

# MANUFACTURING

CREATING  
VALUE IN YOUR  
BUSINESS

New Zealand  
**TRADE & ENTERPRISE** 



EDITED BY PROFESSOR MICHAEL J PRATT  
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# Acknowledgements

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Grant Wells was the project manager for the research phase of the project. He coordinated our extensive research, interviews and workshops around the country with manufacturers and others interested in the success of New Zealand Manufacturing. In addition, he drafted the Vision Group report and contributed many ideas to enhance the content.

Neil Maxwell was the project sponsor at New Zealand Trade and Enterprise (NZTE). The project owes much to his leadership, prescience, passion and insights. Jo Parker from NZTE managed the project throughout the first three years of the implementation phase. Her enthusiastic contributions to the content and process of implementation in high growth potential New Zealand companies have provided the foundation for the success of the project.

Our understanding and insights of the concepts and practices that lead to world leading New Zealand companies derived from about 1000 people who participated in the Manufacturing+ conferences and

regional workshops and from leading New Zealand manufacturers and exporters such as Glidepath, Gallaghers and Fisher and Paykel Appliances. More than 60 companies have now participated in the intensive phase of the project with in-house workshops to assist them to adopt the Value Creation practices from the Manufacturing+ project. We have learned the most from this practical phase. The theories and models of Value Creation that we developed have proven robust across a wide range of industries and businesses. The ways in which these ideas are best implemented have been developed through the participation of high growth potential companies from around the country.

I would like to make special mention of Peter Smyth and Lionel Crawley regional representatives of NZTE in Hamilton and Tauranga who were early adopters of Value Creation with some of their clients. They contributed significantly to the development of the process of implementation.

As both chair of the vision group and facilitator of the process of implementation of Value Creation I give special personal thanks to everyone who has contributed to the project. Any errors and omissions from the booklet remain the responsibility of myself as editor.

## **DR MICHAEL J PRATT**

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# Executive Summary

Value Creation as the name implies is designed to assist businesses to create more value, enhance profitable performance and develop their export potential. The book is based on research completed in November 2006 for Manufacturing+: A Vision for World Leading New Zealand Manufacturers, a New Zealand Trade and Enterprise (NZTE) project sponsored by the Minister for Economic Development.

Since the publication of the Manufacturing+ report, more than 80 New Zealand companies have been assisted in some way through the Manufacturing+ project to adopt the principles of Value Creation as set out in this booklet. Six of these companies share their stories in this book, with a view to enabling others to learn from their experiences and to accelerate their own performance. Insights from these experiences have been incorporated into the models that feature in this booklet.

The Value Creation model featured herein encapsulates the lessons learned and offers a process for businesses to reflect on their existing practices and identify areas for improvement. The model identifies four dynamics for any business – clarity of strategy + deep connections to customers, and creative ideas and design + great operations and execution. These dynamics build four quadrants to the model – Purpose, Sharing, Alignment and Delivery. An innovative purpose and business model provides clarity of direction and intent for the business. Sharing the Purpose and ideas with customers and consumers creates close connectivity from which business opportunities arise. A deep understanding

of markets, channels and supply chains enables organisations to understand where in the global value chain they can create the most value. Excellent production and delivery is the final step in the cycle. The model offers 12 concepts, three per quadrant, and 36 questions, three per concept, which together provide a comprehensive review of the potential of the company to create value and areas of opportunity in which to enhance performance.



The booklet includes a questionnaire to enable you to directly apply the model to your business and suggestions on how to implement. The model will assist successful businesses to become even stronger and identify new opportunities for creating value.

# Introduction

This booklet has been designed to help New Zealand businesses enhance their ability to create value, grow profitability and develop exports. We develop and explain through theory and case studies the primary factors that enable organisations to create superior value.

The research that underpins the theory and practice of Value Creation derives primarily from New Zealand companies that make and export products. A theory is simply an explanation of the relationship between concepts and of cause and effect. There is nothing so practical as great theory because if we can understand the factors that give rise to creating value we can then implement these in a variety of different contexts. In this booklet we explain how to implement the theory of Value Creation in the context of your enterprise.

Manufactured products represent about 65 percent of New Zealand's exports, the balance deriving from tourism, education and other services. As a consequence manufacturing has long been and remains at the core of New Zealand's economic well-being. And yet so much more is possible. Only a minority of products exported from New Zealand have significant value added to them beyond their raw material content. We believe that the key to New Zealand's future economic prosperity is Value Creation. In this booklet we endeavour to explain how.

The Value Creation project commenced in 2005, branded as Manufacturing+: A Vision For World Leading New Zealand Manufacturers. New Zealand Trade and Enterprise (NZTE) was the catalyst, Mike Pratt was the Chairperson of the Vision Group and the Minister of Economic Development was the sponsor. Business NZ

joined the project as part of our core team of instigators. The Vision Group comprised representatives from successful enterprises, Business New Zealand, the Ministry of Economic Development, NZTE, Foundation for Research, Science and Technology (FRST) and unions (CTU and EPMU) who gave their time and ideas generously to contribute towards this consensus-based project. We obtained valuable insights from manufacturing business leaders on the Vision Group who were able to anchor our discussions in the reality of their experience. The project benefited from the insights of more than 500 people throughout the country who contributed to the project through participation in the workshops, or through written and oral contributions. Deep insights were gained through case studies of successful manufacturing exporters such as Gallaghers, Glidepath and Fisher & Paykel Appliances.

Our challenge was to bring impetus, clarity, cohesion and vision to our manufacturing capability, and to reinforce the role of manufacturing as an energy force behind the economy. We adopted a process of learning through nationwide conversations with manufacturers, unions, trade associations, educationalists and government officials. We were reassured by the commonality of views across eight workshops.

This project was designed to enhance awareness of the significance and potential of manufacturing, to learn from success and to share the key success factors. The Vision Group reported to government in November 2006. During 2007 a series of pilot workshops were held around the country to share and develop the Value Creation ideas. During 2008 and 2009 Mike Pratt through NZTE has run in-house workshops

## 1\ Introduction

with more than 60 companies to implement the Value Creation ideas and to assist the companies to enhance their performance. These experiences have been used to progressively develop the Value Creation ideas which are now shared in this booklet.

It is hoped that companies will embrace these ideas directly and use them to enhance their ability to create value and enhance performance, and that the concepts will also be embraced by education providers as New Zealand research-based concepts that are practical and proven.

The project commenced with companies that operate in the specialised manufacturing or engineering sectors. But it quickly spread to embrace virtually all product-based sectors including marine, ICT, fashion, food and beverage, construction, timber, natural health and clothing. The concepts have proven robust across all sectors.

In our consultation and modelling we have concentrated on export manufacturing businesses. The reason for this is because we believed that we would learn most about success models from successful manufacturing exporters. Manufacturers that do not export are equally valuable to our balance of payments because they prevent the need for imports. They need to be aware of global trends and the success models of manufacturing exporters in order to be alert to competition from overseas.

The process followed by the Vision Group to build the Manufacturing+ strategic framework began with the definition of the key global influences for manufacturing. The second step in the Vision Group's work was to identify and document what




the sector believes about how to create value from manufacturing. The purpose in evaluating these beliefs was to begin to look at the things that businesses could do at a company level to be more successful. These insights provide the basis for this booklet.

### **PROFESSOR MIKE PRATT**

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Across the globe manufacturing is undergoing a transformation in the way goods are produced and the fundamental nature of the offerings available. In this highly competitive and rapidly changing environment many New Zealand manufacturers are succeeding, and are developing vibrant and exciting companies. Some have become world-leading in their chosen niche.

# New Zealand Manufacturing

We adopt a broad view of manufacturing as including any processes involved in adding value to raw materials to create products and services. Much of New Zealand's export base derives from primary products. There is considerable potential to add further value to our primary production through manufacturing processes to enhance the performance of New Zealand companies and the quality of life for New Zealanders.

Manufacturers believe fundamentally in the intrinsic value of manufacturing to our society and economy. They see this demonstrated every day with raw materials being transformed into valuable products by working closely with staff, customers, shareholders and the wider community in a way that creates benefits for all. New Zealand's manufacturing industry supports the nation's economic, social and technical aspirations, and drives technology development. Manufacturing contributes about 14 percent of GDP and 65 percent of our exports, and employs about 280,000 people.<sup>1</sup> The New Zealand Treasury explains that exports, especially to Australia, are a primary driver of growth in the manufacturing sector. Despite recent weakness, the performance of non-commodity manufactured export volumes has been especially impressive, averaging nearly 5 percent annually since 1991. An international focus by New Zealand manufacturers, combined with attention to marketing, design, reliability, customer responsiveness and cost, have been key factors in this success.<sup>1</sup>

High value exports are created when we transform ideas and raw materials into more complex and valuable offerings; production expertise is a critical skill in this process. A "design here - produce there" model can work for some companies but it may also erode the national capability to innovate as we subsequently lose production expertise

and the supporting infrastructure (for example, research capability or tool making). Much innovation derives from the production process itself. By intentionally maintaining and developing this capability we will enable the country to grow export earnings, employment levels and living standards. We believe that New Zealand manufacturing has the potential to dramatically grow export earnings. Our intent is to bring impetus to our manufacturing capability and to celebrate the role of manufacturing as an energy force for the economy.

A report by Business NZ sums up the importance of the New Zealand manufacturing sector to the wider economy: "A successful manufacturing sector is the difference between a developed and a developing economy." Manufacturing, says the business group, is "crucial" to the growth of the wider economy.<sup>2</sup> Manufacturing lies at the core of wealth creation and employment in any economy. The New Zealand Council of Trade Unions (NZCTU) says that manufacturing creates positive spill-overs including a stronger skill base with career structures, higher wages, innovation, stable economic growth, sustainable economic returns, and a lift in regional pay rates. The NZCTU notes that analysis of New Zealand's economic growth patterns during the past 20 years shows that a successful manufacturing sector is an important component for achieving stronger economic growth in New Zealand.<sup>3</sup> This is essential if New Zealand is to succeed in moving further along the path towards a high wage, high skill economy.

Manufacturing is a major provider of full-time employment and it offers a broad spectrum of highly paid, highly skilled jobs to low skilled jobs. It contributes to increased workforce participation rates while also contributing to skill development and increased earnings.

<sup>1</sup> See The New Zealand Treasury 2009 New Zealand economic and financial overview 2009 - Industrial Structure and Principal Economic Sectors - Manufacturing [www.treasury.govt.nz/economy/overview/2009/11.htm](http://www.treasury.govt.nz/economy/overview/2009/11.htm) downloaded July 10 2009

<sup>2</sup> Manufacturing Perspectives. Business NZ, June 2005

<sup>3</sup> A Vision for World Leading New Zealand Manufacturers, New Zealand Trade and Enterprise, November 2006, P.25

Globally, manufacturing is dynamic, intensely competitive and fast-changing. Competition from low wage economies is well known. Yet many successful New Zealand companies have been able to develop highly differentiated, high value and premium priced products such that the lower labour costs of manufacturing offshore are less relevant. The advantages of the New Zealand reputation for ethical business, and the country's clean, green image as well as a skilled labour force with capacity for innovation can offset lower labour costs. The rush to outsource manufacturing to low cost economies that took place during recent years is now giving way to a more balanced approach as the quality control issues, energy costs and

logistics associated with long supply chains become more apparent.

Manufactured products make up about 65 percent of New Zealand's exports, with the balance contributed from services, primarily tourism. Business NZ aggregates manufacturing activity into four groups, and this classification helps in understanding the contribution that the wider manufacturing sector makes to the New Zealand economy, as shown in Table 1. Based on the data below, only a minority of our merchandise exports can be regarded as having significant value added - manufactured commodities plus elaborately transformed manufactures (ETMs).

**NEW ZEALAND MERCHANDISE EXPORT PERFORMANCE 1990—2007**

|  | 1990<br>\$m      | 1995<br>\$m      | 2000<br>\$m       | 2005<br>\$m       | 2007<br>\$m       |
|--|------------------|------------------|-------------------|-------------------|-------------------|
| <b>Total exports</b>   | 14,891           | 20,057           | 27,976            | 29,472            | 33,047            |
| <b>Unprocessed primary commodities</b>   | 2,281<br>(15.3%) | 2,780<br>(13.9%) | 3,920<br>(14.0%)  | 3,065<br>(10.4%)  | 3,625<br>(11%)    |
| <b>Processed primary commodities</b><br>(limited processing, little or no differentiation, for example wood chips)             | 7,488<br>(50.3%) | 9,387<br>(46.8%) | 12,325<br>(44.1%) | 13,440<br>(45.6%) | 14,794<br>(44.8%) |
| <b>Manufactured Commodities</b><br>(some processing, little differentiation, for example tanned leather and refined petroleum) | 2,244<br>(15.1%) | 2,663<br>(13.3%) | 3,986<br>(14.2%)  | 3,627<br>(12.3%)  | 4,372<br>(13.2%)  |
| <b>Elaborately transformed manufactures (ETMs)</b><br>(high value-added for example pharmaceuticals or electronics)            | 2,878<br>(19.3%) | 5,227<br>(26.1%) | 7,744<br>(27.7%)  | 9,340<br>(31.7%)  | 10,256<br>(31.0%) |

***Only 44% has significant value added***

Only a handful of New Zealand companies have the scale or comparative advantage (such as cheap energy for aluminium smelting) to compete in commodity production. It will be challenging for most New Zealand manufacturers to compete with high volume commodity manufacturers of low wage economies in for example Asia,

including India. Instead, successful New Zealand manufacturers are concentrating on niche markets and customised, high value-add manufacturing. But we need many more such companies. Just 188 companies are responsible for about 79 percent of New Zealand's exports, and only about 837 firms export more than \$5 million per annum.<sup>4</sup>

The New Zealand economy is made up primarily of small and medium-sized enterprises (SMEs). Some 96 percent of enterprises employ 19 or fewer people.<sup>5</sup> There are more than 20,000 manufacturing enterprises in New Zealand and more than 14,000 have five or less staff. Less than 700 of these businesses have 50 or more staff.<sup>6</sup> The implication of these characteristics is that there are few areas where real scale is achieved. This may be interpreted as a considerable impediment for growth in the industry in that small businesses may operate at less than optimal efficiency, and may struggle to expand into overseas markets.

Nevertheless, small scale may also provide advantages such as the flexibility to adapt rapidly in changing market conditions. Being able to change rapidly gives an industry resiliency, and the manufacturing sector and its different sub-sectors do appear to be more resilient than may have been anticipated. For instance, although New Zealand manufacturing has been under considerable pressure from an exchange rate held artificially high by monetary factors, it has still developed well and many firms are growing strongly.

The emergence of profitable and productive activities has occurred, as may be anticipated, where a viable industry has emerged around the country's more traditional sectors, such as agriculture, food and beverage and forestry. This includes the manufacturing of machinery and equipment to support these sectors, as well as the manufactured products associated with primary production itself. For example, NDA, a manufacturer of stainless tanks and dairy equipment, has developed a successful export business based upon its origins as a supplier to the dairy industry. Gallagher is now a world leader in electric fencing from its origins as a supplier of electric fences to the New Zealand farming sector.

In addition, areas of specialist manufacturing have grown up around our passions such

as sailing, where New Zealand is now recognised among the world leading builders of luxury yachts, and aviation where we have several niche manufacturers of aircraft for specialist conditions. For example, Pacific Aerospace in Hamilton produces Extremely Short Take Off and Landing aircraft suitable for crop spraying, skydiving, and operating in rugged terrain especially in the tropics.

Beyond these industries, though, a key finding of the Manufacturing+ Value Creation project has been the wide range of manufacturing companies which have developed world leading niche products in areas that are far less predictable. For example, Hunza exports premium quality landscape lighting, Bobux exports unique children's shoes, Trimax exports large-scale grass mowing systems for municipalities and sports grounds, Windsor exports world leading timber drying equipment, High Society exports a range of women's fashion, and Ziwipeak exports a range of premium pet food. As at June 2009 more than 60 companies have participated in the intensive phase of the Manufacturing+ Value Creation project covering most sectors including specialised manufacturing and engineering, food and beverage, apparel, information communication technology, plastics, marine, timber and construction.


We conclude that it's hard to pick winning industries or companies. It's not what they do, it's how they do it. Although the popular Knowledge Wave idea of the "weightless economy" (the export of products or services that have no or minimal physical content, such as software or film) seems theoretically sound, there is plenty of empirical evidence that a wide variety of New Zealand businesses can be successful on the world stage with premium value products even with substantial material content.

In this project we explore the success factors that enable some companies to be remarkably successful as premium value exporters, whereas others struggle to survive.

4 New Zealand Trade and Enterprise, "Number of Exporters by Value Range and Total for 12 months ending June 2008"

5 Ministry of Economic Development, May 2006 "SME's in New Zealand: Structure and Dynamics"

6 Statistics New Zealand, Business Demographic Statistics



How can we develop a differentiated approach to enterprise development that can systematically ensure we develop a disproportionate number of world-leading enterprises?

... Part of the answer lies in shifting emphasis from productivity, which is an output measure, to creating value, which is an input measure. Productivity, like profit, simply records what has been achieved; Value Creation is the process for the achievement of profitability and productivity.

# World Leading New Zealand Manufacturers

The concept of productivity has tended to dominate discussions of New Zealand business performance in recent years. Productivity is used as a measurement of how well an organisation transforms available resources (inputs) into products and services. It can be a useful measure of the relative value-generating ability of a company or industry when compared with others.

Productivity growth is a useful measure of economic performance as it allows us to distinguish whether growth in what we produce has occurred because of the use of more resources, or because we are using the resources more effectively to produce goods of higher value. Resources can include, for example, labour, materials, or capital. It is important to note that the success of the transformation depends both on the quality of the resources and the management of the resources through the process. The term is usually applied to labour productivity.

