SUBMISSION BY KNOWLEDGE COMMERCIALISATION AUSTRALASIA INC. TO THE INNOVATION DIVISION, DEPARTMENT OF INDUSTRY, INNOVATION, SCIENCE, RESEARCH & TERTIARY EDUCATION

In response to Issues Paper:

"A Review of Venture Capital and Entrepreneurial Skills in Australia"

Authors: Dr Andy Sierakowski & Mr Rob Chalmers, with contributions from other KCA Executive members
Organisation: Knowledge Commercialisation Australasia Inc
Mailing Address: C/- The University of Western Australia, 35 Stirling Highway Crawley WA 6009
State: Western Australia
Email: afs@admin.uwa.edu.au
Telephone: 08 6488 7048
Dated: April 05, 2012

KCA is grateful for the opportunity to comment on this review. KCA believes that a viable local venture capital industry, with sound links to international markets, is an important component in the overall innovation ecosystem. Enhanced development of entrepreneurial skills and experience would also be welcomed. The venture capital industry itself is best placed to comment on many of the questions raised in this review, but KCA has tried to address questions in particular that relate to the experiences of its members in the research development and commercialisation sector more broadly. We have further data on some of the issues raised in the review and in our response and would be happy to discuss those matters in further detail if that was helpful.

Introduction & Re-statement of the Review Objectives:

We note that the review is taking a broad focus, and make brief comment on a few of those overall objectives before providing additional comment on a few of the theme questions:

• Types of support to help entrepreneurs progress their ideas;

One component of the innovation ecosystem that entrepreneurs may on occasion benefit from greater access to is the considerable set of skills, capabilities, specialist facilities and ideas inside the research sector. Improved provision of information and support for networking are basic ways to support this.

• Policy settings and support across the innovation system that impact on venture capital;

Support for development of commercially promising concepts inside the research sector is one policy setting that could be examined more closely.

As an example of one problem: Venture capital is often reluctant to invest until there is considerable proof of concept information already available. Yet public sector grants schemes will seldom fund such work. So there is a danger that promising ideas will attract insufficient funding to bridge the gap to an investible level. At this stage what limited funding is available for such work has to be sourced from within the research institutions themselves, and is sometimes not seen as core to mission. Commercialisation Australia Proof of Concept funding is not targeted at technical proof of concept development.

Another issue is the degree of support for development of commercial skill sets inside those parts of the research sector that interface with Venture Capital. Fostering spinout activity is only part of the agenda for the research sector, and even within those support arms directed at such activity it is one of many different priorities that need to be managed with limited personnel with variable experience of interaction with Venture Capital. Increased training and support to commercialisation personnel in other parts of the innovation system that interface with Venture Capital would be expected to lead to an increased flow of deals.

• Policy settings and support in the venture capital area that impact on other parts of the innovation system; • Collaboration and linkages between venture capital and other parts of the innovation system;

See above in relation to the potential to extract a better outcome by increased support for proof of concept funding. A number of proof of concept funds internal to research institutions have been successful but they are heavily constrained in the number of projects they can support and there is

much greater demand than capital available. KCA would be happy to provide additional specific information in confidence on this issue from some of its members.

and

• Links into international innovation and venture capital activity and the impact of this activity in/on Australia.
Clearly international linkages are critical to research, development and commercialisation. Markets are global and are rapidly becoming more interconnected. Therefore it is obviously important to consider linkages with global R&D, capital markets and innovation models and ecosystems.

As stated above, KCA has limited itself to answering specific questions under the "themes" identified where it believes it has the relevant expertise.

<u>Theme 1-</u> Australia's venture capital industry in the context of Australia's innovation system and current government support.

1. Are there barriers to entrepreneurs developing their products in Australia? If so, please explain the three major barriers.

The more general barriers include:

- The size of the Australian market overall
- The less developed VC market in Australia particularly for early-stage investment
- The tyranny of geography-distance from markets and industry partners

In terms of university researchers as entrepreneurs, there are additional challenges in terms of taking inventions to the marketplace. These include:

- The current reward systems for academic promotion and advancement in universities do not encourage commercialisation
- The ability of commercialisation offices in supporting university entrepreneurs is often patchy
- There continues to be a distinct lack of early and thus "risky" investment in proof of concept and pre-seed opportunities
- In addition, there is a lack of experienced VC's in this early investment phase

2. Are there gaps in access to finance and skills at particular stages of commercialisation? If so, at which stages (e.g. pre-seed, seed, start-up, early expansion, late expansion) and of what magnitude?

