The winning game

COMPETITIVENESS is often in the news these days. Individuals compete for jobs, companies for market share, cities for tourist dollars, and countries on any number of performance indicators. Governments devise strategies to promote economic growth that have global competitiveness at their heart. Yet, surprisingly, there is a great deal of confusion about what competitiveness actually entails. Without knowing how the machine works, policymakers are liable to pull the wrong levers.

Evidence suggests that this may have been happening in New Zealand. We rank highly on international indices measuring the key drivers of growth, for example, but our economy continues to perform poorly. Academic Phillip McCann called this puzzling phenomenon New Zealand’s “Productivity Paradox”.

In this issue of the Business Review, Tony Caughey, co-author of Upgrading New Zealand’s Competitive Advantage, warns that the government’s Business Growth Agenda will do nothing to lift us from the rut of “merely average” economic performance. There are lessons to be learned, he says, in Auckland Council’s new goal-oriented Economic Development Strategy and in the worldwide success of cluster development programmes.

Lauren Smith, Jorge Seaman and Siah Hwee Ang put the case for developing just such an industry cluster to exploit marine energy – one of the world’s largest untapped sources of renewable energy. Creating a marine centre of expertise in New Zealand could unlock an ocean of opportunity, they say.

Alan Hughes points out the dangers of formulating innovation policies based on mistaken assumptions about what really underpins economic growth in other countries. Armed with the results of several large overseas research projects, he calls for a new understanding of the role that universities play in fostering innovation.

David Simmons and Ray Sleeman turn their attention to reviving tourism in quake-hit Christchurch. Once worth $2.3 billion annually to the region, tourism is considered vital to the city’s recovery. Their proposal: create an iconic new attraction to compete for visitors, and reposition Christchurch as a destination, not a “gateway”.

Finally, Peter Withers surveys the current state of executive education, concluding that many programmes are no longer fit for purpose and, indeed, are fast becoming irrelevant. In a global environment governed by volatility, uncertainty, complexity and ambiguity, it is the nations that develop expertise in decision-making and strategic thinking that will remain competitive and prosper, says Withers. He finds promising signs in a radical rethink now underway in New Zealand.

Competitiveness is far from straightforward. There is no single accelerator to rev economic performance; no policy shortcut to get there more quickly. But some things have been shown to help. Having clear and measurable goals, for example, and commercialising innovation. Systematically supporting industries capable of carving out global niches, and delivering the sort of education that equips tomorrow’s business leaders to thrive in a globalised world.

Playing the winning game is not rocket science. But it does require qualities that, as a nation, we have yet to bring convincingly to the pitch.

Vaughan Yarwood
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Innovation
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Alan Hughes (interview)

Marine Energy
Creating a marine centre of expertise could unlock an ocean of opportunity.
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Peter Withers

Submission Guidelines

The University of Auckland Business Review encourages insights, reflection and debate on contemporary business theory and practice. It reports on new and notable research, focusing on the implications for business professionals. The journal is published twice a year, in spring and autumn, by The University of Auckland Business School.

The Business Review is a forum for diverse views from various disciplines and aims to bridge the gap between research and practice. The journal publishes editorially-reviewed and peer-reviewed articles which, while based on research, should be clear and engaging.

Articles should be 2500-3500 words in length and supplied in electronic form. Endnotes, footnotes, and references must be integrated into the main text, rather than placed in brackets or indicated by numbering. Please see individual Business Review articles for examples of the journal’s preferred style.

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Family Business
Autumn 2013 (Vol 16, No1)
In the next issue we look at the important but often neglected area of family business, with new research on entrepreneurial strategy, intergenerational business and conflict. We also examine mother-daughter relationships in family enterprises and internationalisation from a New Zealand perspective.

Connectivity
Spring 2013 (Vol 16, No2)
The Spring issue explores the impact of our deepening technologically-mediated connectivity on workplace practices and the way business gets done.
Call for papers: We invite anyone interested in contributing to the Spring issue to contact the editor with an article outline.
AUCKLAND’S Economic Development Strategy was launched in September, 2012. It is a ten-year plan that supports the 30-year Auckland Plan approved by Auckland Council the previous March. Now, for the first time, a Supercity organisation exists with a timeframe, legislated by central government, that is well beyond the three year election cycle; an organisation that has formulated a unique economic development strategy for Auckland, based around its specific strengths.
This time horizon is particularly important given the now-accepted need for economic growth to be developed from the bottom up, rather than from the top down. We must get our cities and regions working better. Our cities rank highly on quality of life dimensions, but not on economic competitiveness measures.

The Auckland Plan set some explicit and ambitious goals—increasing GDP annually by a minimum of five per cent, regional exports by six per cent per year, and productivity by two per cent per year. The Economic Development Strategy (EDS) addresses how these increases are to be achieved.

There is much that central government could learn from Auckland about writing an economic development plan. Auckland’s EDS is a long way ahead of the Government’s Business Growth Agenda (BGA) on many fronts.

The first thing a plan needs is a goal against which progress can be measured. Auckland’s goals, as outlined above, are specific. By contrast, government has four broad priorities:

- Responsibly managing government finances
- Building a more productive and competitive economy
- Delivering better public services within tight financial constraints
- Rebuilding Christchurch

The priority of most interest to me is number two—“building a more productive and competitive economy”. While the concept is sound, the obvious question is: how will government know if it is has been successful in achieving these twin priorities? Productivity is relatively easy to measure, but by how much do we want to improve it? Auckland has a target of increasing productivity by at least two per cent a year. Is government’s goal to achieve anything better than zero, and if so, will it be enough? Where is the debate about this?

Competitiveness is a much more difficult concept. There is no attempt within the BGA to define what it means to build a “more competitive economy”, so how will government know whether it has achieved this priority?

One way would be to track New Zealand’s progress on a variety of international indices that measure competitiveness. These include the World Economic Forum’s Global Competitiveness Report, the IMD World Competitiveness Yearbook, the report released by the Chinese Academy of Social Sciences, and that of the Economist Intelligence Unit.

One might think that if government was interested in increasing New Zealand’s rankings in these surveys it would have programmes to address the variables that the surveys measure—especially the important ones where New Zealand is ranked poorly. However, I can find no evidence of systematic government thinking that addresses the areas where New Zealand is underperforming.

The BGA consists of six pieces of work. At the time of writing, four have been released: on building innovation, building export markets, building safe and skilled workplaces and building infrastructure. Two more papers, on building resources and building capital markets, are due by the end of 2012.

I would rate the four papers released to date as disappointing—with one exception. The export paper contains a goal to increase exports from 30 per cent to 40 per cent of GDP by 2025. This is the first major, concrete goal to emerge from the BGA process. (There are a myriad smaller goals that mean little and often address the wrong issues—for example, the goal to increase the percentage of 18-year-old students passing NCEA level 2 from 74 per cent to 85 per cent in six years. While worthy for a very small number of students, a much better goal would be to produce more enterprising students who know how to start their own businesses, using programmes developed by the Young Enterprise Trust.)

The export goal sounds attractive, but why would you want to do this if you don’t know what you wish to achieve by it?

In the early 1990s I was part of a group that used a model developed by economic research company BERL to determine that if New Zealand wanted annual GDP growth of four per cent, then one way to achieve it, given certain other assumptions, was to grow exports by nine per cent a year—in other
words, to double exports in eight years. So, the export goal in the BGA sounds about right, but creating an objective in a vacuum, without a broader, quantifiable goal, makes no sense.

Having said that, there is much to applaud in this export goal. It is the first time in 30 years that the government has acknowledged a basic fact—that we are a small island economy at the bottom of the world which depends for its prosperity on exporting to a world that does not owe us a living. Treasury thinking since export incentives were abolished in the early 1980s has been dominated by the theory that a dollar earned in New Zealand is as good as one earned overseas—with the inevitable and unsurprising result that our exports have stagnated. At last we have a signal from government that exporting is a good thing. It is tantalising to speculate on what strategies government will put in place to achieve this goal, as we have seen almost nothing to date.

Such a goal will go some way to reaching the definition of competitiveness espoused by Michael Porter and others. They declare that a region is “a competitive location to the extent that companies operating in it are able to compete successfully in the global economy while supporting high and rising living standards for the average person in [that region]”. A competitive location produces prosperity for both companies and citizens.

Regrettably, the BGA hasn’t yet got a definition of competitiveness.

It is a complex subject. In their research paper “The Determinants of National Competitiveness”, Mercedes Delgado, Christian Ketels, Michael Porter and Scott Stern say: “Competitiveness has for the last few decades been a central feature of the economic policy debate. But the debate, both in policy and academia, remains mired in confusion about what the term competitiveness actually entails”. Government’s business growth agenda is nowhere near world’s best practice. Its language is far removed from that used by Harvard Business Review in its March 2012 special issue on US Competitiveness, which noted that: “Although the US retains profound competitive strengths—for instance, in higher education and entrepreneurship—those strengths are increasingly threatened by weaknesses in areas such as the tax code, basic education, macroeconomic policies, and regulation. Steps to reverse the loss will require a new focus by government and business leaders”.

