

Working Paper 2011/14

MSI Innovation Investment Board: Legislation, Operations and Board Membership

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MSI Innovation Investment Board: Legislation, Operations and Board Membership

Wendy McGuinness

1. Purpose

The purpose of this working paper is to provide a background on the composition of the Ministry of Science and Innovation (MSI) Innovation Board. To this end we provide information on the directorships and affiliations, both past and present, of the eight individuals who sit on the board, as well as information on their areas of research interest and publicly expressed opinions on matters of possible relevance.

An analysis of the information presented in this working paper will be included in the Institute's Report 9: *Government-funded Science under the Microscope*.

This report forms part of the Institute's *Project 2058*, the strategic aim of which is to promote integrated long-term thinking, leadership and capacity-building so that New Zealand can effectively seek and create opportunities, and explore and manage risks, over the next 50 years. In order to achieve this aim, the *Project 2058* team is working to:

1. Develop a detailed understanding of the current national planning landscape, and in particular the government's ability to deliver long-term strategic thinking;
2. Develop a good working relationship with all parties that are working for and thinking about the 'long-term view';
3. Recognise the goals of iwi and hapū, and acknowledge te Tiriti o Waitangi;
4. Assess key aspects of New Zealand's society, asset base and economy in order to understand how they may shape the country's long-term future, such as government-funded science, natural and human-generated resources, the state sector and infrastructure;
5. Develop a set of four scenarios to explore and map possible futures;
6. Identify and analyse both New Zealand's future strengths and weaknesses, and potential international opportunities and threats;
7. Develop and describe a desirable sustainable future in detail, and
8. Prepare a *Project 2058* National Sustainable Development Strategy. (SFI, 2009: 3)

2. Methodology

2.1 Data collection

The aim of this working paper is to support Report 9: *Government-funded Science under the Microscope* by compiling publicly available, evidenced-based information on current MSI Innovation Board members for the purpose of assessing the board's potential influences and direction.

Wendy McGuinness is the founder and chief executive of the Sustainable Future Institute. She holds a BCom from the University of Auckland and an MBA from the University of Otago, and has also studied environmental science at Massey University. As a Fellow Chartered Accountant (FCA) specialising in risk management, Wendy has worked in both the public and private sectors. In 2004 she established the Sustainable Future Institute as a way of contributing to New Zealand's long-term future. Wendy also sits on the boards of the New Zealand Futures Trust and the Katherine Mansfield Birthplace.

Wendy is a member of the Royal Society, has been a member of two FRST reference panels assessing applications on the risks of genetic modification, was a member of the Ministry for Economic Development Buy Kiwi Made Campaign reference group 2006–2007 and has a number of personal business interests. Her interest in the quality of investment decisions with regard to the possible testing and release of genetically modified organisms in the environment led her to join in the successful court action *Bleakley v Environmental Risk Management Authority (ERMA) AP177/00* (2 May 2001), and to include a project on genetic modification in the work programme of the Institute. Two of the three reports within *Project Genetic Modification* have been published: *The History of Genetic Modification in New Zealand* (SFI, 2008a) and *The Review of the Forty-nine Recommendations of the Royal Commission on Genetic Modification* (SFI, 2008b). A third, *The Future of Genetic Modification in New Zealand*, is on hold until the HSNO (Methodology) Regulations 1998 review, which was begun in 2002, has been finalised.

Two steps were undertaken in the process of formulating this paper:

1. Scanning: An online literature review of relevant publications, associations and published opinions was undertaken.
2. Assurance: A copy of the draft working paper was sent to all board members with an invitation to correct any errors and supply further information they may like to have included. The Institute is very appreciative of the time that the board members who reviewed this paper gave, and we thank them for their involvement.

2.2 Limitations and Boundaries

The Institute acknowledges the following limitations and boundaries around compiling this information:

The information on directorships that has been listed is that which is available from the Companies Office website and is within the scope of this paper. If a company has been listed as struck off¹ by the Companies Office then that has been noted in this paper. We understand that some of these companies may be entities for private investment, and any analysis discussed in Report 9: *Government-funded Science under the Microscope* will be based on publicly available information only.

This working paper details numerous positions held by the eight board members which span a wide range of companies and organisations. Given the frequency with which changes occur, we note that this paper was current at the date of publication. Any affiliations and dates provided in the table that are unreferenced have been taken from the Companies Office website; all others are referenced.

3. MSI Innovation Board Legislation & Responsibilities

On 20 December 2010, the Research, Science, and Technology Act 2010 was passed:

- (a) to establish boards to make independent funding decisions in respect of the allocation of specified expenses appropriated for the purposes of research, science or technology, or related activities;
- (b) to repeal the Foundation for Research, Science and Technology Act 1990;
- (c) to provide for the transfer of employees, assets, and liabilities from the Foundation for Research, Science and Technology to a new department of State;
- (d) to provide for the transfer of employees from the former department to a new department of State; and
- (e) to provide for savings in relation to contracts with the Foundation for Research, Science, and Technology, consequential amendments, and other savings and transitional matters. (NZ Govt, 2010)

Section 10 of the Act provides for the establishment, functions and duties of the boards, and Section 10(1) (a) notes that the ‘Minister must establish, by notice published in the *Gazette*, one or more boards’. In the *New Zealand Gazette* of 31 January 2011 the formation of the Innovation Board was published as it relates to the Research, Science, and Technology Act 2010. The Minister of Research, Science and Technology, Wayne Mapp, stated:

I specify that the Innovation Board will be responsible for making decisions for funding that supports business-led research and development and technology transfer. Funding decisions made by the Innovation Board will support New Zealand businesses to grow by becoming more innovative and internationally competitive; and to increase the benefit New Zealand derives from publicly funded RS&T. (DIA, 2011: 179)

In late May 2011, the Ministry of Science and Innovation (MSI) *Statement of Intent: 2011-2014* was released, in effect setting out how the MSI intends to enact the legislation operationally. In its *Statement of Intent*, the Ministry outlines its vision of ‘high-performing science and innovation systems improving New Zealanders’ wealth and well being’ (MSI, 2011a: 11). Further to this vision, the government has set two priority outcomes that MSI must work towards achieving: (i) Growing the economy, and (ii) building a healthier environment and society. The government has described what success would look like below:

¹ The Companies Office defines struck off as ‘any company that has been removed from the register will be known as “struck off”. If a company has been struck off the register the company name becomes available for use again’ (Companies Office, 2011).

- (i) Growing the economy; we will know we are successful if:
- The absolute value of Business Expenditure on R&D (BERD) increases. BERD was \$1,013 million in 2010.
 - BERD as a percentage of GDP increases. BERD as a percentage of GDP was 0.54 percent in 2010.
 - The number and aggregate value of businesses that are defined as technology intensive increases. This measure will be developed further but, as an interim step MSI tracks the number of businesses defined as performing R&D. In 2010 it was 2818.
 - The value of New Zealand exports that are based upon high technology products grows. In 2000 the value of high- and medium/high-technology exports from New Zealand were NZ\$4.45 billion. (MSI, 2011a: 10–12; Statistics NZ, 2011, cited in MSI, 2011a: 12)
- (ii) Building a healthier environment and society; we will know we are successful if:
- There is increased use of the results of research funded through Vote Science and Innovation in environmental, health and social policy making, regulation and service delivery by relevant government departments and regional councils.
 - Case study information shows that Vote Science and Innovation funded research has led to improvements in environmental, health and social policies, regulation and service delivery.
 - Annual reporting information shows increases in the levels of co-funding by relevant government agencies, district health boards and regional councils in the research funded by MSI, within the Environment, Health and Society funds. (MSI, 2011a: 10–14)

4. The Operation of the Board

Under the Research, Science and Technology Act 2010, the Minister has established a Science Board and an Innovation Board to make funding decisions in respect of some of the non-departmental appropriations administered by MSI, and to provide strategic advice to MSI as requested. For some expenditure, the Boards have delegated investment decision making to other funding decision makers including regional business partners and MSI.

The Innovation Board makes funding decisions to support business-led research and development and technology transfer with the aim of helping businesses to diversify and enhance their products and services, and to increase productivity.

The Innovation Board came into effect on 1 February 2011. Since that time, the board has met on a number of occasions to review applications for funding and to make decisions on the approval of applications. The Ministry of Science and Innovation’s website is currently under development. When completed in the coming months, MSI expects to regularly publicise information on successful investment applications.

There are a total of six funds for which the boards may make funding decisions. The *New Zealand Gazette* of 31 January 2011 specifies which funds each board is able to access and states:

The Innovation Board can make funding decisions within the following Funds (government output expenses) [refer Table 1 below] when using one of the investment tools above [refer Table 2, p. 5]

- Biological Industries Research
- High Value Manufacturing and Services Research
- Environmental Research (DIA, 2011: 180) [This relates to Envirolink, a technology transfer scheme in place in partnership with regional councils.]

Table 1 outlines the allocations that the Government’s Budget 2011 has made to the six funds, as well as the total funding available. The total Core Crown Spending forecast for 2011/12 is just under \$73 billion (Treasury, 2011b) which means the two boards combined have access to 0.45% of total Core Crown Spending for the year.

Table 1: Core Crown Spending forecast for 2011/12

Source: J. Ivens, MSI, personal communication, 15 July 2011

Funds available	Science Board	Innovation Board	Monetary value of fund 2011/12
Biological Industries Research Fund	✓	✓	\$104,819,000
Environmental Research Fund	✓	✓	\$35,315,000
High Value Manufacturing and Services Research Fund	✓	✓	\$157,204,000
Energy and Minerals Research Fund	✓		\$11,997,000
Hazards and Infrastructure Research Fund	✓		\$13,459,000
Health and Society Research (where not administered by the HRC) Fund	✓		\$7,069,000
Total funds available to both Boards			\$329,863,000
Total Core Crown Spending 2011 /12			\$72,794,000,000
Percentage of total Core Crown Spending available to the Science and Innovation Boards			0.45%

Note: Revised figures provided by J. Ivens (personal communication); original appropriation estimates obtained from Treasury, 2011a: 734-735; Treasury 2011b.

5. MSI Innovation Board: Policy objectives and board members

Having set out the three main funds available to the Innovation Board in Table 1, Table 2 outlines the two investment tools which can guide the Board's decision making, and the assigned weighting with which each criteria should be applied (as detailed in *The New Zealand Gazette*). Table 3 lists the eight members who sit on the MSI Innovation Board, their brief career histories, directorships and affiliations, and any evidence of opinion as reported in the media.

For the purpose of computing Table 3, all board members were sent draft copies of this report on June 14, 2011, and where the Institute received feedback from members, all changes were incorporated in Table 3. Board members from whom we have not received feedback are identified by asterisks (**); if differing information is received once the report has been published the online edition will be amended as appropriate to ensure accuracy.

