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Plugging the gap:

An internationalisation strategy

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'Plugging the gap' proposes 14 policy directions to improve the success of internationalising New Zealand businesses. Internationalisation performance improvement will accelerate growth in high value exports and lift prosperity.



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EXECUTIVE SUMMARY

Many other small advanced economies succeed by exporting high value differentiated goods and services and New Zealand should do the same. Commodity agriculture and tourism, the mainstays of our export economy, do not have high enough productivity or growth potential to allow New Zealand to rejoin the ranks of the world's most prosperous nations. Information, communications, technology, niche manufacturing and value-added goods and services based on primary production are high productivity sectors where differentiated exports can be grown.

New Zealanders are inventive and have a high rate of business start-ups, including many businesses aspiring to succeed internationally by selling differentiated goods and services. There are many success stories and a large number of emerging businesses demonstrating success is possible.

These successes are not enough. Many internationalising businesses find it difficult to obtain the capital required for expansion and many struggle to assemble the talent needed to be successful. New Zealand's internationalising businesses are smaller than businesses in other countries when they internationalise and they are far from their markets. Other countries do more to help their businesses succeed.

Capital does not seem to be an important constraint for very small start-ups with early funding available from 'family, friends and fools' or by mortgaging the house. Angel networks are established and growing in New Zealand and are an important source of funding for up to about \$1 million to \$2 million per business.

Venture capital from the New Zealand Venture Investment Fund (NZVIF) and partners also provides some funding for up to a few million dollars per business. Private equity firms make some investments in stronger businesses down to about \$5 million. It is generally accepted though that once expansion capital is required beyond about \$2 million, many businesses will find it difficult to obtain funding in New Zealand and must attract international investors, which is hard to achieve.

Three proposals aim to increase the availability of capital for international expansion. The first is to revitalise the developing venture capital industry by establishing tax-based incentives to encourage investment and by requiring co-investment by international partners to access skills and connections.

The second is to extend those tax incentives to angels and others, and establish a fund to allow more New Zealanders to invest in new ventures targeting international markets.

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AN INTERNATIONALISATION STRATEGY

The third is to establish a loan guarantee facility that will lead to greater bank lending to internationalising businesses and encourage banks to establish specialised lending capability.

Launching a new product into a new and distant market is very difficult so specialised skills and knowledge are required. However, most New Zealanders who are leading and managing internationalising businesses learn on the job. Several proposals aim to lift the quantity and quality of talent available.

While New Zealand puts a huge amount of effort into training and recruiting doctors, nurses, teachers, and others whose skills are essential to economic and societal success, it is less systematic about supporting training in international entrepreneurship, despite the importance of talent and the potential to lift prosperity.

Entrepreneurship, especially international entrepreneurship, has been relatively neglected in New Zealand. Unlike many other countries New Zealand does not have a national entrepreneurship strategy to encourage and develop entrepreneurs, and it should.

Management competences are very important for internationalising businesses too. International marketing and sales, operations management and strategy skills can make a huge difference to the success of businesses and there should be more effort to manage the talent supply from an 'NZ Inc' perspective.

The proposal to address talent shortages for management roles is to establish world-class institutes to conduct research on what works, to train specialist managers, and to offer subsidised internships. The institutes should also provide content that can be delivered to people who require training but do not attend the institutes, for delivery by others. They should be established with a purpose to lift the quantity and quality of management in their specialisations throughout New Zealand.

The shortage of well-qualified directors should be addressed by requiring directors of companies receiving government assistance to have completed specific training in governance of internationalising businesses, or demonstrate relevant experience that provides them with that competence.

In addition, internationalising businesses should be able to access guidance from a panel of strategic advisors.



There are also opportunities to improve domestic and international connections, to provide growing businesses with knowledge and resources that will reduce their costs and risks, and to help businesses access benefits from economies of scale.

Clusters are important ways to improve the productivity of businesses in the same sector and there should be renewed efforts to establish them here. Establishing colonies of New Zealand businesses in important locations around the world will help develop sustainable international connections.

The efforts of business academics in New Zealand should be focused more on research that assists internationalising businesses to be successful. Information such as standard contracts and how-to guides that are commonly needed should be provided from a single central source. Relevant research findings, commonly used information and opportunities to connect should be available via a single web-based clearinghouse with a strong brand.

An Innovation Council should be established to monitor the performance of the innovation ecosystem as a whole, including internationalisation success. The Council should review opportunities and obstacles, agree priorities and identify resourcing requirements. The importance of innovation to economic success, the large number of agencies and constituencies involved, and the high rate of change make coordination critical for success.

If New Zealand can become more prosperous by developing an innovation driven economy with high value differentiated exports, then it will attract more talent and capital, establishing a virtuous cycle.

Any one critical factor such as insufficient talent, capital, information and connections will be enough to seriously reduce success. A decision to remedy some but not all of the obstacles to world-class performance may lead to improved outcomes but the performance of the whole depends on the weakest link.

Many competing countries are improving their innovation performance too. We are in a race.



1 INTRODUCTION

This paper is the third in a series on improving prosperity. The first, 'Standing on the shoulders of science: Getting more value from the innovation ecosystem' concluded that lifting innovation ecosystem performance is valuable and achievable and that the major opportunity is to improve commercialisation (Boven, 2009). The second, 'A goal is not a strategy: Focusing efforts to improve New Zealand's prosperity' concluded that growing innovation based international businesses is the most valuable way to lift prosperity and that the priority should be lifting internationalisation performance (Boven, Bidois & Harland, 2010). This paper proposes policies to improve the performance of internationalising businesses which will accelerate growth of high value exports.

During the decades leading up to the 1970s New Zealanders' incomes were among the highest in the world. Loss of privileged access to the United Kingdom markets for commodity agricultural products when the United Kingdom entered the European Union in 1973 forced restructuring and liberalisation of the New Zealand economy.

Despite these responses, during the 1970s and 1980s New Zealand's GDP per capita fell relatively so that now New Zealanders' incomes are around 17% below the average for the Organisation for Economic Co-operation and Development (OECD). Australia has retained its position among the richest countries in the world. Now New Zealand finds it difficult to compete for migrants and investment and there is a steady stream of New Zealanders migrating to Australia and elsewhere.

New Zealand's Government has set a goal of matching Australia's GDP per capita by 2025. There has been debate about whether or not the goal can be achieved, and about whether Australia is the country that New Zealand should compare itself with. GDP per capita is also not a perfect measure of prosperity; it gives credit for harm and waste and does not account for environmental assets depleted by production and consumption.

Regardless of how you view the target, matching the prosperity of the rich countries is a worthwhile aspiration. It would lift New Zealanders' incomes, provide resources that can be used to increase future security in an uncertain world, and improve migration outcomes.

Many other small advanced economies succeed economically by exporting high value differentiated goods and services and New Zealand should do the same. Differentiated goods and services are those where suppliers' offers cannot be easily substituted for one another so price is not the most important customer decision criterion.

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Commodity agriculture and tourism, the mainstays of our export economy, do not have high enough productivity or growth potential to make enough of a difference. Information, communications, technology, niche manufacturing and value-added goods and services based on primary production are high productivity sectors where high value jobs can be created and differentiated exports can be grown.

New Zealanders are inventive and have a high rate of business start-ups, including many businesses aspiring to succeed internationally by selling differentiated goods and services. There are many success stories and a large number of emerging businesses demonstrating that success is possible. Around 10% of exports are by the top 100 internationally oriented technology companies and we estimate that around 22% of exports are of differentiated goods and services.

These successes are not enough. Many internationalising businesses struggle to assemble the talent needed to be successful and it is difficult to obtain the capital required for expansion. New Zealand's internationalising businesses are smaller than businesses in other countries when they internationalise and they are far from their markets. Other countries do more to help their internationalising businesses succeed.

Examination of the requirements for success reveals worthwhile potential to improve outcomes by ensuring sufficient resources of the required types are available for internationalising businesses and by improving the availability, quality and cost-effectiveness of the services businesses use while internationalising.





2 THE ECONOMIC OPPORTUNITY

LABOUR PRODUCTIVITY

Prosperity is driven by labour productivity. High labour productivity results from some combination of producing a lot of goods per hour worked and selling those goods for high prices.

Improving average labour productivity depends on improving or more effectively using the drivers of labour productivity, which are entrepreneurship, innovation, talent, capital and natural resources (adapted from Kidd, 2008). New Zealand has many opportunities to improve these drivers and efforts are in progress to improve all of them. More can be done though, and the previous paper in this series 'A goal is not a strategy: Focusing efforts to improve New Zealand's prosperity' highlights many opportunities to accelerate productivity growth.

Natural resources such as abundant land, water, biological resources and amenity values provide the foundation for important traditional exports such as commodity agricultural products and tourism. However, competition from low wage countries and local providers combines with distance and market protection to limit the value New Zealand can gain from these activities. Commodity agriculture and tourism are very important because they provide essential export earnings and employment but they do not have sufficiently high productivity to lift incomes to match those in the leading OECD countries.

New Zealand needs another pillar for economic growth; one with high labour productivity. The most promising opportunity is to grow exports of differentiated goods and services.

Producing more goods per hour worked depends on having skilled workers who use capital inputs to lift output. The OECD (Guillemette, 2009, pp.8-10) has identified low capital intensity as one source of New Zealand's relatively low labour productivity and previous New Zealand Institute research has highlighted policies that reduce the availability of capital for productive investment (Boven, 2010).

New Zealand's workers are skilled but advanced economies are in a continuous race to grow the number of highly talented people. Scientists and engineers strongly influence economic success but New Zealand is ranked only 67th in the world on availability of scientists and engineers (Schwab, 2010, p.257).

Selling goods for high prices depends on choosing to compete in goods and services that are highly valued by customers and being able to market and sell them effectively.

Businesses can only be successful if they have competitive advantage.

Competitive advantage results from having products or services with some

combination of price premiums, lower costs or more efficient use of capital. Business innovation is the process of identifying business improvement opportunities and then implementing them. Innovation may be done within an established business or may be the source of value that motivates forming a business.

New Zealand does not have enough successful international businesses. Entrepreneurs are needed to create and build more but New Zealand has a shortage of entrepreneurs who are capable of leading businesses to international success. Furthermore, entrepreneurs are members of business teams, and other important skills for these teams are also in short supply; directors with experience governing internationalising businesses, development project managers, international marketers and sales professionals.

To compete successfully in differentiated goods and services New Zealand must lift performance on the drivers of productivity, especially talent, entrepreneurship, capital availability and innovation. The good news is that there are many opportunities to improve, some of which are being pursued by Government. Further, there are no insurmountable obstacles to overcome so, with sound strategies, sufficient investment and performance management, higher productivity is possible.