There is a particular capital gap at the proof of concept and the pre-seed level. There is also a lack of relevant management with appropriate sector and deal skills at the crucial seed phase. This can result in lost opportunities as new ventures may not utilise scarce early capital in the most productive manner, or focus on the wrong opportunities at the early stage of the venture's life. At best this results in delayed development, at worst it can kill an early stage venture. Funding is potentially available for sourcing management through the Commercialisation Australia Experienced Executive scheme, but it is often very hard to identify suitable management to recruit under such a scheme. A matching proof of concept and pre-seed scheme should be examined to supplement university pre-seed funding schemes and thus augment scarce financial resources.

3. Are researchers, universities and entrepreneurs providing quality proposals to facilitate good rates of return for Australia's venture capital industry?
Many proposals are provided but the quality is patchy. The quality of the inventions themselves are believed to be similar to those seen internationally, but these are often reliant on :

- under-developed commercial skill sets,
- limited resources available for earlier stage technical proof of concept pre pitching,
- the extent of connections to attract suitable entrepreneurial management
- availability of early stage funds with capital to allocate.

Moreover, researchers often do not have time or interest in engaging in the commercialisation process.

4. Are there barriers hampering the performance of the Australian venture capital industry? If so, please explain the three major barriers at each of the following stages: attracting investment; investing (deal flow); growing the investment; and exiting the investment.

5. Compared to the other financing mechanisms and mentoring/development mechanisms, how important is venture capital in translating new ventures into competitive companies?

6. Are there issues in other areas of Australia's innovation system that are hampering the translation of ideas into innovative outputs, including the development of world competitive new companies in Australia? If so, please explain the three major issues.

As discussed above, the lack of funding for technical proof of concept is a constraint. Relevant commercial skill sets are also a constraint. If initiatives can be put in place to help retain and build the local pool of entrepreneurs with experience in managing high tech businesses then this would be welcome.

7. Is the Australian Government providing the appropriate settings to support innovation? If not, how could existing resources be utilised more effectively?

In our opinion, there is insufficient VC interest and expertise in the early phase of company formation as it is overly risky. We need to examine government supporting programs to break this paradigm. For example, we have already mentioned matching proof of concept and preseed funding support. In addition, KCA sees a potential role for a US style SBIR type scheme or an improved version of ARC Linkage/other business focussed funding support. This could then harness relevant research sector capacity if and as appropriate. KCA notes that the recently released report "Manufacturing into the Future" (Goran Roos, SA Government Thinker in Residence) also supported establishment of an SBIR style scheme (see eg point 20, p13 of http://resources.news.com.au/files/2012/03/19/1226303/569304-an-thinker-in-residence-pdf.pdf)

8. Is the Australian Government providing the appropriate form of support for venture capital and entrepreneurial skills in Australia (ie. in the right areas and in the best way)? If not, how could existing resources be utilised more effectively?

In terms of entrepreneurial skills development more support for on campus researcher training should be considered. Again, this could be through matching funds in association with university commercialisation offices who already run training but require additional resources to increase the quality and quantity of such training.

9. Where do State and Territory Governments tend to focus their support for venture capital and entrepreneurial skills? Is this an appropriate focus?

Some provide matching operational funding, with a view to drive development of skill sets and outcomes with impact (including jobs) in their communities, but at a generally fairly low level. Where provided such support is welcome but there are obviously other parts of the system that also need & receive greater support. Federal support (eg IIF) is a lot more significant.

Theme 2

1. What are currently the three key strengths of the Australian venture capital industry – how could they be built upon?

2. What are currently the three key weaknesses of the Australian venture capital industry – how could they be addressed?

3. To what extent is recent performance in the Australian venture capital industry reflective of cyclical or structural factors? Do you think performance is likely to improve in the near future? Why/why not?

We have already referred to the "structural" factors such as early stage investment gaps. The "cyclical" aspects will generally overlay on the structural. The cyclical factors are usually external and include the recent global financial crisis (GFC), European debt crisis flow-on, and other events such as the dot com boom and subsequent bust a decade ago. These events dramatically influence investor and VC behaviour. For example, in the KCA Metrics survey of 2008 data (see www.kca.asn.au) , the impact of the global financial crisis on local VC activity was reflected as follows:

- Spin-out companies formed dropped from an average in the sector for 2004-7 of **28** to **12** in 2008 and back to **21** in 2009, and
- Capital raisings in the sector (all stages of investment) dropped from **$153M** in 2007 to **$48.7M** in 2008 and back up to **$132M** in 2009.