Productivity growth means growth in the total value added (whether due to greater volume or a higher value of product) relative to inputs. Productivity growth measures the change in value added, relative to the resources we use. A fall in the relative price of the resources we use is associated with an improvement in productivity (because it implies greater value added in production), and a fall in the value of manufactured products is associated with lower productivity.

It is often noted by commentators that productivity in New Zealand has been less than that in other developed countries in recent years, for example Australia, and considerable resources have been devoted

to exploring the reasons for this.<sup>7</sup> Much of the explanation can be attributed to our reliance on commodity production; however the Manufacturing+ project has illuminated a number of additional reasons that relate to the management of our value adding enterprises.

Even among the elite companies that have participated in the Manufacturing+ project, many of whom are world leading in their chosen niche, there are substantial opportunities to further enhance the way they create value. As will be explained in Chapter 7, there are system-wide opportunities for enhanced value creation through, in particular, the implementation of lean systems and innovation systems, both of which have been shown, in the 20 percent or so of Manufacturing+ participants who have implemented them, to be capable of creating dramatic productivity gains.

There is a startling similarity in the thinking of leading Western nations as they formulate strategies to enhance their manufacturing sectors in the face of growing global competitiveness. The United States, the United Kingdom, Canada and Australia all consider manufacturing a core economic activity and a key contributor to GDP. Each economy is acutely aware of the challenges faced by their manufacturers in terms of engaging with international markets, and they are all developing national strategy responses to meet these challenges.

There are two key strategies which emerge from an analysis of the manufacturing strategies in these four countries. The first strategy is preventing further undermining of manufacturing by actively monitoring

<sup>7</sup> See for example, The New Zealand Treasury, New Zealand's Productivity Performance, April 2008



relative competitiveness (for example, best practice and benchmarking programmes). The second is to build capability through innovation, skills and international connections. A study of the four countries' manufacturing strategies also highlights the commonality of vision/themes between each country. Themes such as education, best practice, competitiveness, infrastructure, innovation, focus, economic growth and understanding international markets emerge as common to all the countries.

Given this common approach and the fact that the productivity of New Zealand companies lags behind the majority of our developed world counterparts, how can we develop a differentiated approach to enterprise development that can systematically ensure we develop a disproportionate number of world-leading enterprises? We believe that part of the answer lies in shifting the emphasis from productivity, which is an output measure, to creating value, which is an input measure. Productivity, like profit, simply records what has been achieved; Value Creation is the process for the achievement of profitability and productivity.

Throughout the Manufacturing+ project we have been privileged to work with New Zealand companies across a diverse range of industries that are world-leading in their chosen niche, or are well on their way on the journey. By world-leading we mean either that they have a leading share in their niche, or that they are product and thought leaders which enables premium pricing.

The term world class is widely used. We do not believe this is a sufficient aspiration for New Zealand companies. To be part of a class that can compete on the world stage is positive. Beyond world class, to be a leader in your chosen niche, to be the best at what you do, is the way to maximise value, performance and profitability. This booklet is dedicated to this aspiration.

Many of the companies we have worked with are world leaders in their chosen field of endeavour. For example:

- Gallagher is a world leader in electric fencing systems
- Endace is a world leader in internet speed monitoring systems
- Zeacom is a world leader in unified communications systems for small and medium sized businesses
- Trimax supply world leading mowing systems to North America and Europe
- Comvita are world leaders in manuka honey-based medical dressings
- The New Zealand Dairy Goat Cooperative are world leaders in goat milk infant formula, proven for its low allergenic qualities
- Mole Map are world leaders in the mapping and monitoring of potentially cancerous skin defects
- Windsor are world leaders in timber kiln drying systems.

In subsequent chapters we share what we have learned about how to achieve world leading success through maximising the creation of value. In particular we believe that clarity of purpose and focus, innovation, lean thinking, great design and brand, and outstanding leadership are the key ingredients.

# Megatrends

## GLOBAL SOCIOECONOMIC, MARKET, TECHNOLOGICAL AND ENVIRONMENTAL TRENDS THAT ARE CHANGING THE CONTEXT FOR NEW ZEALAND MANUFACTURERS

### Introduction

During the research phase of the Manufacturing+ project, we examined and evaluated the external influences that would have the greatest impact on New Zealand manufacturers and exporters in the foreseeable future. We completed this work based on conversations with more than 500 participants in Manufacturing+ workshops throughout New Zealand during 2005-6.<sup>8</sup> These insights were developed through subsequent interactions with more than 60 successful New Zealand companies during the implementation phase, and through conversations with the leaders of a range of large global companies, including several advertising and communication agencies. Ten key trends were identified and are summarised in this chapter.

The purpose of this is to help enterprises reflect upon the context in which they operate so they can enhance their ability to develop innovative business models that optimise Value Creation. Not all the trends will be relevant to every business. There will be additional trends and factors that will have potential industry specific impact, which we have not identified. Our purpose then is not to provide an exhaustive list but rather to instigate reflection among an organisation's leaders as to the social, marketing, economic, technological, cultural and environmental trends that may impact on their business during the next five to 10 years. Such an evaluation should be undertaken through the lens

of the customer and end-user rather than from the perspective of production. A deep understanding of market needs and trends is the first step towards Value Creation.

### The New Economic Reality

After we completed the research phase and were well into implementation working directly with companies, the global financial crisis struck, followed by the global credit and economic crises that it engendered. The scale of this crisis overshadows the prior research, so we commence with reflections on the implications of the crises for Value Creation and exports by New Zealand companies.

The good news is that the overwhelming majority of the companies participating in the Manufacturing+ project are weathering the crises extremely well. Many are still continuing to grow significantly, with some having their best year ever despite the global problems.

So what are the implications of the new economic reality? The primary observation is that an emphasis on Value Creation becomes even more important. In our view this is no ordinary recession. This is not the sort of downturn that we are used to seeing and moving through within a few months or a year or two, such that the prior trajectory of growth continues unabated. The 2008/09 global economic crisis represents a fundamental shift in the tectonic plates of the global economy.

For the past decade or more, global growth has been fuelled by cheap credit available in the United States through its status as the world's reserve currency. Rapidly rising consumer and sovereign debts in the United States and in many other developed nations, including New Zealand, have been the consequence. If the increase in consumer debt in the United States is extracted from growth rates for the past decade, there has been almost no growth. In other words growth has been built on the fiction that consumers and countries can continue to escalate their borrowings. Sooner or later this house of cards was destined to collapse.

The collapse was hastened by the development of complex financial instruments which enabled a burgeoning of sub-prime debt, the risk of which was disguised through derivative and bundled products. These obscure financial instruments enabled banks to leverage their asset backing to obtain short term profit to the point where small movements in profitability or the value of the assets that underpinned their lending could lead to disaster. And this is exactly what happened. Many consumers and the banks that lent to them were leveraged beyond their ability to pay and beyond the value of the underlying assets, which rapidly depreciated as the scale of the credit crisis unfolded.

The symbiotic relationship that led developing nations such as China and oil rich nations to invest their sovereign wealth funds in the developed world, primarily the United States, such that first world consumers could continue to buy their manufactured goods and their oil is likely to continue, but will become much more muted.

This is not then a recession that we will work through in a few months or years and then go back to business as usual, because the business as usual for the past decade or more was itself a fiction based on the unsustainable escalation of domestic and sovereign debt.

There is already a shift in thinking towards people living within their means.

The new economic reality has caused people to reframe what they value and how they define value in completely different ways. In the United States and Europe especially, people are re-evaluating what is important to them in their lives. There is an emerging sense that the 20th Century emphasis on rampant consumerism may be abating.

This places a level of urgency on understanding how value is being determined and reframed by customers and consumers. This in turn offers a real opportunity to develop an understanding of how people are renewing their lives and as a consequence to create products and experiences to meet their emerging and changing needs. In any crisis there are discontinuities, such that established products and services may no longer be relevant, leaving the way open for fast and nimble Kiwi companies to move in and create value in entirely new and exciting ways.

Some emerging implications appear to be:

- Frugality and downsizing is the new cool; people are feeling proud of making do
- The pressure to keep up in material possessions is abating as people start to realize the limitations of materialism and see those around them struggling
- Well-being, security and family are becoming even more important
- Experiences are becoming more important than possessions; people are rediscovering the value of simple pleasures and experiences
- There is much greater care taken in securing value for money; the tools for this are readily available through the internet
- There is a trend towards smart quality; good quality, durable products that are aesthetically designed
- There is increasing concern about what brands stand for; are they in tune with the new social reality.

There is an added imperative to determining value from the perspective of the customer, consumer and end-user. What we discover may surprise us.

### Ten Trends

In this section we offer 10 trends which we believe are likely to influence the future for many companies. They are intended as descriptive and illustrative rather than exhaustive. The art of Value Creation is for each enterprise to interpret these trends in innovative ways to create products and services that are likely to be increasingly valuable in the future.

#### 1. CHANGING DEMOGRAPHICS

The world population is currently about 6.7 billion rising to about 9.5 billion by 2050. Demographic forecasts are more accurate than most other predictions because all the seeds are in place, barring unforeseen catastrophes, for this unprecedented increase in our species. WWF believes that the carrying capacity for the planet with current technology is no more than 4.5 billion, so we can predict ever-increasing pressure on all aspects of physical resources.

Almost all of this growth is in the developing world. The developed world population is more or less static to 2050 at 1.2 billion. Much of the world's wealth is owned and consumed by an ever-shrinking minority of the world's population. More than a billion people now do not have adequate food or fresh water. It follows therefore that with shrinking employment and static population in the developed world, overall growth for companies is likely to be elusive without taking share off others or tapping into the potential of developing markets.

With such unprecedented growth in the developing world population there are considerable opportunities for New Zealand enterprises, especially in the light of the trade deals that have been negotiated. Although only a comparatively small

proportion of the populations of countries such as India and China can aspire to the high value niche products in which New Zealand enterprise is increasingly specialising, the huge population size (about 2.5 billion in China and India combined) makes the numbers attractive if channels to market can be developed.

Just as the developed world population is static, so too is it ageing. People are living longer and having fewer children. The implications of this are that people will be retired for much longer than in the past, giving rise to the need for a whole new range of products and services. Aged care, health and wellness products and services, travel experiences and security are just some examples of sectors that will have growing potential.

Both in New Zealand and internationally, manufacturers have faced a shortage of skilled staff and are having to compete in a highly mobile and internationally focused labour market. Contributing to this problem is the declining ratio of the workforce to the rest of society as people live longer, birth rates in most developed countries remain low, and healthcare becomes more effective. Although this situation has improved recently in New Zealand because of the economic downturn, and a significant net increase in immigration because of the relative attractiveness of our quality of life in the context of the global economic crisis, shortage of skilled labour is likely to remain a long-term global trend that has implications for manufacturers and exporters. The smart use of technology and capital intensive manufacture to enhance productivity is an indicated strategy.

#### 2. CRIB

China, Russia, India and Brazil (CRIB) could be the dominant powers by 2050; China and India because of the size of their populations (1.5 billion and 1 billion respectively), and Russia and Brazil because

of their richness in natural resources. Their increasing wealth will make these and many other parts of the developing world the major growth consumer markets.

Despite the increasingly global nature of the marketplace, factors such as regional legislation, tariffs, trade agreements, labour markets and political issues impact on the ability of companies to compete for customers. While New Zealand operates under liberalised business conditions, many of our trading partners still have some aspects of their manufacturing effectively subsidised by the state; the most obvious example being the milk subsidies in both the United States and Europe. Subsidies might include access to pools of low wage labour or low cost energy. Trade agreements can have an impact as well. While agreements may prohibit direct subsidies, many developed countries have generous cross subsidisation of their economies that effectively provides an indirect assistance to many businesses, such as energy supply or large research contracts.

It is difficult for new businesses to gather enough momentum and resources from the domestic market to fund entry into international markets. New Zealand Trade and Enterprise (NZTE) through in-country representatives and its Beachheads programme can provide valuable assistance to companies with the initial steps into new markets. A close connection in market is invaluable in gathering information and understanding the nuances that lead to new products tuned to local markets.

For several years now New Zealand manufacturers and exporters have suffered the twin challenges of an artificially high exchange rate and intense competition from low wage economies, notably China and Asia in general. Some New Zealand companies have moved their manufacturing offshore to take advantage of lower wage rates and other costs savings. There are,

however, signs that this trend is reversing as the cost of managing long supply chains and assuring quality, together with consumer demands to know the back story behind and source of origin of a company's products, become more apparent.

### **3. RESOURCE CONSTRAINTS**

Many manufacturers throughout the world are feeling the global impact of China and India as emerging economies competing for raw materials and providing manufacturing bases for many companies. As New Zealand manufacturers increase their focus on specialised niches, the size of any single market or company may shrink, meanwhile markets and (retail) customers are consolidating. New strategies will be required as a greater number of smaller companies participate in the global marketplace. These may include collective representation or shared go to market strategies and channels.

Global population pressure and increasing wealth in developing nations will place ongoing upward price pressure on many raw materials and commodities. Our ability to compete on a global stage for reliable supplies of key resources may become an increasingly important issue and potential constraint. This is already directly impacting on the ability of New Zealand manufacturers to source some commodity materials at reasonable prices, for example steel and oil, although the economic downturn is providing some temporary relief. These constraints are symptomatic of a changing global landscape and could equally apply to the supply of skilled labour, energy or potable water. Resource constraint issues are likely to remain important with increased globalisation and with the rationalisation of supply chains as global manufacturers capture greater proportions of their supply chain in an effort to drive costs down.

For many resources there is relatively little 'slack' or surplus in the system to

accommodate escalating demand from developing nations. Manufacturing processes have evolved to manage the current access to materials. For high technology products the lead-time for new factories is long and the capacity optimisation window is small. In the electronics industry even base level components require highly complex processing. Furthermore, due to the nature of the processes involved, these plants often have little spare capacity with which to absorb the peaks of changing demand. Similarly the demand for specific types of production machinery is now highly competitive as the new manufacturing economies (for example, China and Eastern Europe) start to compete directly for equipment.

### 4. WHERE TO MANUFACTURE

The rush to reduce costs via cheap labour pools is giving way to producing close to where the consumers are, because of energy costs and the costs involved in managing long and complex supply lines.

Manufacturing+ recognises that value can be created in many ways – through manufacturing in New Zealand, contract manufacturing offshore, and by owning manufacturing assets offshore. World leading New Zealand manufacturers are developing more sophisticated international business models that are consumer, beyond cost, driven. This is as an important trend because increasing energy costs, climate change issues and changing consumer preferences will in future place a greater imperative on manufacturing closer to markets. Retaining a manufacturing base in New Zealand – particularly where our strengths lie in value-added, specialist products – is vitally important. This is because the manufacturing process itself contributes to innovation, which is essential for economic growth.

Innovation will be an important consideration when considering where to make. The consensus among world leading New Zealand exporters appears to be to keep research and development and key innovation in New Zealand close to home. With leading edge technology of a critical or high value nature, again the rule seems to be keeping it close to avoid exploitation by offshore contract manufacturers who could become your next competitor. Innovation comes from the manufacturing process itself so keeping some value functions in New Zealand appears to be value enhancing. New Zealand as a test market for new products can be valuable because of the small scale and ease of access.

The cost savings seemingly available from offshore manufacturing can be an illusion because of energy costs, currency volatility, costs of managing quality and long distance supply lines, and the upward trend in costs in developing nations. On the other hand access to lower cost raw materials and reduction in shipping costs by manufacturing close to market will be very real considerations. The availability of skilled labour in New Zealand continues to be an issue in many industries.

The most significant factor affecting where to make should be the customer. For some customers in some countries the country of origin significantly influences the choice of which products to buy. For example, the health-related issues in some products from China, such as those involving milk powder, have led to widespread consumer boycotts, as can concerns about human rights in some low-cost manufacturing companies.

Consideration of the impact on your brand in the choice of where to manufacture is paramount. Some companies are able to leverage off the New Zealand brand, especially where health and safety concerns are paramount, or where New Zealand's

neutrality can gain access to markets, for example in the Middle East, that may be less accessible to US- or UK-based exporters.

Manufacturing close to markets will enhance speed to market, and enable short lead times and a more responsive distribution chain. The New Zealand home base time zone can be a source of competitive advantage to provide “overnight solutions”.

Risk will be a further significant factor in the choice of where to manufacture. Manufacturing offshore can be used to avoid or minimise tariff or non-tariff barriers. Manufacturing close to market can provide a natural hedge on foreign exchange risk. On the other hand, developing nation economies often lack the political stability of New Zealand, security concerns can be greater especially for expatriates, and often the laws governing intellectual property protection are less stringent and harder to enforce.

Probably the overwhelming factor in the decision will be the perspective of the owners. We met many companies that are passionate advocates for New Zealand based business and would not dream of taking their manufacturing offshore. Although such attitudes may be regarded as un-businesslike by advocates of economic rationalism, in fact one of our findings from the project is that passionate commitment to the purpose of the organisation is a distinguishing feature of enduring success. To the extent that passion is diminished through losing the New Zealand identity, it may be that success will also decline.

## 5. SUSTAINABILITY AND ETHICS

There is a growing commitment among consumers in the developed world to make the world a better place. This is becoming apparent as consumers choose to shun products where there are ethical concerns about, for example, human rights or concerns about degradation of the environment. In particular health, wellness and safety are of paramount concern.

Whereas we encountered quite widespread views among New Zealand business that sustainability may simply be a fad, such is not the case in our developed world markets where retailers such as Wal-Mart, Tesco, Sainsbury and Carrefour are leading the way to sustainable choices. Much like quality 20 years earlier, sustainability is becoming a practice necessary to do business, not simply nice to have or a luxury if only we could afford it.

On the contrary smart companies like Stainless Design in Hamilton, FIL and Comvita in Tauranga, Verda in Rotorua and Energy Mad in Christchurch have realised that sustainability enhances the bottom line as well as the brand.