INVENTIVENESS, BUSINESS FORMATION, OFFER DEVELOPMENT AND INTERNATIONALISATION

Innovation to create new business opportunities is being pursued by rich countries trying to reinvigorate their economies and by developing countries trying to join the rich ones. Success depends on inventiveness, business formation, offer development and internationalisation.

Inventiveness is required to develop the research results or ideas that form the foundation of a new business. New Zealand performs reasonably well on inventiveness because our research facilities are sound and provide a worthwhile flow of output. More important, the research and teaching infrastructure establishes a population willing and able to generate business ideas and form businesses. Government took steps in the May 2010 budget to lift inventiveness performance and to better focus research efforts where there is commercial opportunity (Key, 2010a).

Business formation follows from the identification of a worthwhile business idea and here too New Zealand performs reasonably well. The rate of start-ups is high, though many are very small, domestically focused owner-operator businesses. Nevertheless there are businesses formed based on innovative ideas and targeting international success. Funding and infrastructure is available

to support establishment of these businesses. Efforts are being made to better equip the scientists, engineers and others who found and manage these businesses to lead them to success.

Offer development is the stage that converts the research result or business idea into something that can be provided to a customer. That stage is more difficult because it usually requires building a high quality team with diverse skills, and engagement with prospective customers and channel partners to develop the product and service package and the go-to-market strategy.

The business must then establish sales capability and capacity to sell into international markets.

The difficulty for firms trying to build successful international businesses is that the domestic market here is very small so the businesses are small when they begin to export and the markets they serve are distant. That means their capability and resource base is relatively low when they internationalise and the cost to establish in offshore markets is relatively high. Those difficulties often cause delays that consume capital and erode competitive position.

QUANTIFYING THE GAP

It is not unusual for businesses to find it difficult to attract staff and capital and there are always opportunities to improve conditions for businesses in important sectors of the economy. In the absence of estimates of the scale of a shortage or the size of an opportunity it can be tempting to take a low cost option when responding to an issue. The purpose of this section is to provide an indication of the scale of the shortages of talent and capital to help motivate commitment of sufficient resource.

Identifying the current resource shortage is not sufficient because the proposed economic strategy is to grow exports of differentiated goods and services, and that will create additional demand. Quantifying how much additional supply will be needed requires an estimate of how many new businesses will need talent and capital. The number of new businesses in turn depends on how much economic growth is targeted and what contribution exports of differentiated goods and services will make.

The starting point is the target Government has set of matching Australia's GDP per capita by 2025. Australia's GDP per capita in 2025 can be projected by assuming growth continues on the current trend. With that assumption, matching Australia's GDP in 2025 would require New Zealand to have a GDP of around NZ\$424 billion in 2009 dollars. GDP in 2009 is NZ\$191 billion so GDP growth of NZ\$233 billion would be required.

Not all of that GDP growth would be in exports of differentiated goods and services. Some would come from other exports and some from growth in the domestic economy. Government has set a target of growing exports to become 40% of GDP (Brownlee, 2010a). So assume exports in 2025 will be 40% of NZ\$424 billion or NZ\$170 billion. Total exports would need to grow from about NZ\$52 billion in 2009 to NZ\$170 billion in 2025.

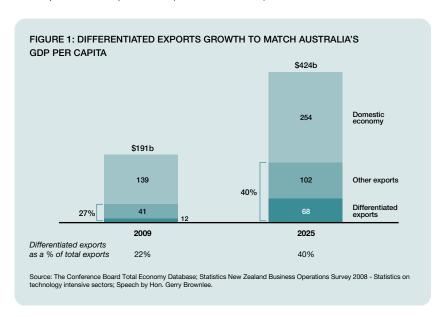
Within that total export growth, some would be growth of differentiated goods and services and some would be commodity growth, including the mineral and hydrocarbon export growth that has been signalled.

If the strategy is to shift the focus of the economy from commodity exports to higher value goods and services, then an assumption about the shift in the mix is required too. Denmark has been very successful at growing exports of differentiated goods and services with an estimated 50% of exports being differentiated. For the purposes of analysis assume that 40% of exports would be of differentiated goods and services, up from around 22% in 2009.

The results of these assumptions are presented in Figure 1.

Exports of differentiated goods and services would grow from NZ\$12 billion in 2009 to NZ\$68 billion in 2025. That would require a compound average growth rate for differentiated exports of 11.5% per annum over the next 16 years.

These growth numbers are large which is why there is quite a lot of scepticism about the achievability of the 2025 goal which the Prime Minister has described as difficult and challenging (Key, 2010b) and the Minister for Economic Development as "aspirational" (Brownlee, 2010b).



RESOURCING THE GROWTH

Two sources of differentiated export growth are available. The number of businesses will grow, along with the revenues of the businesses.

An estimate of the current population of export-focused differentiated businesses is presented in Table 1. Businesses in technology intensive sectors included in the table have six or more employees; those with fewer than 20 employees and less than 20% of their revenue from exports have research and development (R&D) spend; those with fewer than 100 employees have export revenues of 20% or more; and those with 100 or more employees have export revenues of 50% or more. Food and beverage manufacturers with more than 100 employees but no R&D spend are excluded.

The table shows that in 2008 there were an estimated 1,531 export focused differentiated businesses with six or more employees. These businesses accounted for almost \$18 billion of revenue or 9% of 2008 GDP. They employed only 77,000 people but the average revenue per employee was high, \$232,000.

The food and beverage manufacturing businesses were the most important exporters of differentiated goods. They contributed almost half the revenue

TABLE 1: ESTIMATED POPULATION OF EXPORT FOCUSED DIFFERENTIATED BUSINESSES 2008							
Sector	Revenue \$m	Number of firms	Average revenue per firm \$m	Total number of employees	Average employees per firm	Revenue per employee \$000	
Food and beverage manufacturing	8,107	205	39.5	34,850	170	233	
Niche manufacturing	8,062	633	12.7	31,650	50	255	
Information, communication, technology and media	791	267	3.0	4,806	18	165	
Agriculture (excluding commodities)	515	114	4.5	2,052	18	251	
Scientific and medical	448	312	1.4	3,744	12	120	
Total	17,923	1,531	11.7	77,102	50	232	

Source: Statistics New Zealand Business Operations Survey 2008 - Statistics on technology intensive sectors

and had average revenue per business of \$39.5 million. They are also strongly anchored in New Zealand because they draw on inputs from agricultural and other primary food producers. Having competitive agricultural production is important to ensure these high value businesses can secure raw materials at competitive costs.

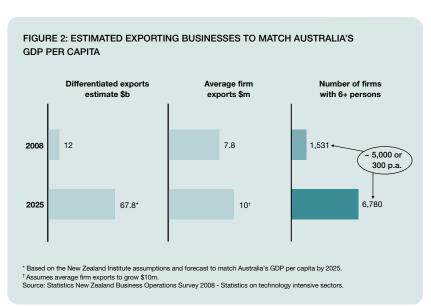
Niche manufacturing was almost as large in aggregate as food and beverages, but the businesses were much smaller. Revenue per employee was high.

Almost 40% of the businesses were in information, communications, technology, media, scientific or medical. These businesses were smaller again, possibly in part because more of them have been founded recently. They had very low average revenues and it is likely that many were still at the stage of developing their offer.

The purpose of estimating the current population of businesses is to provide a basis for estimating the amount of talent and capital that would be needed by the differentiated exports sector to achieve the targeted export growth.

The average export revenue per business was \$7.8 million, on average around 67% of their revenues. It is assumed that in 2025, average exports per business will grow to \$10 million as a larger proportion of the businesses become more mature.

Based on this data and that simple assumption, Figure 2 shows that the number of businesses required in 2025 will be about 6,780, up from the estimated 1,531 in 2008. Adding about 5,000 businesses over 17 years translates into approximately 300 more businesses per year.



PLUGGING THE GAP:

These estimates are the starting point for working out how much talent and capital will be required to resource the businesses. The businesses in the sample all have at least six employees and the average number of employees per business is 50. Each business is assumed to require one leader (entrepreneur or CEO), one qualified international marketing and sales leader, and one qualified development project leader. Each business is also assumed to require one full-time equivalent director based on an assumption of five (0.2 FTE each) directors on the board and each director serving on five boards.

Based on the Business Operations Survey analysis and rule-of-thumb, on average each of the businesses in the sample is assumed to require equity of \$6 million and working capital funding of \$1.5 million. With a growth of 300 businesses per year the annual requirement would be 300 of each kind of manager, \$1.8 billion of equity and almost \$0.5 billion of debt.

Although informed by the numbers from the Business Operations Survey information, these assumptions are crude and attrition in the business, manager and director populations is ignored. Despite these uncertainties the estimates do provide an indication of the scale of the resource flows that will be needed to achieve the targeted export growth.

It has been assumed that average exports rise to \$10 million by 2025. That assumption reflects an expectation that growth of individual businesses will be partly offset by the addition of new small businesses. The estimated 1,531 companies all have six or more employees and there is an unknown number of developing smaller businesses. Not all will succeed but many of these smaller businesses will also need skilled leadership and management to grow successfully.

Larger businesses are more able to afford high quality leadership and management resources so it would be very helpful if a larger average size is achieved. That would increase the chances of success and would reduce the number of managers of each type required. If the average size grows to \$20 million exports then only half the number of businesses, leaders and managers would be needed each year. Even these lower quantities of highly skilled and specialised managers will require major development effort.

One way to increase the average size would be by amalgamations of related businesses or if multi-business companies emerged. The benefits from better use of high quality leaders and managers would be partially offset by risks from loss of focus. Despite the desirability of larger business size and the potential value from amalgamation it is difficult to identify policies that would encourage amalgamations.

Note: Estimated figures in this section differ from Statistics New Zealand data due to exclusions and the treatment of confidential information.

3 CONDITIONS FOR INTERNATIONALISATION SUCCESS

This section summarises the diagnosis of obstacles to success for internationalising New Zealand businesses. Further detail on the constraints is presented in 'Standing on the shoulders of science' (Boven, 2009).

CAPITAL AND TALENT

In the course of this project the authors have worked with others in an attempt to identify the sources of capital and talent, and estimate the flows from these sources.

Capital does not seem to be an important constraint for very small start-ups with early funding available from 'family, friends and fools' or by mortgaging the house. Angel networks are established and growing in New Zealand and are an important source of funding for up to about \$1 million to \$2 million per business. Venture capital from the New Zealand Venture Investment Fund (NZVIF) and partners also provides some funding for up to a few million dollars per business. Private equity firms make some investments down to about \$5 million. It is generally accepted though that once expansion capital is required beyond \$1 million to \$2 million, many businesses will find it difficult to obtain funding in New Zealand and must attract international investors. Only a small proportion of businesses are able to secure international capital.