In Report 9: *Government-funded Science under the Microscope*, we intend to compare the criteria that the board members have been asked to apply when making funding decisions (Table 2) with the background information about the board members (Table 3) and discuss how this relates to possible opportunities and challenges which exist within the government-funded science system.

Table 2: Innovation Board Tools
Adapted from New Zealand Gazette (DIA, 2011)

Tool 1: Business-led R&D Overall policy objective: The objective of the business-led R&D tool is to increase New Zealand businesses' investment in research and development to support increased productivity. Summary of eligibility criteria: Applicants must be a business or group of businesses, or a representative of a business or group of businesses; resident and 'in-business' in New Zealand; and can not be an entity established under, or governed by, the Education Act 1989, Crown Research Institutes Act 1992, Local Government Act 2002, Local Government (Auckland Council) Act 2009, or New Zealand Public Health and Disability Act 2000. Specific eligibility criteria apply to Technology Development Grants. (See the New Zealand Gazette for more detail.)		Judgement Criteria (Weighting)		
Initiatives	Policy Objectives	Benefits to New Zealand (30%)	Risk or success factors (30%)	D. Ability to deliver (20%)
1. TechNZ Targeted Grants Specific parameters: The funding allocated by the Board must not be more than 50% of the proposed cost of R&D; must seek to achieve balance across grants in terms of business maturity; and the majority should encourage high risk 'stretch' R&D activities.	<ul style="list-style-type: none"> Grow business investment in research and development in areas of government priority. Improve the ability of businesses to develop new or more sophisticated technologies. 	A. Investment returns Key question: Assuming this project is successful, what are the potential commercial returns to the business, and the benefits to New Zealand?	B. Technical stretch and capability building Key question: Will the research be technically challenging for the business and build capabilities of potential future benefit for the business and New Zealand?	C. Pathway to market Key question: What is the likelihood the business will successfully commercialise the new technology?
2. TechNZ Capability Grants Specific parameters: The research, science and technology and related activities funded under this initiative should result in businesses: that have not previously undertaken research and development beginning to do so, or; sustaining on-going research and development activity; or; improving uptake of external technologies, including international technologies, or; adopting business practices to support increased or improved research and development activity.	To grow New Zealand businesses' research and development capability by: <ul style="list-style-type: none"> improving their ability to develop new or more sophisticated technologies, and/or improving research and development skills and related business management practices. 	A. Investment returns Key question: Assuming this project is successful, what are the potential commercial returns to the business, and the benefits to New Zealand?	B. Technical stretch and capability building Key question: Will this project build capabilities of potential future benefit for the business and New Zealand?	C. Pathway to market Key question: Assuming the project is successful, what is the likelihood the business will realise the commercial returns?

<p>3. Technology Development Grants</p> <p>Specific parameters: The funding allocated by the Board is equal to 20% of the eligible expenditure of a business's R&D programme, for three years, up to \$2.4 million per business, per year.</p> <p>Before the grant commences, an eligible business must have a ratio of R&D expenditure to revenue of 5% or more and revenue of at least \$3 million p.a. over the past three years.</p>	<p>To improve New Zealand's economic performance by increasing the total level of the investment made by high technology New Zealand businesses in research and development.</p>	<p>(40%) Business and R&D track record</p> <p>Key question: Does the business have a successful track record in delivering and exploiting R&D?</p>	<p>(15%) Business and opportunity</p> <p>Key question: Is this an aspiring business with an ambition to grow through investment in R&D?</p>	<p>(15%) R&D Programme</p> <p>Key question: How will the R&D programme (and the Grant) contribute to achieving business outcomes?</p>	<p>(30%) Benefit to New Zealand</p> <p>Key question: What are the likely benefits to New Zealand from the business's R&D programme?</p>		
<p>4. Technology Transfer Vouchers</p> <p>Specific parameters: The funding allocated by the Board must not be more than 50% of the proposed cost of R&D.</p>	<p>To increase the transfer of technology and related knowledge between businesses and accredited publicly funded research organisations by supporting business-led projects that develop better linkages between the two.</p>	<p>(17%) A. Project coherence and credibility</p> <p>Key questions: Is the R&D project proposal coherent and credible? Is the requested size of the Voucher credible given the proposed R&D project?</p>	<p>(17%) B. Project results in technology transfer</p> <p>Key question: Will the project result in the transfer of technology and related knowledge between research organisation and business?</p>	<p>(17%) C. Project improves linkages</p> <p>Key question: Will the project improve linkages between the business and the research organisation?</p>	<p>(17%) D. Business R&D capability</p> <p>Key question: Does the business have limited R&D capability and lack the specific in house research capability to carry out a piece of research?</p>	<p>(17%) E. Problem definition and benefit from research organisation</p> <p>Key question: Does the business have a well defined problem or idea that will benefit from the R&D expertise and services in a research organisation?</p>	<p>(17%) F. Business organisational capability</p> <p>Key question: Does the business have, or have the ability to develop, the organisational capabilities required to manage their R&D relationship with a research organisation and to apply the R&D results in their business?</p>