The ‘lean thinking’ culture first developed by Toyota has a constant focus on continuous improvement and eliminating seven wastes across systems and processes.

1. Overproduction beyond customer or early production
2. Waiting or idle time
3. Unnecessary moving or handling of materials or work in progress
4. Unnecessary inventory – ideally all inventory should be received just in time
5. Movement of people, materials or equipment that adds no value
6. Over-processing of materials that adds no value; under-utilisation of raw materials
7. Scrap or defective units

Sustainability is also about the elimination of waste. There is no waste in nature. Sustainability practices aim to eliminate, reduce or recycle in such a way as to reduce the company’s footprint on the planet, and to reduce costs. Lean thinking and sustainability are symbiotic.

The following segment is drawn from the conclusion of a report on the impact of sustainability on New Zealand exporters, especially food and tourism, prepared by Sustainable Enterprise Ltd.<sup>9</sup>

<sup>9</sup> Mike Pratt is the Managing Director of Sustainable Enterprise Ltd. A full copy of the report may be downloaded from [www.SustainableEnterprise.org](http://www.SustainableEnterprise.org)

<sup>10</sup> Sustainable Consumerism: What does it mean for New Zealand exporters, July 2008, Sustainable Enterprise Ltd., P.46; downloadable from [www.SustainableEnterprise.org](http://www.SustainableEnterprise.org)

*The food and beverage and tourism industries provide more than half of New Zealand's exports. All of these exports are affected to some extent by rapidly changing consumer and business attitudes towards sustainability.*

*The majority of our food exports is commodity in nature and will therefore become ingredients in the products of other manufacturers. Such commodities have less of a premium to be gained through sustainability positioning and are at less risk of attack. However, the increasing expectations and concerns of consumers about health and safety issues and the consequential desire to understand the back story behind their food purchases will involve increasing scrutiny of all our food exports.*

*Global demand for food products is escalating because of rising incomes in developing nations especially China, rapidly increasing global population, reduction in food productive land because of conversion to bio-fuel crops, and droughts and other climate change impact on production. This is likely to provide support for New Zealand's terms of trade in commodity food exports for the foreseeable future, although health and safety concerns will remain of paramount importance. The potential for environmental legislation affecting trade, and changes by those managing supply channels is already fundamentally affecting business risk and opportunity for New Zealand food producers and will continue to do so. For commodity exporters it is mostly about managing risk.*

*For exporters of branded food products that attract a price premium (for example Zespri kiwifruit) opportunity and risk are seen as simply the flip side of the same coin; these have to be looked at together. The situation is changing fast (25 percent annual growth rates in organic and natural*

*foods for example), driven by changing consumer preferences and choice editing by the retail trade. Price premiums can be generated through authentic sustainability claims and destroyed through 'unsustainability' actions.*

*Consumer concern about carbon emissions caused by air miles is currently not as strong as concern about the environmental issues around food. A rising middle class in emerging economies such as China, escalating global population and ageing demographics in developed economies are fuelling air travel. However, risks to tourism exist if perception shifts around air miles (the British media is starting to tip in this direction - holiday local), and if New Zealand's clean, green brand is perceived to be false. The tourism industry has identified the necessity to move urgently to address key issues such as the ability to offset carbon emissions on air travel and the need for low emissions ground transport. Recognition must lead to comprehensive action.*

*New Zealand is fortunate in possessing a '100% Pure', clean, green image or brand. This is a valuable, even essential underpinning for our export economy of food and tourism. But the brand is at risk. New Zealand has some of the worst statistics in the developed world for soil pollution, pollution of waterways and emissions standards.<sup>10</sup> Our tiny population relative to our land area enables us to preserve the image for the time being, but the authenticity of 100% Pure does not bear close scrutiny. We have a lot to lose from the increased scrutiny that is emerging from the issues outlined above.*

*To continue to sustain premium prices for premium products and experiences, our food and tourism sectors need to embrace sustainability at their core both in strategy and practice.*

The same logic applies to most premium value branded exports. Value can be enhanced by authentic sustainability claims, and undermined by unidentified and unaddressed un-sustainability risks.

#### **6. SOURCE OF ORIGIN - THE BACK STORY**

Increasing safety and ethical concerns about products are driving calls for the story behind the brand. There is an increasing desire by consumers to know the source of origin of the product and its raw materials. Technology is enabling this, such that it is now possible using cheap mobile devices such as mobile phones to scan bar codes on products in supermarkets to access the whole back story and source of origin. Increasingly products that can't tell their story, or that can't tell a good story, will be ostracised.

Transport costs, distance and carbon are likely to become of increasing concern as understanding of climate change issues becomes more sophisticated and widespread. Providing traceability to consumers through the use of well documented, quality systems is key as the importance of 'source of origin' in purchase decisions escalates.

An example is the perceived risks that the outbreak of disease can have on customers' buying patterns of agricultural and meat products, such as the impact of BSE (bovine spongiform encephalopathy) on sales in the European beef market. In other examples, source of materials (such as plantation timber), the use of child labour in production, or lead-free soldering, provide strong reasons for consumers to buy or not to buy.

This is further impacted by the fact that, in almost every category globally, products are in oversupply as a consequence of the global economic recession, and customers

have a far greater selection than ever before. As a consequence, customers' selection criteria have become more complex as they want to know more about the product and its back story.

We believe that providing traceability is a big opportunity for New Zealand manufacturers given the unique positioning available from New Zealand's clean, green and distinctive image. Our reputation for high environmental standards, a well integrated and regulated labour market and ethical trading combine to place New Zealand manufacturers in a leading position when consumers are faced with these issues. To add to this, most New Zealand manufacturers have a high degree of traceability within their product and supply chain and can provide the source of origin information that consumers require.

Our relatively small manufacturing industry makes tracing product transformations easier than in global markets. We have an opportunity to leverage this distinctive feature and differentiate ourselves in the marketplace.

#### **7. WELLNESS, SAFETY AND SECURITY**

Increasing affluence, growing appreciations of the value of good health and well-being, and people living longer are all contributing to a growing market for wellness products and services. At the same time decreasing confidence in the global socio-political system is enhancing demand for safety and security products and services.

Companies such as Good Health New Zealand, New Image, Functional Whole Foods and Comvita are taking advantage of the burgeoning global demand for natural health products that seems set to make this industry a billion dollar plus contributor to exports and one of New Zealand's leading export sectors. It is an industry entirely consistent with New Zealand's global brand

identity and one that enjoys premium value and low materials weight for low cost distribution.

Mole Map and Formthotics are both companies that have positioned themselves in the wellness sector. Mole Map uses medical imaging technology and tele-medicine to both record and diagnose potentially cancerous skin defects. Formthotics “enhances people’s wellbeing and performance through enabling the natural brilliance of the human foot”. Its pioneering podiatry inspired products are leaders in their niche.

Medical tourism and related services are another source for creating significant potential value for enterprises. The price of an average operation in North America is five-times higher than that in New Zealand. Although prices are still slightly cheaper in countries such as India and Thailand and standards high, New Zealand can leverage our brand identity and first world status to become a leading player in this potentially billion dollar plus segment. And what better environment in which to recover after the operation.

### 8. CONNECTIVITY AND CITIZEN MEDIA

Digital media has changed forever the way we connect with customers and end-users, and in many cases has fundamentally changed the nature of supply chains and channels to market.

Interactivity and mobility rule, and will be essential to and integrated with products, services and experiences. Increasing numbers of products are becoming digitally interactive, from the fridge that orders its own food when stocks are low to clothes that charge our cellphones and other electrical appliances. ESCEA in Dunedin exports gas heaters that can be turned on or off using a mobile phone. Rennacs in Te Awamutu has built its business on

handheld digital diagnostic devices for roadside assistance providers such as the AA in New Zealand. Users can diagnose faults interactively by plugging the device into the car’s system and identifying the solution from the device database. Whatever your product, think about how to make it interactive and how to make it more mobile. Then think about how to combine it with something else in ways which have not yet been thought of. Steve Jobs and the iPod is the poster case for such creative destruction.<sup>11</sup>

Interactivity can disintermediate the value chain, that is, remove people or processes entirely from the process of creating value. Amazon.com is slowly putting pressure on bookshops as people can buy the book of their choice online and have it delivered within days. This is a big opportunity for New Zealand business because to some extent at least it removes the tyranny of distance. We can always be available to our clients via the web. Nothing substitutes for face-to-face time especially with business-to-business (B2B) engagement, but an effective web presence can amplify and support personal engagement.

Digital media is changing the face of advertising. Traditional advertising media such as print and television are declining while digital spend is escalating at more than 20 percent a year. This is good news for New Zealand business given the widespread and targeted reach that digital media can have relative to the increasingly fragmented nature of traditional media. Increasingly companies are tapping into new media such as TradeMe, social networking sites such as Facebook and My Space and interactive gaming sites such as Second Life to enhance the impact of their marketing and create new channels to market in tune with 21st Century lifestyles.

<sup>11</sup> See for example Richard L. Nolan and David C. Croson, *Creative Destruction: A Six-Stage Process for Transforming the Organization*. Harvard Business School Press, 1995.





Matching the revolution in media is the revolution in content. Advertisers no longer control the content of their messages. The real story is told by consumers using their blogs, YouTube, social networking sites, Twitter and good 'old fashioned email. Product brands are becoming only as good as the virtual stories that are told about them by consumers. The wisdom of crowds is likely to prevail. If lots of your consumers say your product is great, people are more likely to believe it is great than if you say so. This means that companies need to pay close attention to the stories that are told about them in cyberspace. Smart public relations can enhance or accelerate these stories such that they become contagious. The ability to make this happen is becoming the new genius of marketing.

The consumer is the boss, content producer, community builder, networker and citizen journalist. The pervasiveness of digital cameras and video cameras means that few events are without a citizen journalist on hand to tell the story. Smart companies flow with and take advantage of these emerging trends; those that fight them will fail.

#### **9. CHANGING CUSTOMER AND END-USER PREFERENCES AND LIFESTYLES:**

At the same time as this dramatic enhancement of instant digital connectivity to anyone, anything and any knowledge, there is an increasing human feeling of isolation as the pace and pressure of life escalates. The human need for belonging increases. Brand marketers can enhance wellbeing and the value of their products and services by placing them in the context of human experience and connectivity.

We advocate that premium brands will become less about product, and more about experience and service. The more valuable experience and service we can wrap around a product, the greater the likely price premium. For example, we buy a premium sound system such as Bose for the

experience of great music or home theatre. How can we enhance that experience? This is a very different thought process in product design compared to how can we add more functional features.

How can our products and services enhance the feeling of emotional connection with family, friends, and other people? If they can feel that connection, people will feel more emotionally engaged with the products themselves. For example, Verda has turned its wood decking, fencing and garden products into experiences for outdoor living. CSforDoors in Auckland, a cavity door specialist, "creates inspirational spaces for our end-users to make their lives easier and more enjoyable". Auckland kids shoes manufacturer and exporter Bobux wants to bring smiles and delight to kids and their parents to make parenting easier and more fun. Human connection beyond functional features will build brands.

As the pace of life gets faster, there is increased demand for convenience food and products of all sorts; at the same time the slow food movement is developing as a countertrend. While this may seem perverse, the explanation is straightforward. Peoples' lives are becoming more fast-paced, pressured and stressful. So practical convenience products that reduce these pressures will be in demand at the same time as products and services that enable people to emotionally connect to other people and their environment to enhance their wellbeing; oases of pleasure and fulfilment in their otherwise stressful lives.

In B2B transactions, the increasing scale of customers (due to mergers and acquisitions) is providing greater buying power and logistical advantages. Retail customers now expect extra services such as improved traceability of source materials, recognition of sustainability principles, detailed product/service information and, in some cases, ongoing support.

Changing supplier systems and structures as a result of globalisation are also influencing why, how, where and at what margins manufacturers can sell. Catering to these new preferences requires manufacturers to be fast and flexible, using new technologies to help them adjust to different scales and scopes of manufacturing.

Customisation of products or services is increasingly a way of creating added value. Co-creating products or services with them, especially B2B customers, is a valuable way of innovating. The term 'prosumer' describes consumers who are also involved in the design or production processes, that is, the producer-consumer. This concept is regularly seen in the software industry (beta testers) and increasingly has a role with manufacturers, for example in usability testing and design. The more we can understand how customers and end-users respond to our products and services, the better.

There are also countless websites dedicated to reviewing product or service offerings, and for many companies the comments and feedback collected from customers on those sites can offer direct feedback into their innovation processes. Having customers involved in the development process also gives companies a valuable way to gain insights and a greater understanding of the nuances of their marketplace. This is especially important where a company is physically removed from the markets where its products are sold and from its consumers in those markets.

Mass customisation and highly personalised service are becoming increasingly important. While this can be seen as overhead, it also offers significant opportunities for value enhancement. The product becomes part of a more complex service and experience package and hence a more highly valuable offering. For example, the New Zealand company Obo dominates its international market as a supplier of field hockey goalies

equipment. This is in part due to the company using the internet to communicate with its customers and to develop vibrant communities around its specialist, niche products. The distance-to-market no longer matters when customers are so strongly connected and loyal.

Mass personalisation and niche marketing are enabled through specialised transaction channels and new media. The ability for manufacturers to communicate directly with end-users through interactive media combined with computer assisted design and manufacturing can enable products to be personalised. In *The Long Tail: Why the Future of Business Is Selling Less of More*,<sup>12</sup> Chris Anderson suggests that through use of the internet, products don't have to be displayed on shelves so the costs and physical constraints of a large product range disappear. Smart search tools can overcome the feeling of being overwhelmed that purchasers often feel when confronted with countless varieties of the same product on hypermarket shelves. This creates the potential for more niche products personalised to particular interests and needs.

Long tail theory argues that more obscure products can still become valuable revenue streams as end-users discover products that appeal to them and the scale of the web enables more people to be engaged. Anderson suggests that markets may fragment into countless niches. The theory is appealing for New Zealand companies, as most of them focus on niche. However, Anita Elberse argues in "*Should You Invest in the Long Tail?*"<sup>13</sup> that the empirical evidence in support of the theory is weak.

<sup>12</sup> Chris Anderson, *The Long Tail: Why the Future of Business Is Selling Less of More*, Hyperion books, 2006

<sup>13</sup> Harvard Business Review, July-August, 2008

10. PARTICIPATION, EXPERIENCE AND TRANSFORMATION:

We conclude these trends where we began: with the imperative to focus on the customer, purchaser and end-user or consumers. We distinguish these terms because the needs of the various players in the value chain are different.

The customer is the person who is going to buy your product. If you sell through retailers then you need to appeal to customers by finding ways to engage with them in the first place, through attractive margins and terms of trade as well as by having a product that has appeal to end-users.

The purchaser who buys your product may not be the person using it. More than 80 percent of supermarket purchases are made by women who are buying on behalf of their families. The shopping experience needs to be simple, engaging and fun. So for manufacturers and brand marketers, the ability to have some control over the actual shopping experience enhances value, premiums and sales.

For example, Egg Maternity creates and exports designer clothes for pregnant women. Often these are bought by proud grandmothers-to-be. Egg's insight was to enhance the shopping experience through "pods" – a store-within-a-store concept where their garments have their own separable presence and shopping experience. Trelise Cooper believes in the magical theatre of fashion. The Trelise Cooper feminine fashion sales experience is based on a store-within-a-store concept where every aspect of the purchase experience is carefully choreographed to enhance joyful celebration of everything it means to be a woman. The product becomes the basis for theatre.

End-users may be the same as purchasers, or they may not. Halifax, New Zealand's leading quality souvenir supplier based in Christchurch, determined that the large

majority of its products were given as gifts. So their focus is to enhance the gift giving experience.

Understanding end-user needs is more than just understanding the functional aspects of a product that the consumer demands. There is no substitute for seeing how users actually use your products either as consumers wherever they may be, or as business-to-business customers in their workplace environment. The experience of the product in use will reveal insights for innovation in both product design and communication that can enhance the frontiers of business possibilities.

There is enhanced demand for intense experiences by consumers, for example extreme sports or adventure tourism. New Zealand is well placed to take advantage of this trend. Beyond physical adventure, experimentation with new products such as authentic ethnic foods can enrich experience and memories long after physical products are forgotten. Emerging theories of wellbeing and happiness<sup>14</sup> confirm that while the acquisition of new products can often leave us mildly dissatisfied after the initial euphoria has worn off, positive memorable experiences can become the source of an enduring sense of wellbeing and accomplishment.

Beyond product as experience, using product and service to improve an individual's life through previously unknown or inaccessible insights, understanding or attainment can offer new ways of creating value. Medical tourism can be transformative. The transition from illness to health to wellness through natural products can be transformative. Enriching tourism experiences can be spiritually fulfilling through enabling people to see beyond their current world view.

For example, the New Zealand Dairy Goat Cooperative (NZDG) supplies goat based infant milk formula. NZDG is first to

14 For example see: Leaf Van Boven and Thomas Gilovich, To Do or to Have? That Is the Question, *Journal of Personality and Social Psychology*, 2003, Vol. 85, No. 6, 1193-1202  
Leonardo Nicolao, Julie R. Irwin, and Joseph K. Goodman. (2009). Happiness for sale: Do experiential purchases make consumers happier than material purchases? *Journal of Consumer Research*, Vol. 36, August 2009



acknowledge that breast milk is best, but some women are not able to breast feed or do not wish to do so. For them, the low allergenic properties of goat milk for infants can transform their lives through enhanced wellness for baby and therefore for mother. By revealing ways in which our products and services can enhance life for people, organisations and society we make the world a better place and plenty of money for our company by so doing.

In this chapter we have explored a series of 10 trends which provide a context for the way 21st Century business is unfolding. Not all of these trends will be relevant to your business. There will be some trends that are specifically relevant to your industry and business that we have not touched upon.