In many cases having international investors is very helpful because they provide business guidance and valuable connections along with their capital. However retaining investment in New Zealand is also valuable to increase the chance that businesses will continue to be domiciled here, if that is a sound strategy, and to increase the proportion of the wealth created that remains in New Zealand.

In the last two years angels invested on average \$47 million (NZVIF, NZTE Escalator, NZVCA & Angel Association NZ, September 2010, p.1). Over 2008 and 2009 financial years NZVIF invested on average \$16 million in young New Zealand companies and their partners invested on average around \$18 million (NZVIF, 2009, pp.3-6; 2008, pp.3-11). An unknown amount of additional investment comes from other sources including private equity and foreign direct investment.

The flow of investment has been insufficient to meet the needs of current internationalising businesses. That total current rate of investment is small relative to the estimated \$1.8 billion per annum that would be required to fund the internationalising businesses if they grow rapidly to support prosperity improvement aspirations.

Robust estimates of talent shortages are not available, but the overall conclusion on talent is that almost all leaders and managers of internationalising businesses learn on the job.



New Zealand universities offer some training opportunities in entrepreneurship, including a Master of Entrepreneurship through the University of Otago and high level courses through the University of Auckland's Business School, Massey University, the University of Waikato and others. However, there are no full-time university training opportunities with a specialised international focus for entrepreneurs. Incubators, Employers and Manufacturers Association, Chambers of Commerce and other organisations run learning and development programmes for exporters and offer some training for entrepreneurs. There are entrepreneurship competitions and events such as Global Entrepreneurship Week. But unlike some competing countries, New Zealand has no national entrepreneurship development strategy to drive entrepreneurial culture and training throughout educational institutions.

Most directors of internationalising businesses also learn on the job. The principal training organisation for directors, the Institute of Directors, offers training for new directors, board chairs, committees and directors of not-for-profits. However, the competences required for governing small internationalising businesses are distinct and many members of these boards are in director roles for the first time, governing without appropriate formal training.

The availability and quality of talent for internationalising businesses influences success rates. New Zealand has opportunities to improve the quantity and quality of skills in international marketing and sales, strategy, project management, supply chain establishment and management, and other operational areas.

While New Zealand puts a huge amount of effort into training and recruiting doctors, nurses, teachers and others whose skills are essential to economic and societal success, it is less systematic about supporting training in the areas that have the most potential to lift prosperity. There are established supply strategies for many important occupations but not yet for internationalising businesses.

INFORMATION AND CONNECTIONS

Investment in infrastructure is an important current priority in New Zealand; to catch up after a period of under-investment, to provide a Keynesian stimulus that reduces the effects of recession and to establish a foundation for a competitive economy. Establishing affordable fast broadband connections domestically and internationally will help businesses offer services that are delivered from the Cloud, while sound transport links will limit the cost disadvantage that distance imposes on goods exporters.

Government is providing internationalising businesses with R&D support, market development grants, business development assistance and introductions to customers and other important overseas stakeholders. Efforts are also underway to agree priority sectors for export growth and to identify forms of assistance that will increase their likelihood of success.

Despite these efforts, some forms of infrastructure that support internationalising businesses have been comparatively neglected. For example, cluster development is recognised as one of the important drivers of productivity but New Zealand's global ranking for clusters has fallen from 35th in 2000 (Porter, 2001, p.42) to 56th in 2010 (Schwab, 2010, p.257). Clusters can provide valuable domestic connections but there are also opportunities to better support development of international connections.

There are also gaps in the information available to New Zealand businesses. The best methods for entering international markets are not well understood and business research efforts are not strongly linked to the success requirements for internationalising businesses. Gaps in capital, talent, connections and information result from insufficient management of the innovation ecosystem as a whole. There has been no body responsible for providing oversight of the entire ecosystem, identifying gaps and opportunities, prioritising efforts and allocating resources.

Partly as a result, statistics and other systematic data on the performance of exporters of differentiated goods and services and on resource supply and demand are very limited. That is not the case for other important export sectors in New Zealand. Systematic effort is required to identify information needs and ensure that data is collected and disseminated.

4 LIFTING INTERNATIONALISATION PERFORMANCE

International business success is only possible when all required conditions are met. It is not enough to have a great product and the best team if there is no capital. Each business is only as strong as the weakest link.

The business must have a product or service that is appealing enough to win customers and those customers must be willing to buy from an emerging business that is headquartered a long way away. It must be able to deliver the product or service at a competitive price and have costs that are low enough to provide an attractive margin.

To do that the business must develop its offer successfully, attract high quality directors and managers, and secure the capital required to fuel the venture. That is the business challenge.

The policy requirement is to ensure that the businesses attempting to succeed internationally have available pools of leaders, directors and managers, and can link with investors who can provide the necessary capital.

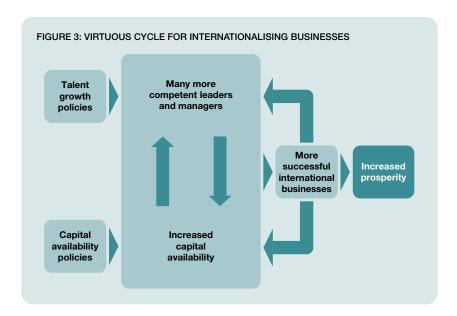
The current ecosystem is not delivering sufficient talent and capital to the internationalising businesses so the businesses are not as successful as they could be. Some are being sold overseas when the value created could otherwise be held in New Zealand.

The policy proposals offered in the following sections form an integrated strategy. All should be implemented; not just one or two. They are designed to interact positively to overcome the most important obstacles to business success. If all are implemented then internationalisation success should improve a lot. If some are not implemented, leaving important resources and supports unavailable, then those remaining gaps will lead to faltering businesses.

Figure 3 summarises the talent and capital interactions targeted. The interaction is important. If the profit potential is increased then capital and talent will flow more easily to the businesses. If the capital is sourced from people and organisations that bring their talent and connections too, then that talent injection will further improve the likelihood of success.

If more capital is secured, the businesses will be more able to afford the talent and other inputs they need to succeed. Greater success means the businesses are more likely to deliver the profitability that attracts other investors.

If the required talent is available the businesses will be better equipped to develop investment proposals that can attract capital and the businesses will also be more likely to succeed. The opportunity is to establish a virtuous cycle so that initial success leads to greater success.



The strategy does not require, nor envisage, interfering with the profit-maximising activities of individual internationalising businesses. Rather it is focused on improving the quality of the ecosystem which the businesses operate within, creating conditions that lift the likelihood of success.

Proposals to ensure availability of talent and capital are the most important changes required because without talent and capital, success is impossible and the talent and capital shortages are acute now. The other proposals, on information and connections, are designed to improve internationalisation success further.

The proposals that follow are policy directions, not specific, detailed and immediately implementable policies. In some cases there may be better ways to achieve the desired outcomes so those better policies should be implemented instead. However if a proposed policy idea is rejected, a more effective substitute should be implemented to replace it.

In the past, the policy approach to economic development in New Zealand has been to ensure that institutions are effective and markets are efficient so market forces will deliver the resources required for business success.

International comparisons show New Zealand has effective institutions and efficient markets¹ but despite that, there are shortages of talent and capital for internationalising businesses. In response, and in accordance with the diagnostic approach to economic development (Rodrik, 2005, pp.13-22), policies to remedy the shortages are required.

¹ New Zealand ranks 3rd in the world in 'Doing Business 2011' (The World Bank & International Finance Corporation, 2010); 3rd in the world in the Fraser Institute 'Economic Freedom of the World' (Gwartney, James D., Hall, Joshua C. & Lawson, Robert, 2010); 4th in the world in '2010 Index of Economic Freedom: Executive Highlights' (The Heritage Foundation & Wall Street Journal, 2010).



Policymakers in other countries provide a great deal of assistance to their internationalising businesses. They have tax policies which incentivise and create the conditions for the economic outcomes their country is pursuing. Most countries accept R&D tax credits and other complexities in their tax systems to encourage businesses and individuals to make the effort to grow export revenues. New Zealand should too.

It is difficult to be sure how much extra effort is required but current efforts are nowhere near enough. The importance of the opportunity and the size of the gap imply the strategy should be to make a lot of effort soon. Monitoring outcomes and demand will allow the extra effort to be reduced when it is no longer needed.



5 CAPITAL PROPOSALS

There are four important and related capital obstacles that impede internationalisation success.

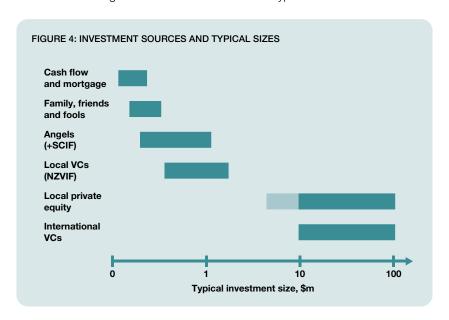
First, expected returns are not high enough to attract the capital required. When given the choice between investing in low risk residential property, medium risk equity and high risk new businesses targeting international markets, most investors have shied away from the new businesses. That may be rational from the investors' point of view but it does not lead to the aggregate outcomes the country needs to grow wealth.

Each venture investment portfolio is expected to contain a small number of big winners, some modest performers and a larger number of failures. So an investor needs to spread investments quite widely to be reasonably confident of achieving the expected outcome. Very few New Zealand investors have the skills and scale to take a portfolio approach to achieve diversification.

The overall return so far from NZVIF's Venture Capital Funds is around zero percent (Lerner & Shepherd, 2009, p.58). A low rate of return should be expected at this stage because even a successful venture investment portfolio usually declines in value for a few years before it becomes profitable.

There is an internationally recognised experience effect in the venture industry so returns grow over time too (Lerner & Shepherd, 2009, p.iii). Until the conditions for success are in place returns are lower and risks are higher.

Second, there are insufficient domestic institutions providing equity funding above \$2 million per investment. Figure 4 shows the sources of funding available to internationalising New Zealand businesses and typical investment sizes for



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each source. Overseas investment institutions are not especially keen to invest in businesses that are distant from their own locations and few will invest in amounts lower than NZ\$10 million. Local private equity businesses do selectively invest amounts less than \$10 million, often in cooperative arrangements, but they usually require consistent profitability and the aggregate investment available is not enough to overcome the shortages.

