forced to move overseas to attract investment, usually after those enterprises have had benefit of Government support.
- Australia underperforms against OECD nations on key commercialisation of innovation benchmarks, particularly given Australia's strong performance in IP creation.

### How Much?

From all participating Governments – (minimum) \$15 million pa over 10 years:  
Federal \$6m, NSW \$2.5m, Vic \$2.5m, Qld \$2.5m, SA \$2.0m, WA \$2.0m, ACT \$1.0,  
Tas \$1.0m

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<sup>10</sup> SMEs, Entrepreneurship and Innovation, OECD, 2010