These reflections then serve two objectives: To encourage you to develop your own

list of trends that are or will impact on your business, and to imagine the opportunities, consequences and risks resulting from these.

To emphasise that whatever your business, starting the process of Value Creation still requires careful consideration of user needs, experiences and aspirations.

YOUR NOTES



In the Manufacturing+ research phase we used case studies of successful New Zealand manufacturers and workshop discussions to deduce a set of concepts about how we can create value in the increasingly complex world of international trade.

# The Value Creation Model: Principles, concepts and dynamics

Twelve concepts emerged from this research, which in some combination appear to contribute towards sustained success.

1. Creating, maintaining and evolving innovative business models.
2. Building sustainable and ethical values into our brand position and business operations.
3. Leveraging partnerships, franchises, joint ventures and alliances.
4. Innovating and co-creating solutions.
5. Creating relationships with a human face.
6. Creating world leading brands and designs.
7. Leveraging the global value cycle by knowing how we can best fit.
8. Connecting with global networks to gain foresight and insight.
9. Understanding and using the unique qualities of the New Zealand business reputation and branding.
10. Integrating manufactured goods with service offerings – add-on features – such as service, education, support or training.
11. Delivering high standards of operational excellence in design, production and management capabilities.
12. Incorporating the smart use of capital intensive manufacturing and labour.

Not all of these concepts were exhibited in all successful manufacturing enterprises and different companies load up on different combinations of Value Creation. We found no examples of successful companies where only one or two of the concepts were relied upon. The secret of success appears to be to develop a unique value model based upon a combination of several value creating factors.

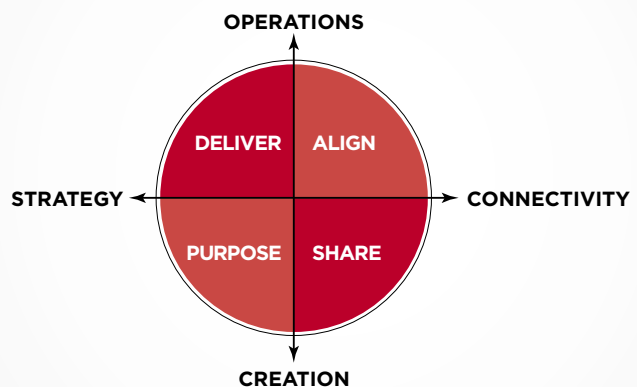
A list of value creating ideas by itself is of limited value unless the relationships between the component parts can be understood, so that the reasons for success can be identified and therefore emulated in new and emerging situations. By developing and sharing a Manufacturing+ success model we aim to facilitate the implementation of these ideas throughout New Zealand manufacturing enterprises.

## Value Creation Model

Four key success drivers were identified – strategy, creativity, connectivity and operations. Manufacturing+ success stories were clear on a sense of strategic direction through being closely connected with customers and consumers. They also exhibited creativity and game changing ideas on the one hand, and a strong commitment to operational excellence on the other hand.

These drivers are exhibited as axes in the following model.

### THE VALUE CREATION MODEL AXES



Successful enterprise activity requires both creativity and excellent execution. Creative execution should be both strategic to the enterprise and connected to the needs of consumers to ensure that value is created. These four ideas – creativity, excellent execution, strategy and connectivity - constitute the two axes of the Manufacturing + Value Creation model, which in turn creates four quadrants of activity - Purpose, Share, Align and Deliver.

1. Develop a creative and strategic **PURPOSE** and business model.
2. **SHARE** creative ideas through close connectivity with markets and consumers.
3. **ALIGN** the organisation to the global value cycle by understanding where to play and how to win to create the most value. By value cycle we mean the sequence of events and resource use commencing with raw materials, through research and development, manufacture, distribution, service, training, through to the end-user and ultimately to the recycling of the product to provide raw material input for a subsequent value cycle.
4. Combine operational excellence with the strategic determination of product designs and manufacturing infrastructure to **DELIVER** products of outstanding value.

Firms can enter at any quadrant in the model. Historically, there has been a propensity for Kiwi entrepreneurs to imagine an innovative new product and then figure out how to make and sell it. We are advocating a more purposeful approach, starting with the Purpose quadrant and progressing around the model in an anti-clockwise direction. Equally however, the model can be used as a lens through which all aspects of a firm's business rationale are explored.

## CONCEPTS

There are 12 key concepts to Value Creation, three per quadrant. These are explained below.

## PURPOSE

### 1. CREATING, MAINTAINING AND EVOLVING INNOVATIVE BUSINESS MODELS

Business is about creating value. To continue to be competitive, companies need to develop innovative models for business. Creativity and innovation are the lifeblood of all organisations and if this is done well, our best ideas can be positioned as products and services in uncontested market spaces. This applies to what we make, and to the way that we work and make money. The key idea is to work in more interconnected and co-creative ways. An innovative model builds on the value created in the manufacturing process to become Manufacturing+, for example through the addition of experience, service, finance, distribution, consultancy and training.

There is an urgent need for manufacturers to consider demand-side factors as distinct from supply-side factors which have dominated the thinking behind more traditional business models. What does the customer, consumer and end-user value, what do they need? By deliberately forming new and innovative business models that capture emerging market opportunities tailored to a particular customer need (demand-side), the product (or offering) is then 'pulled' into the market. This is usually a much better approach than the traditional way of 'pushing' a product into the market because the technology exists and then looking for customer need.

The nature of competition requires us to continually question how we create value. This requires a review of the company's fundamental value proposition, its target

markets, the basis on which revenue is generated, the network of business and customer connections, and sources of competitive differentiation.

Think about how every aspect of your business adds value for your customer. Think about what else you could be doing that would add superior value for your customer and consider doing it to differentiate yourself from the competition. Consider using “Blue Ocean Strategy”<sup>15</sup> to rethink your business model and strategy. Are you capturing sufficient value created both in terms of return to shareholders and re-investment?

#### REFLECTIONS

1. Do you have a clear understanding of how you create value from a customer’s perspective?
2. In what ways are you different from your competition?
3. How could you further mitigate the risks of your markets being taken over?
4. How could you evolve your business model to be in a stronger position in your industry?

YOUR NOTES

## 2. BUILDING SUSTAINABILITY INTO OUR BUSINESS MODELS

There is a growing awareness of the impact of environmental, social, cultural and ethical issues on the way in which companies create value.

New Zealand has an excellent reputation as an ethical place to do business, and this reputation will become important as value-based judgements become more prevalent in overseas consumers’ purchasing decisions.

New Zealand businesses have systems that provide robust accountability and have a world leading reputation for fairness and responsibility. Tourism New Zealand’s 100% Pure campaign is an excellent tourist destination brand for New Zealand, and, although not necessarily suited to all companies, the use of the clean, green imagery has been beneficial to some companies, particularly in the food and beverage sector.

Within this context, sustainability also means that your business will still be in business in decades to come. That means succession planning, awareness of global trends, planning for change in consumer tastes and adapting your business model and strategy to suit.

The supply cycle is a vital consideration in sustainability – for example, where do your ingredients or inputs come from? Who made them? Were they made ethically? Are they safe? If you manufacture offshore were all animals treated humanely? Are the ingredients produced to the same standards as in New Zealand? Are workers treated fairly?

For some, international exporting opportunities dictate the stringent environmental criteria that must be adhered to. An example here is manufacturers exporting to the European Union where their products are already subject to stringent restrictions, for example on disposal

of packaging materials and on products containing lead, such as that found in the solder of electronic products. Thus, many New Zealand businesses have already felt the impact and have been forced into high-tech upgrades to their soldering processes.

There is a need to ensure that companies protect their reputations (and New Zealand's), and it also offers an opportunity to trade on that good reputation. The failure of Chinese company Sanlu,<sup>16</sup> in which Fonterra had a 46 percent stake, was a salutary reminder of the economic consequences and reputational damage that can result when sustainability risks aren't managed.

There have been many examples of large companies offshore declaring that they will only buy from sustainable and ethical businesses. Increasingly, this will become a necessity to conduct business rather than a source of competitive advantage.

#### REFLECTIONS

1. How could you further incorporate sustainability into your business model?
2. How could you further leverage and support New Zealand's reputation for ethical and accountable business practices?
3. How could you exploit the current global trend towards being socially, environmentally and culturally aware?
4. How do you ensure that your entire supply chain is in keeping with your own ethics and values?

YOUR NOTES

#### 3. LEVERAGING PARTNERSHIPS, FRANCHISES, JOINT VENTURES AND ALLIANCES

Our small size and distance from our major markets suggests that we need to embrace innovative ways of going to market. Successful models that we observed included Gallaghers' use of offshore distribution partners, Les Mills International's use of country agents and a franchise system, New Image's direct selling model, Zeacom partnering with a major multinational company to co-brand their products, and Peri Drysdale's (Untouched World and Snowy Peak) use of personal relationships directly with major retail outlets. A wide variety of innovative ways of overcoming the challenges of remoteness and scale were identified. The keys to success or failure of these partnering activities included the development of trust, robust contracting, protection of intellectual property, and careful structuring of the business model and partnership agreement to assist in preventing the partner from becoming your major competitor a few years on.

Think about how your business is structured – is it the most efficient model for your business? Could you replicate faster and more efficiently by using different go to market models such as franchising or starting a joint venture with a larger company? While this can seem risky, it can be a good strategy for getting your product out there faster.

Consider your own core competencies and decide which parts of the value chain you want to operate in, and which would be better served by being executed by other companies. If your business is best at producing a product, consider partnering with a distribution company that will maximise your sales. If your forte is in the design of the product, consider whether there are other manufacturers (on or offshore) that could produce your perfectly designed product more efficiently than you. If your skills lie in the branding and

<sup>16</sup> As a consequence of child deaths caused by milk powder tainted with melamine, an industrial chemical



marketing of the product internationally, consider contracting out the design and production of the product and focus on accessing international markets.

Consider who in your industry, or in a complementary industry, you could make a strategic alliance with in order to boost both your market shares. Is there a domestic competitor with whom you could team up to win larger offshore contracts? For example Phil & Ted's acquisition of Mountain Buggy enabled greater scale and market penetration. Is there someone with a complementary product which would make your offering even more valuable to the customer? Are there clusters of companies that could benefit from sharing resources such as offshore branding/ advertising or international salespeople? For example, we noted a significant number of highly successful but modestly sized producers of sophisticated food manufacturing equipment. There could be powerful market leverage from the development of shared strategies and channels to market.

#### REFLECTIONS

1. How could you utilise partnerships/ franchises or strategic alliances to overcome issues of remoteness and scale?
2. To what extent are you at risk of having a partner become your competitor?
3. How could you mitigate this risk?
4. To what extent do you manage your relationships with other stakeholders to ensure that you remain world leading in your role in the value cycle?
5. What else could you do to ensure you retain your position?

YOUR NOTES

## SHARE

### 4. INNOVATING AND CO-CREATING SOLUTIONS

The essence of this value concept is that world leading New Zealand manufacturers have developed the capability to work closely alongside their customers to co-create simple and innovative solutions to complex problems through a deep understanding of their customers' needs and business model. The more this skill and these insights are exhibited the more reliant the customer becomes, and this creates an enduring relationship through which mutual value is developed. Enduring partnerships of this nature expand the horizon of business possibilities.

This intimate relationship with your customer can be your unique competitive edge – enabling you to see what your customer wants or needs, perhaps before they even know it themselves.

The role and importance of innovation to businesses, no matter what size, is well understood. As businesses and technologies get more and more complex, it is rare that one person can hold all the knowledge; therefore collaboration is an essential element of today's business environment. Indeed, for radical innovation to occur, it is frequently necessary to meld knowledge coming from different industries, disciplines, professional communities, business units and functions.

How well a company is geared up for radical innovation can be gauged by its capacity to continually develop, integrate and apply knowledge from many diverse sources. Profound innovation applies across all dimensions of business activity – business models and purpose, relationships with customers and consumers, methods of leveraging the value chain, production technologies and labour productivity, for example.

There should be an expectation of innovation throughout the organisation.

It is increasingly important to inspire employees at all levels of the organisation to think about how things can be done more efficiently or more effectively – or perhaps even whether aspects of a process even need to happen at all. Often it can be the newest employees that will have the freshest eyes – able to see novel and better ways of doing things. The benefits of fostering this sort of creativity within your team extend to other benefits such as increased job satisfaction, which in turn flow into productivity and job retention.

Embracing a culture of collaboration and co-creation, whether within the company, across suppliers and strategic partners or with customers themselves, can open up many opportunities and help to make the tasks more efficient and valuable. New Zealand companies have a special capability and talent for working with clients and suppliers to create innovative solutions. This way of working together brings flexibility, expertise and innovation to problems that bigger competitors struggle to match.

Innovation systems are also becoming more 'open'. Procter & Gamble, for instance, aims to outsource 50 percent of its innovation while many other companies are establishing networks to actively seek collaborative development partners. Within such networked and open innovation systems, it is vital to be able to build partnerships with organisations that develop new technologies.

Traditionally innovation has been associated with the technology, science or engineering disciplines, but increasingly the innovation focus must also embrace business models, marketing, design and operations of our manufacturing businesses.

The speed of innovation is increasing as product lifecycles decrease. Models of innovation which focus on speed to market are paramount to New Zealand manufacturing's future viability. Often speed to market can offset the need for

intellectual property protection, something that is difficult and expensive for smaller companies to enforce. Thus, a strong understanding of innovation processes will become increasingly important to New Zealand businesses. New skills will need to be developed to manage steps in the process, for example, the management of disruptive technology and technology acquisition.

As a nation of small companies, New Zealand has a considerable advantage when it comes to generating innovative solutions and rapidly adopting them into our businesses. We believe that sustainable competitive advantage for New Zealand will be in how successful our innovation system is at turning good ideas into tangible and valuable products and services.

### REFLECTIONS

1. How innovative is your business?
2. What else could you do to develop an innovative culture within your business?
3. Do you have tools and reward systems to measure and encourage innovation?
4. What tools and rewards systems could you put in place to measure innovation?
5. To what extent do you make the most of potential partners, customers or suppliers, to co-create innovative products and solutions?
6. What mechanisms do you have in place (or could put in place) to capture potential opportunities?

YOUR NOTES

### 5. CREATING RELATIONSHIPS WITH A HUMAN FACE

Business is very much about relationships - among staff, with suppliers or with customers. We all know that relationships are built up over a period of time and through shared activity.

In a world of digital connectivity, relationships with a human face become even more important. Managing those relationships and evolving them over time is essential. New Zealanders have an excellent reputation for a warm and engaging manner. Our way of doing business is recognised as an advantage. The challenge is to develop these relationships through all the means available - through face-to-face meetings, electronic conversations, the products we sell and the services we provide.

Related to this concept is the importance of sharing the story of who you are, as a company, at every possible interface with a customer (or potential customer). Increasingly, customers want to know not only what they are buying but who they are buying it from. They also want to know what you stand for and what you believe in. In this sense, the 'human face' implies a respect for people and the planet.

Creating relationships with a human face was a characteristic of most of the world leading New Zealand manufacturers in our research. Often these relationships are built at the highest level of the company. There is no substitute for face-to-face conversations with customers and consumers to learn their needs and to develop emotional engagement. In a world that is becoming dramatically more inter-connected with information, and simultaneously less connected with human empathy, there is considerable opportunity for us to further develop our engaged Kiwi way of doing business. Ultimately this may be our unique competitive advantage.



## 6. CREATING WORLD-LEADING BRANDS AND DESIGNS

Design and brand are significant sources of sustainable competitive advantage in terms of differentiating the product offerings from global competitors. Design relates to products and services and the communication activities and experiences that surround them. In a design-led organisation the spirit of design is infused throughout all activities.

One of the main reasons why design matters to businesses is that it helps them both anticipate and create the future. At its best, design thinking allows businesses to develop products and services which will meet a need that users do not even know exists yet, and being able to think beyond what is already known is a crucial ingredient for long term viability.

Design applies to the products and services themselves, as well as to the business and economic systems within which they are embedded. Design can be used as a framework of creativity and innovation for the development of original, unique or at least highly differentiated products and services with a view to creating sustainable competitive advantage.

A fundamental principle of design is that products and services should be developed with the customer and end user in mind. Product design should be fit for purpose, simple to use, aesthetic, innovative, functional, reliable and durable.

Sustainable design is about creating products and services using the minimum of raw materials, water and energy that maximise durability and reliability, and are designed for disassembly and recycling at the end of use. Beyond the eco-characteristics of sustainable design is the social dimension. Users often fall out of empathy with the products they have acquired long before those products have ceased to provide their designed function. They become unfashionable or have fewer

### REFLECTIONS

1. How strong are your key relationships in the market place?
2. How do you systematically maintain those relationships in the market?
3. How frequently are you in your market meeting your key customers face to face?
4. Could increasing the level of face-to-face meetings improve your market presence?
5. Do your agents, distributors or in-market representatives project an image consistent with the brand and reputation you want to project?
6. How do you monitor and control this?

### YOUR NOTES

'bells and whistles' than their newly designed counterparts. Landfills continue to increase in size with fully functioning products, no longer needed or loved by their former owners. Sustainable design is design that sustains human empathy and breaks the cycle of relentless short term consumerism.

Increasingly it is becoming impossible to distinguish products or services from the communication, experiences and stories that surround them. It is these stories that engender both the decision to purchase and enduring emotional engagement to a company's products and brands.

The challenge is to develop a common language around design and branding that is embedded throughout every facet of the organisation. Design and brand can be used to establish an expectation in the mind of the consumer. This is achieved through presenting an image, designing the interface, user experience, and total customer experience from delivery to unpacking to ongoing use, the collateral presented and stories that are shared through physical, oral and electronic media. A strategic investment in design and brand can play a key role in achieving emotional engagement with the customer and end user, as well as acting as a point of differentiation in a cluttered marketplace.