Third, internationalising businesses can benefit greatly from connections into targeted markets and international investors provide a motivated, skilled source of those connections along with their capital. There are insufficient mechanisms to connect international venture capital businesses or attract strategic investment in internationalising New Zealand businesses, so the businesses struggle to make the right connections and to conclude beneficial investment deals.

The result of these three obstacles is a shortage of equity capital for expanding businesses.

The fourth capital obstacle is that there is also a shortage of debt funding. Internationalising businesses face large risks so capital should be predominantly equity. However, once businesses have established revenues with credit-worthy debtors and saleable inventory they should be able to secure some debt funding.

In New Zealand that is difficult because the international exposures and low fixed assets make lending difficult and risky so specialised lending skills are desirable. The banks have not seen the area as sufficiently attractive given the size of the opportunity, effort and risk, and the desirability of specialisation, so it is hard to get working capital funding.

The three proposals that follow are designed to remedy these four capital obstacles in ways that also reduce talent shortages and improve returns for investors.

VENTURE CAPITAL

In New Zealand many of the professional and experienced investors in growing internationalising businesses are located within the existing Venture Capital (VC) businesses.

In 2002 Government established the New Zealand Venture Investment Fund to "help build a vibrant venture capital market in New Zealand" (NZVIF, 2010). NZVIF has \$160 million available to invest through the Venture Capital Fund of Funds where investments are made alongside eligible private sector co-investors in privately managed venture capital investment funds.

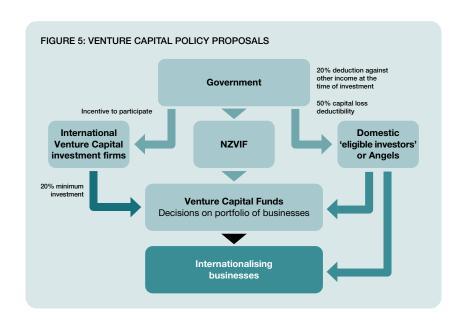
It also has \$40 million available to invest via the Seed Co-investment Fund (SCIF) where investments are made alongside accredited co-investment partners who are experienced angel investors or syndicates.

Venture funds have supported a wide range of companies to make headway internationally but these funds are now largely fully invested and moving into the 'harvesting' phase of their cycles. Franceska Banga, Chief Executive of NZVIF and former Chair of the New Zealand Private Equity & Venture Capital Association (NZVCA), identified that "the industry faces a major challenge raising new funds in a market where institutional investors have retreated internationally from venture capital as an asset class." (NZVCA & Ernst & Young, 2009, p.9)

In August 2010 Government announced a new \$40 million underwrite of NZVIF's venture capital programme that will enable new investment commitments to another two or three venture capital funds, up to a total of \$200 million (Brownlee, 2010c).

Angel investors have stepped up their activity in the early stage market, but their deal sizes are too small to fund expansion of many of the growing businesses to the size needed for the markets they are penetrating. Policies to improve investor returns and attract more funds into the \$2 million to \$10 million range are therefore needed.

Figure 5 summarises a proposal that builds on the NZVIF Fund of Funds framework with policies that incentivise participation by international and domestic investors. NZVIF would continue to invest alongside privately managed venture capital funds but additional funding would be secured from two sources.



The first source would be international venture capital investment businesses that can provide capital, expertise and connections. A minimum investment of 20% would ensure international partners are strongly committed to the success of domestic VC partners and of the investments.

In 1992 Israel launched its Yozma programme designed to attract venture capital but also with an explicit objective of creating "a solid base for a competitive VC industry with critical mass; to learn from foreign limited partners; and to acquire a network of international contacts." (Avnimelech & Teubal, 2002, p.19)

Each Yozma Fund, managed by independent Israeli VC companies, had to engage at least one foreign private equity company with or without a VC arm, to attract government co-investment. Involvement by foreign financial institutions stimulated a lot of interaction and valuable advice for fund managers that helped stimulate further co-investment (p.20).

Sufficient inducement should be offered to attract participation by desired international VC partners. One form of inducement might be to grant the international VC partner a portion of the minimum investment of 20%.

Earlier engagement of overseas investors with internationalising businesses provides a pathway to access funds for the next phase of expansion.

The second source of funds shown in Figure 5 is domestic eligible investors or angels. Encouraging more domestic investors would increase the flow of capital, increase domestic ownership and participation in value growth, and increase engagement with the entrepreneurial sector.

The policy proposal shown follows the United Kingdom approach. Investors in the VC funds would be entitled to a deduction of 20% of their investment against other income at the time of investment. If the capital in a business invested in by the fund is lost, investors would then be entitled to an additional 50% deduction.

Eligibility for these deductions should be available only for businesses that are pre-classified as 'innovation-based and internationally focused' via an official approval process. A time limit, a maximum deductible amount and change of control protections would be required.

Capital gains earned from eligible businesses, whether by international or domestic investors, should be tax exempt. At present they may be exempt depending on who you are and what your intention was at the time of investment. These exclusions and uncertainties encourage unhelpful behaviours by businesses and investors. For example it is good practice when managing a growth business to develop an exit strategy. But if the business has an exit



strategy then the gains may become taxable. In response the businesses are encouraged to adopt sub-optimal strategies.

Making capital gains non-taxable and allowing up to 70% of capital losses to be deductible would create a strong incentive to invest in the Venture Capital Funds and increase the availability of funds for expansion. Once the businesses become profitable ordinary dividends would be taxable.

ANGEL INVESTMENT

Angel investors are an important source of capital for start-up and early expansion. They often assist "the business in a management, governance or mentoring capacity and are sometimes described as bringing 'smart money' to the deal." (New Zealand Venture Investment Fund Limited, 2007, p.10)

Angel investments have grown rapidly. Since the Young Company Finance Index began collating data in 2006, \$160 million has been invested by angels. In the year to 30 June 2010, \$52.2 million was invested, with 71% of these deals syndicated, compared to just 26% in 2006 (NZVIF, NZTE Escalator, NZVCA & Angel Association NZ, September 2010, p.1). These investments are important for building a pipeline of companies looking to grow further with venture capital, IPOs or bank funding.

Angel investment can be further encouraged by extending the 20/50 deductibility opportunity proposed for venture investment. Eligibility would be established in the same way and the same constraints and protections required. Capital gains from eligible businesses would be tax exempt for all investors.

Tax-based incentives for angel investments are not unusual. For example, Singapore has recognised the need to increase the flow of capital for businesses trading internationally and has provided tax incentives for angels for many years.

Its current Angel Investors Tax Deduction Scheme, effective for the period 1 March 2010 to 31 March 2015, is expected to pay out some S\$60 million in tax benefits, encouraging investments of up to S\$600 million in an estimated 800 companies (Hoe, 2010; Channel NewsAsia, 2010). It provides for an approved angel investor to commit a minimum of S\$100,000 of qualifying investment in a qualifying start-up within a given year to enjoy a tax deduction at the end of a two-year holding period based on 50% of the investment costs, subject to a cap of S\$500,000 in each year of assessment. There are conditions including the requirement for the investor to take up a board seat for the entire holding period to encourage the flow of relevant expertise, advice and governance skill (SPRING Singapore, 2010).

Table 2 summarises tax-based incentives available in a range of competing countries.

The SCIF provides another mechanism to channel investment to internationalising businesses. SCIF co-invests government money alongside angel investors. SCIF could collect money from eligible investors to invest alongside angels, supplementing and displacing government money.

Funds would be attracted by making the 20/50 deductibility opportunity available to eligible investors. As currently, SCIF's mandate would be to co-invest only if investment protection conditions are met; the angels would be leading the investment decisions.

TABLE 2: TAX AND OTHER FISCAL POLICIES INCENTIVISING INVESTMENT IN START-UP AND GROWING INTERNATIONAL BUSINESS							
Incentive policies identified as present	Canada	Denmark	Israel	Netherlands	Singapore	United Kingdom	United States
Capital loss deductibility	✓	✓		✓		✓	✓
Capital gains - annual exemptions, tax free provision of 100% or for a portion of gain		✓				✓	✓
Other investor, angel or entrepreneur incentives e.g. grants, reduced tax rates, tax deductions, tax credits	✓		✓	✓	✓	✓	

Source: Policies identified by scanning government websites.

SCIF could also co-invest money raised from the public, perhaps raised by retail fund managers and financial advisors. The benefits would be a greater flow of money for expanding businesses and wider involvement and engagement of the public with successful exporters.

However, important risks would need to be managed. There could be adverse selection bias if the best deals were not made available for co-investment. Protections would be required to avoid unwise risks by uninformed investors.

Angel co-investor criteria should not be relaxed. If anything they should be strengthened to improve the contribution angels make to the businesses they invest in and to protect the investments made by the public via the SCIF co-investment programme.

These proposals for tax-based incentives to increase investment in international growth businesses would reduce current tax receipts. If the strategy is successful there might be \$2 billion of investment in eligible businesses each year. If one-quarter of that is eligible then the 20% deduction at the time of investment would cost \$100 million each year for the life of the incentive. If 50% of the businesses failed some time later then the capital loss deductibility would cost a further \$125 million per annum.

Against these costs there would be a gain in taxation of the profits from more successful businesses and gains in taxation from increased and higher value-added activity by businesses. The individuals attracted to work in the industry would have higher value jobs and the economy as a whole would benefit from higher export receipts.

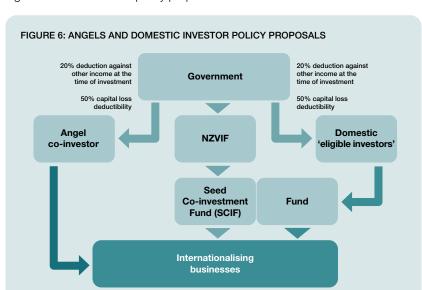


Figure 6 summarises the policy proposals.

LOAN GUARANTEE

Internationalising businesses are inherently risky, which is why most capital invested is equity. However, some internationalising businesses have established relationships with credit-worthy debtors and some have consistent sales from inventories. These businesses should be able to secure some debt funding. Other businesses have capital equipment that could provide security for debt funding.

Trading banks have relationships with internationalising businesses for transactions which provide them with some of the information required for debt funding. They also have the ability to develop the competence needed for lending into this specialised sector.

To date the trading banks have not seen the opportunity as sufficiently attractive to develop the specialised skills required so businesses have struggled to gain access to credit that would help them to grow.

Many other countries have responded to this situation by providing government guarantees for a portion of the loans supporting international expansion. Table 3 provides examples.

