CEDA EVENT

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"Unlocking Australia's Entrepreneurial Potential:

Active Collaboration and Accelerated Commercialisation"

BILL FERRIS AC,

CHAIR,

INNOVATION AND SCIENCE AUSTRALIA

Acknowledgements

Professor the Hon Stephen Martin (Chief Executive, CEDA)

Martin Blake (NSW Chairman KPMG – will give welcome address)
Fellow panel members:

- Serafina Maiorano (Global CEO, Advance)
- Liza Noonan (Executive Manager – Innovation, ON Program, CSIRO)
- Nick Austin (CEO and Founder, Divvy)
- Annie Parker (Co-Founder, Muru-d)

Opening
Thank you for inviting me to speak at today's meeting. It is a great pleasure to be able to contribute to the topical issues that are debated at CEDA events.

And I'd like to take this opportunity to congratulate CEDA on the important role it has played and continues to play in highlighting issues of national significance over the past 50 years and how CEDA discussions have helped inform policy making in this country.

The theme of today's discussion, unlocking Australia's entrepreneurial potential, is of great interest to me because in my view it goes to the very heart of Australia's future economic development and prosperity. The Prime Minister's announcement in December 2015 of a National Innovation & Science Agenda ("the NISA") is a potential 'game changer'. It provides a comprehensive blueprint that includes a number of significant measures which address the key barriers to innovation and entrepreneurship in Australia.
In terms of the metaphor for today's discussion, NISA recognises that unlocking the nation's entrepreneurial potential requires many keys to many locks.

In my view there are six key challenges to accelerating innovation and entrepreneurship in Australia:

1. Access to risk capital funding
2. Access to business and entrepreneurship skills
3. Access to international markets
4. Lack of active collaboration for commercial outcomes - among universities, research institutes, business entities, government and venture capitalists.
5. Insufficient investment and interest in stem curricula in our schools, vet colleges and universities.
6. Risk-averse culture that often results in the fear of failure trumping the excitement of gain.

It is the fourth of these barriers, the shortcomings in collaboration between our research institutions and businesses that I want to focus on today.

In a recent article in *Scientific American*, Australia was ranked 12th out of the world's best 40 countries for science. Even better, the world economic forum ranked Australia 1st on its list of the world's most creative countries in 2015!

However, our record for translating publicly funded research into commercial outcomes is poor, and a major reason for this poor performance is inadequate collaboration between Australia's business and research sectors.

OECD statistics rank Australia last for businesses collaborating with universities and publicly funded research organisations, (number 33 out of 33 OECD countries)!

So why is this so and how do we fix it?

There are of course some wonderful examples of successful commercialisation arising out of Australian research and business collaborations. The nucleus heart pacemaker, the RESMED sleep apnoea product, Cochlear's bionic ear, CSIRO's Wi-fi, to name just a few. And many of our universities, UQ and Melbourne included, have contemporary venture spin-off success stories especially in the biomedical sector. And we will see many more biomedical successes emanating from our leading medical research institutes like WEHI and Garvan.

Nonetheless, we rank way below the level of co-operation achieved among academia and business in Israel, Sweden, US, UK, Germany; countries whose commercialisation of science and innovation has outstripped that of Australia. Indeed only 5% of all Australian business has any engagement with our universities.

While I see this as a very disappointing feature of the current Australian landscape, I also believe it to be a major opportunity for a step function change. The board rooms of universities and other PFRO's, their vice-chancellors, deans and business development executives do now "get it" – there is a new game in town called "lets get more of our research out there into the marketplace". And more and more business boardrooms and their CEO's do understand that new technologies and business models are urgent opportunities not just threats.

There are a number of important initiatives in NISA aimed at accelerating this collaboration, dramatically not marginally. These measures fall into 3 categories – research funding rules, tax system incentives, and co-investment programs. Let me touch briefly on each of these:

- <u>Research funding</u>
  Virtually 100% of government funding for researchers is tied to research excellence judged by reference to publications and citations. The NISA has committed to making changes in the rules determining block grant research funding. New rules will incentivise universities to achieve increased industry and other end-user engagement, that is in addition to the traditional test of research excellence.

  Following on recommendations from the Watt Review, these requirements for industry engagement kick in beginning 2017 and 2018; but they already send powerful messaging to our vice-chancellors. A clarion call to action.

- <u>Co-investment</u>
  The NISA provides significant support to the health and medical research sector by providing capital for commercialising medical research discoveries through a new $500 million biomedical translation fund. The Government is providing $250 million in capital for the BTF to be matched dollar for dollar by the private sector. This will represent a significant $500 million boost in the translation of our world class medical research into real world commercial outcomes. This means growth in high value jobs, exports, profits and better

health outcomes. It means expansion of our outstanding clinical trials capability and a deepening of the eco systems of biopharmaceuticals, medical and digital health.

Separately, a $200 million CSIRO innovation fund will co-invest in new spinoff companies and existing start-ups, from the CSIRO itself and from other research organisations. This is a key early stage funding initiative in the entrepreneurship and investment pipeline.

Both of these co-investment programs will facilitate significant entrepreneurship and commercialisation.

- Tax incentives
  The Australian government spends about $3 billion a year on R&D tax incentives ("the RDTI") for business. Is this the best way to encourage greater levels of business research and development? The Government has tasked me, as Chair of ISA, Chief Scientist Dr Alan Finkel and Treasury Head John Fraser ("the 3F's") to jointly review the research development tax incentives. Our task is to advise Government on how it might improve the programme's effectiveness and integrity, and to sharpen the focus on additionality, i.e. On R&D that would not otherwise happen anyway.

  As part of this review, we want to understand whether the programme is too complex, and therefore reliant on costly professional advisors; the degree to which additional R&D is encouraged; and the difference between the effect the incentive has on small businesses and its effect on big businesses.

  Ideally we would also like to consider if the programme could be recalibrated to include a greater emphasis on rewarding collaboration; to incentivise/motivate business to seek solutions from PFRO researchers. It is interesting to note what the French emphasise in their R&D tax incentives. There they offer a premium tax offset credit for business R&D spent with PFRO's ……. This appears to have driven much greater collaboration for commercial outcomes.

Today I won't speak about the many other keys being cut by the NISA, including tax incentives for increased participation by angel investors in start-ups, government funding to support incubators and accelerators around the country, 5 new landing pad accelerators offshore, (of which 2 have already started, one in San Francisco and another in Tel Aviv), some relaxation of insolvency penalties, new directions in the long established CRC programs, together with long term commitment to NCRIS and national research infrastructure, support for greater emphasis on stem curricula in schools, vet's and universities, and much more.

But to finish, let me briefly speak to the core task and responsibility of the independent statutory board that I have been invited to Chair, Innovation and Science Australia. This board (with new membership soon to be announced) is required to provide strategic advice for a whole-of-government vision and plan for science and innovation for the next 15 years. This will begin with an audit, a mapping of the existing science and innovation activities, strengths and weaknesses ……. A look at the existing eco-systems by sector …… this work will form a base line of knowledge for the strategic thinking, work which (to coin a Victor Hugo phrase) requires a telescope in one eye and a microscope in the other …….. We are going to need your help!

And speaking of help, in the immediate future I want to appoint a CEO who will report directly to the board of ISA. Any ideas very welcome.

There is no doubt we will need to develop a culture that celebrates success, tolerates failure, and encourages those who “give it a go”. This will require top down and bottom up buy-in, from business, academia, researchers, entrepreneurs and the broader community if we are to truly unlock our entrepreneurial potential.