HBR goes on to describe 17 essential elements of the national business environment:

**Macro Elements**
- Macroeconomic policy: soundness of government budgetary, interest rate, and monetary policies
- Effectiveness of the political system: the ability of government to pass effective laws
- Protection of physical and intellectual property rights and lack of corruption
- Efficiency of the legal framework: modest legal costs, swift adjudication
- Complexity of the national tax code
- K-12 education system: universal access to high-quality education; curricula that prepare students for productive work
- Quality of capital markets: ease of firm access to appropriate capital; capital allocated to most profitable investments
- Sophistication of firm management and operations: use of sophisticated strategies, operating practices, management structures, and analytical techniques
- Innovation infrastructure: high-quality scientific research institutions; availability of scientists and engineers
- Regulation: effective and predictable regulations without unnecessary burden on firms
- Strength of clusters: geographic concentrations of related firms, suppliers, service providers, and supporting institutions with effective collaboration
- Quality of capital markets: ease of firm access to appropriate capital; capital allocated to most profitable investments
- Sophistication of firm management and operations: use of sophisticated strategies, operating practices, management structures, and analytical techniques

**Micro Elements**
- Logistics infrastructure: high-quality highways, railroads, ports, and air transport
- Communications infrastructure: high-quality and widely available telephony, Internet, and data access
- High-quality universities with strong linkages to the private sector
- Context for entrepreneurship: availability of capital for high quality ideas; ease of setting up new businesses; lack of stigma for failure
- Availability of skilled labor
- Flexibility in hiring and firing of workers
- Innovation infrastructure: high-quality scientific research institutions; availability of scientists and engineers
- Regulation: effective and predictable regulations without unnecessary burden on firms
- Strength of clusters: geographic concentrations of related firms, suppliers, service providers, and supporting institutions with effective collaboration
- Quality of capital markets: ease of firm access to appropriate capital; capital allocated to most profitable investments
- Sophistication of firm management and operations: use of sophisticated strategies, operating practices, management structures, and analytical techniques

Again, I find the reference to clusters of interest. Likewise, the concept of promoting entrepreneurship, which is entirely missing from the BGA, as I have previously noted.

THEN WE have the Economist Intelligence Unit’s report at the end of 2011 on “Fostering Innovation-Led Clusters”. That report began by stating that: “There are few economic development policies as popular as clusters. It is hard today to find a country, region, or even city that is not trying to develop a network of complementary and competitive firms.”

Actually, it is not hard. You just have to look at New Zealand. Cluster development strategies are yet to feature in the Business Growth Agenda. Why? I contend that the main reason is a lack of understanding of active cluster development programmes in our Wellington institutions. On a scale of one to 10, I would rate the level of understanding somewhere between zero and one. In a straw poll I did of my assessment, I was told by one official that I was being too harsh. But a world leader in cluster development suggested that such a score was generous. There are a handful of officials with some experience of cluster development, most of it relating back to the Joint Action Group (JAG) initiatives of New Zealand Trade and Enterprise some 15 years ago. These people do not seem to be prominent in the writing of the BGA.

There are glimmers of hope that the understanding of cluster development programmes in government institutions in Wellington is about to improve. But
more on that later.

The big picture is that New Zealand is underachieving economically. This was alluded to by the Organisation for Economic Cooperation and Development almost 10 years ago. In the OECD’s 2003 economic survey of New Zealand, it said: “The mystery is why a country that seems so close to best practice in most of the policies that are regarded as the key drivers of growth is nevertheless just an average performer.”

Academic Phillip McCann later called this New Zealand’s “Productivity Paradox”. Such terminology was adopted by the late Sir Paul Callaghan, who used evidence-based research to enter the economic debate. He argued for a greater emphasis on education, innovation and the development of the high-tech manufacturing sector. This was all in the context, as he put it, that “we seem to have the market fundamentals right, but we still haven’t got the productivity we are looking for”.

So the problem is not new, and it has been well described. The question is, what do we do about it? Self-evidently, we need to do something different from what is embedded in the Business Growth Agenda. The implementation of this agenda would simply allow us to restate the Productivity Paradox year after year while remaining a merely average performer.

The Auckland Strategy provides answers on how we can break free of this paradox. Its five priorities are not dissimilar to the government’s business growth agenda: developing into the innovation hub of the Pacific Rim, becoming internationally connected and export driven, becoming business friendly and functioning effectively, growing skills and the local workforce, and developing into a vibrant and creative international city. In addition it has four cross-cutting themes: a sustainable eco-economy, an iwi/Maori economic powerhouse, an innovative rural and maritime economy and a diverse ethnic economy.

More importantly, the Auckland EDS has explicit goals, as outlined earlier. It also has plans to develop specific industry clusters, and in this it has benefitted from a submission by the global conference of The Competitiveness Institute (TCI), held in Auckland in 2011. This Barcelona-based institute is a network of 9,000 professionals from more than 100 countries who are the world’s leading practitioners in the economic development of cities, regions and countries. I was privileged to chair the steering committee for the 2011 conference.

In October, 2012, I attended the TCI’s conference in the Basque Country in Spain, in company with 450 delegates from more than 50 countries. The Basque Country was quick to embrace many of the ideas of Michael Porter 20 years ago and is reaping the rewards of its cluster development programmes. Bilbao is an example of how a decaying industrial city can be transformed into a modern vibrant one, with some of the best infrastructure in Europe, and with no debt. Universities in the region have embraced the subject of competitiveness in both teaching and research.

The good news for New Zealand is that largely as a result of the TCI conference in Auckland last year, The University of Auckland Business School has announced that it will join the University of Otago and more than 100 leading universities around the world in teaching Porter’s “Microeconomics of Competitiveness” course. This is a welcome development and will help raise the level of understanding among young people of these vitally important concepts. Over

Michael Enright on Clusters and Cities

Michael Enright, author of a new report on New Zealand’s competitiveness, talked to the Business Review about the benefits of business clusters and the economic role of cities.

Business Review: Clusters are internationally recognised as stimulating economic activity, but they are not well developed in New Zealand. Why is that, and what can be done to foster them?

Michael Enright: Clusters—regional groupings of firms in the same or related industries—are very prominent all over the world. Now, there are many examples of successful clusters in New Zealand, including a marine-related cluster, a wine-related cluster and an aerospace-related cluster. But I think in other places in the world there is much more of an effort to organise firms, to try to figure out means of cooperation and coordination that would allow firms, particularly small and medium-sized ones, to collectively undertake things that no individual firm could do, and in particular to help penetrate international markets. There is a view that New Zealand perhaps needs a more institutionalised framework for identifying potential advantages, identifying potential collaborations and then for helping those take place.

BR: And some of the benefits of clusters would include the ability to very quickly identify such things as negative information—that is, where things don’t work—and so fast-track innovation. Is that your understanding?

ME: Actually clustering helps the innovation process in many ways. First off, clusters tend to become aggregations and attractors of skills and capabilities, specific to an industry. Clusters also tend to foster local competition. But another, often unrecognised, advantage is, as you put it, the value of negative information. People tend to publish their successes but not their failures. And since the innovation process is largely a process of trial and error, anything that allows you to understand what dead ends other have already tried vastly improves the efficiency of the innovation process.

BR: Megacities, and the areas of innovation surrounding them, seem to have a disproportionate influence on national economic activity. Do you think that lends weight to the argument that a city like Auckland should put more emphasis on developing infrastructure which is going to have some direct impact on economic development for the nation?

ME: Well, cities play a variety of roles. They are economic centres in and of themselves, particularly in service sectors but also in many research-intensive sectors. Cities also connect countries to each other and they connect hinterlands to national and international markets. So, when we see the development of megacities, on the one hand we see them managing the flows of information, finance, people and business between cities and between countries. We also see cities as repositories of expertise and knowledge. In particular, large cities tend to be the locations where you get the complementary skills and capabilities brought together in the same place that these days often power innovation. Today, a successful commercial innovation is not necessarily a single technology, but it is often the bundling of several technologies, of several different types of skills and capabilities, which we are much more likely to find in a large city than scattered around the countryside or in smaller cities.

BR: So although, at the moment, New Zealand has an initiative to introduce high-speed broadband so that we can work ‘weightlessly’, there is still a need for a physical concentration of economic ac-
ties in addition to that move towards internationalisation through electronic means.

ME: Absolutely. There is a need for connectivity throughout New Zealand so that people anywhere in the country can connect to each other and also connect to the rest of the world. It is one of the ways in the modern world to try to overcome the disadvantage of distance and small domestic population. But at the same time, cities are also important. They are basically where the work of globalisation gets done. They are the places that connect one country to another, that connect one population to another. In addition, if you think about it, the process of improving communication and transportation, allows certain activities to be spread over space, but also allows other activities to be concentrated. And what we find is that industries and activities that depend on the creative process, that depend on knowledge that is difficult to write down, difficult to codify, require face-to-face interaction. And exactly the same communications and transport technologies that allow some economic activities to disperse over space actually cause other economic activities to concentrate over space and these tend, in many cases, to concentrate in cities.

time this will increase the level of knowledge in our institutions that can be harnessed to implement such policies.

The full name of the course is “Microeconomics of Competitiveness: Firms, Clusters, and Economic Development”. The course outline explains that it: “explores the determinants of competitiveness and successful economic development viewed from a bottom-up, microeconomic perspective. While sound macroeconomic policies, stable legal and political institutions, and improving social conditions create the potential for competitiveness, wealth is actually created at the microeconomic level. The sophistication and productivity of firms, the vitality of clusters, and the quality of the business environment in which competition takes place, are the ultimate determinants of a nation’s or region’s productivity.”

The problem that we face is that there are very few people in New Zealand who understand this. Hong Kong-based Michael Enright, of research and strategy consulting firm Enright, Scott and Associates, has undertaken a study of New Zealand’s competitiveness. It builds on research that he started more than 20 years ago when he worked on Upgrading New Zealand’s Competitive Advantage with Michael Porter, Graham Crocombe and others. He is regarded as one of the foremost international academics and advisers on competitiveness and cluster development (see sidebar interview, p13), and his perspective will need to be carefully considered by all those working in this field in New Zealand.