TABLE 3: LOAN GUARANTEE SCHEMES						
Country and scheme name	% of loan government guarantee covers	Term and maximum amount [NZ\$]	Premium or fees paid			
Denmark: Growth Bail	75% of loss after securities and other guarantees	3 to 10 years 10m DKK [2.3m]	Formation premium of 2%, annual premium of 1.25%			
Get-started loans	75%	1m DKK [233k]	Single premium of 3% of loan principal, no ongoing premium			
Hong Kong: SME Loan Guarantee Scheme	50%	Up to 5 years \$6m [964k]	Unknown			
Israel: State Guarantee Fund for Small Businesses	70% of bank loan (from 2007 info)	Up to 5 years for equipment and 1 year for operating capital NIS 500k [185k]	Linked to Bank of Israel Prime rate + market interest rate			
Singapore: Internationalisation Finance Scheme	80%	Up to 6 or 15 years for asset based financing, 3 years for structured loans or 5 years for banker guarantee facilities for overseas projects \$50m [51m] per borrower group	Unknown			
UK: Enterprise Finance Guarantee	75%	3 months to 10 years £1million [2.1m] max £1,000 [2k] min	2% p.a. on outstanding loan balance, assessed quarterly			

Source: Information from government websites.

New Zealand provides loan assistance via the NZ Export Credit Office (NZECO). Recent changes extended three trade credit and bond products making assistance more widely available for exporters (English, 2009). But what is needed is a widely available and easily understood scheme where lending decisions are made by bankers.

Based on the overseas schemes the loan guarantee might cover 75% of the loss for loans up to \$2 million per business for terms up to 10 years. The guarantee fee would be 1% to 2% of the balance, collected by the bank and paid to Government. The purpose of the loans might be restricted to working capital and equipment financing. In some countries allowable purposes include international market research, competitor analysis and strategic planning.



6 TALENT PROPOSALS

Many investors would claim that the quality of the leadership team is the most important determinant of success for businesses aiming to achieve international success. Businesses are usually formed by an individual or a few people with a good idea. The team is built over a long period. By the time the business is internationalising it is likely to have a leader, who may be a CEO or an entrepreneur, a board of directors, a development manager, and may have a specialist sales and marketing manager too. Often the leader will be the initial sales manager. Founders and investors may play important roles too. As the business grows the team expands.

Skills are very important because the internationalising businesses have a difficult task. The businesses are small and ideally growing rapidly, and they are launching new products or services into distant and unfamiliar markets. They are adding functions as they grow; capital-raising, debtor and inventory management, risk management, foreign exchange management, international subsidiary management and accounting, and human resources management to name only a few. The managers are usually functional specialists or generalists facing unfamiliar challenges all the time; they are often inexperienced and have limited resources.

Most important, the small size of the New Zealand market means the first customers may be in New Zealand but very soon after they will become predominantly international. Even if sales are made in the domestic market first, the businesses are smaller than businesses in other countries when they internationalise.

There are two ways to look at the talent issue; having a shortfall in highly skilled managers able to fill the important roles in internationalising businesses or having managers in the important roles that are insufficiently skilled for the challenges they face. The shortage of highly skilled managers leads to having managers with insufficient skill. Insufficient skill leads to delays and underperformance, and too often it leads to failure.

New Zealand's future prosperity depends on growing successful international businesses so skill deficiencies are a major issue.

It may be tempting to respond that New Zealand has a sound education system with many business schools so there should not be an issue with supply of leaders and managers for internationalising businesses. That response would be wrong because specialist skills and knowledge are required to lead and manage the internationalising businesses, and although some business schools provide some international courses, many are generic. The skills needed to build an internationalising business are different from the skills needed to be an effective manager in an established domestic business.

The talent challenge in New Zealand is made more difficult because managers here are 'can do' self-confident people, many of whom are inclined to think they are more competent than they really are (Ministry of Economic Development, 2010, pp.39-40). That tendency toward over-confidence combines with busy lives and resource constraints to reduce demand for skills development. As a result, increasing the supply of skills development opportunities will not be enough; demand must be increased too.

Each kind of talent shortfall requires a specific solution. The talent types identified as being in short supply in 'Standing on the shoulders of science' (Boven, 2009, pp.46-50) were entrepreneurs and leaders, directors and marketers. International sales, strategists, development project managers and operations managers have now been added (IPENZ, 2009, p.15). Scientist and engineer shortages have been well documented for some time (Ministry of Research, Science and Technology, 2010, p.45; Industry Consortium for Tertiary Education Commission, 2010, pp.34-37).

Efforts to improve the talent available for internationalising new businesses will lift the overall performance of management in New Zealand too, helping improve the performance of established and commodity businesses expanding into export markets and lifting the productivity of domestic businesses.

ENTREPRENEURS AND BUSINESS LEADERS

Although entrepreneurship and international business training is already provided at varying levels in New Zealand educational institutions, other countries are doing more. They are offering full-time entrepreneurship MBAs, widely used programmes such as Kauffman's training for entrepreneurs and establishing collaborative networks across their institutions to foster strong entrepreneurial and innovation cultures. The International Danish Entrepreneurship Academy (IDEA), established by the Danish Government in 2005, consists of 88 institutions, organisations and companies (De Backer, Cerri, Atkinson, Astrup & Merk, 2008).



TABLE 4: PRESENCE OF ENTREPRENEURSHIP DEVELOPMENT INITIATIVES							
Initiative	New Zealand	Denmark	Ireland	Singapore			
National entrepreneurship education strategies	•	•	•	•			
Higher education in entrepreneurship	•	•	•	•			
Internships	•	•	•	•			
Collaboration opportunities	•	•	•	•			
Developing rich entrepreneurship culture	•	•	•				

■ Shading indicates the extent that an attribute is present.

Source: Assesments made by scanning government and educational institution websites, and extensive general searching.

Table 4 compares assessments of New Zealand's entrepreneurship effort against Denmark, Ireland and Singapore. All three countries put considerably more effort into entrepreneurship but with different emphases.

The introduction to Denmark's strategy illustrates the attitude:

"Our future competitiveness will be enhanced by using the Danish education system to stimulate the ability of students to innovate, see opportunities and convert ideas into value, in other words to be 'entrepreneurial'. In Denmark we must not just be well educated, we must also be entrepreneurial."

(Danish Ministries, 2009, p.5)

Accelerating entrepreneurship in New Zealand requires a national entrepreneurship strategy and a world-class entrepreneurship institution.

The entrepreneurship strategy should explain how sufficient entrepreneurs and business leaders will be developed and how entrepreneurial culture and behaviours will become widespread within New Zealand society. It should describe how entrepreneurship will be encouraged within the school system and how awards, competitions, celebrations and shows can be employed to lift the profile of high value exporting and so encourage more people to pursue entrepreneurship careers.

The world-class institution should become the centrepiece for entrepreneurship knowledge and training with its purpose being to develop entrepreneurial talent in New Zealand. At its core should be a world-class leadership team conducting

high quality relevant research about how businesses are developed and internationalised successfully, and communicating research results in ways that help guide the efforts of New Zealand's internationalising businesses.

A full-time entrepreneurship training programme should be available, probably at Masters level. The programme should comprise advanced general management education, courses in all aspects of entrepreneurship, and subsidised internships. The teaching should be delivered by qualified academics as well as successful practitioners and should be practical, designed to help people become successful international entrepreneurs not generalist managers nor entrepreneurship academics.

Not all aspiring or potential entrepreneurs will be willing and able to enrol for full-time training. Therefore the entrepreneurship institute should offer part-time training and standalone subsidised internship opportunities along with courseware and materials that can be delivered by suitable training institutions at other locations within New Zealand.

Education for entrepreneurship trainers should be offered too.

The entrepreneurship institute should be located within a university. The logical location is within the University of Auckland's Business School. Auckland is New Zealand's gateway city; it is where agglomeration benefits can best be developed and the Business School already has well-established activities to support entrepreneurship.

Governance arrangements for the entrepreneurship institute should ensure participation by leaders of successful internationalising businesses to ensure that the research and teaching programmes remain relevant.

The Government's recently announced pilot programme to help managers improve their global management and leadership skills is a useful step in the right direction (Brownlee, 2010d). The \$1.3 million programme was awarded by New Zealand Trade & Enterprise to a consortium comprised of the University of Auckland Business School, The ICEHOUSE and the United States based Thunderbird School of Global Management. It is a highly targeted experiential training course that will be designed and delivered by the consortium. But what is envisaged in this proposal is much more - a permanent institute with much greater scale.

DIRECTORS

Teams of managers in rapidly expanding international businesses must overcome many obstacles and learn new skills. They rarely have all the competences they need, so having experienced and skilled directors who can provide guidance is very valuable.

The skills required to govern internationalising businesses are distinct. International trade, rapid expansion, funding requirements and market entry create challenges that are not present for stable domestic businesses.

The high rate of establishment of businesses targeting differentiated exports means there is high demand for directors. In turn that means that many directors are governing internationalising businesses for the first time. With time, the number of experienced directors will increase but meanwhile many are learning on the job.

The Institute of Directors (IoD) provides training for directors. It offers a five day company directors course, along with one or two day courses for specialisations such as chair roles and not-for-profit governance. At present there is no option for specialising in governing internationalising businesses. A one or two day option to convey the special requirements for governing internationalising businesses would be a feasible and desirable add-on.

The difficulty might be demand. Experience with offering training opportunities to mature managers reveals there is sometimes less than expected take-up and there is a perception by some managers that they are better than they really are (Ministry of Economic Development, 2010, pp.39-40). There may be a risk that directors too think that training is not necessary.

The solution could be to require businesses that receive government support such as TechNZ and NZTE grants or loan guarantees (see earlier section p.28) to have a minimum of around three directors who have completed the specialised



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governance training, or equivalent, to qualify for support. In the interests of speedy progress businesses might receive support with the condition that directors complete within six months.

That would improve governance, public money would be better looked after and demand would be established to encourage the IoD to offer the internationalisation option.

MARKETING AND SALES

Launching a new product or service into a distant new market is difficult. If domestic customers are available, experience can be accumulated locally before the international step must be taken. But even launching a new product or service into a domestic market is challenging, especially if it is the first launch for the company.

High quality marketing skills are very important for the success of internationalising businesses. Marketers know how to:

- Understand customer needs and wants, so attractive offers can be developed;
- Identify the best customers in the highest value markets;
- Form arrangements with channel partners to get access to customers;
- Promote products and services to reach potential customers;
- Understand the basis for customers' purchasing decisions and how to win business;
- Set prices to capture as much margin as possible given the risk of loss of business to competitors;
- Understand customers' buying processes and how to best manage the purchasing process;
- Build strong relationships within customer organisations to develop loyalty and switching barriers; and
- Build strong brands.

These skills are not common sense. They are highly technical skills that require strong analysis, often with incomplete data, as well as the ability to understand people. It is very expensive to learn on the job because mistakes cost time and resources, and slow business development.

