

Commercialise science to form global businesses

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Scientific innovation is a key driver of prosperity for advanced economies, New Zealand is not commercialising scientific innovation well enough, and there are opportunities to improve our performance. Using publicly funded science to develop innovations and forming successful internationally focused businesses can make a worthwhile contribution to future economic prosperity.

New Zealand's recent economic performance has been driven largely by a property boom, working harder, increasing primary sector output prices, and tourism growth. To do better we must find new sources of export growth.

For advanced economies like New Zealand, productivity is determined by what the World Economic Forum's Global Competitiveness Report calls "innovation factors". Innovation factors include measures of business sophistication such as availability of scientists and engineers, company spending on R&D, value chain participation, and the state of cluster development.

New Zealand performs poorly relative to advanced economies on several of these innovation measures. Our relative performance indicates that we do not yet have the conditions in place to compete successfully.

Commercialising science happens within an innovation ecosystem. The innovation ecosystem includes networks of domestic and international relationships to understand prior research, scientific potential and market opportunities. It includes skilled researchers, technicians, entrepreneurs, managers, directors and advisors who can manage and guide the business development effort. It also includes people who work for government and NGOs providing support to the developing firms.

The effectiveness of an innovation ecosystem depends on having enough highly skilled people to progress the business developments, wide networks to ensure the right information is accessed to make decisions and sufficient capital to resource the effort.

In the last decade, government agencies and private organisations have been trying to increase the rate of formation of innovation based, internationally focused New Zealand grown businesses, and to help them grow. Research and development, incubators, technology transfer organisations, venture capital and export assistance programmes have been funded to support go-global business establishment and growth.

Despite all this development effort, and worthwhile progress, New Zealand's innovation ecosystem is not yet functioning near its potential. Strategy involves the allocation of resources to achieve a desired objective or goal. Growing go-global businesses should be an important strategy for us but our resource allocation reveals it is not.

Science provides many non-commercial benefits and there are other worthwhile ways to commercialise science. However, developing go-global businesses is an important economic opportunity for New Zealand and we should ensure we perform well.

The first requirement for success is widespread recognition of the importance of growing more go-global businesses to our future economic prosperity. That would establish a mandate for allocating more resource to support innovation and would encourage more talented New Zealanders to join go-global business development as researchers, entrepreneurs, managers, directors and investors.

Second, we need to ensure that the science-to- go-global business development process is working as well as we can make it work. The New Zealand Institute's review of our innovation ecosystem reveals numerous obstacles to success which can be reduced by policy changes. There is no one simple intervention that will make New Zealand's innovation ecosystem world class. Success will depend on understanding the many ways we fall short and fixing them.

Third we need to invest to accelerate progress. If economic prosperity depends on innovation success and we are investing less than other small nations, and falling behind, then we are not going to be able to catch up without increasing our investment.

Finally, although the need for improvement is urgent, we need to be patient. It takes a long time to grow a scientific innovation into a successful global business and it takes a long time to establish an effective innovation ecosystem. Effective and stable policies can make a valuable contribution but innovation ecosystem performance also needs to be monitored more diligently and managed more actively.