We must also deepen people’s understanding of clusters, because there are many mis-conceptions. It is very important to realise that a cluster is not a science park, nor a piece of infrastructure—like the Food-bowl—nor a precinct. Clusters are also not about “picking winners”. Cluster development programmes, as practiced by every government in Europe, are development programmes for industries that are already winners.

There are many definitions of clusters. Porter calls them: “Geographic concentrations of interconnected companies, specialised suppliers, service providers, firms in related industries and associated institutions... in particular fields that compete but also cooperate.”

The problem for us is that many places around the world have benefitted from active cluster development policies that New Zealand officials have not wanted to believe in. The Auckland plan offers some hope that these shortcomings will be overcome.

The final word should go to the 2012 TCI submission on the Auckland Plan—before the Plan’s early drafts made any mention of clusters. TCI said: “Clusters are no silver bullet and they need to be part of a broader competitiveness strategy to reach their full potential. But they are a tool and perspective far too powerful for Auckland to neglect on the ambitious path that the region has embarked on.”

I have just begun a programme driven by Auckland Tourism, Events and Economic Development (ATEED) and the Auckland Council to further develop a food and beverage cluster in South Auckland. I am looking forward to this challenge as part of a wider approach to enlightened economic development in New Zealand.

In summary, then, the Business Growth Agenda requires a fundamental rethink. It needs goals that can be measured. It needs to recognise what is happening elsewhere in the world. And it needs to reflect that thinking—aided by the experience of business people and people with backgrounds in economic development—in a revised BGA. I find it extraordinary that a set of documents can be produced about New Zealand’s economic future that is completely silent on the twin pillars of cluster development and fostering entrepreneurship. The BGA emphasis on a top-down solution for economic development needs to be modified to deliver a solution which will be from the bottom up.

These three omissions—entrepreneurship, clusters and a bottom-up approach—put us out of step with The Economist (“Fostering Innovation Led Clusters”), Harvard Business Review (on US Competitiveness), the World Bank (elements of a Local Economic Development Programme), the World Economic Forum (The Global Competitiveness Report), The Competitiveness Institute and the world’s most respected academics. Fortunately, the Auckland EDS goes a long way to address these shortcomings in New Zealand’s largest region. With concerted pressure, action can be taken to revise and improve the BGA, break us out of our “productivity paradox”.

KEY TAKE-OUTS

* The government’s Business Growth Agenda is poorly conceived and will not remedy New Zealand’s inadequate economic performance.

* Cluster development strategies—a key component of strong economies around the world—are not well understood in this country.

* Auckland’s new economic strategy suggests a way for New Zealand to break free of its “productivity paradox”.

Tony Caughey is a company director and business consultant. He was a co-author of Upgrading New Zealand’s Competitive Advantage (1991), and more recently served on the steering group of the ESA (Enright) report on New Zealand’s competitiveness. In behalf of Auckland Tourism, Events and Economic Development (ATEED), Caughey chaired the 2011 conference of Auckland of The Competitiveness Institute (TCI). He is also a member of Auckland Council’s Business Advisory Panel and chairs the Young Enterprise Trust, which teaches financial literacy and enterprise education in primary and secondary schools.

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Marine Energy is one of the largest unexploited sources of renewable energy. Strong growth is forecast for the industry, but as yet only a small number of international and local projects exist. Most of these are at research-and-development stage and have yet to be commercialised. An opportunity therefore exists for New Zealand to develop its own R&D structure, and become a major player in the marine energy industry. The creation of an R&D centre would bring a number of strategic benefits, including the potential to develop a high-value marine export industry and a network of marine energy sites that could become an additional source of “clean” electricity for the national grid.
NEW ZEALAND has the potential to produce energy from tidal and wave forces.

These technologies are at an early stage of development, and are a more relevant option for New Zealand than marine energy sources based on more mature technologies. Analysis of the global marine energy industry suggests that there is the potential for New Zealand to develop a competitive advantage. This country could learn from other international renewable energy centres and incorporate key factors into its own marine R&D structure. Doing so would enable it to enhance its R&D position, leading to strategic benefits for the country once these projects reach commercialisation stages, and opening up the possibility of marketing the technologies internationally.

Global and national outlook

According to International Energy Agency (IEA) data, by the end of 2010 a total of 2 MW of wave energy and 4 MW of tidal-stream energy generating capacity had been installed worldwide (the figure does not include plants using tidal barrage technology). This energy capacity includes demonstration and testing prototypes, with only a few programmes close to commercialisation. A major issue preventing the rapid development of marine energy is cost. In 2010, the IEA found that the construction costs for wave and tidal energy were much greater than for other types of renewable and conventional energy, mainly due to their significantly higher operational and maintenance costs.

A number of growth forecasts have been made and comparisons to the wind energy industry are common as the technologies have similar characteristics. For example, both energy sources require the development of high-technology devices and for both the path to commercially viable electricity generation is long and expensive. The IEA has predicted high growth for marine energy similar to that enjoyed by onshore wind energy for the past 20 years.

Some countries have successfully developed marine energy projects. England and Scotland are at the forefront of marine energy development, with their Wave Hub and European Marine Energy Centre (EMEC) projects providing large-scale testing facilities. Recently, the United States also improved its position by establishing the Water Power Program—a US$59 million project that promotes R&D activities for hydropower, wave and tidal technologies. Canada is also in the advanced stages of marine energy development, with the establishment of the Fundy Ocean Research Center for Energy (FORCE) and a regional tidal energy test site.

In New Zealand, marine energy is less developed, but its potential is almost unlimited. In 2008, Power Projects estimated that, on an aggregate scale, the total amount of commercially viable marine energy is around 8,000 MW. The areas in New Zealand with the greatest potential for harvesting wave power are on the southwest tip of the South Island, but almost the entire western and southern coast also has potential. The most suitable sites for tidal power generation include Cape Reinga, Cook Strait, Foveaux Strait and the southern side of Stewart Island. Of these, Cook Strait is the most attractive, since it has good current speeds and is close to an urban area.

Of 24 New Zealand marine energy projects listed in 2008, only seven appear still to be active. There are three major players in New Zealand: WET-NZ, Neptune Power and...
Crest Energy. WET-NZ established a partnership with a US company, Northwest Energy Innovations, after submitting a bid to the US Department of Energy and receiving US$1.8 million of funding to further develop and test a half-scale device at the University of Oregon and in waters off the Pacific coast. Once the project is completed, WET-NZ will be at an advanced stage of development for the deployment of a full-scale pre-commercial prototype.

Neptune Power, another important New Zealand marine energy company, has gained consent for a 1MW tidal-stream prototype to be deployed off the south coast of Wellington. Neptune Power is currently seeking $600,000 in seed funding to install a test unit. This will enable the company to work toward its goal of a full-scale turbine installation by mid-2013 and to develop a 900MW commercial project by 2015. Another organisation, Auckland-based Crest Energy, is looking to develop a 2000MW tidal stream project to be deployed in the Kaipara Harbour. Changes in the project proposal and opposition from local Maori hapu, Kaipara residents and the Department of Conservation delayed the consent process for about five years. A consent was finally approved in 2011.

Government support for this sector is scarce. Between 2007 and 2011 it allocated $4 million in grants for marine projects, but this initiative has not been continued. Among the strategic goals set in the New Zealand Energy Strategy 2011-2021, one subsection is dedicated to promoting R&D in the renewable energy sector. Though no specific technologies appear to be excluded, the government strategy focuses on attracting R&D investments in geothermal and bioenergy sources. A brief mention is made of developing marine energy, though without the promise of major funding.

International Practices in Renewable Energy Technologies

TO DETERMINE best practice regarding marine energy development we have identified four international cases that stand as good exemplars for New Zealand.

Israel NEWTech
Israel has developed pioneering programmes aimed at creating a technological centre of expertise. In 2006, Israel NEWTech, a government technology initiative, was created to enhance the country’s water efficiency and renewable energies R&D programmes. It is a consortium of industry sector representatives, financial companies and academia that aims to evaluate and guide the implementation of new projects. The government aids the consortium by matching its financial needs with potential investors. The consortium assists entrepreneurs to develop renewable, energy-related R&D projects through the entire process, from conception and testing to commercialisation and export.

Canadian and Danish Projects
In 2008, The Fundy Ocean Research Centre for Energy (FORCE), a non-profit institute supported by both public and private funding, was established to test in-stream tidal turbines in Canada’s Bay of Fundy, a location renowned for having the world’s greatest tidal range. FORCE provides shared infrastructure and monitoring, pre-approved sites, academic research, data sharing and strategic environmental assessment. It is an industry pioneer, deploying and testing North America’s first commercial-scale in-stream tidal device.

Another important testing facility for tidal energy was developed in 1998, within the Danish Wave Energy Programme. It comprises five stages, with projects typically scaled up as the level of technological readiness increases, resulting in minimal investment risk. Stage 1, which lasted five years, was run by a panel of university and industry experts and funded by the Danish government. The programme created a 1:4.5 scale power plant prototype that was extensively tested in the sea and, most importantly, it developed a procedure for evaluating wave energy projects. More recently, the program assisted the development of up to half-scale size wave turbine prototypes and the government has announced DKK25 million ($5.3 million) in funding to further develop marine energy. The projects are yet to reach the commercialisation stage.

Cornwall Wave Hub
Cornwall is home to an English marine energy cluster, at the centre of which is Wave Hub, an electrical hub where firms can “plug in” and test new marine energy technology. Figure 1 shows how Wave Hub is set out, with four offshore berths available for lease. The berths are all connected to an onshore substation via underground cables so that power can be supplied to the local grid. Wave Hub provides an excellent ocean testing ground for wave energy technology as companies can focus capital and knowledge on developing the actual marine technology. Wave Hub has been funded by several organisations, including the now defunct South West Regional Development Agency, the European Regional Development Fund Convergence Programme for Cornwall and the Isles of Scilly, and the UK government.