New Zealand's past emphasis on training managers for domestic markets, combined with the emphasis on selling commodities, means there are few people available in New Zealand who offer the high quality marketing skills required for successful international new product and service launches.

There are some succeeding but the benefits from their learning are mostly only available within the businesses where they work.

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Most New Zealand universities offer papers in international marketing and in the case of the University of Auckland a Masters in International Business, but more focused and specialised learning opportunities for international marketing should be introduced. Again the solution is a specialised institute, as for entrepreneurship, with research, specialised training, subsidised internships, outreach, private sector participation in governance and a purpose to improve New Zealand talent overall.

In many internationalising businesses the entrepreneur or CEO also leads the marketing effort and that model can work well, raising the issue of whether the marketing institute should be combined with the entrepreneurship institute. Why establish two institutes when one could provide the training in both subjects?

The answer is because entrepreneurship and marketing are distinct competences and the talent needs are sufficient to sustain two organisations.

Each of marketing and entrepreneurship requires focus on institutional success at acquiring and disseminating best practice in a distinct range of subjects. Many people understand both entrepreneurship and marketing but very few have the high level specialist skills required to be a thought leader and teacher in both.

If the marketing institute was also located at the University of Auckland then valuable connections could be made with the entrepreneurship institute and students specialising in one subject could take valuable courses in the other.

Sales is different. Marketing is regarded as an academic subject whereas sales is regarded more as a craft so there are few opportunities to study sales at universities, and we have not found any that focus on preparing people for international selling careers.

The strong connection between international marketing and international sales means the marketing institute should also have responsibility for international sales competence. Outreach will be an important activity for sales and some subjects will be relevant for students who work in domestic markets.

OPERATIONS

Many New Zealand based international businesses will not manufacture in New Zealand but some will. The more effectively manufacturing and operations are done in New Zealand, the more jobs will be retained here. The more manufacturing scale that can be retained here, the more specialised service businesses and training will be available here, creating a virtuous cycle.

Some operations for New Zealand businesses are done overseas and New Zealand skills are still required to arrange, manage and govern those operations. Specifically, project management, supply chain management, logistics and manufacturing management skills are highly valuable in an economy, especially one that is growing revenues from innovative products and services.

Efforts to improve skills for developing and manufacturing products in New Zealand have not been very successful. For example, a study of supply chain management practices in New Zealand concluded that "there has been a significant increase in the general awareness of lean manufacturing, supplier integration and quality improvement strategies. However, practice is still lagging behind...there is little awareness and practice of advanced design and development strategies and of environmentally sustainable practices." (Basnet, Childerhouse, Foulds & Martin, 2006, p.227)

An institute for operations management would gather, develop and disseminate best practice training and solutions for development and operations managers. The institute should conduct relevant research, deliver specialist training, offer or arrange outreach, include private sector participation in governance and have a principal purpose of improving operations talent within New Zealand's internationalising businesses. Lifting operational effectiveness would improve productivity in domestic and import competing businesses too.

An operations management institute could be located in Auckland or Christchurch or both. Auckland has the advantage of city scale with a large and well-established business school. Christchurch has a large number of established niche manufacturers who would provide valuable data on what works and what does not and would be important users of the institute's knowledge.

STRATEGY

Business strategy is an important discipline. A business strategy is a plan to win in competition for volume and margin. It explains why customers will choose the business's product or service and explains how the price realised less the cost incurred leaves a margin that is attractive. If sufficient volume can be secured at an attractive margin then the business will be successful.

The quality of the strategy of an internationalising business has an important influence on the likelihood of success and the quality of the resulting business. Identifying a business idea, developing a product, working out how to supply, finding a customer and making a sale are necessary steps, but doing all those things successfully requires many choices.

If a New Zealand business is trying to secure a dollar of revenue that is currently spent with someone else it is likely that the competitor has a well thought through strategy. International competitors are likely to be bigger businesses and have a better understanding of the market, possibly by being incumbent.

Some people are trained in strategy, some are naturally good at it and some learn on the job. Some apply good strategy without calling it that. Some businesses attract directors who can offer strategy guidance. Some apply a standardised process or use consultants. Some muddle through using their best efforts to make decisions. Some copy other successful models. Probably a few are lucky.

Many launch then falter and try again. Putting effort into strategy development does not ensure success but it does increase the likelihood.

High quality strategists are too expensive for most small internationalising businesses and they are not needed enough to hire them as permanent specialist employees. Professional strategists tend to work for large organisations which can pay well for their highly valued services. High quality relevant strategy training is hard to find for leaders of small internationalising businesses. Even if high quality training is available, to do strategy well within an industry-type you have to learn the rules of that industry-type and understand the relevant aspects of strategy.

Delivering improved strategic guidance to New Zealand's internationalising businesses can be achieved in two complementary ways. First, establish an internationalisation strategy institute for relevant research, training of specialists, subsidised internships and outreach programmes. The number of strategists required is lower than the number of entrepreneurs, marketing and sales professionals, and operations managers. Strategy could be combined with entrepreneurship institutionally provided the competences are managed separately.

Second, establish a panel system to offer strategic conversations to developing businesses at appropriate points in their evolution and at times of crisis. The panels will only be valuable if members are high quality strategists. Other competences and experiences would be valuable and sought in panel members. Panels are better than mentors because different perspectives and interaction are important for this kind of strategy guidance.

7 INFORMATION, CONNECTIONS AND OTHER SUPPORTS

Capital and talent are the most important resource constraints that must be overcome if exports of high value differentiated goods and services are to reach their potential. However, these are not the only requirements for success. There are many other changes that would improve internationalisation outcomes.

The proposals that follow are designed to provide growing businesses with information and resources that will reduce their costs and risks, to help businesses access benefits from economies of scale, and to improve international and domestic connections.

The first three proposals involve provision of information to help guide internationalising businesses. Research support can develop best practice guidance informed by what works in New Zealand conditions. Public good information can be produced once and used many times, promoting high quality management and reducing costs of business development. An information clearinghouse provides a single channel to access and distribute information and to establish valuable connections.

Having the right connections is essential for business success. Connections are needed to complete research, to develop products and services, to obtain funding and talent, and to establish channels to market.

The size of New Zealand means that many important connections are likely to be international. Geographic isolation means the connections are more difficult and expensive to establish and maintain. NZTE contributes a lot by making it easier for New Zealand businesses to establish international connections. Some of the proposals that follow are designed to make connections more effective.

Two proposals focus resources to gain economies of scale and make connections. *Clusters* co-locate businesses and provide valuable benefits



for them. *Colonies* establish critical mass in overseas locations so valuable relationships can be developed and sustained.

The broader *business environment* can make a big contribution to the success of internationalising businesses. Several areas with improvement potential are listed as incomplete agenda items.

The proposal for an *innovation council* reflects the importance of the opportunity for New Zealand's economic performance and the value of effective coordination among public and private agencies.

RESEARCH SUPPORT

New Zealand's academics, including business researchers, have a strong incentive to produce high quality peer-reviewed publications. Publication is required to get resources, promotion and peer recognition.

As attention is turning to how to lift economic performance there are moves to review incentives and to encourage cultural change so more scientists are motivated to produce research that has commercial potential.

The same shift is required among business academics. There are numerous business academics in New Zealand but too few are focused on research to lift the effectiveness of internationalising businesses.

Four changes are needed to increase the flow of relevant output from business researchers:

- Ensure formal incentives such as promotion criteria and the Performance-Based Research Fund (PBRF), as well as informal incentives, provide sufficient reward for practical contributions;
- Encourage a cultural shift among business academics to mobilise more
 of them to contribute strongly to New Zealand's economic performance;
- Establish research funding to fuel efforts to deliver practical support to internationalising businesses; and
- Govern and guide research efforts with appropriate input from representatives of internationalising businesses who will be the users of the research.

It is important to recognise that New Zealand's internationalisation challenges are unusual because of size and distance constraints, along with a history of low levels of support for innovation. The guidance needed by leaders of internationalising businesses is not available simply by reading books or articles produced in other countries.

PUBLIC GOOD INFORMATION

Internationalising businesses face big challenges with limited resources. As they develop and grow they must establish new structures, functions and capabilities. Some of these challenges are unique, resulting from the product-market strategy or specific circumstances. But many tasks are common, for example:

- · Establishing investment agreements;
- · Credit assessment and debtor management;
- Partly paid or options incentives for managers and directors;
- Distribution or agency agreements with channel partners;
- · Installing risk management systems; and
- · Currency exposure management.

At present each business encounters needs and finds solutions. Usually there is some learning from prior efforts and there are informal channels that transfer practice among businesses.

To illustrate the opportunity, imagine you are a director of several internationalising businesses. You are likely to be asked to review and approve incentive schemes. Each time you have an incentive scheme to approve you are required to read it and understand it. You know it has been developed for your business so must be conscious that it may have been drafted in a way that leads to unanticipated consequences or risks. You are not an expert in incentive schemes, though after you have reviewed and approved several different ones you are likely to be a well-informed amateur. You are aware that the schemes you are reviewing are unlikely to represent best practice because they vary so much in their structure and drafting. You spend time on the incentive scheme that might be better spent helping guide the business's marketing and sales efforts. Your business incurs substantial internal and external costs to establish the scheme.

The alternative is to have 'the New Zealand standard incentive scheme'. The second time you are approving it will take less time. The scheme is likely to be improved as learning accumulates so you can be confident it is close to best practice. You can be more confident that it has been tested with the relevant authorities so compliance risks are lower. You can focus your efforts on ensuring that the scheme is configured properly for your unique needs. Quality is higher. Internal and external costs are lower.

A start has been made with WaikatoLink's Business in a box, which provides policies, procedures, guidelines and record-keeping tools for early stage businesses. There may be other efforts around the country that could be built upon.

Not everyone will be able to use the standard solutions and most will have to customise to meet their needs. But public provision of standardised agreements, systems and procedures will lead to increased productivity. Scarce leadership and expensive advisory resources can then be focused where they can really make a difference.

INFORMATION CLEARINGHOUSE

Sourcing inputs and making connections requires a large amount of effort and resources. In response there are several initiatives to facilitate connections, many using web-based systems. NZTE in particular has many useful information resources for internationalising businesses and offers many ways to establish valuable connections.

But there is an opportunity to do much more. The information available to support international business efforts should be concentrated in one strongly branded location so everyone is aware of where to look and what is available. A lot more information can and should be supplied.