Our assessment of these shifts is that the primary reason was the influence of the GFC impacting on investor confidence together with the demise of the Commercial Ready program in 2007.

4. How strong are linkages between entrepreneurs, universities and venture capitalists? What evidence do you have to justify this? What might be done to improve them?

Linkages are variable in strength. There are some very good links, but they are dependent on variable support infrastructure inside universities and expertise and networks that are often concentrated in a few key individuals. This could be improved by improving skill sets & resources across a broader section of the university side that interfaces with the venture capital sector and providing support to develop networks that bring together researchers, universities, entrepreneurs and venture capitalists on a more regular basis

5. **How strong are entrepreneurs' skill sets? What steps could be taken to improve them?**

6. What role do venture capitalists play in developing entrepreneurs' skill sets? Please provide examples to demonstrate.

7. How strong are venture capitalists' skill sets? What steps could be taken to improve them?

Theme 3

1. What lessons can Australia take from overseas venture capital industries and international experience?

As indicated above, KCA sees a role for a US style SBIR fund, which for many years has provided a quality deal flow for 'regional development' venture capital funds providing significant business and economic activity. At a different level, the long-running successful UK 'Knowledge Transfer Partnership' program provides an excellent model for increasing the innovative capacity of small firms, which in turn supports the quality of potential investment in such firms.

2. Are there barriers to Australian entrepreneurs gaining investment from international venture capital industries? If so, please explain the three major barriers?

3. Are there barriers to Australian venture capital funds attracting foreign capital, skills and knowledge from overseas venture capital industries? Are there steps Australia could take to improve linkages and capital and knowledge flows to Australia? If so, please explain the three major barriers and the associated steps that could be taken to improve outcomes.

Theme 4

1.What is the scope for developing a sustainable venture capital industry in Australia?

There is good scope and there is a lot of interesting innovation occurring, but it will require focus on the connectivity of the whole of the innovation eco system rather than just pumping more capital into a capital scarce sector.

2. If the Australian Government did not provide any further support for Australia's venture capital industry, what changes could occur in the innovation system?

Whether or not further support was provided for the VC industry, KCA recommends fostering greater collaborative engagement between different actors in the innovation ecosystem – in particular around the research institution/industry/public sector engagement space – further to KCA's recent submission to the ACIP(/DIISRTE) review on Collaboration. That submission made the following recommendations:

- ***Development of an improved culture of collaboration*** might be supported by a variety of means, including showcasing examples of success and the provision of new models or templates for interaction (while acknowledging that adoption cannot and should not be mandated)

- ***Expanding funding for existing programs that support collaboration between business and publicly-funded research organisations*** (eg ARC Linkage, NHMRC Development Grants, RDC programs and many others). There may also be some adjustments possible to these schemes to enhance the collaborative outcomes. However (in line with the Cutler review outcomes) KCA would advocate rationalisation of the number of such schemes, rather than the proliferation of new schemes on top of existing schemes – as the grant support landscape is already too

complex for many to navigate

- ***Grow the market focus***: Support for networking and communication that enables business to help the research sector better understand business needs

- ***Training support to improve commercialisation outcomes***: for development of better understanding of IP management approaches and options within business and publicly-funded research organisations (acknowledging that ownership is only one component of the equation, and that rights of use and translation into effect must be at least as prominent)

- ***Proof of concept support***: KCA acknowledges the support provided by Commercialisation Australia, but also the limits in scope on that support, and believes there is room for additional help to earlier stage conceptual and technical proof of concept activities (provided that assistance is directed beyond the point of basic research supported by other government grant programs).

3. What can be done to attract Australian institutional, other domestic and overseas capital to invest in the venture capital industry in Australia?

Provision of investment incentives such as in the IIF and Pre-Seed Schemes provided some availability of venture capital, however the management processes and required structure of the funds constrained them to seek less risky investments further along the investment path. As indicated above, there is need for funds at the very early (more risky) stage to facilitate the development of more commercial opportunities, and appropriate incentives (taxation and/or supplementary funding) may provide a source of funds to address this type of project.

4. What is the most appropriate way to support venture capital in Australia into the future?