One of the key factors contributing to the development of this cluster is the proximity of complementary facilities. Wave Hub now has the necessary infrastructure for firms to test their technology without having to build their own testing facilities. It is linked closely to Peninsula Research Institute for Marine Renewable Energy (PRIMaRE). PRIMaRE supports innovation and growth through research and technology transfer in the marine energy sector and has links to local universities and other EU organisations.

CORNWALL WAVE HUB LAYOUT

Figure 1
Source: WaveHub, 2010
Developing a Marine R&D Cluster in New Zealand

MARINE CENTRE OF EXPERTISE
To enable New Zealand to be a leader in marine energy we propose the establishment of a Marine Centre of Expertise to harness the country’s natural resources and technical capabilities. What the marine industry needs is a structure to support domestic companies and at the same time attract international companies to locate marine energy R&D activities in New Zealand. This will require both financial incentives and practical actions. Figure 2 outlines the primary activities of the proposed Marine Centre of Expertise. Its main goal will be to test technology with the potential for commercialisation. Some of the activities noted in Figure 2 are already performed by various companies and the intention is not to undermine their efforts, but to aggregate them for the benefit of the industry. Aotearoa Wave and Tidal Energy Association (AWATEA) also supports the development of the marine energy industry in New Zealand and can play an active role in the Centre of Expertise.

Project evaluation
The core capability that the Marine Centre of Expertise will add is the evaluation of new projects and the testing of marine and tidal devices. A procedure to evaluate and test small-scale tidal and marine turbine prototypes is a crucial step in determining whether a new technology can be developed to a commercial stage.

Finding international partners
In order to gain an international reputation and quick access to leading intangible knowledge regarding marine and tidal energy, it is crucial for the Centre of Expertise to forge alliances with the key marine R&D sectors in Canada, the UK and the EU. FORCE has benefited from this strategy by joining efforts with the European Marine Energy Centre (EMEC) to create an alliance to coordinate and share research efforts. The main motivation for establishing international links is to source funding, but as shown by WET-NZ, such links can also help secure market access.

Given that New Zealand has a high proportion of small companies that lack resources, capital and market reach, establishing international relationships and distribution channels would be an important focus in the development of an Auckland cluster.

Testing facilities
Currently there are no publicly known testing facilities for tank scale devices in New Zealand. A testing facility would lower the entry barriers for new companies, both domestic and international, to develop their devices.

Developing industry standards
As a member of two important global networks—the IEA Ocean Energy Systems Implementing Agreement (IEA OES-I A) and the IEC Technical Committee 114 for marine energy: wave, tidal and other water current converters—New Zealand has an opportunity to be actively involved in the creation of standards. Currently Dr. John Huckerby, the executive officer of AWATEA, is the IEA OES-I A Chair. These international contacts must be integrated into the Centre of Expertise to ensure information flow because whatever happens in terms of the development of international standards will need to be communicated effectively to the local industry. Active participation in these organisations also offers the possibility of influencing the standards, so they are favourable to the local industry.

Siting and permitting sea tests
Projects looking to deploy devices in the water need to be able to calculate data regarding power output to estimate the price of power. Though NIWA hosts baseline data on wave heights and tidal currents, little additional information is currently available. Prior to full-scale commercialisation, additional data would be required, including information regarding optimal placement of power generation sites.

Dealing with a variety of stakeholders and applying for the necessary permits and consents for testing and power station sites can be a time consuming process. The government can aid this process through regulatory interventions—for example by reducing permit requirements. Marine energy centres such as Wave Hub, have a “blanket” consent that allows the leasing of a berth. Companies then need only submit information specific to their technology, rather than having to go through the entire consent process. When applying for a site in New Zealand, companies must apply for consent under the Resource Management Act 1992. Mechanisms to evaluate a marine project applicant’s suitability are yet to be developed.
While Auckland has the human capital needed to undertake R&D activities in the marine energy sector, Wellington possesses the industry expertise and know-how.

Developing Regional Clusters

Wellington marine energy cluster
WELLINGTON LIES next to Cook Strait, an area which provides an excellent location for tidal energy testing. SKM Consulting has estimated that the tidal currents in Cook Strait have the potential to generate up to 1,000 MW of power. The two largest marine energy projects in New Zealand—those of WET-NZ and Neptune Power—have identified specific areas in Cook Strait as the best locations for their testing facilities.

One of the primary hurdles facing developers of renewable energy is a lack of access to transmission networks. This vital infrastructure is available in Wellington, making it a cost-efficient testing location for tidal/ocean turbine prototypes.

Furthermore, Wellington is home to key businesses networks, industry experts and supporting facilities essential to fast track R&D activities in the marine sector. AWATEA is located there and could assist marine projects by utilising its existing networks. WET-NZ, also in Wellington, could provide important know-how and business links to help secure funding with international partners.

Locating the Centre in Wellington would enable companies to monitor permit and consent applications and ensure a smooth flow of information to central government agencies. Crest Energy’s Kaipara Harbour project permits and consents took more than seven years to be approved. Neptune Power, on the other hand, was awarded a consent to undertake R&D activities by Greater Wellington Regional Council six months after submitting a consent application as they had undertaken a due diligence consultation processes with various industry representatives.

Auckland marine energy cluster
LOCATED ON a narrow isthmus, Auckland has ready access to sites with potential for tidal and wave technology, including the Kaipara Harbour. Auckland also has a deep skills base, especially in science and human resources, and the city is home to some of the country’s top universities. The University of Auckland’s commercialisation arm, Uniservices, provides a valuable link to academia. Uniservices is the largest organisation of its kind in the Southern Hemisphere and is involved in a variety of projects ranging from medicine and education to clean technology.

What Auckland, and New Zealand as a whole, lacks is infrastructure. The country has no facilities similar to Cornwall’s Wave Hub where companies can trial marine technology. Nonetheless, testing facilities could readily be built in Auckland. And The University of Auckland has an existing Yacht Research Unit with equipment and competence in computational fluid dynamics, which could be used for marine energy applications. Indeed, WET-NZ used wave tank facilities at the university to test its 1/100 scale turbine prototype.

To summarise, Auckland and Wellington both have technical, natural, business and infrastructure attributes, which make the development of a Marine Centre of Expertise feasible. Both cities are located close to marine energy sites that companies have already utilised, and both have access to human resources and expertise. While Auckland has the human capital needed to undertake R&D activities in...
Marine energy is one of the world’s largest untapped sources of renewable energy and is forecast to follow the same growth curve as wind energy.

New Zealand has the natural resources and technical capabilities needed to take a leading role in the industry.

Creating a Marine Centre of Expertise would support domestic marine energy pioneers, attract international R&D and potentially lay the foundations for an export industry.

**Conclusion**

A RANGE of significant attributes make New Zealand attractive for developing R&D activities in marine and tidal energy. Implementing the proposed Marine Centre of Expertise would require further research, including an evaluation of potential sites and estimates of the implementation costs and the availability of financing structures.

Relationships with key international stakeholders in the industry would also need to be developed.

Though initial investment costs would be substantial, growth projections suggest that wave and tidal energy will reach a commercially viable electricity-generation stage in 10 to 15 years. In commercial terms, this is important since there is an almost limitless potential to develop marine energy projects globally and growth in the sector is expected to mirror that for wind energy.

**KEY TAKE-OUTS**

- Marine energy is one of the world’s largest untapped sources of renewable energy and is forecast to follow the same growth curve as wind energy.
- New Zealand has the natural resources and technical capabilities needed to take a leading role in the industry.
- Creating a Marine Centre of Expertise would support domestic marine energy pioneers, attract international R&D and potentially lay the foundations for an export industry.

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ON A RECENT visit to The University of Auckland Business School, the director of the Centre for Business Research (CBR) at The University of Cambridge, Alan Hughes, talked to Business Review editor Vaughan Yarwood about the role of universities in rebalancing national economies through innovation.

The true role of universities in fostering innovation is little understood.
Business Review: Alan you have called the attitude of some people toward innovation policy in general a “cargo cult”. What do you mean by this?

Alan Hughes: There is a tendency in developing innovation policy to look to other economies that appear to be doing well, and use the term cargo cult to describe the policies that emerge from that because it leads to the creation of certain structures which it is thought will deliver “cargo”. The analogy is with the Melanesian millenarian movements, especially in the post-Second World War period. After an era in which there had been occupation by American and other forces, which was associated with lots of material goods, millenarian movements developed that were based around the notion that if you erected runways and bamboo control towers and so on then the cargo would return from the air in the aeroplanes. But, of course, it didn’t. Those religious movements may have served other purposes but they certainly didn’t lead to material cargo and in one sense that is what has happened with a lot of innovation policy. Again, America is the economy that has been looked to, and certain things that have produced productivity growth, and which are attributed to the American economy, are then being copied, or form the core of policies, in other countries. And, typically, that hasn’t worked.

BR: So, what are some of the mistaken assumptions or conclusions that this modern cargo cult has given rise to?

AH: I think it all goes back to the mid-1990s productivity growth in the US was running at less than two per cent—well below its historic trend. But from the mid-1990s onwards its productivity growth accelerated to well over two-and-a-half per cent, which is its long-run historical trend before the seventies. And that came to be associated with three key things: first, the idea that this was based very much on small, entrepreneurial, high-technology businesses; second, that the high-tech sectors in general were fundamental to this; and third, that venture capital had played a critical role in the development of these firms by fostering a close link between universities and high-tech spin-offs.