Tool 2: Commercialisation and Technology Transfer Support Overall Policy Objective: To increase the benefit to New Zealand derived from publicly funded RS & T outputs.		
Initiative: Commercialisation and Technology Transfer Support	Policy Objectives	Judgement Criteria (Weighting) and Specific Parameters
1. Objective One	Improve the ability of research organisations to commercialise the results of their research, science and technology: <ul style="list-style-type: none"> via existing businesses and industry organisations, or in the absence of a well-established industry, through the creation of new commercial entities. 	Judgement Criteria: No judgement criteria have been specified for this investment tool. Specific Parameters: <ul style="list-style-type: none"> Co-funding is required for funding going to research organisations and their offices Research users may include regional councils Some activities funded under this initiative may be devolved to research organisations The Board, or a provider to whom the Board has devolved funds, will use the investment tool to fund a project at up to 50% of the eligible costs that the provider will incur. The provider may reprioritise existing funds allocated by the Board (or the entity previously called the Foundation for Research, Science and Technology) up to a maximum of 12.5% of eligible costs and with prior approval from the Ministry of Science and Innovation. The balance of the eligible costs may come from one or more of the following sources: the provider's own discretionary funds; or other external funds, such as private sector co-investment, but excluding non-research funds sourced from public sector funding agencies.
2. Objective Two The Innovation Board may choose to refer Objective Two when making decision that relate to the Envirolink fund. (MSI, 2011b)	Improve the ability of research users to access the skills, knowledge and results generated by publicly funded research, science and technology.	Judgement Criteria: No judgement criteria have been specified for this investment tool. Specific Parameters: <ul style="list-style-type: none"> Research users may include regional councils Some activities funded under this initiative may be devolved to research organisations

Table 3: Brief Career Histories, Directorships and Affiliations, and Publicly Expressed Opinions of MSI Innovation Board Members

Note: * means Board Member has received the first draft and provided feedback. ** means Board Member was emailed first draft but no feedback was received.

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
<p>Dr William Rolleston** (Chair) Canterbury Appointed for 3 years</p>	<ul style="list-style-type: none"> • 1988–present Co-founder, co-owner and Production Director of South Pacific Sera Limited, a farm-based biologicals company. The company's products are exported to pharmaceutical and biotech companies around the globe (Partnering for Innovation, 2009; SPS, n.d.). 	<ul style="list-style-type: none"> • 2011–present Vice President, Federated Farmers of New Zealand. Prior to July 2011, Provincial President for South Canterbury, Federated Farmers (Federated Farmers of New Zealand, 2011a, Federated Farmers 2011b) • 2010–present Director, Aoraki Development and Promotions Ltd • 2005–present Director & shareholder, GRB Infrastructure Ltd • 2005–present Director & shareholder, SPS Biomeia Ltd • 2005–present Director & shareholder, SPS Cell Culture Ltd • 2004–present Director, Velvet Antler Research New Zealand • 2002–2003 Director, Covita Ltd • 1994–present Director, Transgenic Proteins New Zealand Ltd • 1990–present Director & shareholder, NZ-UK Medical Locums Ltd • 1990–present Director & shareholder, Program Management Ltd • 1988–present Director & shareholder, South Pacific Sera Ltd • 1987–present Director & shareholder, Blue Cliffs Homestead Ltd 	<p>Opinion: 'Any release of a GM organism requires approval by the Environmental Risk Management Authority. This hurdle is already high and further expensive regulation is unnecessary, unwarranted and will stifle innovation and choice.' (William Rolleston, cited in LSN, 2007)</p> <p>'GM offers opportunities to improve the sustainability of our agriculture such as better nutrient uptake resulting in reduced nutrient leaching and reduced water demand allowing more water to stay in our rivers. With GM we have a real chance to control, even eradicate a number of our pests. GM has the potential to deliver far more sustainability than the organics industry could ever hope to achieve. So why does the Green movement shun this new technology?' (Rolleston, 2005)</p> <p>'People expect me to be a guy who has no conservation values at all. But I'm quite the opposite. I think GM gives us opportunities to conserve – and I use the word conserve, not preserve – our natural heritage. If we can use these tools wisely we are all going to be better off.' (William Rolleston, cited in Oliver, 2001)</p>

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
<p>Professor Harlene Hayne* Dunedin Appointed for 2 years</p> <p>Professor Hayne grew up and studied in the US before moving to New Zealand in 1992</p>	<ul style="list-style-type: none"> • From August 2011 Vice-Chancellor, University of Otago • 2009–2011 Deputy Vice-Chancellor, Research and Enterprise, University of Otago • 2006–2008 Head of Department of Psychology, University of Otago • 1992–2006 Lecturer, Department of Psychology, University of Otago 	<ul style="list-style-type: none"> • 2010–present Co-chair of the Office of the Prime Minister’s Science Advisory Committee Working Party on reducing social and psychological morbidity during adolescence • 2009–present Deputy Chair, Otago Innovation • 2009–present Director, Upstart Incubation Trustee Co Ltd • 2006–2009 Member, Marsden Fund Council • 2006 Member, New Zealand National Science Panel • 2005–2009 Director & shareholder, Colombo & Hayne Properties Ltd (struck off) • 2005–2009 Member, Royal Society’s Academy Council <p># Note: The specific years are unknown for positions above marked by a hash.</p>	<p>Research field: Memory development during infancy and childhood; has interviewed children in clinical and legal contexts; risk-taking during adolescence.</p> <p>Opinion: On collaboration with US-based medical technological company Medtronic around commercialising a gel for healing wounds after sinus surgery: ‘From a financial perspective, the deal will create new opportunities because a large proportion of the proceeds will be used to support additional research and to foster future commercialisation activity ... The success of this particular deal is due to a combination of factors including outstanding science, clinical expertise, commercialisation experience and research funding. It has taken a small army of highly talented individuals to make the gel a commercial reality.’ (Harlene Hayne, cited in University of Otago, 2011)</p>

1 The Life Sciences Network has made submissions at a number of ERMA hearings for HSNO Applications. These Applications include but are not limited to GMF09004, GMD02028, GMF06001 and GMF03001. The Hearings Schedules which list the Life Sciences Network as a submitter for these applications can be made available from ERMA on request. The Sustainable Future Institute or Institute representatives also made submissions at these hearings.