There is no doubt that in many areas, such as furniture, fashion, wine and software, there has been a slow but steady rise in the brand profile of New Zealand companies on the international stage. A number of these have been design-led innovations driven by strategic design thinking within the organisation allied to well designed, well targeted and marketed products. Formway and Icebreaker provide exemplars.

Brand is sometimes considered to be just the visual identity or logo of an organisation. In fact it is much more than this and should be seen as the whole user experience of and relationship with the company, its products and services. Brands

should engender enduring emotional connection with customers and consumers, as a primary source of Value Creation.

New Zealand Trade and Enterprise (NZTE)'s Better by Design® programme helps mid to large scale New Zealand companies increase their international competitiveness by embedding design in all aspects of their business. This includes organisational design, competitive strategy, brand design and product and service innovation. Manufacturing+ works closely with Better by Design®, which we believe is a most significant source of inspiration and action for Value Creation and differentiation for New Zealand enterprises.

### REFLECTIONS

1. What role do branding and/or design principles currently play in the value (or the perceived value) of your product/s?
2. In relation to your competitors, how strong is the brand recognition of your company and its products?
3. Is the brand architecture clear?
4. What more could you do to further differentiate your brands from competitors in order to become, or stay, the world leader in your market?
5. How integrated are branding and design principles into all aspects of your business – for example, purchase experience, website, delivery, training, customer service, packaging?
6. To what extent is your business design led?
7. Have you embraced sustainable design?

YOUR NOTES

## ALIGN

### 7. LEVERAGING THE GLOBAL VALUE CYCLE BY KNOWING HOW WE CAN BEST FIT

The concept of the value cycle is a useful tool for looking at where value is created, for whom and by whom. We advocate use of the concept of value cycle rather than value chain, as the latter implies a cradle to grave approach. A cradle to cradle approach considers the whole cycle from initial research and development, through raw material sourcing, manufacture, channels to market, logistics, retail, service and training, and ultimately recycling at the end of useful life, thereby commencing a new cycle.

Understanding the whole value cycle and how and where value is created enables us to better tailor the business offering to the part of the value cycle where we can create and extract the greatest value.

Given New Zealand's challenges with scale and distance, it is even more important that we understand the dynamics of Value Creation and become more influential throughout the value cycle. In particular there are considerable opportunities for moving beyond the processing of primary products into commodities, such as wood chips or undifferentiated wool, towards the creation of more value-added products through innovative technology and brand. Snowy Peak's use of merino wool and possum fur provides an example.

Companies which have successfully managed their role in the global value cycle have carved out a niche for themselves. Some companies have gone on to make and define their own value cycles, thus ensuring their influence across them. For example, Les Mills International created a global franchise model for choreographed aerobic exercise for use in gyms; New Image created an innovative direct selling model for their natural product range; Mole Map has established a global

franchise model for its pioneering tele-medicine project mapping and monitoring potentially cancerous skin conditions.

The position we take in the value cycle is an important part of realising the value of our intellectual property. If someone has a great new invention, they can choose to license it to others to commercialise, or they can choose to commercialise the idea themselves. Choices are necessary at each point in the value cycle: to do the development work or outsource; to establish manufacturing facilities or contract manufacture; to manage shipping and logistics or to seek outside assistance; to hire sales people to sell direct to retailers or establish agents, franchise holders or distributors; to sell to distributors or retailers, and/or to establish retail outlets.

Concept stores featuring the full range of branded products from a company can provide a powerful marketing tool as well as a direct source of sales. These stores can bring profile to the brand which spins over to sales through conventional retail outlets. For example, Comvita has concept stores in a range of markets around the world, and also operates a store within a store concept in large department stores to enable control over the brand story and experience.

Owning the branding of your products rather than supplying components or unbranded products to distributors (which shifts the perceived value captured from the brand from the retailer to the manufacturer), is likely to create greater value. Component suppliers can still achieve brand recognition and enhanced value through co-branding with established suppliers; the Intel Inside brand identification provides an exemplar.

The choice of whether to manufacture your own product or have it contract manufactured is an important value chain consideration. A company may choose to own, for example, the design, intellectual property and branding of its product, but

have it contract manufactured by production experts (on or offshore). This can enable a company to take advantage of lower costs of large scale production or cheaper labour costs, or manufacturing close to the market which can reduce transport and energy costs. Outsourcing manufacturing will also save the capital costs of establishing manufacturing facilities.

On the other hand there are disadvantages and risks associated with contract manufacturing. The contract manufacturer can become your competitor because they, not you, will develop the expertise in manufacturing the product. Although this risk can be mitigated by patents, it is notoriously difficult and expensive to protect patents against financially well endowed competitors and the intellectual property laws in many developing markets are scant. Perhaps a greater risk is the loss of innovative capacity. Much innovation derives from the manufacturing process itself and this is lost when the decision is made to outsource. One successful strategy we noted is for new products to be developed and manufactured in house, and older products can then be contract manufactured in market, thereby protecting both the intellectual property and innovative capacity.

A well understood position can mean the difference between being caught in a commoditised or price-taker position to that of being a price maker. Creating a position that we are able to dominate provides greater strategic security to protect margins and lead the market.

There are ongoing changes to the nature of supply chains as operational efficiency becomes more critical and resources become more constrained. Supply chains are becoming much more highly integrated with traceability and predictability being critical to many businesses.

The stability of world economies along with national border control and security have

a significant impact on supply. It is often challenging to obtain a clear understanding of the potential risks that unstable political climates present.

Dis-intermediation (removing agents or local distributors), seamless communications and e-commerce have resulted in a much tighter linking of suppliers with customers and logistics, often with little buffering. As market channels become more internationalised and transport costs increase, being innovative with methods of product supply is an important competitive advantage. Supply chains are becoming increasingly interdependent, which aids efficiency but exposes them to the influence of global events, such as the 2008 global financial crisis. In targeting specialised niche markets, new channels to market that ensure sustainable success are an indispensable part of the business design process. New technology products, particularly disruptive products, may often have no clearly identifiable channel to market and potentially a less well-defined user group. As a consequence there is often a high cost of developing end user demand and appropriate distribution channels. New media including the internet, social networking sites, blogs and mobile phones are the natural first choice for many new technology products. The art is a combination of advertising which then gets picked up by citizen media and goes viral. For example, a TV 'spot' (advertisement) produced for T-Mobile by Saatchi&Saatchi London was aired only once. Then it was downloaded to mobile phones and created such mass spontaneous reactions that word quickly spread via email and blogs — the spot was subsequently viewed 15 million times on YouTube.

REFLECTIONS

1. Do you have a clear understanding of where best to operate within your global value cycle?
2. Have you determined the best channels to market?
3. What could your business do in order to extract more value from your value cycle?
4. How much influence do you have over the pricing of your products in comparison to your competitors?
5. What opportunities are there for your business to evolve and own other parts of your global value cycle?
6. How is your value cycle likely to evolve, and what opportunities are there for you to create discontinuous change to enable entirely new value propositions?

YOUR NOTES

8. DEVELOPING FORESIGHT AND INSIGHT THROUGH GLOBAL NETWORKS

Understanding the global value chain naturally leads us into the establishment of networks and channels to markets. Developing effective networks is one of the fundamental challenges to New Zealand businesses given our distance from many markets.

Networks are for the flow of goods and services, and for the flow of information, foresight and insight about market trends, legislative developments, new technology, consumer preferences and competitor actions, for example. Successful companies will have developed extensive networks in the markets in which they operate. There is no substitute for on the ground knowledge to understand potential opportunities and how products and services need to be positioned. It is essential that companies deliberately invest in developing real and virtual networks to connect with international clients, customers, suppliers and competitors.

An effective network can be an excellent way to target your customers. For example, one New Zealand company manufactures replica headlights for vintage cars. The company connected into the North American vintage car network by a short advertisement in their newsletter, supported by a simple but effective website. This modest investment gave the company access to its exact target market and resulted in a wealth of orders.

By ensuring you are well connected into key markets, connections and introductions can be created to avoid 'cold calling' potential clients. New Zealanders tend to be open to meeting with potential clients with little need for briefing or formality. But in larger mature markets, such as the United Kingdom and United States, this is not necessarily the case. It can be much harder to get appointments with the right people. Therefore, by being involved in relevant networks, such as

## 5\ The Value Creation Model: Principles, concepts and dynamics

NZTE's Beachheads programme, other NZTE networks, Kea New Zealand, university alumni or professional/trade/sector organisations, you may get introductions or referrals to potential customers.

The path to market varies among cultures and countries. For example, frequent visits to Asian countries are often necessary to build the required trust and confidence over a period of time before business opportunities eventuate. Particularly in new markets, on the ground feedback from your clients is crucial to the success of new products. Distributors or agents in between you and your consumers can sometimes inhibit feedback unless the agency relationship and information sharing are strongly developed. In any case it remains valuable to have direct customer or end-user networks to ensure authentic understanding of the user experience and potential product innovation. Consider creating your own global network for consumers to attract and retain true brand loyalty. Find a reason for your consumers to contact you and sign up to something – for example a warranty, newsletter or competition – to keep in touch with them beyond the initial purchase and add value in some way beyond what they were expecting.



### REFLECTIONS

1. To what extent is your business currently linked into global networks (both real and virtual)?
2. What other global networks could you use?
3. How could you better leverage your global networks and information sources?
4. How do you use your global networks to keep up to date with emerging technologies, market behaviour and competitors' actions?

YOUR NOTES

### 9. UNDERSTANDING AND USING THE UNIQUE QUALITIES OF THE NEW ZEALAND BUSINESS REPUTATION AND BRANDING

New Zealand has a reputation for ethical working; we are known as straight talkers who are reliable and have a ‘can do’ attitude. The global media has helped in building an image of creativity and of a clean, green country which has endeared us to many people worldwide. We can build on these perceptions. The world is curious about New Zealand, what we do and the way we do it. We have the opportunity to leverage those market perceptions to provide a unique source of competitive advantage.

As part of the brand mix and communication message, brand New Zealand can help to open doors and already gives us an introduction even before we meet people. New Zealand, as a source of origin, can help businesses ease into global networks. The clean, green back story can enhance food and beverage brands at a time of rising global concern about wellness, security, food safety and source of origin. On the other hand, the distance from our traditional markets can give rise to concerns about the carbon costs of transportation and the so-called food miles controversy. Food that is transported halfway round the world can be seen to have energy costs associated with transport that locally produced food does not. However, this ignores the difference in costs of production associated with New Zealand style farming relative to the energy intensive production methods used in our more densely populated and colder traditional markets. The naivety of the food miles argument is well understood by food professionals, but is an issue that can be exploited with consumers by local producers. It needs to be carefully guarded against by New Zealand exporters. For example, Grove Mill Winery inoculated against this risk and secured a source of competitive advantage by becoming the first certified carbon neutral winery in the world.

It may not always be appropriate to brand your product as being from New Zealand. Success in some international markets may actually be dependant on the market believing your product originates from their own backyard. This can be achieved by having manufacturing, distribution or service facilities in market run by local people. This is especially likely to be the case when product servicing is an important issue or when New Zealand has no special reputation for expertise in your company's chosen field of endeavour. ICT or specialised engineering products are likely to fall into this category, whereas marine equipment provides an example of an industry which benefits from national branding because of our global reputation in yachting.

#### REFLECTIONS

1. Do your products or brand recognise New Zealand as the source of origin?
2. Could you further leverage New Zealand's reputation and image?
3. What features of your product or service do (or could) build on New Zealand's unique reputation?
4. If you are part of a sector for which New Zealand is recognised as having a competitive advantage (for example, the marine sector), to what extent do you leverage that sector reputation?
5. How could you collaborate within your sector to improve your sector's reputation, enhance scale and improve channels to market?

YOUR NOTES

## DELIVER

### 10. INTEGRATING MANUFACTURED GOODS WITH SERVICE OFFERINGS – INCLUDING AFTER SALES SERVICE, SUPPORT, AND TRAINING

Customers expect the products they buy to be well designed, of a high quality and suited to their needs. These are now 'givens' for any company that aspires to grow a successful and sustainable long term business. Companies must continuously look for innovative ways of attracting customers and building customer loyalty. The challenge is to create an experience for customers that is engaging and enduring, and that sets the product and company apart from the competition. For retail customers this involves an experience that engages them at the two key moments of truth - when they choose the product and when they use it. This engagement embraces the sales and in-store experience, packaging and marketing collateral, the story surrounding the product, product education, web-based information, after sales service and support, and ultimately, recycling of the product.

For business-to-business customers the experience could involve for example design, innovation, solutions and opportunity recognition, consultancy, service, education, and training. Ultimately it's about how your products and services can help make your business customer more profitable and create a win-win sustainable relationship.

The ability to differentiate your company through service offerings provides a means of gaining a competitive edge, and offers opportunities to add further value for the customer and increased revenues and profits for the business. Product information and training, and ongoing support and service reinforce the purchase decision and increase customer confidence in dealing with the company. By integrating your product with innovative service offerings

you can provide your customers with an experience that will turn them into advocates of your business.

### REFLECTIONS

1. How do you use complementary features such as service, support, finance and training to differentiate your product?
2. What supplementary products/services are you not providing currently that you could provide to offer a more complete system or solution for your customer?
3. How confident are you that the customer's first experience, and those throughout the life of the product, are positive ones?
4. To what extent do you work with partners, agents and distributors to ensure the customer receives a quality experience?
5. What else could you do to work with and influence partners to ensure your customers receive an enduring and memorable experience?

YOUR NOTES

### 11. DELIVERING WORLD-CLASS STANDARDS OF EXCELLENCE IN DESIGN, PRODUCTION AND MANAGEMENT

To compete successfully and grow your business in the global economy requires an ongoing review of performance across all aspects of company operations, from design through production to sales and marketing. This is perhaps best embodied in the concept of 'lean' thinking, a culture developed by Toyota, where there is a constant focus on continuous improvement and eliminating waste across all systems and processes. Waste is defined as any effort or expenditure which does not add value to the customer or end-user. Staff are encouraged and enabled to suggest and implement innovation and process improvements based on delivering the best value to the customer.

Some of the principles of lean thinking include:

- "Challenge" to existing processes and ways of working
- "Go to the source" to ensure accurate information and insight
- "Walk a mile in their shoes" to experience the process, product or service from the perspective of users.

These are simple yet profound ideas that contribute towards sustained improvement. To lead the way we need to ensure that we have access to the best knowledge from around the world. This requires investment whether through training programmes such as NZTE's Lean Business programme, trade fairs, commissioned research or academic journals. There is no substitute for personal experience in manufacturing facilities of related businesses or industries, and personal contacts with experts in the field. This attitude of continuous improvement starts from the top of the company and is infused through every business activity.

Formal processes of benchmarking or lean manufacturing implementation can invest rigour into the process of becoming world class in operations. Formal processes for developing management capability such as the Baldrige quality management system, the Natural Step sustainability system, or NZTE's Manufacturing+ process can make a useful contribution. These will be most successful when implemented in the context of a desire to continuously exceed organisational best, by building a passion for excellence throughout the organisation.

Pacific Aerospace, manufacturers of short take off and landing aircraft in Hamilton, made significant use of lean manufacturing processes to dramatically reduce the time taken to build an aircraft such that a 50 percent increase in throughput was possible within 12 months, thereby enabling additional sales in their production constrained business.

#### REFLECTIONS

1. To what extent does your company currently embrace lean thinking and continuous improvement principles?
2. Do you consciously evaluate all activities (not just those in manufacturing) from the perspective of the value added to customers?
3. How do you grow and support your management capability?
4. Do you implement quality assurance systems to measure quality, performance and capability?

YOUR NOTES



## 12. INCORPORATING THE SMART USE OF SKILLED LABOUR WITH CAPITAL-INTENSIVE MANUFACTURING

When compared to developing nations such as China and India that are able to drive their expanding economies with plentiful low cost labour, New Zealand has relatively low unemployment and relatively high wages. Despite the pressure of needing both unskilled and skilled labour, which could provide competition for wages to increase, New Zealanders still receive significantly less pay when compared to Australians, for instance. So there is continued advantage for highly skilled people to take their skills offshore, and consequential pressure on New Zealand companies to do all they can to attract and retain the people that can energise world leading manufacturing. These skill shortages are now being improved to some extent in recent months by much higher net immigration (fewer Kiwis leaving for overseas, more returning and an increase in new migrants) as a consequence of New Zealand's relative attractiveness for quality of life in the light of the global economic crisis.

New Zealand companies must be clever in the way that we manufacture in terms of the smart use of labour, capital equipment and technology. This requires us to look at decision-making in new ways; sometimes the best machine for the job may not be the technically best machine. Numerous examples were reported to us of companies purchasing the latest machines only to find they rapidly had to be updated or modified, or subsequently identifying a machine at a fraction of the price that could perform a similar task.

Conversely, examples were reported of companies purchasing machinery that only did part of the job and hence required further capital outlay. Analysing the alternatives to truly understand the needs of the organisation now and in the future in relation to other suppliers and partnerships is essential in trying to future-proof capital intensive decisions.

On the positive side, world leading New Zealand manufacturers were often able to create machinery or modify imported or existing equipment at a fraction of the price of the latest off-the-shelf imported machinery. In many cases this led to new opportunities for product development.

It is important to decide what specialist machinery to own and what to outsource. A reliable sub-contract partner who owns specialist machinery can create greater value than owning expensive equipment that is only partially utilised.

To compete in a sustainable way against both developed and developing economies, successful companies are leveraging highly skilled staff with sophisticated equipment, either in their own plant or accessed through strategic relationships. This reinforces the need for a different type of skills training in the creative use of technology to create value in new and innovative ways. Innovation often occurs in the production process itself as well as in a prior design. This is more likely to happen if operators are trained in technology as well as trades and if they have an understanding of entrepreneurship and Value Creation.