BR: And all of these, you think, were wrong conclusions?

AH: Yes, I think that broadly speaking each of them was subject to very important conditions. If you look at the transformation of US productivity growth, one way of discovering what drove it is to ask which sectors contributed most to productivity growth and had the most impact on the economy. When you do that, you get some very surprising conclusions.

Robert Solow, a distinguished Nobel Prize-winning economist, did this for the United States with some other scholars and what they found was that nearly all of the productivity growth was accounted for by retailing, wholesaling and financial services. Of course, they aren’t typically regarded as high-tech sectors. Who thinks of retailing as being in the vanguard of technology? Those sectors were transformed by technologies, in particular by information technology, but the key is that it is the actual implementation of the technology that transforms productivity growth.

The second thing is this emphasis on what might be called the venture capitalist risk-loving view. If you look, as other people have done, at the funding for early-stage high technology in the United States, the public sector and large businesses account for as much as the whole of the venture capital industry put together. In fact, formal venture capital organised in markets accounts for less than five per cent of the investment in high tech. So, these investors are important, but they are fully matched by what the state spends on funding early-stage businesses through public procurement of R&D.

BR: And this is a legislated requirement, isn’t it, in the United States?

AH: Indeed it is. The federal agencies that carry out R&D in defence, health and so on are all mandated to spend at least two-and-a-half per cent of their R&D budgets on buying services from small high-tech businesses. And that is a very important distinction—they don’t give grants. There is a grant giving programme, but actually this is buying services. From the beginning, the businesses are selling in a market, albeit a public-sector procurement market. So the state becomes a big buyer and initiator of technical change.

BR: You have also looked quite deeply into the role of universities in innovation. How did you go about that research?

AH: It stemmed from a joint venture between MIT and the University of Cambridge. We established something called the Cambridge-MIT Institute. One of the tasks it set itself was to discover what it was about MIT that might be of interest and value in a UK context. So we set up a research project jointly with my CBR colleagues and colleagues at the Industrial Performance Centre at MIT to look at innovation and the role of universities in the two countries. We conducted a large national survey in both economies with about 5,000 firms in total responding on both sides of the Atlantic. We asked them who they relied on as sources of knowledge for innovation and then, within that, where universities played a particular role. So, initially, it was very much from the business point of view. More recently, we have completed big projects looking at all academics in the UK, for instance, and studying these relationships from a point of view.

BR: So, with those two very large research projects what did you find?

AH: The first point is that in both countries—and this is supported by a lot of other evidence—if you ask businesses what their most important sources of knowledge for innovation are, they don’t cite universities. The most frequent sources of knowledge are the business’ customers and suppliers. And, of course, that makes sense because you want to understand who can supply the components to you and to understand the nature of the market and what the customers want. Those drive a great deal of innovation activity. In both countries—and this is also true for Australia, Canada and elsewhere—universities are pretty low down the list. That doesn’t
mean they are not important, but they are not the most important source.

The second point is that frequently they are used in combination with other sources. This is the really important lesson: that university and industry links are complementary. To get the most out of these relationships you need universities to be involved, but you also need lots of complementary investments by the business community to get innovations to market.

**BR:** There has been a move recently to try to increase the role of universities as drivers of innovation, but you are suggesting that it actually works in a quite different way. You have also mentioned that there are various pathways to innovation; that it already exists within universities in ways that may not be acknowledged. Can you talk about that?

**AH:** Let’s take that in two bits: first, what do academics actually do and then what business values about what they do. If you think of a university as having four central roles, two of them are very well known and discussed—teaching and research. We produce a lot of highly-educated, highly-qualified individuals and businesses love the fact that we also do research. That is of great interest to business but it is of interest along with lots of other sources of knowledge for innovation.

But there are two other very important university functions of long standing which tend to be neglected. One of them is problem solving, and this is by far the oldest and most well-developed way in which universities interact with society at large, and with business in particular—through consultancy, sharing equipment, informal contacts of all kinds, but in a very focused, applied area. It is not start-ups or licensing and it is not spin-outs, but it is a very deep set of engagements.

The other area, which is much softer but extremely important, we call a “public space” role. Universities in most societies have a rather privileged position in the sense that they can act as a relatively neutral ground on which various elements in society can meet. In a university-industry context, this means they can act as a meeting place between the local business community, national business leaders and the academic community—not just in the sciences and applied-technology subjects but across the whole range of disciplines.

When you look at what academics do by subject, it turns out that many of the arts and social sciences have highly valued inputs in all kinds of business activities. The role of trust in banking relationships, for example, is eminently a social science issue. So are questions about the kind of business models that lead to successful growth in high-tech companies. So I think the public-space role and problem solving widens the debate, not only in terms of the pathways but also in terms of the disciplines involved. That makes it a much wider canvas to paint on than a rather narrow set of patenting, licensing and spin-out activities linked solely to the sciences.

**BR:** You suggest that the real challenge is not changing a university culture to make people more engaged with industry, but developing new institutions that could enhance what already exists. What would these institutions do; what would they look like?

**AH:** One view of what is required is to place more research grants in applied scientific research which, somehow, will lead to more innovation—in other words, “supply push”. The other side is “demand pull”. What is it that the customer—in this case industry—wants?

To cross the boundaries between these two groups you need a larger space in which interactions can occur, in which problems can be identified that are both of interest and soluble in some way by the university, and which are applications in a commercial setting. And that usually involves some kind of boundary-spanning institution that can be developed via this public-space role or that can be designed specifically in areas that may be of strategic importance for the country.

In this case you encourage a form of funding in which both business and the university sector are encouraged to play. Because the research is interesting, academics wish to do it—and typically they’re interested in a wide range of applied problems anyway. But businesses are also encouraged to come and invest because they think there is a potential application. And you need the structure to be flexible enough for different industries, or different players, to come in and out as the technology develops.

**BR:** You claim that most policy makers over-emphasise the contribution of high-tech start-ups in innovation and economic growth, and under-value the role of both large com-
panies and governments. What are the implications for New Zealand, a nation of mostly small and medium-sized companies, where traditionally government has favoured a hands-off approach?

AH: The third plank of the US story, which we didn’t really flesh out, is that if you look at how productivity changes over time, in most economies the bulk of productivity growth is driven by the largest firms. That is because they account for most of the outputs, so what happens to them has a lot of weight in the economy. Most small and medium-sized enterprises are typically involved in supplying the value chains of bigger companies, so rather than see a small firm versus large firm, it is more useful to see it in terms of who creates the whole value chain and where in that chain small businesses play a role. Then you can ask questions about whether you can capture a sufficiently large share of that for businesses to grow to whatever size is appropriate.

Now, although I have not studied New Zealand’s economy in depth, I think certain generalities will still hold. The first is that, like most economies, New Zealand depends on large companies for the final supply of many goods and services and most producers are in the supply chains of increasingly global multinational companies. That is a real challenge for university policy because, ideally, government wishes to encourage links between universities and industry to generate welfare in its own country. If small companies are generated from the science base, or if businesses are developed which are then acquired, with the value going overseas, that is a major issue. So I would think that one of the key challenges is to find a way of making investments between industry and universities sticky in a New Zealand context.

The second thing is thinking through strategically which sectors, or which paths of development, might be appropriate for funding. And here I want to pick up something that you alluded to earlier—the idea that governments can’t pick winners. I think the better analogy is a racing one: that you can’t win a race unless you place bets. The real issue in an era of scarce resources is which races do you choose to enter and how do you place bets in those races? So picking winners is really all about choosing national champions in the form of individual companies. In contrast, placing bets—or making strategic choices—is about backing technological paths or sectors. That is a very important distinction and a fundamental insight into how to develop a science and innovation policy when resources are scarce and you need to make them count.

BR: There are a number of instances internationally—I am thinking of Canada’s Technology Triangle and the planned technology campus on New York’s Roosevelt Island—where universities are at the heart of collaborations for high-tech innovation. Is this an elaboration of your “public space” paradigm, or is something else going on?
AH: The examples you mention are particular strategies designed to build intermediating institutions around particular kinds of university-based research. The significant feature here is that they explicitly include from the beginning a range of key major players in related sectors as well as developing a specific set of research-based activities linked to university academics. Thus, for example, in the recent case of New York’s Roosevelt Island, a critical role is being played by existing large corporates, such as Google, and at the same time a major attempt is being made to leverage charitable funding to help underpin the infrastructure and economic development. It is also significant in the New York case that an explicit link is made not just to technology, but also by reference to the connection between technological change and what are conceived of as being core elements in the New York economy in the fashion design and cultural areas. This aspect is frequently neglected in an emphasis on high-tech engineering spin-out activity as part of development plans.

BR: You say that businesses did not rank universities highly as sources of knowledge for innovation. Perhaps a more valuable role, for business schools at least, is as developers of an entrepreneurial mindset—one attuned to commercialising innovation wherever it may occur.

AH: It is true that when viewed from the point of view of the overall set of knowledge sources that businesses access, universities are relatively low down the list. This does not mean that they do not have a distinctive and important role to play, but that in seeking to include universities in development strategies, it is important that all the other players in the value chain are capable of relating to the developments that might potentially emerge from university-based research.

This does not necessarily mean that the key solution is to convert all academics into entrepreneurs or that they should adopt entrepreneurial mindsets, but rather that there should be a set of institutional relationships that enable those who wish to do so to seize and develop such opportunities. Much more important, however, is that access to emerging new ideas should be given to those in the business and public sector who are ultimately responsible for innovation as opposed to the scientific and arts university communities who are best conceived of as being naturally inventive and not necessarily the best locus for commercialisation activities per se.