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
<p>Sarah Kennedy** Auckland Appointed for 2 years</p>	<ul style="list-style-type: none"> • June 2010–present Sloan Fellowship at MIT, Boston: A programme in innovation and global leadership (Global Women, 2009) • 2007–2009 Group CEO, Vitaco Health Ltd, a company resulting from the purchase of Healtheries and Nutra-life by Next Capital Health (Global Women, 2009) • 1998 Managing Director, Healtheries (Global Women, 2009) • Began her business career at NRM Ltd, a stockfeed manufacturer, before moving to Tegel Foods Ltd (Global Women, 2009) • Qualified and worked as a veterinarian before returning to university to study marketing, management and business finance (Global Women, 2009) 	<ul style="list-style-type: none"> • Former President, International Society for Developmental Psychobiology • Member, New Zealand Vice Chancellor Committee's (NZVCC) Research Committee • Member, Society for Research in Child Development, and the International Society for Infant Studies • Fellow, American Psychological Society • International advisor to the British Psychological Society in the development of guidelines on memory and the law <ul style="list-style-type: none"> • 2008–present Director & shareholder, Cooks Food Group Ltd • 2007–2009 Director, Health Brands New Zealand Ltd • 2007–2009 Director, Health Foods International Ltd • 2007–2009 Director, Vitaco Health (NZ) Ltd • 2006–2009 Director, Vitaco Health Ltd • 2006–2009 Director & shareholder, Vitaco Health Group Ltd • 1998–2009 Director, Healtheries of New Zealand Ltd • 1998–2009 Director, Healtheries Nutritional Products Ltd • 1998–2009 Director, Healthy Life Ltd • 1998–2009 Director, Kiwi Health Foods Ltd • 1998–2009 Director, McFarlane Laboratories New Zealand Ltd 	<p>Opinion: On growing the New Zealand economy: 'Why do the aspirations of Don Brash's 2025 taskforce seem so unrealistically ambitious? I believe we don't back ourselves enough. Our marketing and presentation skills aren't sharp enough. And, above all, our home-grown businesses aren't aware of the infrastructure that exists for them in three key areas of export growth; R&D and innovation, human capital and networking. There's real support in New Zealand for businesses wanting to innovate.' (Kennedy, 2011)</p>

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
		<ul style="list-style-type: none"> • 1998–2009 Director, Nutra-life Health and Fitness (NZ) Ltd • 1998–2009 Director, Nutrition Laboratories Ltd • 1998–2006 Director, Hansells (NZ) Ltd • 2007–present Capitalising on Research & Development Action Group (MoRST) (MoRST, 2010a) • 2006–present Member, Advisory Board of the University of Auckland Business School (University of Auckland Business School, 2010: 6) • 2005–2010 Council member, Testing Laboratory Registration Council of New Zealand (TLRCNZ, 2006: 6; TLRCNZ, 2010: 47) • Board member, Global Women (Global Women, 2009)[#] • Director, Export New Zealand (University of Auckland School of Business, 2010: 6)[#] • Director, International Accreditation of New Zealand (University of Auckland School of Business, 2010: 6)[#] • Board member, New Zealand Food & Grocery Council (NZFGC, 2008)[#] <p>[#] Note: The specific years are unknown for positions above marked by a hash.</p>	
<p>Dr Alastair McCormick** Auckland Appointed for 3 years</p>	<ul style="list-style-type: none"> • Present Professor Emeritus, University of Auckland (University of Auckland Business School, n.d.) • Deputy Vice-Chancellor and Acting Vice-Chancellor, University of Auckland (Vital English, 2011)[#] • Dean, University of Auckland Business School (Vital English, 2011)[#] <p>[#] Note: The specific years are unknown for positions above marked by a hash.</p>	<ul style="list-style-type: none"> • April 2011–present Director, Caldera Health Ltd • Present Shareholder, Kahne Ltd • 2010–present Director, Intutoplus Ltd • 2009–present Director, Vital English Ltd • 2008–present Director, Intuto NZ Ltd 	

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
		<ul style="list-style-type: none"> • 2007–present Director, Intuto Ltd • 2006–2009 Director, Pulsecor Ltd • 2005–present Director, Photon Corporation Ltd • 2005–2009 Director, Pop Tech Media Indoor Ltd (struck off) • 2005–2009 Director, Pop Tech Media Outdoor Ltd • 2004–2008 Director, Infotrust Global (UK) Ltd (struck off) • 2003–present Director & shareholder, Newton Heath Holdings Ltd • 2003–2008 Director, Infotrust Global Ltd (in liquidation) • 2003–2005 Director & shareholder, Kariba Group Ltd (struck off) • 2003–2005 Director, Kariba Scientific Ltd (struck off) • 2002–2004 Director & shareholder, Aeroqual Ltd • 2002–2004 Director, Nextwave Technologies Ltd • 2001 (August – October) Director, Colyer Mair Assets Ltd • 1999–2003 Director, E.M.T.C. Ltd (struck off) • 1999–2003 Director, Mainzeal Development Ltd • 1999–2003 Director, Mainzeal Project Services Ltd 	