The most successful companies are making thoughtful use of robotics in a lean manufacturing environment. Several companies we visited are able to operate 'lights out' (completely automated) manufacturing, even in a jobbing environment. In every case the product design shop is central to the company's value proposition, using computer assisted design, integrated with computer enabled manufacturing processes. The most successful companies invested heavily in often self-developed integrated software systems that inform and enable the entire value cycle from design, through sourcing, customer relationship management, production scheduling and distribution. These companies enable their customers and supply partners to integrate with

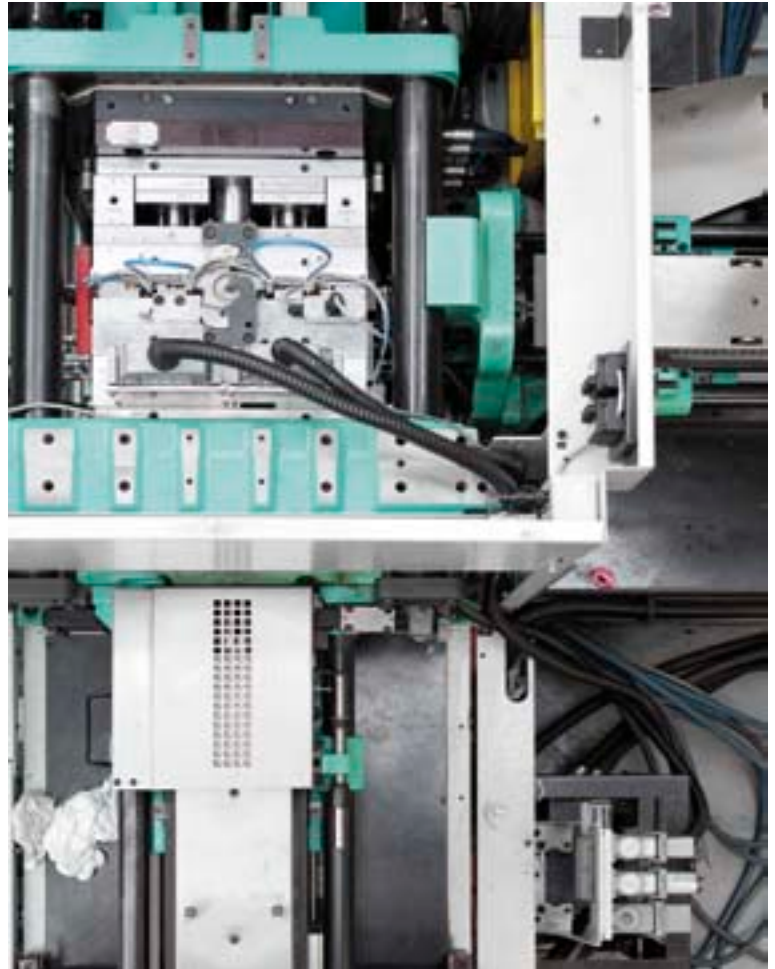
## 5\ The Value Creation Model: Principles, concepts and dynamics

their production management system to place and track orders and to enable just in time inventory systems. Stainless Design in Hamilton is an exemplar of all of these features.

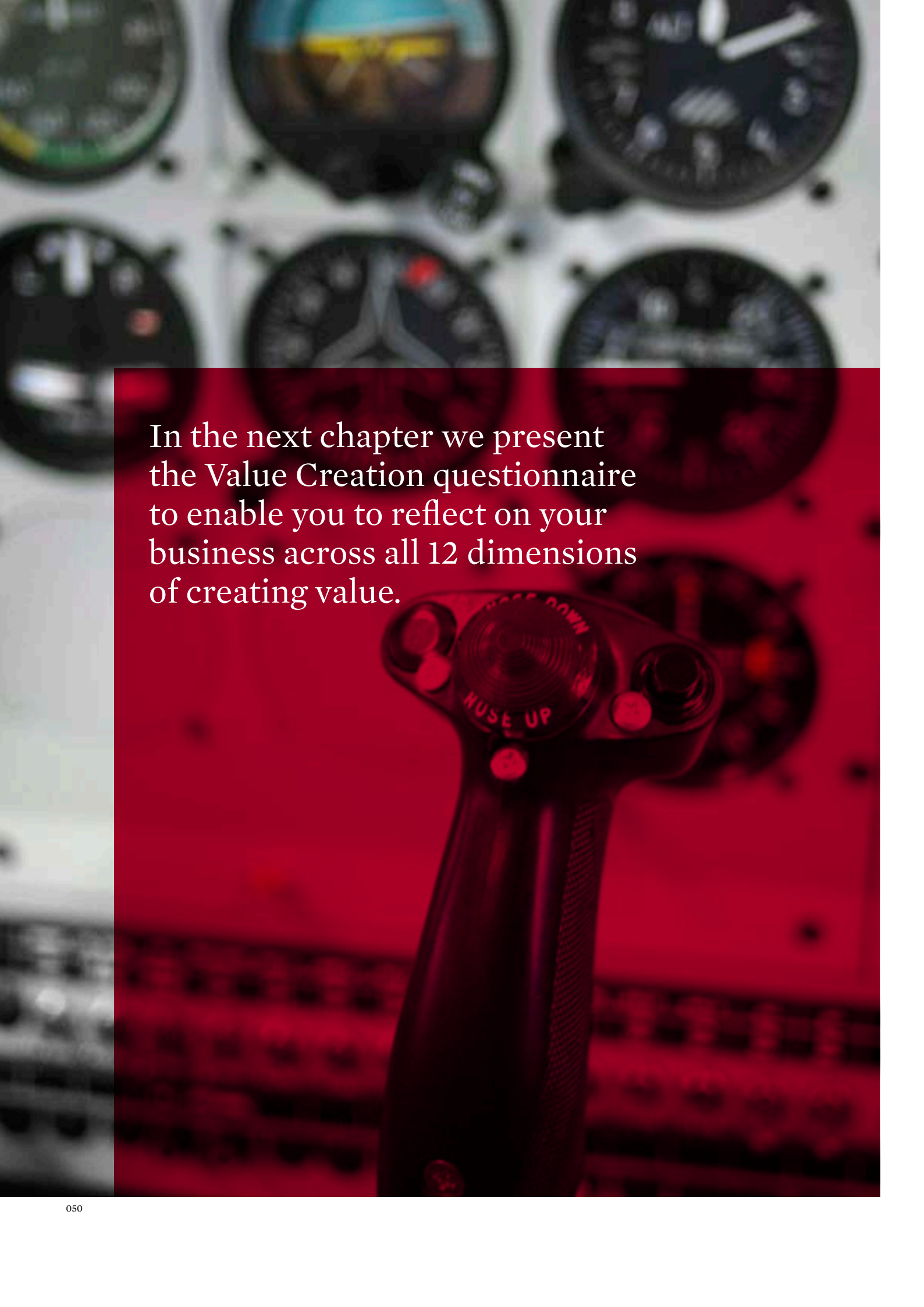
### REFLECTIONS

1. How do you develop the appropriate skill levels in your staff for the tasks they do?
2. Do you make maximum use of technology and capital equipment to minimise costs of production?
3. Do you have a well developed strategy for sourcing appropriate technology and equipment at the best value for money?
4. To what extent do you make use of specialist machinery owned by other companies?
5. Do you use lean thinking principles in your production operations?
6. How could other parts of your business benefit from lean thinking principles?

YOUR NOTES



In the next chapter we present the Value Creation questionnaire to enable you to reflect on your business across all 12 dimensions of creating value. In the following chapter we explain how to analyse the results and provide information on the aggregate results across all the companies that have participated in the Manufacturing+ project by way of providing a benchmark.



In the next chapter we present the Value Creation questionnaire to enable you to reflect on your business across all 12 dimensions of creating value.

# The Value Creation Model: Questionnaire

ANSWER EACH OF THE FOLLOWING 36 QUESTIONS RELATED TO THE 12 VALUE CREATION MODEL CONCEPTS AND FOUR PRINCIPLES, BASED ON THE SCALE:

**A: TO A VERY LARGE EXTENT**  
**B: TO A LARGE EXTENT**  
**C: SOMEWHAT**  
**D: MINIMAL**  
**E: NOT AT ALL**

**SCORE:**  
**A=4**  
**B=3**  
**C=2**  
**D=1**  
**E=0**

## PURPOSE

Creating, maintaining and evolving innovative business models.

1. How differentiated is your business from your competition?
2. To what extent have you mitigated the risks of your markets being taken over by a competitor?
3. To what extent have you evolved your business model to be in a strong position relative to your competitors?

SUB-TOTAL

Building sustainability into our business models.

4. To what extent do you incorporate sustainable and ethical values into your business model and business practices?
5. To what extent do you currently leverage and support New Zealand's reputation for ethical and accountable business practices?
6. To what extent do you exploit the current global trend towards being socially, environmentally and culturally aware?

SUB-TOTAL

Leveraging partnerships, franchises, joint ventures and alliances.

7. To what extent do you currently utilise partnerships/franchises or strategic alliances to overcome issues of remoteness and scale?
8. To what extent are you at risk of having a partner become your competitor?
9. To what extent do you manage your relationships to ensure that you remain world-leading in your role in the value chain with other stakeholders?

SUB-TOTAL

## SHARE

Innovating and co-creating solutions.

10. To what extent is innovation embedded in the culture of your business?
11. To what extent do you have policies, tools and reward systems to measure and encourage innovation?
12. To what extent do you make the most of potential partners, such as customers or suppliers, to co-create products and solutions?

SUB-TOTAL

Creating relationships with a human face.

- 13. To what extent do you have strong relationships in the market place?
- 14. To what extent are you in your market meeting your key customer(s) face to face?
- 15. To what extent do your agents, distributors or in-market representatives project an image consistent with the brand and reputation you want to project?

SUB-TOTAL

Creating world leading brands and designs.

- 16. To what extent are your products and services differentiated from competitors in terms of design and/or branding in order to become, or stay, the world leader in your market?
- 17. To what extent do branding and/or design principles currently play in the value (or the perceived value) of your product/s?
- 18. To what extent are branding and design principles integrated into all aspects of your business - i.e. purchase experience, website, delivery, training, customer service, packaging, etc?

SUB-TOTAL

**ALIGN**

Leveraging the global value chain by knowing how we can best fit.

- 19. To what extent do you have a clear understanding of how you can maximise the value created from where you are (or where you could be) positioned in your value cycle?
- 20. To what extent do you influence the pricing of your products in comparison to others in your global value cycle?
- 21. To what extent are there opportunities for your business to evolve and own other parts of your global value cycle?

SUB-TOTAL

Developing foresight and insight through global networks.

- 22. To what extent is your business currently linked into global networks (both real and virtual)?
- 23. To what extent do you use your global networks and other sources of information to understand your potential channels to market and enhance speed to market?
- 24. How up to date are you with emerging technologies, market behaviour and competitors' actions?

SUB-TOTAL

Understanding and using the unique qualities of the New Zealand business reputation and branding.

- 25. To what extent does your business currently leverage New Zealand's reputation and image (for example, the clean, green image, new thinking/problem solving/'can do' attitude and our reputation for friendly and ethical business dealings)?
- 26. To what extent do your products or brand identify New Zealand as the source of origin?
- 27. To what extent do you leverage New Zealand overseas business networks such as those facilitated by NZTE and Kea New Zealand?

SUB-TOTAL

**DELIVER**

Integrating manufactured goods with service offerings - manufacturing plus add-on features - like service, support or training.

- 28. To what extent are your products differentiated through complementary features such as service, support, finance and training?
- 29. To what extent are you confident that the customer's first experience, and throughout the whole life of the product, is a positive one?



30. To what extent do you work with partners to ensure the customer receives a quality total experience?

**SUB-TOTAL**

**Delivering world class standards of excellence in design, production and management.**

31. To what extent does your company currently demonstrate and encourage a drive for excellence in each of these three key areas?

32. To what extent does your company support and grow its management capability?

33. To what extent do you have recognised quality assurance systems in place to measure quality, performance and capability?

**SUB-TOTAL**

**Incorporating the smart use of skilled labour with capital-intensive manufacturing.**

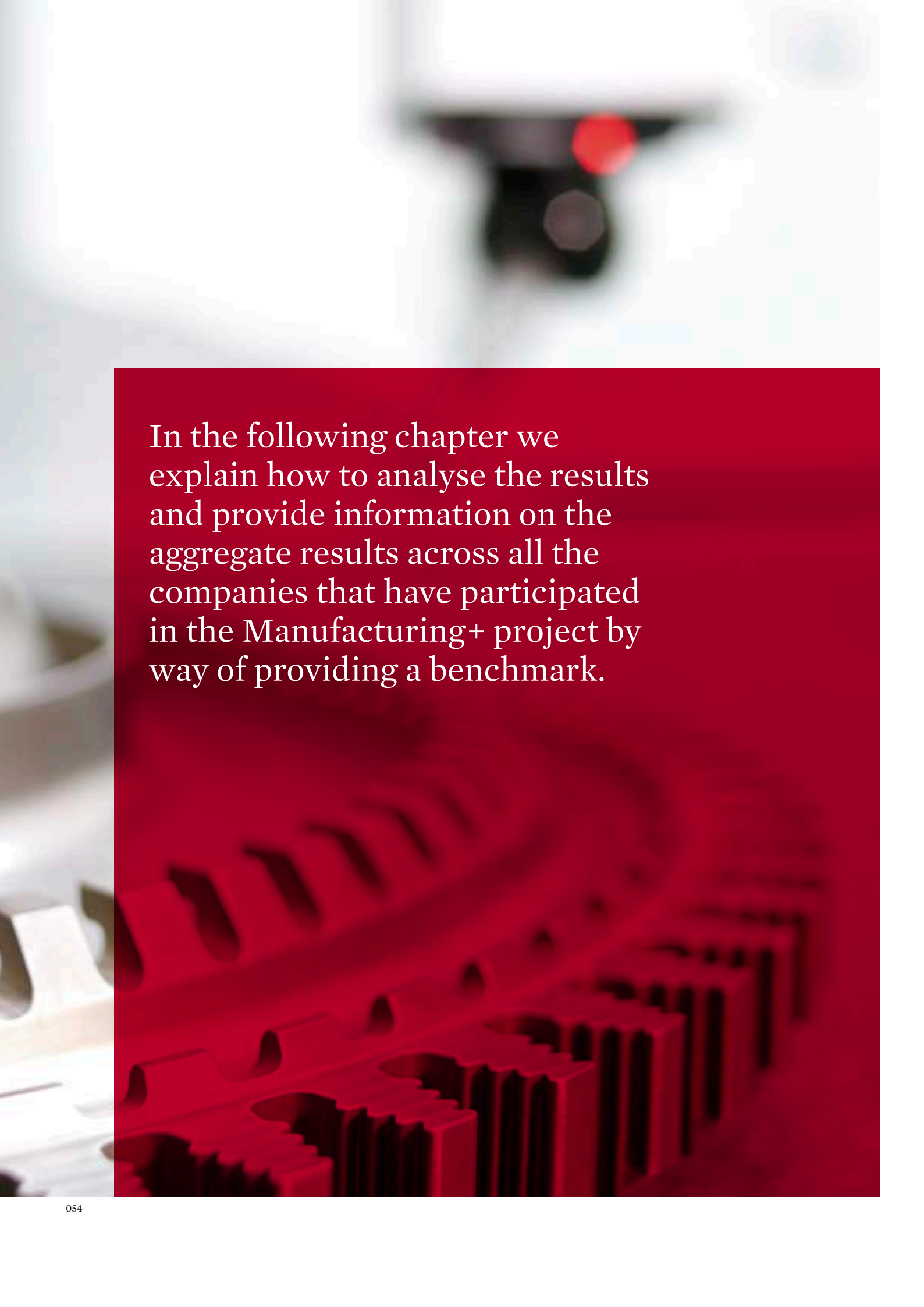
34. To what extent do you engage in staff development to ensure your skilled labour has the appropriate level of skill?

35. To what extent do you make use of specialist technology, equipment or machinery owned by other companies?

36. To what extent do you use lean thinking principles?

**SUB-TOTAL**

**TOTAL**



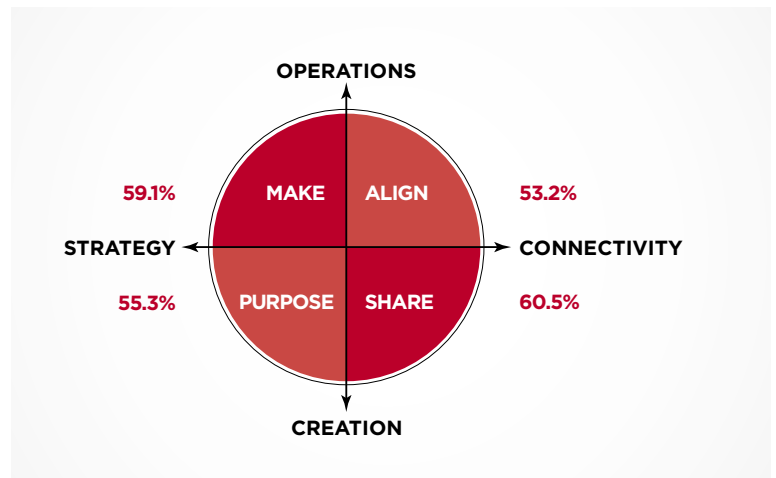
In the following chapter we explain how to analyse the results and provide information on the aggregate results across all the companies that have participated in the Manufacturing+ project by way of providing a benchmark.

# The Value Creation Model: Analysis

As at end June 2009 more than 80 companies had participated in either in-house or group Manufacturing+ workshops. In preparation for the workshops they were asked to complete a web-based questionnaire based on that included in Chapter 6 of this booklet. The questionnaire enables participants to reflect on how they perceive their company's performance, relative to the perception of the other participants, and feedback is also provided on how the company's average results compare to the average of all companies who have participated. This enables them to benchmark their performance. As with all averages there is a central tendency, and the average performance is between 50 and 60 percent on all quadrants. Individual companies vary significantly from this average, and companies then benefit from discussion of those areas in which there are perceived opportunities for enhancing Value Creation.