BR: If a competitive economy is one that enables companies to succeed internationally while supporting rising living standards at home, where do you see universities fitting in? Or are we misguided to look to them for help in lifting productivity?

AH: As I hope my answers to the various questions that we have discussed makes clear, my view is that universities have a central role to play in our society. That role is multifaceted. At its heart lies the pursuit of knowledge and the education and training of undergraduate and postgraduate students. These things are central to the university mission and represent the key role that they play in our society. Educated citizens with a strong cultural and scientific understanding of the societies in which they live are undoubtedly the key to driving forward social and economic welfare. That is a much broader perspective than a focus on the number of businesses directly spinning out from universities or the number of patents that they hold.

KEY TAKE-OUTS

- Innovation policies are often based on mistaken assumptions about what really triggers economic growth in other countries.

- More important than entrepreneurial activity within universities is access to emerging new ideas for those in the business and public sector who are ultimately responsible for innovation.

- Developing a science and innovation policy when resources are scarce requires making strategic choices about which technological paths or sectors to support. It should not be about picking individual winners.
MODERN CITIES are surprisingly dependent on tourism and competition among them for tourist dollars—both domestically and internationally—can be extreme. New Zealand’s second city, Christchurch, is no exception. In 2009, tourism reportedly earned $2.3 billion and accounted for more than 12 per cent of the region’s employment. Then came a series of devastating earthquakes that claimed 185 lives and decimated the city’s infrastructure.
MORE THAN 10,000 earthquakes and aftershocks have radically altered Christchurch’s status as a tourism destination. Two years on, what is being done to recover from one of the world’s largest natural disasters? Can the “Garden City” reassert itself as a highly-desirable Australasian destination with a strong competitive advantage over rivals that have not been the target of natural disasters.

FIRST, WHAT do we mean by “destination”? In a general sense a destination is a place to which people have made a specific decision to travel. This could be as a tourist, for work or education or to visit friends. But what are the components of a destination? Are there certain qualities that distinguish one place from another, or is every place a destination, with some merely more attractive than others?

Perhaps the most common framework for assessing tourism destination development is conceptualisation of “the four As” of tourism. These are:

• Attractions (natural, man-made, cultural, festivals/events)
• Accessibility (including air, road and sea modes)
• Amenities (infrastructure and service, including accommodation that enhances the tourist experience)
• Ancillary Services (services that provide tourist-industry support, including marketing, promotional facilities, and travel agencies)

An assessment of Christchurch’s standing using these criteria gives us a profile of how its competitiveness and note that the dispersed geography of Christchurch’s existing attractions will be inadequate for enabling the city to regain its former standing or addressing its current default positioning as a “gateway” rather than as a destination befitting its status as New Zealand’s second-largest city. In short, an iconic first-tier attraction must be created to position Christchurch as an international destination. Underpinning such a long term goal, a fluid set of short-term “bridging” initiatives must be developed to hold and attract existing visitors during the long journey to full recovery.

The visitor sector, pre-earthquake

Destination Christchurch

CHRISTCHURCH IS New Zealand’s second-largest visitor destination after Auckland, and is one of six major visitor destinations along with Rotorua, Wellington, Queenstown and Dunedin.

While detailed economic analyses of tourism are hard to come by—in part due to the complexities of the sector—data suggests that a decade ago tourism accounted for 12 per cent of local employment and had a high value-added multiplier (1.98)—more than double that recorded in Rotorua and significantly larger than the contributing centres of Kaikoura (1.38) and Akaroa (1.15).

In 2009, the Ministry of Economic Development reported that the Canterbury visitor sector was a $2.3 billion industry with a major impact not only in the traditional areas of food and beverage, accommodation and attractions and activities, but also on retail, transport and tax (GST). According to estimates prepared by the Canterbury Earthquake Recovery Authority (CERA), the visitor sector is the region’s third-largest economic sector. Statistics such as these have been crucial in supporting the need for a specific recovery plan for the city.

Though visitor numbers have declined rapidly since the earthquakes, Christchurch had been losing visitors from traditional markets for a number of years—even in advance of the Global Financial Crisis. Between 2006 and 2010, Christchurch lost at least 80,000 international visitors from its top ten markets. This equates to an economic loss of about $48 million. If the additional losses since the 2011 earthquakes are taken into account, the economic loss totals almost $173 million over the five year period.

International visitor numbers fell from 826,052 in the year to March, 2010 to 541,461 in 2012 and are only slowly recovering.
are public-property resources—and, one might add, only tangentially seen as being associated with tourism per se.

In a 2001 benchmarking study by one of the present authors, Christchurch’s amenity features were also generally assessed very favourably. The study also highlighted the significance of local amenity design and local authority operations to a successful tourism destination, as indicated in Table 1.

Post-earthquake status

THE FEBRUARY 2011 Christchurch earthquake was the second-deadliest natural disaster recorded in New Zealand (after the 1931 Hawke’s Bay earthquake), and the country’s fourth-deadliest disaster of any kind, with 79 nationals from more than 20 countries among the 185 victims. In the aftermath, hundreds of visitors were evacuated from the city and repatriated overseas or elsewhere in New Zealand. The immediate impact of the February 2011 earthquake was a devastating decline in both Christchurch and South Island tourism. This was highlighted in a number of ways:

- Damage to buildings and the creation of the “Red Zone” resulted in an immediate 40-50 per cent reduction in available beds, mostly in the CBD.
- Only 13 of 27 hotels, and 15 of 31 back-
packers, remained operational.
- Demand for commercial accommodation in Canterbury reduced by more than one million guest nights—an annual reduction of 33 per cent for the year to December 2011. Most of the decrease in Canterbury commercial guest nights was from the international market (-73 per cent). Hotels (-782,000 guest nights) and backpackers (-278,000 guest nights) were the biggest losers. The economic loss for Christchurch was about $235 million.
- For the convention market, the closure of many attractions in the central city that were closed are yet to reopen, including Christchurch Art Gallery, Christchurch Tram, Christchurch Arts Centre, Science Alive and Christ Church Cathedral. The Arts Centre will out of use for a number of years as will the Christ Church Cathedral which is substantially damaged and for which there is no current rebuild plan. The Rugby World Cup events planned for Christchurch were cancelled and so eliminated a partial visitor recovery in 2011. Nevertheless, a working stadium has been erected and is operational. An important facet of local life has been the establishment of a number of local famers’ markets, whose role in recovery is worthy of note.

The attractions sector, particularly in the central city, has also been impacted by closures and potential demolition that will be upon buildings and architecture. Many attractions in the central city that were both winners and losers. motel use, for example, improved by 111,000 guest nights over the same period, as considerable capacity was taken up by contractors involved in the recovery.

Accommodation in both the hotel and backpacker sectors suffered the largest capacity losses due to both building damage and the concentration of properties in the closed “Red Zone”. Whilst reinstatement of lesser-damaged hotels is expected to return approximately 1,200 beds during the 2012-2014 period, this will still leave Christchurch with a 45 per cent deficit of hotel beds relative to the February 2011 position.

Many attractions in the central city that were closed are yet to reopen, including Christchurch Art Gallery, Christchurch Tram, Christchurch Arts Centre, Science Alive and Christ Church Cathedral. The Arts Centre will be out of use for a number of years as will the Christ Church Cathedral which is substantially damaged and for which there is no current rebuild plan. The Rugby World Cup events planned for Christchurch were cancelled and so eliminated a partial visitor recovery in 2011. Nevertheless, a working stadium has been erected and is operational. An important facet of local life has been the establishment of a number of local famers’ markets, whose role in recovery is worthy of note.

The attractions sector, particularly in the central city, has also been impacted by closures and potential demolition that will severely reduce the quality of the visitor experience. Table 2 shows the visitor appeal of the top 10 attractions from previous research and an update on their current and future situations following the earthquakes.

The result is that for the foreseeable future Christchurch will have significantly fewer attractions. As identified in the framework above, attractions are the “life blood” of any destination. Visitors travel to places to see and do things, and they are drawn to attractive settings and landscapes. If that need is compromised, visitors will stay away.

The loss of visitors has also had a major impact on other business sectors such as retail and food and beverage, and shrinkage in the visitor sector created a major risk that international air capacity into Christchurch International Airport would be further eroded. TransTasman flight capacity has fallen by 15 per cent since the February earthquake and the Christchurch Airport Company has actively repositioned itself and the city as a “Gateway”—a brand that might take many years to revert as the city above, attractions are the “life blood” of any destination. Visitors travel to places to see and do things, and they are drawn to attractive settings and landscapes. If that need is compromised, visitors will stay away.

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The visitor sector earthquake response

LIKE MANY other organisations, visitor businesses were displaced from their operational bases and many were unable to access essential records and computer systems from damaged buildings. This compromised the ability to respond quickly to the new business environment. Once it realised that there was no quick fix the industry, led by Christchurch & Canterbury Tourism (CCT), began the process of planning for the recovery.

