

Submission to Parliament of Australia House of Representative
Standing Committee on Science and Innovation
Inquiry into pathways to technological innovation
Additional submission: Singapore

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Scope

This additional submission addresses specifically one of the references for your Inquiry:

- Strategies in other countries that may be of instruction to Australia.

Support for new technology-based small firms from Singapore universities

Last month, July 2005, the authors while in Singapore had the opportunity to explore and discuss how Singapore's two government funded universities, Nanyang Technological University and the National University of Singapore, encourage and support their students, graduates and staff in the development of new ventures as technological entrepreneurs (in their words, *technopreneurs*).

Our submission is principally related to Nanyang Technological University, but it was made clear to us when we visited the National University of Singapore, that similar initiatives were in place at that University.

At Nanyang, they have seen the need for and implemented programs in three areas: education, support and finance.

1. Education

Science and engineering graduate students who might be interested in the exploitation of new knowledge and new technology based opportunities are encouraged to complete a one year Master's degree designed to prepare them to become technological entrepreneurs—a program similar to the Master of Entrepreneurship and Innovation at Swinburne University. One of us was invited to address such a class involving about 50 bioscience graduates.

2. Support

After graduation, the new graduates have access on a competitive basis to an incubator at low rents and close technical support from Nanyang University. They do not have to have an incorporated entity registered before such access.

Support is provided through the University's technology transfer office on intellectual property and commercial opportunity assessment

3. *Finance*

We were advised that for any reasonable proposal, the University will provide to the student a grant of S\$50,000 towards achieving proof of concept ("technology that works") and identifying the market opportunity. The venture does not have to be incorporated at this stage.

After this phase, the new *technopreneur* will have competitive access to further finance of up to S\$300,000 through the Entrepreneurship Technology Development Fund.

The S\$50 million Startup Enterprise Development Scheme (SEEDS) was established by EDB to boost innovation and enterprise in Singapore. EDB takes an equity stake in the seed company and matches every private sector dollar the company can raise from an independent third party investor, up to a cap of S\$300,000. (<http://www.techsingapore.com.sg/article.php?id=1561>. Accessed 30 July 2005).

SEEDS is thus comparable to the Australian pre-seed funds.

The new venture will also have access of up to S\$80,000 from SPRING (Singapore Standards, Productivity and Innovation Board) funds on the basis of one part from the entrepreneur, two parts from the University and three parts from the SPRING fund.

Thereafter, the new entrepreneur can obtain finance from The Entrepreneurship Challenge Fund (TEC) in the Prime Minister's Department. Access to this source requires evidence of social and environmental development, but this is interpreted quite broadly.

Conclusion

Singapore, as have Scotland with its *Proof of Concept* finance program and the EU generally, eg Twente University in The Netherlands, has seen the need for new technology-based small ventures to have access to small amounts of money without having to give away equity—or even before they have decided whether to incorporate or not. Governments see such new ventures as important drivers of regional economic growth. These small amounts of money, which the study by the Australian Institute of Commercialisation has shown to be in very short supply in Australia, are needed for proof of concept, intellectual property protection and market and competitor analysis, whether the objective is to licence the new technology to an existing company or to create a new firm. Licensees also expect "technology that works".