The computer model analyses the feedback from the participants on each quadrant, on each concept and by individual question. This enables both a macro view and a more finely grained analysis. The averages for all companies in the system across these three different dimensions are presented on the right.

The average results for all companies and participants exceed 50 percent on all four quadrants. The strongest quadrants are Make and Share, the weakest are Purpose and Align. The reasons for this can be identified from an analysis of the averages for the concepts.



| VALUE CREATION - CONCEPTS AVERAGE SCORES   |     |
|--|-----|
| <b>Purpose</b>   |     |
| 1. Creating, maintaining and evolving innovative business models   | 64% |
| 2. Building sustainability into our business models  | 50% |
| 3. Leveraging partnerships, franchises, joint ventures and alliances   | 52% |
| <b>Share</b>   |     |
| 4. Innovating and co-creating solutions  | 58% |
| 5. Creating relationships with a human face  | 63% |
| 6. Creating world leading brands and designs   | 60% |
| <b>Align</b>   |     |
| 7. Leveraging the global value chain by knowing how we can best fit  | 57% |
| 8. Developing foresight through global networks  | 50% |
| 9. Understanding and using the unique qualities of the New Zealand business reputation and branding                                | 52% |
| <b>Make</b>  |     |
| 10. Integrating manufactured goods with service offerings - manufacturing plus add-on features - like service, support or training | 58% |
| 11. Delivering world-class standards of excellence in design, production and management  | 60% |
| 12. Incorporating the smart use of skilled labour with capital-intensive production  | 59% |

Once again the average results exceed 50 percent for each concept, but the sustainability (concept 2) and foresight (concept 8) concepts - show weakness at 50 percent, and leveraging partnerships (concept 3) and the New Zealand brand (concept 9) are only a little higher at 52 percent. The low score on leveraging the New Zealand brand can be explained in that not all businesses can benefit from this relationship to any significant extent.

The next figure shows questions where the average score was below 50 percent. The weakness in the Purpose quadrant relates to low scores in regard to incorporating sustainability, minimising the risk of partners becoming a competitor, and implementing tools and reward systems to encourage innovation.

The weakness in the Align quadrant relates to low scores in connectivity with, and use of global networks, including NZTE.

One stand-out low score in the Make quadrant relates to the use of lean thinking principles.

Given the now relatively large sample, we can start to draw some conclusions that these several issues are generic to New Zealand business. We conclude that system-wide and individual company endeavours to enhance understanding and practice of:

- sustainable business
- innovation
- networking for foresight and insight
- managing partnerships, franchises and alliances
- lean thinking

would add considerable value to the ability of New Zealand business to create value and advance exports.

| VALUE CREATION - QUESTIONS WHERE THE AVERAGE RESPONSE IS BELOW 50%  |     |
|---|-----|
| To what extent do you incorporate sustainable and ethical values into your business model and business practices? (eg planning for recycling at the end of your product's life) | 47% |
| To what extent have you minimised the risk of having a partner become your competitor?  | 43% |
| To what extent do you have tools and reward systems to measure and encourage innovation?  | 39% |
| To what extent is your business currently linked into (both real and virtual) global networks?  | 46% |
| To what extent do you use your global networks and other sources of information to understand your potential channels to market and enhance speed to market                     | 46% |
| To what extent do you leverage New Zealand overseas business networks such as NZTE and KEA (Kiwi Expatriates Association)?  | 46% |
| To what extent do you use lean manufacturing principles in your production operations?  | 49% |

**Interpreting your scores:**

The scores are of course subject to interpretive bias. They are a value judgement and as such comparison between companies is of limited value. What is important is the careful process of reflection about each question, and the decisions on what actions should be taken. In addition the process will enable senior teams to develop alignment in regard to their shared understanding of their business models and priorities.

Having made the observation about subjectivity, in fact across the large data set within the Manufacturing+ project we note that as we got to know companies better, our evaluations usually aligned quite closely with that of the average

score from the senior leadership team. Although often there was disparity between individuals within the teams, the wisdom of the 'crowds effect' seemed to prevail, and outlier averages usually denoted an issue or opportunity that warranted closer inspection.

Because of this, readers may wish to reflect on their scores in relation to the averages shown above.

A score of 60 percent or above in any quadrant or concept is above average. Scores at this level in all or almost all concepts are unusual and suggest a company with considerable potential.







More than 80 companies have participated in the project as at 30 June 2009 from almost all industry sectors that make tangible products for export.

# Case studies

Companies are selected for participation in the Manufacturing+ programme based upon meeting the criteria of having high growth potential, significant export involvement, a minimum revenue base of about \$10 million and a motivated leadership team.

More than 80 companies have participated in the project in some way as at 30 June 2009 from almost all industry sectors that make tangible products for export.

Together they represent an exciting collection of enterprise excellence. Based on our research to date it typically takes 10 years or more to grow a company to the point where it has the potential to become

world leading in its niche. Our aspiration for this booklet is that we can provide inspiration and insight for many more companies to choose the path of Value Creation towards being world leading.

In this chapter we share stories of six companies that have participated in the Manufacturing+ project. They are illustrative of excellent Kiwi companies that are striving to become world leading in their chosen niche. They are chosen from a range of different industry sectors and from various parts of New Zealand. Through these stories we hope to enrich understanding of the Value Creation model and to demonstrate a range of exciting business possibilities.



## TRIMAX

Lawns. In the 17th Century, the French envied the English for theirs, by the 18th Century they had spread out from great estates into surrounding parkland in the much-admired landscape style of gardening, and now in the 21st Century they make up the largest irrigated crop by area in the United States, covering 128,000 square kilometres according to one 2005 estimate.

But lawns don't just happen: to achieve the desired look, they need sowing, weeding, feeding and – most importantly – mowing.

One Tauranga-based company has turned lawn mowing into a global business, and with the help of the Manufacturing+ programme is now marketing its technically-advanced, highly-reliable mowers as must-have equipment for creating the sought-after 'wow' factor of a perfect lawn.

Trimax Mowers, a specialised engineering company which exports virtually all its production to the UK, the United States, France, Denmark and Australia, shows how a Kiwi company can align itself to create maximum value in the global value cycle.

"Our global target market is the municipal market, councils that are buying tractor-drawn mowers for wide open, fine turf spaces like parks, reserves, sports fields, airfields and race tracks," says operations manager Graeme Boyd. "Parks and reserves are a lot about how it looks in the end, not about just cutting the grass. And that's what we're selling."

You can't get the look without the right technology, and Trimax employs an industrial designer and works closely with two New Zealand-based suppliers of hi-tech precision engineering components. These alliances have paid dividends in ensuring Trimax stays up with the play in excellent design and production, and Boyd says the company's top-quality mowers are now global product leaders.

There have also been flow-on benefits to Trimax in the manufacturing supply chain. "It's made quite a bit of difference to the whole way we operate, and the upshot is that we have a better built machine that we can actually build faster in the factory."

The mowers are also low maintenance and with low operating costs, and come with a free follow-up service by Trimax engineers. Boyd says the American customers are just blown away by the package.

"They say it's superlative service that they've never experienced before," he says.

It's a great example of how Trimax is successfully integrating its products with service offerings and expertise. "Kiwis often knock themselves for being pretty ordinary when it comes to customer relationships," says Boyd. "But in some of these other countries they don't even understand what the words mean."

Zeroing in on that focus on customer relationships, Manufacturing+ consultant Mike Pratt worked with the Trimax team to come up with a new purpose for the company, 'transforming grass spaces into magical places'.

Initially the company's down-to-earth engineers were a little uncomfortable with the phrase, but Boyd is now a convert. "That is actually what you do see, there is a wow factor," he says.

"Manufacturing+ made us take a good look at what business we are really in. Before, we were in mowing technologies that gave you superior cut performance, but now we're in a more emotive space, focussed on the consumer."

The new purpose is a good fit with Trimax's commitment to innovation and co-creating solutions. The company excels at building warm relationships face to face, and founder and chief executive Bob Sievwright spends

six months of the year out in the market talking to customers.

“He’s right out there at the sharp end meeting the end users and playing an integral part in new market development,” explains Boyd. “Together with our R&D manager, Bob has an ability to recognise and anticipate customer needs and then translate those needs into an engineering solution. Both these guys are absolutely passionate about this business.”

The result, he says, is beauty in function. “You might have thought all we need to do is make a lump of steel that can cut grass, well that’s not the case with Trimax mowers. They’ve got a characteristic look about them – they’re low profile, they’ve got stainless steel covers, it’s just this sharp look. They’re made incredibly well so they last a long time and they look nice.”

The three fundamentals for Trimax are product leadership, customer intimacy and operational excellence in that order, says Boyd. Achieving that premium sometimes means sacrificing cost savings. “For example we’re in the process of moving over to a top-rated bearing simply because it lasts so much longer. But it costs a hell of a lot more money.”

The success of Trimax’s uncompromising commitment to quality is reflected in the company’s steady growth. By focussing on high net worth markets such as the UK, Europe and the United States, revenues and profits have increased by more than 10 percent a year over the last five years, and Trimax is now exploring ways to leverage further expansion in a sustainable way.

In the United States, a partnership foray into the ready lawn market has proved unsatisfactory, and through its US branch Trimax is now dealing directly with turf farmers, who grow 240,000 hectares of turf across the country to supply this massive market.

The direct approach has its limitations, says Boyd. “In terms of future growth, you just can’t sustain that model all over the United States, it’s logistically impossible.”

Annual US sales currently make up 15 percent of Trimax’s sales, although the market has taken a hit in the wake of the subprime crisis with the downturn in new housing starts.

Across the Atlantic, Trimax’s sales have stayed strong at 40 percent of total sales, and the company is looking to service its continuing expansion into the European municipal market through its UK branch, selling through local dealer networks.

Trimax has been able to gain maximum brand exposure through setting up overseas branches. “In the 20 years we’ve been in the UK, we’ve been able to develop an awareness of the Trimax brand through the UK and Europe to the point where there’s probably a greater awareness there than in New Zealand,” says Boyd. “It’s been very, very successful, and that model is the one that I guess is our global future.”

Stand out value drivers for Trimax include:

- the extent to which innovation is everyone’s job; innovation is an attitude of mind within Trimax
- co-creation with customers and partners to develop new ideas, products and services
- the development of warm relationships on a face to face basis by frequent in market visits by senior Trimax leaders
- the importance of brand and design
- the addition of complementary features such as service and education to enhance the product experience
- the excellence and consistency of the product experience
- the use of specialised machinery including robotics, both owned and contracted out, to enhance efficiency and effectiveness.

## PACIFIC AEROSPACE

Less than three years ago, the Hamilton-based manufacturer of a great little 10-seater aircraft was staring disaster in the face. Its order book was non-existent, suppliers were demanding advance payments, cash was extremely tight and company morale was rock-bottom.

By the end of 2007, the newly renamed and reformed Pacific Aerospace Limited had stabilised the business, rebuilt staffing levels, and had a forward order book stretching two years ahead.

Under new chief executive Damian Camp, the priority now was to build a sustainable market for the company's flagship product – a multipurpose light aircraft that had evolved from earlier crop dusting aircraft in New Zealand. The P-750 had become a favourite for skydivers in the United States and Europe and was now piquing interest in the burgeoning utility aircraft market in Africa and South-East Asia.

Too great a reliance on the “skinny” skydiving market was risky, Camp believed. “We wanted to develop a deeper, more sustainable market for the aircraft as we continued to ramp up production, because we didn't want to be a company forever manufacturing 12 aircraft a year, we wanted to get to numbers of 30, 40, 50 or 60.”

Camp, who has a background in marketing, turned to New Zealand Trade and Enterprise (NZTE) for help, and enrolled Pacific Aerospace progressively in the Better By Design, Lean Business and Manufacturing+ programmes.

“Better By Design was a great forum for the management team to think about our market positioning in the STOL (short take-off and landing) utility aircraft market,” he says. “We refined our geographical focus and dubbed it the ‘equatorial band’.” “Then Manufacturing+ came in and gave us a platform where we started to think about the brand values that we wanted to project

into the market and internally. And that's what led us to the XSTOL.”

XSTOL stands for “extremely short take-off and landing” – a world leading market category created by Pacific Aerospace specifically for its P-750 aircraft. A super version of STOL planes, the XSTOL can take off and land in less than 800 feet and carry a load greater than its own empty weight.

The XSTOL is a great example of co-creating value. “We developed the brand through customer feedback,” says Camp. “Manufacturing+ pulled us out of our day-to-day business and allowed us to go back and analyse the numbers to see if we could own a part of this market. And that's exactly what we've seen. We found there'd been a marked shift in sales away from the North American and European skydiving market to the equatorial utility market.”

And the anecdotal feedback Pacific Aerospace was getting was that their plane was performing a whole lot better than other aircraft in the STOL category. “All you need to access remote areas with our aircraft is 300 metres of paddock or gravel strip. One operator in Africa who operates six XSTOLs on UN World Food Programme contracts told us even when it gets above 40 degrees centigrade they can still carry a full load, while our main rival the Cessna Caravan has to pull back to four passengers. On some airstrips in Papua New Guinea, we're pulling out the same load as twin-engine aircraft that generally have a much higher capacity. So we thought maybe there was potential here to develop a whole new category.”

Using the Manufacturing+ Value Creation model, Pacific Aerospace came up with a purpose statement for the XSTOL – “perform where others can't”. “It's broad enough to apply to different product types,” says Camp. “We see the XSTOL as our umbrella brand – a platform from which to continue to innovate which will allow us to create a broader product line that's still very much focused on that end-user market.”

It's been important, says Camp, to get everyone on board with the XSTOL brand, from Pratt & Whitney Canada, suppliers of the aircraft's engines, and propeller manufacturers Hartzell - "we've kept them in the loop in our repositioning" - to the engineers on the shop floor. "Everyone on the shop floor is an aviation buff and they love it," he says. "For them to know where the aircraft are going and what segment or market niche we want to own is really important."

Design too is focused on the end product. "Everything we're doing should be around the XSTOL's performance. So we're not going to worry about executive fit-outs or ice protection on the aircraft because we're focused on the equatorial band where you don't have to contend with what we call 'known icing conditions'."

The company has agents in the United States, Europe, Africa, South East Asia, India and Nepal, and directly handles domestic sales and those into Australia, Papua New Guinea, and Central and South America.

Camp makes sure he visits new markets at least once early on so he has first-hand knowledge; and with the growth of regional connectivity, prospects, he says, are enormous. "In India for example you're getting quite large companies setting up commercial hubs in outlying regions. And those towns are on average 200km away from the closest airport, so the connectivity is provided by roading infrastructure. There's more and more need for the main commercial centres like Delhi to access these outlying areas, and doing it by road is not exactly efficient for getting executives and freight in and out."

But you can't sell planes with brochures, says Camp. At \$3million a pop, aircraft purchases can take up to two years to complete, and buyers like to do their homework. "We're still a relatively new type of aircraft, so we've been quite aggressive in getting planes out into the market and doing demonstrations - at our cost," he



says. "We've just begun a three-month trial in Indonesia, sending out a plane, pilot and engineer to a potential major client there who runs a charter/freight operation to remote locations."

Because of the tightening economic conditions Pacific Aerospace has started to offer lease-to-own and operating lease models rather than relying on cash sales. "Getting aircraft out into the market and operating is one of our best marketing tools," Camp says. "Effectively we get a demonstrator that someone else is paying for."

To develop even closer ties with customers, the company has appointed a fleet manager to oversee the smooth transition of aircraft out of the factory into the marketplace, handle warranty issues and track on-selling to ensure a high resale value throughout the life of the aircraft.

On its own shop floor, Pacific Aerospace has slashed the time needed to build an aircraft from six weeks to two-and-a-half through a lean manufacturing initiative called the Pacific Aerospace Competitive Edge, or PACE. "The beauty of PACE is that it doesn't involve capital, it frees up capacity you're already paying for in rent and in labour costs," says Camp. "So it's not about making work harder, it's about making work easier through removing waste."

"What characterises lean manufacturing is small incremental changes that lead to a big change overall. To date, we've implemented 270 suggestions for improvements - one of those involved lifting a wing assembly jig about a foot off the floor, and that alone saved five days in build time." Getting shop floor buy-in for change has been boosted by the company's open communication policy. "Sharing the company's positioning has really helped," says Camp who gives staff a company update whenever an aircraft rolls off the production line. "When people are enthusiastic and happy, they look for ways to improve the way things are done. The most important improvement, without a doubt, has been the complete turn-around in company culture."

**Stand out value drivers for Pacific Aerospace include:**

- **the extent to which lean has been incorporated throughout the business to excellent effect in reducing build time and costs of production**
- **a commitment to excellence in design, production and management including well thought through quality assurance systems**
- **careful use of specialist machinery and technology to enhance the production process**
- **a deep understanding of the global value cycle in which they are operating and careful decisions with regard to which products and market segments they will specialise in.**

**ZEACOM**

Kiwi communications software company Zeacom might be a minnow compared to its market competitors, but it's become adept at swimming with the big guys - international giants like Microsoft, Cisco, NEC and Avaya. During the past 14 years Zeacom has carved out a niche for itself as supplier of Unified Communications (UC) solutions for small and medium sized businesses worldwide.

"We're like the speedboat that's able to zip around the cruise liner," says Zeacom's global marketing manager Jason Roberts. "We've got an innovative product, and retain our market edge by being light on our feet. That in turn allows us to sell to Cisco, Avaya and NEC, so we both compete with them and sell to them."

Zeacom provides a one-stop shop for smaller businesses, offering integrated UC applications that are easy to use, manage and maintain. They include rich functionality for up to 500 contact centre seats, and a UC solution that enables up to 4,000 users to personalise and manage their communications, whether they're in or out of the office.