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
		<ul style="list-style-type: none"> • 1999–2003 Director, Mainzeal Development Ltd • 1999–2003 Director, Mainzeal Project Services Ltd • 1999–2003 Director, Mainzeal Property and Construction Ltd • 1999–2003 MA Shanghai Holdings Ltd (struck off) • 1999–2003 Director, M.A.T. Ltd (struck off) • 1999–2003 Director, MLG Ltd • 1999–2003 Director, Richina Global Real Estate Ltd • 1999–2003 Director, Richina Land Ltd • 1999–2003 Director, Richina Pacific Finance Ltd (struck off) • 1999–2002 Director, EA&S Ltd • 1999–2001 Director, Colyer Mair Ltd (struck off) • 1999–2001 Napier Leathers Ltd (struck off) • 1999–2001 Director, Mair Venison Ltd (struck off) • 1999–2001 Director, M.A.H. Ltd (struck off) • 1999–2001 Director, MVL Management Services Ltd (struck off) • 1999–2000 Director, Colyer Watson Fellmongery Ltd (struck off) 	

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
		<ul style="list-style-type: none"> • 1999–2000 Director, Colyer Watson Hides Ltd (struck off) • 1999–2000 Director, Questa Pool Cleaner Ltd (struck off) • 1999–2000 Director, Skin Processors (Otago) Ltd (struck off) • 1999–2000 Director, Tramco Albert St. Ltd • 1999–2000 Director, W Sutherland & Co Ltd (struck off) • 1999 (May – December) Director, Mainzeal Tasman Ltd (struck off) • 1999 (May – December) Richina Underwater World Holdings (struck off) • 1998–2003 Director, Richina Pacific Ltd (struck off) • 1991–present Director & shareholder, Alastair McCormick Associates Ltd • 2010–present Chairman, Academic Advisory Board to New Zealand Management Academies (NZMA, 2009) • Chairman, Business Innovation Centre Advisory Board, Auckland University of Technology (AUT, n.d.)[#] • SME Advisory Panel for SymComm (SymComm, 2005)[#] • Member, Winston Churchill Memorial Trust Board (Massey University, 2011)[#] 	

[#] Note: The specific years are unknown for positions above marked by a hash.

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<p>Stuart McKenzie** Christchurch Appointed for 2 years</p>	<ul style="list-style-type: none"> • General partner, Endeavour Capital (PI, n.d.)# <p># Note: The specific years are unknown for positions above marked by a hash</p>	<ul style="list-style-type: none"> • 1993–1998 Chairman, Board of Trustees, Auckland Grammar School (Vital English, 2011) • Founding trustee, New Zealand Education and Scholarship Trust (NZEST, n.d.) • Foundation Chairman, Connect NZ (Photonz, n.d.) • Involved in New Zealand's Pacific Economic Cooperation Council and APEC (Photonz, n.d.) • 2011–present Director, Arcactive Ltd • 2008–present Director, EIP Annex Nominees Ltd • 2008–present Director, EIP Nominees Ltd • 2008–2011 (resigned 1 May) Director, Glyvale Ltd • 2008–2011 (resigned 1 May) Director, Veritide Ltd • 2007–present Director, Flexidrill Ltd • 2007–2011 (resigned 18 May) Director, Swiftpoint Ltd • 2006–2011 (resigned 6 May) Director, BioVittoria Ltd • 2006–2010 Director, Omih Rise Vineyard Company Ltd • 2006–2010 Director, The Crater Rim Ltd • 2006 (April – August) Director, Veritide Ltd • 2005–present Director & shareholder, Enhance Technology Ltd 	<p>Opinion: On the commercialisation and risk of Photonic Innovations: 'It's very high risk and we're trying our best. But frankly, I don't believe that doing more of the same is what New Zealand needs. That's not to say that I've got the answer, but I'm prepared to have a crack at doing something different.' (Stuart McKenzie, cited in Macfie, 2009)</p>

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
<p>Phil O'Reilly** Wellington Appointed for 2 years</p>	<ul style="list-style-type: none"> • 2004–present Chief Executive, BusinessNZ (BusinessNZ, 2004) • 2000–2004 Head of Employment Policy and Communication, Westpac Bank, Sydney (DoL, n.d.) • 1990–2000 Executive Director, Newspaper Publishers Association of New Zealand (DoL, n.d.) • 1980s Industrial Advocate, Auckland Employers Association Inc. (DoL, n.d.) 	<ul style="list-style-type: none"> • 2005–2011 (resigned 17 May 2011) Director, Photonic Innovations • 2005–2006 Director, Advanced Nano Imaging Ltd (struck off) • 2003–2004 Director & shareholder, McKenzie & Company Ltd (struck off) • 2003 (April–July) Director, Woodstock Feeds Ltd • 2003 (March–July) Director, Nutrience Ltd (struck off) • 2002–2003 Director, Quest VC Ltd (struck off) • 2001–2003 Director & shareholder, NVD Ltd (struck off) • Council member, New Zealand Private Equity and Venture Capital Association Inc. (NZVCA, n.d.)# • 2004–2009 Beachhead Advisory Board, New Zealand Trade and Enterprise (MSI, n.d.) <p># Note: The specific years are unknown for positions above marked by a hash</p>	
		<ul style="list-style-type: none"> • 2011–present Chairman, Advisory Group on Green Growth (NZ Govt, 2011) • 2007–present Member, Capitalising on Research & Development Action Group (MoRST) (MoRST, 2010a) • 2005–2009 Member, Advisory Committee on Official Statistics (ACOS, 2009) • 1990–2000 Chairman, New Zealand Advertising Standards Authority (DoL, n.d.) 	<p>Opinion: 'As we move towards December 2012 and the end of the Kyoto Protocol, its effectiveness and relevance are questionable ... Given the lack of success of the original Kyoto Protocol there is not much confidence there will be a second one. I would argue there shouldn't be, at least not in the same form ... The challenge is immense and there are no quick and easy answers. Reducing global emissions is an on-going process that's changing all the time. New Zealand needs to pace itself.' (O'Reilly, 2011a)</p>

