

The Chair
Economics and Industry Standing Committee
Legislative Assembly
Parliament House
Perth WA 6000

30 July 2015

Dear Chair,

Re: Inquiry into Technological and Service Innovation in Western Australia

I would like to thank you firstly for taking the initiative and investing the effort to elevate this important issue to the level it deserves, and secondly for the opportunity to contribute to this inquiry.

I am a practising civil engineer with a PhD in environmental engineering currently based in a small multidisciplinary company in Fremantle and have worked locally and overseas since the mid 1980s. I have been employed as a Director of the Centre of Excellence in Environmental Technologies at Murdoch University, and have worked previously and also currently with several of the Cooperative Research Centres (CRCs: Desert Knowledge, Water Sensitive Cities, Low Carbon Living) in the last 15 years. I am West Australian by birth, and having seen our national research efforts in light of my overseas experience, I would have to say I have been, sadly, consistently underwhelmed by the level of support for technological innovation in this state. I would list the tiers of support and the mechanisms of their implementation, according to my experience, roughly as follows:

- Federal; eg R&D tax breaks/incentives, funding opportunities, ARC grants, CRCs
- State; eg Centres of Excellence, State owned utilities
- Universities; eg support for research nodes, recognition/acknowledgement of innovation

The principal issues I have found with these are:

Federal

- R&D tax breaks/incentives – was not substantial enough in my experience to be given serious consideration by private industry
- Funding opportunities – lack/complete absence of any direct cash opportunities
- ARC grants - Unduly and extremely competitive from academia's perspective with the quantum of funds available being small
- CRCs – possibly the most useful but severely hamstrung by the need for multi-institutional collaboration resulting in a massive and hence costly administrative burden. Often politically influenced.

State

- Centres of Excellence – a good initiative which needs a substantial increase in the quantum of cash per centre eg current funding appears to be of the order of \$100,000pa only.
- State owned utilities - Government departments should in my opinion support and indeed embed international scale innovation and research eg Main Roads, WaterCorp, Western Power, etc. Historically in my experience they have been very inward looking/parochial/isolated. I would cite Western Power's woes due to its continued reliance on fossil fuel powered generation rather than getting ahead of the game and seriously investigating low carbon, renewable energy sources as a textbook example. Do these utilities have any internal mandate, or budget, for R&D?


Universities

- Support for research nodes – longterm vision and support for universities' research strengths needed. The decline in real funding for universities over the last two decades has driven a very shallow 'flavour of the month' research agenda, and severe reliance on international students to prop up the budget.
- Lack of real understanding by academia/academics as to what private industry really needs in hand with the lack of serious financial incentives (as mentioned under Federal)
- The University research model is driven by grant success and number of papers published. Given the paucity of the former - nationally and at a state level (as mentioned) - the only metric left available to researchers is to publish profusely! This is often to the detriment of the publication/s and highly questionable as to the real value it adds to innovation. Another more lucrative funding path would greatly help break down this narrow preoccupation with publishing at all costs and greatly increase productive research and innovation.

Clearly more funding, directly targeting the researchers doing the hard work, is needed if we are to see any improvement in the quality and quantity of technological innovation in this state.

I hope my submission may be of some help in your deliberations and wish you well in your Inquiry. It is long overdue.

Yours truly,



Dr Stewart Dallas