Specifically, one single utility information clearinghouse should be the preferred service provider or access point for:

- Access to public good information such as standard solutions;
- A directory of expertise, providers and advisors in science, engineering and commercialisation;
- Problem solving forums in research, development, business development and internationalisation;
- Provision of useful research findings to commercialisation providers and businesses;
- Matching of entrepreneurs with business opportunities;
- Matching of investors with investment opportunities;
- Matching of specialist staff with employment opportunities;
- Connections to New Zealand networks overseas; and
- Connections to relevant international solution and resource providers.

Establishing a single information clearinghouse will release resources currently consumed in making connections via less efficient means, while reducing search and transaction costs for businesses. More important, it will make connections that would not otherwise be made. Concentrating promotion efforts on a single high value clearinghouse brand will increase participation by domestic and overseas people because they will be able to connect more efficiently and effectively.

Existing networks that are working well should be connected with the clearinghouse so they can be easily found. Not all information needs to be

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managed by the clearinghouse but all useful information should be accessible from it.

Other countries have created single points of access for businesses to obtain information and support. In 2004 the UK Government established an online portal, Business Link, which provides information on how to start, grow, sell and buy businesses, access finance and grants, and obtain sector-specific support and guidance. The site now makes available content from 170 government websites (Business Link, 2010).

EnterpriseOne, Singapore's single portal of access for businesses, supplies government information, regulations, advisory services and e-services for businesses at all stages, and access to an events calendar and resource library (EnterpriseOne, 2010).

CLUSTERS

Clusters are geographic concentrations of businesses. They may take differing forms ranging from many similar businesses to a large business co-located with supporting businesses.

Clusters increase productivity by providing:

- Ready access to inputs such as suppliers, information, technology and higher education;
- Better access to market, technical and competitive information;
- · Access to shared supporting businesses or services;
- Opportunities to work together in joint marketing, trade fairs, bulk purchasing and brand recognition;
- New business opportunities as service companies meet needs of cluster members with lower risk because of the concentration of customers; and
- Talent availability leading to reduced search costs.

Some clusters are established in New Zealand, for example the film and related industries around Miramar and in the food and beverage industry (Brownlee, 2010e).

The next step is to identify the high value sectors with high growth potential where clusters should be developed and the locations where clusters should be encouraged.

While clusters have developed in locations through New Zealand, there should be a bias towards locating clusters in Auckland where that is feasible. Globally, economic competition is increasingly between cities and scale is important. Auckland is the closest city in New Zealand to being world-scale and it has

the characteristics to support clusters. Auckland's economy is predominantly service and consumption oriented so needs to develop more productive industries (Auckland Regional Council, 2008, pp.11-17). The requirement for the new Auckland Council to develop a spatial plan provides a mechanism to accommodate cluster aspirations.

There may be an opportunity to link cluster strategy with urban redevelopment. There are areas within Auckland which have low density housing and high unemployment. Those areas might be redeveloped to include medium or high density housing, space for businesses that can provide local employment for low to medium skilled workers, space for cluster businesses to locate, and high quality services (transport, broadband, education, amenities). Such redevelopment could create social and economic benefits for the residents, the city and for New Zealand.

Once the target clusters are nominated, businesses can be encouraged to locate within the clusters by providing:

- Shared service facilities, such as those being established in the food innovation hubs, and in the national network of commercialisation units funded in Budget 2010, to be established by the Ministry of Science and Innovation;
- Simple incentives such as free or heavily discounted fast broadband access;
- Larger market development or R&D support opportunities for businesses located within the clusters; and
- Encouragement for the emergence of sector organisations that will identify and pursue cluster benefits.

Some past efforts have emphasised creating communities of businesses that want to work together and co-locate. The proposal here is to get the businesses to co-locate and allow working together to emerge.



COLONIES

Similar benefits are available for New Zealand businesses if they connect with high value clusters overseas.

New Zealand businesses may seek access to the most advanced knowledge, networks, technology, capital and markets. They may need customised inmarket intelligence, sector and industry expertise, links to decision-making customers, partners and research environments, assistance in building collaborations, practical on-the-ground shared office arrangements and assistance to reduce the barriers of language or 'lingo', values and culture.

For example, Denmark has established innovation centres in important locations operating as multi-purpose agencies.

Denmark's policy objectives included strengthening interaction with other countries and cultures, importing knowledge to Denmark from foreign enterprises to improve competitiveness, establishing innovation centres and incubators abroad to assist in the start-up phase, and marketing Denmark as an investment-attractive country and tourist destination (The Danish Government, 2006, p.30-31).

The innovation centres aim to accelerate entry of Danish companies into the location or country, promote investments in or help overseas businesses to establish in Denmark and facilitate research cooperation between institutions, universities and companies.

Denmark's Silicon Valley Innovation Centre opened in 2006 and Shanghai opened in 2007 with both concentrating on life sciences, ICT and clean technology. Munich opened in 2008 and concentrates on energy and environmental technology, life sciences, ICT and design.

Businesses that have used the services have recognised the assistance enabled much easier access to new markets and technologies, reduced the time to market with targeted contacts and provided valued assistance in preparation for customer and investor engagements.

Multi-purpose centres allow critical mass to be established in important locations. Sufficient scale is needed so valuable relationships, knowledge and capabilities become institutional assets and are not disrupted by the departure of individuals.

Getting the model right and deciding the location sequence requires a further layer of analysis.

Ideally New Zealand's innovation centres would include accommodation for internationalising businesses and for service providers. They would connect with researchers in science organisations and with researchers building competences in entrepreneurship, marketing and sales, strategy and operations. New Zealand businesses would locate nearby to access the network of services, relationships and connections available near the centre. The colonies should grow organically and eventually be dominated by private businesses and service providers.

The locations for innovation centres depend on the circumstances of each country. For New Zealand, a location in an R&D and multinational centre in China like Tsinghua University science park or Tianjin Hi-tech Industry Park might allow access to development competence and research links. Silicon Valley would connect with ICT and venture capital funding.

THE BUSINESS ENVIRONMENT

The success of internationalising businesses can be lifted by removing obstacles and improving the availability and quality of inputs as highlighted above. But the broader business environment also affects success. Many of these opportunities are being progressed by current Government policy initiatives or investigations, so the purpose of this section is to reinforce the importance of those efforts.

If internationalisation performance is improved then it will become much more valuable to improve inventiveness and the flow of research to commercialisation. Ensuring availability of scientists and engineers, connecting research units to form at-scale research institutes and establishing at-scale commercialisation centres are worthwhile priorities.

Encouraging existing companies to increase R&D investment and to enter exporting where there is potential is valuable too.

Migration should be an important source of skills, competences and capital, and should be managed to get valuable results. Connecting with overseas New Zealanders also has under-tapped potential. Processes should ensure migrants and returning New Zealanders are integrated quickly and effectively. Offshore directors are a valuable asset too and many overseas New Zealanders are well qualified.

Foreign direct investment (FDI) is an important source of capital, channel access and knowledge. New Zealand's arrangements for encouraging beneficial FDI for growing businesses should be tested systematically against best practice offers by comparable countries and the wants of potential investors. Local taxation requirements should ensure that domiciling international businesses in New Zealand and locating R&D activities here are encouraged.

Expanding and defining market access via Free Trade Agreements is valuable too. It can provide access to higher margin markets and diversification benefits.

Existing efforts to identify and support priority sectors for 'NZ Inc' investments should continue. Priority sectors should be served well by research and commercialisation centres and be connected with cluster development efforts.

However, Government should be cautious about providing ad hoc assistance to individual businesses. It is often valuable to tilt the playing field to create conditions for success of priority sectors but direct government investment in risky equities and intervention with specific companies has a mixed track record around the world.

Currency volatility can affect business profitability a lot. Macroeconomic management or long term hedges might reduce the adverse effects on internationalising businesses. In a recent International Monetary Fund staff position note it was suggested that inflation targeting should not be abandoned but "central banks in small open economies should openly recognise that exchange rate stability is part of their objective function." (Blanchard, Dell'Ariccia & Mauro, 2010, p.13)

INNOVATION COUNCIL

Many of the policy proposals identified in this paper are available because the innovation ecosystem in New Zealand has not been managed as a whole. Instead, individual policies have been proposed and adopted by governments, and numerous government and non-government agencies have made improvements within their scope of responsibility.

New Zealand's innovation ecosystem is like a large industrial plant where each department performs reasonably well given the resources and information available, and manages hand-offs to adjacent departments. However the plant as a whole is underperforming because there are bottlenecks, missing functions and missed opportunities for coordination.

Forming the Ministry of Science and Innovation (MSI) is an important step towards solving the problem. It gives a single entity responsibility for research outcomes and for conversion of those outcomes into successful innovation. As the MSI develops it will identify the measures required to monitor innovation ecosystem performance and will build links with other organisations to encourage beneficial change.

Establishing MSI is not enough. Identifying bottlenecks and needs, and encouraging change might be adequate if New Zealand was engaging in



business-as-usual. However if Government is serious about achieving the goal of rejoining the world's most prosperous nations and innovation is an important way to do that, then the changes to date are not going to be sufficient.

The Capitalising on Research and Development Action Group (CRAG) is a joint business, research sector and government action group established in early 2007 by the Ministry of Research, Science and Technology (MoRST) and Business New Zealand. It focuses on increasing business investment in research and development, and encouraging collaboration between business and research organisations. CRAG's scope though is not sufficiently broad to cover the bottlenecks in talent and capital or the challenges of internationalisation.

No one entity can implement all the proposals for change. Some of the interventions proposed above can be implemented by MSI but many require actions by other agencies; New Zealand Trade & Enterprise, Tertiary Education Commission, Ministry of Education, Treasury, and Ministry of Economic Development as well as by not-for-profits and the private sector. Further, if almost 12% annual growth of differentiated exports is going to be achieved there must be an ongoing effort to identify and implement opportunities for improvement; the proposals here are just a start.

Several countries pursuing innovation strategies have established innovation councils or equivalent bodies, usually chaired by their Prime Ministers, which identify obstacles and opportunities, and mobilise resources.

Having the Ministers for Science and Innovation, Education, Economic Development and Finance on an Innovation Council, along with their Chief Executives and leaders from industry and finance, would create the conversations and shared understanding that are needed to agree priorities and quickly reallocate resources.

New opportunities, obstacles and constraints will emerge so progress needs to be monitored and further changes made where needed.

CONCLUSION

Until recently the importance of innovation to economic prosperity was not widely recognised in New Zealand. In its 2007 budget the Labour Government introduced R&D tax credits from the start of the 2008/09 income year. This brought New Zealand into line with three-quarters of OECD countries which provided R&D tax credits as strong incentives for innovation (Cullen, 2007). In March 2008 Labour supplemented this by launching a \$700 million NZ Fast Forward initiative focused on lifting innovation in pastoral and food industries (Clark, 2008). In December 2008 the incoming National Government repealed the tax credits for R&D and wound up NZ Fast Forward.