The focus of the immediate tourism sector response initiated by CCT, the regional tourism organisation, has included:
- Assessing the total impact of the earthquakes on the visitor industry and the greater Christchurch community
- Assessing the capability of the visitor industry to host visitors
- Helping travel retailers and consumers to reorganise planned visitor trips by utilising accommodation in locations such as Ashburton, Methven and Kaikoura
- Re-establishing a Christchurch Visitor Information Centre—firstly, through an interim site in the Chateau on the Park and then in a new building in the Botanic Gardens
- Delivering a message to worldwide media that much of Christchurch was still functional and that the South Island remained open for business
- Working with other regional tourism organisations to develop a marketing campaign for the Australian market that promoted the South Island as offering some of the world’s best road trips
- Helping businesses to better manage their operations during the recovery period
- Instigating industry workshops to understand specific sector issues and identify options for the recovery plan
- Preparing a submission in response to the Draft Central City Plan, based on visitor industry feedback
- Developing a comprehensive facilitation plan to enable Akaroa to handle the bulk of the 80 cruise ships scheduled for summer 2011/12
- Initiating a domestic marketing campaign to encourage people to visit friends and relatives in Christchurch
- Preparing a medium-term strategic plan to guide CCT’s priorities over the first three years of recovery. This plan has already seen trade missions targeting Australians, who appear to have been reticent to return.

The CCDU plan

THE CHRISTCHURCH Central Recovery Plan, released by the Christchurch Central Development Unit (CCDU) on 31 July, 2012, acknowledged that tourism was central to the city’s redevelopment. Among the 17 anchor projects it detailed are:
- A new convention centre (incorporating options for two hotels)
- A new sport complex linked by open space to the retail sector
- A New rugby/concert stadium
- A cultural performance precinct with a new cultural centre
- A green “frame” for a compressed city centre
- A “Papa O Otakaro /Avon River Precinct”, intended to make the river a central visual focus to the north and west, with a “green frame” on the east and south. These lock together a central amenity frame, which along with the designated precincts (convention and performing arts, innovation and health), provide the skeleton for an amenity-rich destination. However, debate continues about how best to integrate a hospitality precinct, including cafés, bars, restaurants and night-clubs, within a denser commercial and residential central business district. As noted below, it is this latter step that now holds the key to how the city re-emerges as a destination.

The long path to recovery

WITH THE large capital works listed above expected to take five or more years to implement fully, the question now is: what needs to be done, both in the short term (immediate visitor flows) and medium term, to reshape Christchurch as a competitive tourism destination?

We suggest a focus, in the short term, on visitors already flowing through the city. Data presented for the tourism sector plan indicates that there are still a significant number of leisure-based visitors and those visiting friends and relatives. Casual observations of the city centre suggest that most visitors have a genuine interest in the “stories” of response and recovery. Several initiatives have already been launched to satisfy this interest, including the CESMIC /Quakebox, an innovative mobile recording studio housed in a former Tourism New Zealand container. More recently, the City Council began a programme to celebrate buildings and streets re-opening via “pop-up” entertainment and small-scale events.
In its strategy, CERA indicates how success will be measured: “Timely development of visitor attractions that also support quality of life for greater Christchurch residents, with increasing visitor numbers and spend.” We advocate a purposeful attempt to find and implement a major attraction that has sufficient iconic status to both grow the overall New Zealand tourist market and re-direct tourist flows to Christchurch—and in so doing clearly position Christchurch as a major tourist destination. After all, a number of cities worldwide are readily identifiable by their iconic tourist attractions, including Sydney (Opera house), Paris (Eiffel Tower), London (Houses of Parliament), New York (Statue of Liberty), and more recently Bilbao (Guggenheim Museum) and Cornwell (Eden Project). Within New Zealand few now doubt the effect of Te Papa in reshaping tourism in Wellington.

Building a long term strategy
CHRISTCHURCH IS faced with a unique opportunity. Most destinations evolve over a considerable time and are based on a location’s unique attractiveness. Today much of this can be measured and mapped and new places can be “chosen” for tourism development. The relatively short history of human settlement and commerce in Christchurch, and the devastating effects of the recent earthquakes, have left the city with a unique set of challenges and opportunities.

Tourism is a fickle industry and competition among destinations is fierce. As New Zealand’s second-largest city, Christchurch is fortunate, but it needs to be much more than the “gateway” to the South Island if tourism is to regain its position as a major regional employer. It will take care to rebuild 150 years of slow development into a coherent sequence, all within a compressed time frame.

We have singled out attractions as the often unacknowledged but essential components of destinations. Amenities are the glue that hold attractions together and these appear to be well catered for in the central city—and hopefully wider Christchurch—redevelopment strategies. The gap that is now apparent is building short-term mobile attraction foci while the city reopens and establishing a significant attraction in the longer-term wait for the rebuild of major public infrastructure.

Lessons Learnt
TOURISM IS an essential part of recovery and has been signalled as such in the development plans presented to date. These plans, however, address long-term strategic investments and attention must now be directed toward anchoring a longer-term strategy and building a necessary bridge of tourism products and experiences during what looks to be a decade or more of recovery.

Existing residents, workers and new residents need things to do and see, and activities and attractions are at the heart of destination development and competitiveness. The tourism planning and development literature is anchored around the role and significance of core attractions. While it might seem a bold claim, it now appears that an iconic attraction needs to be considered in the recovery plans. Unfortunately, as the previous review of Christchurch indicates, attractions are often built around public resources and managed by public agencies that do not necessarily see themselves at the heart of the tourist experience.

Finally, given the broad palette on which tourism operates, in particular the wider considerations of access and amenities, the tourism sector needs to be much better integrated into both city planning and disaster planning. The real secret appears to lie in rebuilding the attractions, amenity and ancillary services in a concerted and balanced way. Within the mix of destination competitiveness, access remains largely unchallenged but the move from the current positioning of a “gateway” to a “destination” will require rethinking the attractions profile, and ongoing attention from tourism managers for a considerable time to come.

KEY TAKE-OUTS

- Tourism earned Christchurch $2.9 billion a year before the earthquakes struck, and it is an essential component of the city’s recovery.
- Existing attractions alone will be insufficient to rebuild visitor numbers. Christchurch needs to create an iconic new attraction if it is to compete with other international destinations.
- Christchurch must be repositioned as a destination, rather than relying on its default branding as the “gateway” to the South Island.
IT HAS become commonplace to say that we live in a complex, fast-changing world. But educators everywhere have been slow to adapt their executive education programmes to meet the demands of the new age. Now, a radical rethink is underway in New Zealand.
IN THEIR 2012 book *Reverse Innovation*, leading innovation theorists Govindarajan and Trimble from the Tuck School of Business in Dartmouth argue that “business leaders ...steeped in the traditions of rich countries face a tremendous challenge...You must let go of the dominant logic...You must start with humility and curiosity.”

They are, of course, referring to the new complexities of international business and, in particular, the growing economic impact of not only the so-called BRIC countries (Brazil, Russia, India, China) but also of economic development in emerging markets. Many commentators now refer to this new international complexity as the VUCA world—a world marked by Volatility, Uncertainty, Complexity and Ambiguity. In this world, decision-making and strategic thinking are contextually driven but the operating context is dynamic, volatile and constantly changing, and historical relativities are no longer valid. Such uncertainty brings with it a lack of predictability, an absence of familiarity and increased prospects for surprise—and it demands a heightened sense of both awareness and alertness. Under these conditions complexity becomes an unavoidable condition of doing business. And the art of complexity management becomes a hallmark of leadership as decision-makers confront a multiplicity of conflicting forces in which their organisations must recognise and overcome varying degrees of contextual confusion. And all of this is overshadowed by ambiguity, where reality is clouded or distorted and the potential for misinterpretation is high, particularly in emerging markets.

Meanwhile, here in New Zealand we face serious challenges in maintaining our standard of living and sustaining our economic position over the coming decades. It is a somewhat unpalatable truth that over the past sixty years New Zealand has drifted steadily down the rankings of OECD country GDP-per-capita income. We now hover uncertainly at 22nd place in the 30-country OECD table, between Greece and Korea. Policy decisions of successive governments may not have helped our cause, but in large part this inexcusable slide is the result of our being a small economy heavily dependent on commodity trade and on maintaining a level of export earnings commensurate with our desired standard of living. However, the bottom line is that as a tiny, geographically isolated country we have little if any control over these factors in a global economy. Commodity prices fluctuate at the pleasure of international markets and export earnings are heavily impacted by exchange rates. At present the New Zealand dollar is overvalued and may become more so. Yet we have neither the size nor the economic strength to indulge in the quantitative easing tactics used by the world’s major economic powers. Worse, we have no leverage in influencing their policy makers. We are, at best, a fringe player in the multilateral trade environment, albeit a fringe player recognised for our ability to broker agreements. And while “white gold” features large in our current economic destiny, we are but a very minor dairy producer in world terms, accounting for a little over two percent of world production—a figure that will drop further as the BRIC countries, in particular, expand production. On the basis of this scenario one could adopt a rather gloomy—or complacent—prognosis: that our influence in the world is negligible, and that we are a dispensable nation in global economic terms.

But to do so would be to ignore the possibilities for enhancing our global competitiveness and, in particular, the opportunities to develop globally-astute thought leadership in New Zealand. In the so-called “new normal” global environment where VUCA reigns supreme, those who can best understand such complexity and develop expertise in decision-making under these conditions will be the ones who prosper. As William Duggan wrote in *Napoleon’s Clance: the secrets of strategy* (2004), those who succeed are the ones capable of developing coups d’oeil—the art of expert intuition in decision-making. Duggan is not alone in making this point. Commentators the world over continue to highlight the need for leaders who can cope with uncertainty, who are adept at coping with wider synergies, and who can make sense of emerging contextual richness (see, for example, Lester Levy’s article, ‘Why Leadership Matters’, in The University of Auckland Business Review, Vol 14 No1). So it is legitimate to ask if this presages the need for a radical rethink of executive learning in New Zealand? If so, how might such thought leadership be fostered in our business and political leaders? And by who?