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
		<ul style="list-style-type: none"> • Chairman, Massey University Business Advisory Group (Royal Society of New Zealand, 2010)[#] • Joint Chair, Manufacturing Action Group (Royal Society of New Zealand, 2010)[#] • Chairman, Redundancy and Employment Transition Advisory Group (NZ Govt, 2011)[#] • Council Member, Royal Society of New Zealand Council (Royal Society of New Zealand, 2010)[#] • Council Member, Workplace Health & Safety Council, Department of Labour (DoL, n.d.)[#] • Member, Growth and Innovation Advisory Board (MED, 2009)[#] • Member, Ministerial Advisory Group on Trade (Royal Society of New Zealand, 2010)[#] • Member, Hui Taumata Trust (Royal Society of New Zealand, 2010)[#] • Member, Māori Workforce Development Trust (Royal Society of New Zealand, 2010)[#] • Member, Workplace Productivity Reference Group (Royal Society of New Zealand, 2010)[#] • Member, Employment Relations Forum (Royal Society of New Zealand, 2010)[#] • Member, Business Capability Partnership Steering Committee (Royal Society of New Zealand, 2010)[#] <p>[#] Note: The specific years are unknown for positions above marked by a hash</p>	<p>‘Business is our only source of sustainable wealth and we need all trust in it to be maintained ... The Government’s reform work should help rebalance the incentives around investment, including away from housing and towards more productive enterprise. Hopefully this will be followed by SOE reform, increasing opportunities for people to invest in parts of the economy currently dominated by these enterprises.’ (O’Reilly, 2011b)</p> <p>‘What we should all do is keep informed about what is happening and hold our Government to account on its pledge to ensure the emissions trading scheme does not cause harm or competitive disadvantage.’ (O’Reilly, 2010)</p> <p>‘I tell a joke about scientists speaking French and businesspeople speaking German, with all the cultural issues that entails. So what we need are more Belgians – people who have a real interest in making sure the two don’t go to war.’ (Phil O’Reilly, cited in Macfie, 2009)</p>

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
<p>Grant Ryan* Canterbury Appointed for 3 years</p>	<ul style="list-style-type: none"> • 2009 Inventor, YikeBike • 2004–2008 Chief Scientist, Eurekster • 2004 Co-founder, Eurekster • 2001–present Chief Executive, Real Contacts • 2001 Co-founder, Real Contacts • 2001 Relaunched GlobalBrain.net as SLI Systems, after buying it back from NBCi • 2000 Sold GlobalBrain.net to NBCi • 1998 Co-founder, GlobalBrain.net 	<ul style="list-style-type: none"> • Member, Tertiary Consultative Group (Royal Society of New Zealand, 2010)[#] • Board member, Foundation for Research, Science and Technology (FRST, n.d.)[#] • New Zealand’s employer delegate to the International Organisation of Employers and the International Labour Conference (Royal Society of New Zealand, 2010)[#] <p>[#] Note: The specific years are unknown for positions above marked by a hash</p>	
<p>Grant Ryan* Canterbury Appointed for 3 years</p>	<ul style="list-style-type: none"> • 2010–present Direction, PowerHouse Ventures Ltd • 2009–present Director, Canterbury Development Corporation Ltd • 2009–present Director, CEDF Trustee Ltd • 2009–present Director, YikeBike Ltd • 2007–present Director & shareholder, Purepodz Ltd • 2006–2008 Director, NZVIF (Seed Fund) Ltd • 2005–present Director & shareholder, ProjectGarlic Ltd • 2005–2008 Director, Eurekster Ltd (struck off) • 2005–2008 Director, NZVIF (BPV) Ltd • 2003–2009 Director & shareholder, Albatross Soup Ltd (struck off) 	<p>Opinion: On the future of Christchurch: ‘Why don’t we try to do something that makes it so that people on the other side of the world say “have you heard about the elevated city” ... something cool and iconic, but relatively inexpensive as well. It’s a unique opportunity – how many cities are going to be able to do a rebuild.’ (Grant Ryan, cited in Matthewson, 2011)</p> <p>‘New Zealanders are very good at creating innovative products; what they tend not to be so good at is the commercialising of their ideas. For every Sam Morgan, there are many entrepreneurs with wonderful ideas who do not succeed. This commercialisation gap is something that experienced angel investors can help to address with their capital and expertise along with initiatives such as NZVIF.’ (Grant Ryan, cited in NZVIF, 2007: 46)</p>	