In the last year there has been a turnaround, in part because the New Zealand Institute and others have highlighted the OECD and World Economic Forum research findings that innovation and business sophistication are very important drivers of the economic success of advanced economies. At the same time there is increasing recognition that New Zealand needs another pillar of exports, alongside commodity agriculture and tourism, and that other countries are acting more aggressively in their pursuit of innovation as an economic strategy. Government is now a strong supporter of innovation and is investing to lift performance despite fiscal constraints.

The 2025 Taskforce has argued in its second report that interventions of the type proposed here should be pursued only if there is evidence that there are specific binding constraints that inhibit the private sector from pursuing opportunities (Brash, Caygill, Sloan & Wilkinson, 2010, p.136). The specific binding constraints identified are the difficulty of establishing connections internationally given New Zealand's size and isolation, the scarcity of capital to fund international expansion and the insufficient supply of the specific kinds of talent required.

The diagnostic approach to economic strategy development has been used to identify the policy proposals offered in this discussion paper. The logic is simple:

- Government has set a goal of matching Australia's GDP per capita by 2025;
- New Zealand needs to lift labour productivity to increase GDP per capita;
- Growing exports of high value differentiated goods and services is the best way to lift labour productivity and GDP per capita, and to improve New Zealand's external debt position;
- Performance of internationalising businesses is the constraint limiting growth of high value exports; and
- The policy proposals made in this discussion paper would improve internationalisation performance.

The opportunities for improvement identified are available because innovation has not been managed as an ecosystem and because there has been an assumption that strong institutions and market forces would be enough to ensure economic success.

TABLE 5: PROPOSAL SUMMARY	Expansion capital	Talent	Infor- mation	Connec- tions
Venture – expand capital availability via 20% investment incentive and 50% capital loss deductibility; require and encourage international partners to participate	✓	✓		✓
Angel – expand capital availability via 20% investment incentive and 50% capital loss deductibility	✓	✓		
Loan – establish loan guarantee scheme for lending by bankers	✓			
Entrepreneurs – develop national entrepreneurship education strategy and world-class entrepreneurship institute with internationalisation focus		✓		
Directors – require some directors of businesses receiving government support to have relevant training		✓		
Marketing and sales – establish specialised international marketing institute with international sales outreach		✓		
Operations – establish operations institute(s) with focus on developing competences for internationalising businesses		✓		
Strategy – establish strategy institute and panels of strategists to guide internationalising businesses		✓		✓
Research support – provide incentives and funding for business academics to focus on research on how to increase the performance of internationalising businesses		✓	✓	
Public good information – establish library of how-to information for businesses targeting international markets			✓	
Information clearinghouse – establish single utility information clearinghouse service provider	✓	✓	✓	✓
Clusters – identify high value sectors and identify cluster locations; incentivise locating in clusters		✓	✓	✓
Colonies – establish New Zealand innovation centres in selected overseas locations	✓	✓	✓	✓
Innovation Council – establish council of Ministers, CEs and others to monitor progress, prioritise and mobilise resources	✓	✓	✓	✓

The policy proposals and how they relate to current constraints are summarised in Table 5.

The New Zealand Institute does not have the resources or information required to provide detailed costs for the changes proposed. The cost of the investment incentives in forgone taxation revenues could be up to around \$200 million per year if there is a large shift of investment towards differentiated exports, though costs from capital loss deductibility should take a few years to become material.

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The cost of the inducement to ensure international venture partner participation will be determined by the market but is likely to be in the tens of millions of dollars. The loan guarantee has a premium so in principle should be self-funding.

Talent initiatives are mostly refocusing effort using existing resources, though there will be a cost to increase the quantity of world-class expertise for the institutes.

The costs of research and information provision are not large and some reallocation of effort is possible. Combined with the clearinghouse, the incremental costs might be a few million dollars per year for a few years.

Developing clusters and colonies is hard to cost prior to understanding what forms they would take. It is likely that the effort would be spread over several years and might require investment of a few million dollars each year during establishment.

The aggregate long term benefit available from improving internationalisation outcomes is arguably the closest thing to an economic silver bullet available and the changes proposed do not require huge investments relative to the size and resources of the country.

If New Zealand can increase prosperity by developing an innovation driven economy with growing high value differentiated exports, then it will attract more talent and capital, establishing a virtuous cycle. The goal should be to make New Zealand a country people want to live and work in.

Some of the proposals, along with efforts to improve the business environment, will improve outcomes for established businesses too, including commodity businesses. They will encourage R&D and exports, and improve their productivity. Domestic businesses will benefit from talent improvement spill-overs and from the lift in prosperity from growing high value exports.

The strategy will only be implemented if others agree that policies should be used to tilt the playing field to promote growth of priority sectors of the economy. The proposals require offering tax incentives that will benefit some people who are already well-off. They may require changes in the way universities are organised, measured and governed. Resources will be distributed in an uneven way.

If the focus of Government, policy advisors, influencers and commentators is on the obstacles to change, or on the fiscal costs of the strategy, then it is likely that a few of the proposals will be cherry-picked or adopted in a weak form and not much change will result.

The leaders are not waiting for us to catch up

Denmark has been used as an example for New Zealand to follow and this paper draws on some Danish policies as examples.

In 2006 Denmark launched a strategy called Progress, Innovation and Cohesion. The strategy overview includes the statement that "Failing to innovate, it may be difficult to maintain Denmark's position as one of the world's wealthiest countries."

It goes on to say "The strategy contains a total of 350 specific initiatives, which together entail extensive reforms within the fields of education, training and research as well as substantial improvements in the framework conditions for growth and innovation in all areas of society."

Further "Each year, the Government will publish a report that provides a picture of whether developments are going in the right direction and whether we are reaching our objectives in relation to education and training, research, entrepreneurship and innovation."

If the focus is instead on the goal of lifting prosperity, and on investing to ensure that our innovation ecosystem gives our internationalising businesses the best possible opportunities for success, then the obstacles will be overcome. Successful small countries intervene aggressively in ways that are not dissimilar to what is proposed here. They do not intervene in exactly the same way because each country has different obstacles and opportunities.

This discussion paper is about internationalisation. Innovation ecosystem performance depends on much more than just internationalisation and the New Zealand Institute's earlier paper 'Standing on the shoulders of science' identified several worthwhile opportunities for improvements in research and business formation. The proposals made in this paper will not be enough to ensure a high performing innovation ecosystem nor a strong economy. However they can make a substantial contribution.

There may be better proposals to overcome the obstacles than the ones offered here. But if any proposal offered here is not adopted, then either a better proposal should be substituted or a compelling argument should be mounted that the diagnosis is incorrect. Innovation ecosystem performance is only as strong as the weakest link.

Many competing countries are improving their innovation performance too. We are in a race.



Image courtesy of Animation Research Limited.

GLOSSARY

Angel investor

A high net worth individual who invests his or her own capital into start-up businesses, usually in exchange for equity stakes. - *New Zealand Venture Investment Fund Limited*, 2007, p.10

Cloud

Cloud computing involves the delivery of hosted applications, information or services over the Internet to computers and other devices such as smartphones. Software and data are stored on the servers located around the world and fully managed by a provider. A user can access as much or as little of the service as needed at any time and purchase specific services on demand.

Commercialisation

The process of creating commercial (monetary) value from ideas, research results or Intellectual Property (IP). Revenue can be generated by applying the IP to provide services or products to an end-user, by owning and licensing IP to others for application, or by conducting applied research for an IP owner to further develop that IP.

Differentiated

Differentiated goods and services are those where suppliers' offers cannot be easily substituted for one another so price is not the most important customer decision criterion.

Eligible persons

Under the Securities Amendment Act 2004, for companies to seek capital without a prospectus they must seek an exemption to market to 'eligible persons'. 'Eligible persons' are wealthy, experienced in investing money, or experienced in the industry or business to which the security relates. Wealthy is defined as someone who has net assets of at least \$2 million or has an annual gross income of at least \$200,000 for each of the last two financial years. - New Zealand Venture Investment Fund Limited, 2007, p.72

Entrepreneurship

The process in which a person sees an opportunity, has an idea and implements it, with the result that the idea creates value. The value creation does not need to be financial in nature. - Danish Ministries Strategy for Education and Training in Entrepreneurship, 2009, p.8

Foreign direct investment (FDI)

Inward FDI is the purchase, by non residents, of 10 percent or more of the total equity of a New Zealand enterprise. Loans from overseas investors to New Zealand businesses where those investors hold a significant equity stake are also counted as FDI. - *Iyer et al.*, 2010, p.2

Gross domestic product (GDP)

A measure of economic activity in a country. It is calculated by adding the total value of a country's annual output of goods and services.

GDP = private consumption + investment + public (government) spending + the change in inventories + the value of exports - the value of imports.

GDP per capita

GDP divided by the total population within a country. GDP is the measure most frequently used to represent the economic well-being of a country's residents.

- Statistics New Zealand Glossary

Initial public offering (IPO)

The first sale (or issue) of shares to investors publicly, when a company is raising capital to fund the growth of its business. - NZX Glossary

Innovation

Innovation is the dynamic process of creating and introducing new ideas and new ways of doing things. Innovations may be incremental (small, stepwise improvements), major (substantial improvements), or radical (new lines of business, paradigm shifts). - *Ministry of Economic Development*

Internationalisation

The business process of planning and implementing a domestic business's efforts to sell and distribute products and services in foreign markets.

Inventiveness

Creating a novel technology, device, technique or process, as opposed to its application and use.

Keynesian stimulus

Increased government spending during an economic downturn to smooth output.

Labour productivity

Value of output per unit of labour input.

OECD

The Organisation for Economic Co-operation and Development brings together governments from 33 countries to share and coordinate policy, problems and good practice. For over 40 years the OECD has provided a comprehensive range of comparable statistics, economic and social data.



Private equity

Private equity funds are pools of capital specialising in venture capital, business expansions, leveraged and management buyouts, mezzanine investments, distressed debt and related investments. Internationally these pools of capital are typically organised as partnerships and are not listed and traded in the security markets and hence the term 'private equity'. - *Lerner & Shepherd*, 2009, p.66

Strategic investment

A strategic investment is one made because of benefits available via synergies with other owned businesses.

Strategy

A strategy is a planned reallocation of resources to achieve a valued goal.

Venture capital

The subset of private equity that is focused on equity or equity-linked investments in privately held, high growth companies in their seed, start-up and early expansion phases of development. - Lerner & Shepherd, 2009, p.66

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NOTES



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