The short answer is that this is the logical (and expected?) role of advanced executive education, that it is the responsibility of our business schools to impart such abilities, and that the obvious vehicles for developing contemporary thought leadership in our emerging decision-makers are the MBA programmes offered by our leading business schools. This, in turn, raises the question as to whether or not our universities, our business schools and our MBA programmes are themselves attuned to the VUCA world. Do they possess the vision, the competence and the confidence to deliver the globally competitive leaders and influencers that this country will need in the coming decades? And will the public institutions in which they reside allow the business schools to adjust continuously to the competitive conditions of the “new normal” with the speed and agility required—it is, after all, an oft-stated maxim that public universities tend to make
The Global Financial Crisis served to highlight, perhaps unfairly, the shortcomings of traditional MBA programmes—notably those in North America—that are heavily focused on the core business disciplines, that emphasise the importance of their academic research and which are heavily weighted toward developing analytical skills in the student bodies. This model had its origins in the notion that the study of business was a legitimate and justifiable academic pursuit, rooted in and sustained by academic research. There is no doubt that this model worked well in the context of the time, producing as it has in the latter half of the 20th century a multitude of minds trained in analytic business disciplines. Such minds were responsible for driving the successful corporate business models that prevailed from the mid-1960s to the mid-1990s. And in this environment of quantitatively-measured success such minds were courted and soaked up by the finance, venture capital, consulting and corporate sectors amongst others—all of whom contributed to, and reinforced, the importance of business school rankings based on placement and starting salaries.

Unfortunately, by the mid- to late-1990s the context was changing, and at a pace that the embedded business schools were either incapable of recognising or unwilling to accept. For by this time the prevailing culture of MBA education was well established: academic staff reputations and rewards were determined by research and publication, with individual school reputations and rewards built on rankings. This culture was engrained, inwardly focused and institutionally centric, with publication and rankings all-important ends in themselves. But now the context was radically different. Free market thinking was changing the competitive game and the dominant corporate players were being attacked from the peripheries. Information technology and the rise of the internet exponentially accelerated not only access to information but also the speed with which that information was being disseminated. The prevailing modes of decision-making and quantitative measures of success were being superseded. In the 21st century, globalisation became a critical factor, requiring a quantum change in strategic thinking to adjust to the new realities of global logistics and the emergence of the BRIC economies as dominant participants in the global economy. The direction of foreign investment flows reversed as the developing economies became the financial engines for the developed nations. And the quantitative greed and short-term profit focus of Western financial institutions precipitated the Global Financial Crisis. The cost of value

For the most part, MBA schools have been slow to react to this new reality, both internationally and in New Zealand. The prevailing value proposition continues to be academically-centric and inwardly-focused, emphasising research, publication and rankings. But these are overwhelmingly measures of value within the academy and increasingly are failing to deliver value to the key external constituencies of the business school—the students, employers and societies we serve as providers of executive education. Taking a common definition of value as being “cost plus perceived benefit”, we can see that the business schools are delivering on neither of these factors. Tuition costs continue to rise at a rate disproportionate to inflation, as government funding for education dwindles and employers become increasingly reluctant to meet business school tuition fees. The average cost of an Executive MBA programme in the Asia region now exceeds US$77,000 (against which the NZ$40,000 all-up cost of a Executive MBA from an internationally accredited New Zealand school is a relative bargain). Equally, the perceived benefit of MBA education is under sustained attack as to its relevance in the VUCA world. It is not by accident that the European Foundation for Management Development (EFMD) introduced its Corporate Learning Improvement Process (CLIP) accreditation programme alongside its existing EQUIS business school accreditation programme.

The Foundation’s CLIP programme was created to provide an accreditation tool—one that seeks to identify the key factors that determine quality in the design and functioning of corporate learning organisations. CLIP-accredited corporations include Alcatel-Lucent, Credit Suisse, Grupo Santander, Novartis International, Siemens and Swiss Reinsurance, all of whom have elected to develop their own executive education institutions in preference to the existing programmes offered by leading business schools. EFMD cites the objectives of these corporate universities as: attracting and retaining the best managers, nurturing tomorrow’s leaders, aligning strategy, competencies and behaviours, disseminating knowledge and expertise throughout the organisation, integrating the learning function into mainstream HR processes such as management development, talent management and succession planning. Even the most casual reading of business school brochures and MBA prospectuses will reveal that these are also the common objectives of the established executive education providers. The inference is that traditional MBA programmes have not delivered on their promise and, worse, that they are failing to adjust to the new realities of global thought leadership. Hence, global corporations are having to fill the vacuum from their own resources. And, meanwhile, here in New Zealand the business community remains inherently suspicious of the value of MBA programmes and their graduates.
Executive Education

THIS VALUE proposition theme is echoed by such prominent international commentators as Henry Mintzberg, Howard Thomas and Santiago Iñiguez de Onzoño. Mintzberg, Cleghorn Professor of Management at McGill University in Montreal, has long been a vocal critic of academically-centric MBA programmes and he has consistently argued the case for the MBA as a professional qualification, built on experiential learning and delivered by clinical faculty. In particular, he has advanced the notion that business schools must be distanced from the university milieu and repositioned as professional services organisations. He has identified the professional services firm as possessing: a high level of knowledge and skills, autonomy and professional judgement based on professional skills, a close relationship between professionals and clients, internal difficulties in coordination, and a power duality of professional and administrative bureaucracy. The emphasis here is that the Mintzberg model is staffed by professionals, caters to professionals, focuses on professional outcomes and has a professionally-oriented infrastructure. Inevitably, this is a model decoupled from the risk-averse, centralised university structure within which, for example, New Zealand business schools operate. It is a model not dissimilar to the networked, thematic structure implemented by the Lorange Institute of Business in Zurich, described by founder Peter Lorange as the “business school of the future”.

Thomas advances this argument in the 2011 book Strategic Leadership in the Business School, which he co-authored with Fernando Fraguieiro. As the current Dean of Singapore Management University, former Dean of Warwick University Business School and former Chair of AACSB, Thomas’ views carry some weight. He begins by revisiting the value proposition of the business school, stating that “business leadership roles require sound judgement based on a comprehensive long-term perspective that complements knowledge and managerial skills”. Like Mintzberg and Lorange, he believes that the delivery mechanism best suited to this value proposition is that of the professional services firm. But Thomas then moves to an evaluation of the business school as a professional services firm in the VUCA world. He argues that in the VUCA environment business schools face a constant shakedown of programmes as peripheral competitors emerge—for example, CLIP-accredited corporate universities and for-profit providers. We will see a continuing growth of alliances (notably in the Asia region), constant productivity improvements, an emphasis on establishing core competencies coupled with a regular refocusing of those core competencies and, importantly, far greater customer orientation. Like Mintzberg and Lorange, his model has a clear external orientation in which business schools must clearly identify and sustain their competitive advantage. He states: “There is no question about it: business schools should enlighten the path to globalisation with new knowledge, educating corporate leaders to work in a world that is essentially different from that of the late twentieth century.”

Onzoño points out that in volatile markets the old MBA rules no longer apply. Onzoño is Dean of Madrid’s Instituto
Empresa, which is ranked by the Economist newspaper as having the world’s leading executive MBA programme. He says that, at the executive level, business schools need to shift from teaching to coaching to remain competitive, and that they must develop the ability to react swiftly. The governance structure at Instituto Empresa is designed to allow the introduction of new courses within three months. Executives must be coached to cope with uncertainty and this means exploiting synergies across the university. Instituto Empresa seeks to avoid the disciplinary silos of traditional MBA programmes, for example by incorporating dramatic arts, history, philosophy and design thinking in its use of case studies.

Against the background of this demonstrable need to develop globally-competitive thought leadership in New Zealand we must now return to the question of whether or not our business schools and our MBA programmes are themselves sufficiently attuned to, and prepared for, the VUCA world. Do they possess the vision, the competence and the confidence to deliver the globally-competitive leaders and influencers that this country will need in the coming decades? And is there a suitably receptive audience amongst our political, business and academic leaders to support and fund the development of a final-year MBA course sequence that traverses international thinking on value creation and business model innovation, organisational leadership and ethics, and executive coaching for the individual leader. This trio of integrated-learning courses is having a powerful impact on the thinking and performance of our MBA graduates—and, in turn, is driving the recruitment of better qualified MBA students. The cluster of thought leadership courses is supported by parallel experiential courses requiring the students to complete consulting projects for New Zealand companies at both domestic and international level. More than 200 of these projects have been completed in the past four years. In addition, in partnership with the Thunderbird School of Global Management, New Zealand Trade & Enterprise, and The Icehouse, the Graduate School of Management has pioneered the Global Executive Leadership Programme for senior business leaders in New Zealand. Subsequently, the global mindset orientation of the GELP programme has been incorporated into the MBA international business course.

These developments are helping to establish the Graduate School of Management as a globally-progressive thinker and participant in executive education. Have we, and the other MBA programmes in New Zealand “let go of what [we’ve] learned, what [we’ve] seen and what has brought [our] greatest successes”? Can we “let go of the dominant logic”? At this stage, that is possibly a step too far. To undertake it will require a greater understanding and acceptance by academic, business and political leaders of the importance of globally-astute thought leadership—and a willingness to invest in such leadership for the future. But, realistically, can we as a nation afford not take such a step toward a sustainable position in the globally-competitive world?

KEY TAKE-OUTS

- In the “new normal” global environment, governed by volatility, uncertainty, complexity and ambiguity, it is the nations that develop expertise in decision-making and strategic thinking that will prosper.
- At the executive level, business schools need to shift from teaching to coaching and must avoid the disciplinary “silos” of traditional MBA courses by exploiting synergies across the university.
- Despite an inappropriate government funding and evaluation model and centralised governance structures, some institutions have already begun to radically rethink executive education.
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