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
<p>Peter Townsend* Christchurch Appointed for 2 years</p>	<ul style="list-style-type: none"> • 1996–present Chief Executive, Canterbury Employers' Chamber of Commerce 	<ul style="list-style-type: none"> • 2003–2008 Director, Eurekster Inc. Ltd (struck off) • 2002–2008 Director, New Zealand Venture Investment Fund (NZVIF) Ltd • 2002–2005 Director & shareholder, Circle Software Ltd • 2002 (February–August) Director, Transcenz Ltd • 2001–present Director & shareholder, RealContracts Ltd • 2001–present Director, SLI Systems Ltd • 2000–present Director & shareholder, That Cool Company Ltd • 1998–date unknown* Director & shareholder, Globalbrain Ltd (struck off) • Board member, Foundation for Research, Science and Technology[#] <p>[#] Note: The specific years are unknown for positions above marked by a hash</p>	<p>Opinion: 'One thing is for certain; the Christchurch that our forefathers laid down is gone. We have a responsibility for the next 150 years. We will see the advent of villages. If we screw up, our grandchildren and great grandchildren will never forgive us, and I don't intend to let that happen.' (Peter Townsend, cited in Keast, n.d.)</p>

MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
		<ul style="list-style-type: none"> • 1999–2002 Director & shareholder , Firecycle NZ Ltd (struck off) • 1999–2001 Director, NBIS Ltd (struck off) • 1999–2001 Director, NZ Pac Ltd • 1999–2000 Director, Timeout Carers Bureau Ltd • 1998–2001 Director, Merino New Zealand Ltd (struck off) • 1998–1999 Shareholder, Wanaka Musical Society (struck off) • 1996–present Director, Champion Canterbury Ltd • 1996–present Director, Employers' Consultants Ltd • 1995–2000 Director, Mature Employment Service Ltd (struck off) • 1992 – 2010 Director, University Bookshop (Otago) Ltd • 1992 (August–November) Director, Milton Properties Ltd (struck off) • 1991–1999 Director & shareholder, OCNEDEC Ltd • 1990–1999 Director, Northern Crest Investments Ltd • 1990–1998 Director & shareholder, Zorcon Thoroughbred (No. 5) Ltd (struck off) • 1984–present Director & shareholder, Townsend Management Ltd • 2011–present Co-leader, the Canterbury Business Recovery Group 	<p>'In summary, New Zealand from a business perspective, has a stable, well-regulated, transparent government, good and improving infrastructure, a well-educated workforce operating within a mildly regulated but effective employment environment, a reputation for being highly innovative, developing sophisticated technologies, many of which have evolved on the back of our primary productive capability and a reputation for providing products and services of high integrity.' (Townsend in an MFAT speech presented in Brazil, 2010; P. Townsend, personal communication, 24 June 2011)</p> <p>'The Research, Science & Technology Minister, Hon. Dr Wayne Mapp, has just announced two new boards that will decide funding allocations for science and innovation: the Science Board and the Innovation Board. Both these boards will be overseen by the new Ministry of Science and Innovation (MSI). So why the focus on innovation and science? Ultimately the end game is to raise New Zealanders' standard of living. How this can be achieved is through us working smarter. New Zealand businesses need to be innovative so that we can be internationally competitive. It's the age old mantra of using our exports to lead our economic growth. But we can't just hope to compete internationally on volume as we simply aren't big enough. So we have to be clever.' (Townsend, 2011)</p>

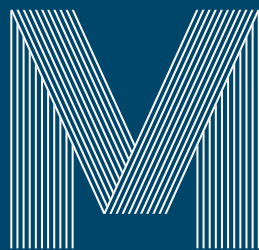
MSI Innovation Investment Board Members (MSI, n.d.)	Brief Career History	Directorships & Affiliations (Past and present), Current at 27 May 2011	Evidence of opinion and areas of research interest
		<ul style="list-style-type: none"> • 2010–present Chair, Territorial Forces Employer Support Council (TFESC) • 2009–present Board member, Canterbury Youth Development Programme • 2009–present Board member, New Zealand Trade and Enterprise • 2009–present Member, National Council, Student Job Search • 2006–present Board member, Airforce Museum of New Zealand Trust • 2005–present Member, Canterbury Symphony Orchestra Trust Board • 2004–present Director, Champion Canterbury • 2004–present Member, Steering Group for the Canterbury Water Management Strategy • 2001–present Board member, NZ Chambers of Commerce and Industry (prior to 2001, a member of the Management Board) • Fellow, Institute of Directors • Fellow, Institute of Management • Honorary Consul for Chile for the South Island 	<p>‘We already have many examples of great Kiwi ideas making it big overseas through a little help at the R&D stage. The Science Board will allocate funding into our research organisations to support high-quality research across a full range of fields. The Innovation Board will make funding decisions related to business-facing programmes. R&D funding for business is currently available through the Foundation for Research, Science and Technology (FRST) and applications can be made through Rob Lawrence at the Employers’ Chamber. This funding path will continue under the new Ministry’s programmes. The consequences of us not innovating as a nation is that we will continue to do the same thing – which is fine as long as we aren’t looking for a different result. By making clever changes, we can improve productivity, give our products a competitive advantage, increase export sales and pull our standard of living back up past that of Australia and other developed nations.’ (Townsend, 2011)</p> <p>‘Why wouldn’t we innovate? It is the Kiwi way. It’s the number 8 wire mentality by any other name. The new MSI boards are taking that inherent characteristic to another level by applying funding – and the collective decision making power of some of New Zealand’s top scientists, business people and innovation experts – to the right places.’ (Townsend, 2011)</p>

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