TDA and LH Martin Institute Study Mission to Canada: A driver of innovation and employment in SMEs.

The recent delegation to Canada sponsored by TDA and the LH Martin Institute explored the fully functioning applied research model in Ontario Colleges and Institutes. Several delegates also visited Southern Alberta Institute of Technology which is a polytechnic institute located in Calgary, Alberta. 15 senior delegates from Australia and the UK, met with Colleges and Institutes, Federal Granting Councils, Industry Sector Councils, the Ministry of Training, Colleges and Universities, Colleges and Institutes Canada (the TDA of Canada), Austrade and the High Commissioner, and attended a Symposium on Applied Research hosted by the Ontario Institute of Studies for Education. The delegates came away convinced that this is a model that we need in Australia.

The model has developed and flourished in Canada with the support of the Federal Government which provides the bulk of the funding under a competitive application process via four major Granting Councils, and it is co-funded almost 50/50 by industry and enterprises. This is a model that can be easily adopted by Australia, as we have experience with competitive funding processes and certainly the same economic imperatives.

The applied research model is ideal for small medium enterprises that are looking for research and development in product, process, and service innovation; typically such enterprises lack a R&D department, so the college staff and students become a key partner in these developments. An important point is that almost universally the intellectual property remains with the enterprise and the research projects range from whole of class projects over several months, to intensive projects over several years when teaching staff come off teaching duties and students are paid to be part of the project. The enterprise invests in the project by either paying for the students to be employed, or materials or both.

The Colleges and Institutes have developed a toolkit of materials to support the applied research process, and have adopted consistent processes and marketing under the ARIES brand (Applied Research, Innovation and Entrepreneurship Services) so that enterprises can easily navigate their way to get services.

Of the six colleges visited all have real and ongoing examples of innovation for small and medium enterprises. Centennial College has focussed on energy, health, an aerospace, with projects ranging from designing new landing gear for planes, wearable interactive mobile clothing for health care workers, and hybrid street lamps. Centennial is a partner in the Downsview Aerospace Hub, which is federally owned land with bombardier facilities and an innovation centre. This ecosystem aims to fosters innovation, acceleration, and allow SMEs to work with bigger companies.

Niagara College which has expertise in wine making and boutique brewing developed an Alcohol Free beer. The project had support from Mothers against Drunk Driving, a marketing company and had funding of $2.3m over 5 years. Teaching staff were released for the project, and this beer is now sold across Northern America. This was of the very few projects with some royalties back to the college.

Algonquin College in Ontario reported for every 100 projects, 24 jobs are created. For every $1 invested the return on investment is $1.8.
We know that in Australia SMEs employ the majority of the workforce, so here we have a model that can support their innovation and development, we have capacity and expertise in our TAFE and VET Institutes, and we already have annual application processes for research funds. All we need is to recognise that applied research is just as valuable as pure research, in driving employment and prosperity; why not put aside a small slice of the annual research funds i.e. $10m and trial the process in Australia. The time is right for this kind of new thinking.