Zeacom's difference is that from the word go it has focused on the business value of software. "There's been a shift in the market place," explains Roberts. "Our competitors have tended to promote hardware lead sales over applications, but we're the opposite. And hardware is now increasingly being seen more as a commodity - a bit like a laptop. What makes it smart is the application that drives it." Coupled with a specialist focus on small and medium-sized businesses, a market that up until now has been mostly ignored or seen as difficult to address by the major hardware providers, has given Zeacom its edge.

"We don't use advertising," Roberts says. "We rely on people hearing about us through PR activity or our reseller networks so our sales are often testimonial based."

The strategy has been hugely successful. Last year, Zeacom achieved 15 percent growth in revenues in a fiercely competitive environment, and the company continuously strives to improve.

Zeacom has now set itself an ambitious goal: to double sales within three years. And like Google and Skype within their respective markets, Zeacom's strategic aim is to 'own' its niche as the Unified Communication provider of choice for small and medium-sized businesses.

"To do that we've got to start thinking like a big company while retaining the spirit and passion of a small company," says Roberts. Along with other management staff and the R&D crack team, he's based at the company's nerve centre in Auckland, although from Zeacom's website you wouldn't even know it was a Kiwi company.

With more than 100,000 people a day using Zeacom's products in 25 countries, it's a deliberate strategy, says Roberts. "Our product and brand has to be strong enough to get over the hump of being perceived as a small company. In the United States, we've recently managed to break out of the 'other' segment in the contact centre market, capturing 1.1 percent of that market sector. That may sound small, but it's quite important when you're competing with big players."

Nearly half of Zeacom's sales come from a rebranded version of Zeacom Communications Centre (ZCC) sold primarily through NEC in the United States and Australia. It's a very important partnership, says Roberts. "Getting our products out there is critical to market penetration. Ultimately, we want our customers to have such a strong user experience of our product that we become synonymous with UC. It's that integration of brand and product we're after - so that even if a user is using our rebranded product they'll think of it as "Zecom inside"!" Zeacom's purpose statement, developed with Manufacturing+ consultant Mike

Pratt, reflects that thinking: "To transform the way the world does business through efficient communications. Together."

The "together" element is key. First up, Zeacom has targeted its reseller network.

During the past two years, the company has had a real focus on brand and marketing, and that's meant working to ensure the customer's experience of the product is a good 'fit' with the message, and that the value proposition is clearly expressed. "We need to be firmly on the horizon of our resellers with better branding and a better product with long-term, sales generating value," says Roberts. "The core thing we realised is that we have to have sales people who know our product sufficiently to sell it well."

Zeacom's reseller enablement programme aims to do just that. Roberts says the innovative programme is not unlike a franchise model, and is about ultimately realising value for Zeacom, the reseller and the customer. "We want to make it easy for the customer to have a good, well-implemented solution, so we're putting a lot of effort and resources into sales training, products that are easy to install and easy to support, marketing solutions and user-based training. Using these tools, resellers strive to become silver, gold or platinum authorised resellers in order to achieve more business and greater sales margin."

Part of Zeacom's value proposition is ensuring customers get a great return on investment, saving time and money, and reducing the time needed for staff training. And that's meant creating relationships with a human face. "We spend a lot of time talking to customers, so we're more like consultants rather than making a quick hardware sale. And we want our resellers to take this on."





It helps if the product is world leading. “Currently 75 percent of our effort goes into product design,” says Roberts. Zeacom’s software developers draw on feedback loops from users, user groups and the maintenance programme, and new products are trialled through Zeacom’s early introduction programme before general release. Any new design also goes through a rigorous usability design process.

The whole company is involved in the testing process, says Roberts, and everyone from receptionist to CEO gets to comment on a new product. “I sometimes call myself the lab rat. Like 99 percent of our users, I’m not a techie and to be frank I have little tolerance for software that isn’t easy to use, so I’m sometimes used as a test dummy for new products. If I can use it, probably most of our customers can as well.”

It’s one of the ways Zeacom fosters a sense of belonging within the company. “We have a strong sense of team, and we put a lot of effort into getting the right people on the bus,” says Roberts. “Our people are dedicated and passionate, and some have been here for more than ten years, which is highly unusual in this industry.”

**Stand out value drivers for Zeacom are:**

- **a highly differentiated business model with a unique hard to replicate value equation**
- **a spirit of innovation that continuously keeps the company ahead of larger competitors**
- **an excellent set of partnership arrangements for sales and distribution as well as with original equipment manufacturers**
- **a warm friendly approach to engaging with customers that nurtures ongoing commitment.**

**Dow Design**

From loveable characters to quirky calligraphy to stand-out packaging, there’s a certain playfulness about Dow Design’s input into some of our most iconic Kiwi brands. The award-winning Auckland-based company is the design powerhouse behind Fonterra’s Georgie the Cow character, the Big Wednesday Lotto logo and Robert Harris’s premium barista@home range of coffees – plus a whole host of other household names.

Dow Design is the first design company to go through the Manufacturing+ process as part of a company stocktake as it readies itself to go international.

“Well, we’ve run out of products in New Zealand,” jokes business development director Andy Jaquet. “It’s a kind of grow-ourselves move. We have a very good reputation here for fast-moving consumer goods and product packaging, and while we could look towards the corporate world, realistically we want to play to our strengths, and we can do quite a lot more internationally to help grow the business.”

But first Dow Design had to know what it stood for. Working with Manufacturing+ consultant Mike Pratt, the company came up with two core identity statements: “create collaborative design” as the company’s purpose and “love you, desire us” as its spirit and character.

“It’s been fantastic,” says Jaquet. “It’s almost doing what we do for other people, it’s helped us identify who we are in a very clear and concise way, and it has more truth in terms of who we are.”

Jaquet says the Manufacturing+ input has given Dow Design a new language – and more importantly the confidence to use that language – to talk about itself and what it does. “Once you’ve defined your purpose and values, and understand that they’re real, you’re not embarrassed to talk about them because they are core to your identity. It’s

just like creating a brand for a company – it has to come from a place of truth.”

The company is now in the process of overhauling its website and marketing collateral, using words like love, emotion, loyalty, family and personality.

The language may be brave and new, but the concepts have been fundamental to Dow Design’s success. The 17-year-old company, founded and still headed by Annie Dow, has won a string of awards for its groundbreaking designs for household name companies such as Coca Cola, Fonterra and Robert Harris.

Part of Dow Design’s ambition is to convey the extraordinary value good design adds to a business. “An advertising campaign can bring you into the store, but inside the store, the product that speaks to you from the shelf is the one you’re going to purchase,” says Jaquet. “And so packaging and brand that connects with the consumer has become increasingly important in shifting product.”

To create that connection often requires a leap of faith on the part of the client. “What we’re seeking to do is pull our clients out of their comfort zones but creating this in a safe and open environment with high levels of communication,” says Jaquet.

“The business is very much about inspiring design and inspiring clients and consumers. Take for instance when we introduced Georgie the Cow for Fonterra, that really changed the way people perceived FMCG products, it became playful, it became something very different to just a product. And I suppose that attitude runs throughout the company. We’re always looking to innovate.”

The company has a robust creative process – Jaquet says there’s a lot of thinking and strategy behind it which requires a dialogue with the client and a deep understanding of their brand and business issues. “It’s our point of difference,” he says. “We aim to understand

their business requirements, we don’t push ideas on a client, we think that’s wrong.”

Crucial to that process is trust, and Dow Design is proud of its long-standing relationships with key clients – 16 years with Fonterra, 10 years with Cerebos Gregg’s. “Our business is very much around partnerships and long-term, sustainable relationships,” says Jaquet. “When people first start to engage with us it takes a little bit of time to build up a relationship and for them to trust us, but once they do, it works brilliantly.”

Dow Design also puts a premium on creating relationships with a human face. The company works by literally co-creating a solution with the client – through workshops and often using an external strategist. “We work in a collaborative way, and the designer interfaces directly with the client rather than going through a ‘suit’ as most agencies do,” says Jaquet. “Once you establish with them the issues, then you can take that into a creative space to develop.”

Brand, to Dow Design, is all about understanding. A world-leading design company takes into consideration all the variables: where the brand is seen, the quality of the packaging, even down to how the product is transported so as to minimise the cost, and how the brand can be used in different forms.

“The Robert Harris job that we did was a brand story about being New Zealand’s first coffee producers and being a quintessential Kiwi brand,” explains Jaquet. “That same attitude is conveyed across all the different touch points, from the sugar sachets to the menus in the cafes to the website. The better you are able to manage these touch points, these assets, the stronger your brand will be.”

The next step for Dow Design is to move out into the international market through leveraging the unique Kiwi business reputation and branding. “There’s great value in how in New Zealand we continue

to re-engineer and innovate stuff, and I think we do the same in brand design too,” says Jaquet. “Being separated from the rest of the world, we’re able to look out at what the rest of the world is doing and create our own interpretation. And different is good in design.”

The company is still nutting out the best strategy for going international – one option being pursued is to get more exposure on social and business networking sites, like those run by Kea New Zealand or the Design Institute of New Zealand; another is to seek alignment with a likeminded design company overseas that is looking for expertise in packaging design.

But Jaquet says Dow Design isn’t rushing into an alliance. “In overseas markets you’ve got to have relationships, a degree of credibility and you need to be present,” he says. “I see these three things as the gateway to international business, so you’ve got to find the right alignment with some of these companies, and we’re not yet sure who they might be.”

**Stand out value drivers for Dow Design are:**

- **a differentiated business model with a clear determination of their place in the value cycle of the industry focuses the energy of the company**
- **as befits a design organisation excellence in design and brand are the departure point for Dow’s enduring success**
- **its approach to design emphasises co-creation with clients and face-to-face engagement**
- **a spirit of innovation infuses the company, combined with a commitment to quality and catching the last detail**
- **ensuring that it stays in tune with emerging technologies and market behaviour both to provide insights to clients and so that its own business stays at the leading edge**
- **embracing appropriate leading edge technology to deliver creative outcomes efficiently.**

**BOBUX**

Some of the best ideas come when you least expect it, and architect Chris Bennett couldn’t have known that his search for suitable first shoes for his nine-month-old daughter would lead to the launch of an iconic Kiwi business – and a whole new category of children’s footwear.

The innovative soft-soled pull-on leather shoes Chris first designed for little Chloe in 1991 were an instant hit with other parents at baby coffee mornings, and Chris found he could scarcely keep up with demand. Today, the colourful, funky shoes are sold in 35 countries around the world, the latest being China, and they have many imitators.

Meanwhile, Bobux – the Auckland-based company run by Chris and his wife Colleen – has expanded into a range of baby and toddler clothing based on the same principles of quality, sustainability and children’s well-being.

Bobux combines its trademark quirky and imaginative designs with products that are also safe for children and the environment. Its soft-soled shoes – the first of their kind – are backed by paediatricians as being best for children learning to walk, and they stay on thanks to clever elastic fastenings around the ankle.

“We work on the principle that every new parent wants to do the right thing for their child,” says Jan Broome, general manager at Bobux. “And that comes back to Chris’s philosophy. His way of living is about doing the best thing or the right thing, so everything we choose is always the best quality for the purpose. The bottom line is that our product delivers on its promise, and there are plenty of products out there that don’t.”

Doing the right thing means using genuine leather in Bobux shoes for softness and breathability, even though it’s more expensive, and ensuring it meets stringent environmental criteria.

Unhappy with traditional leather tanning methods, Bobux invested in research and development to produce environmentally friendly, pollution free, biodegradable leather, now commonly referred to as Eco-Leather, which meets a comprehensive set of environmental and international safety standards. All tanneries used by Bobux must meet ecological and environmental pollutant control criteria covering waste water, water plant treatment, emissions, and banned substances and chemicals.

In its new range of children's clothing, Bobux makes use of natural fibres that are environmentally and child-friendly, such as merino, organic cotton and bechl, a silky feel but hardwearing material made from plant fibres. All packaging is recyclable.

This focus on sustainable quality puts Bobux at the premium end of the market – a deliberate choice, says Broome. “We're aiming for long-term growth and consumer loyalty, so it makes sense to build a brand with strong premium value. That way, our business has a solid foundation for the future and offers options for developing a range of products under the Bobux brand umbrella.”

Bobux also produces a budget brand of its soft-sole shoes, and has an exclusive deal with major US retailer Target to supply overseas-manufactured shoes under a different brand name. A similar budget brand is also marketed in New Zealand and Australia. This allows Bobux to offer consumers multiple entry points but all with the same fundamental value proposition, which is particularly important at a time when consumers are tending to trade down.

Distribution of the flagship Bobux brand is through exclusive distributors in each country. “Lots of our distributors have been mums, tried our product, loved it, and thought ‘I'd love to sell these’,” says Broome. “Because they love the product they're very passionate and really work very strongly on the ground to leverage the benefits.”

The majority are women, and some have been with Bobux for ten years or so, forming close relationships with the Auckland-based team.

Broome recognises that one downside of relying on consumers-turned-advocates for distribution in international markets is that they may not necessarily have the business savvy to grow the company's market share as strongly as Bobux may wish, so the company now has set clear criteria for prospective partners. “We're very much looking at partners who fit in terms of values and alignment, who have financial capabilities and business acumen, and who have strong in-place systems and structures. And we want partners who want to grow with us and represent Bobux beyond a soft-soled shoe.”

The company's key markets are in the United States, United Kingdom, Netherlands/Belgium, Germany and Scandinavia, and Bobux has recently organised the distributors in these countries into a leadership team. “They represent our biggest markets so therefore we're working much more closely with them,” explains Broome. “We hold regular Skype conferences, they do regular reporting back to us in terms of trends and feedback into design.” The company has also appointed a business development manager who's responsible for international markets and visits key distributors two to three times a year.

A production manager takes care of Bobux's supply chain, ensuring quality standards are maintained in the shoe leather sourced offshore, the clothing range, which is manufactured in China, and the company's iWalk shoes for toddlers, which are made in Indonesia. The major cost of the Bobux soft-sole shoes is in the leather, so these are manufactured onshore. The shoes are cut and sewn in Auckland, and then turned, packaged and shipped from there.

This manufacturing model, says Broome, reflects the company's decision to choose the best place for each process. "Right from the beginning Chris pretty much subcontracted everything – he'd worked as a building project manager in his early days, and so therefore operated the business using a similar model. Even today we outsource a lot of our sewing to mothers around Auckland which supports them and works in our favour too, not to have all the resources in-house."

Staying connected with suppliers, distributors and customers is a vital element of Bobux's success, and the company operates a database for organising feedback from customers. Broome credits founder and director Chris Bennett with ensuring the technology is in place to make this easy. "For a small company we're very well connected," she says. "We operate all our phones over the internet, and we all have soft phones on our laptops for when we're travelling so it's the same as making calls within New Zealand. Particularly with a global world, Chris looks at ways of making us closer connected in a cost-effective way."

It's all part of Bennett's focus on innovation. "Chris started off as an architect and so he has always looked at new and interesting ways of doing things, which is obviously where the creation of the shoe came from in the first place," says Broome. "We've come from a base that's 100 percent innovative, and we've created a completely new category with our soft-soled shoes."

The plan now is to move the company beyond shoes, and as a result of the Manufacturing + programme, Bobux is realigning what it stands for and how it needs to communicate to customers so it remains credible. "With the help of Mike Pratt and the Manufacturing + programme we were able to gain amazing clarity around who we are now as a company," says Broome. "The foundation is now set for assisting us in being able to see all our products under the same umbrella."

Bobux is looking at new ways to enhance its value proposition, but some aspects won't change, says Broome. "New Zealand is absolutely integral to who we are and what we do. However, it's not the only hat to hang our business on. It's great in an international marketplace because it does differentiate us from countries that are not seen as clean, green and natural. But we don't say buy Bobux because we're a New Zealand company."

Over the next six years, Bobux aims to at least triple the size of the business. The company is currently in the process of reorganising its brand so that it offers an integrated platform for a head-to-toe approach in children's clothing and footwear.

"The Manufacturing+ workshops channelled our internal conversations and distilled them into a simple purpose for the company," explains Broome. "Bobux has moved from being the provider of the 'original soft sole baby shoe that stays on' to 'creating lovable children's products that enrich natural growth and development'. At the end of the day, people will buy more clothing than shoes, so we're looking at a system that works for them across the whole range."

**Stand-out value drivers for Bobux include:**

- **branding and design are fundamental to the business**
- **having an authentic commitment to sustainability and wellbeing and a commitment to New Zealand origin combined with innovative design differentiates the brand**
- **making quality paramount for Bobux, as it is with all our case study companies**
- **the brand is built by warm face to face relationships with customers, distributors, partners and consumers.**

## HUNZA

Landscape lighting is all about the wow factor, and when a leading designer picked New Zealand designed and produced outdoor lighting fittings for a series of award-winning garden lighting projects, it was clear sign that a relentless focus on quality had paid off for Auckland-based exterior light fittings manufacturer Hunza.

Jenny Pullar has been lighting director for the Ellerslie Flower Show, creating night-time magic for the gardens and displays, and on the Hunza website she describes Hunza light fittings as “beautifully engineered” and “a joy to work with” – and they stand up well to the vicissitudes of the outdoors.

“Our motto is to exceed customer expectations,” says Hunza’s founder, chief executive and designer Andrew Cunningham. “We’re focussed on the high end of the market – our products are aimed at designers, architects and landscapers, and we offer quality and engineering and service.”

Pullar is just one of thousands of satisfied customers all around the world. The company exports 98 percent of its products through its distributors in Australia, the United Kingdom, Europe, Canada and the United States, and in the Middle East, Singapore and Malaysia – all high-end markets in affluent and fast-developing nations.

Sustainability is a key characteristic – Hunza’s aim is to produce outdoor lighting fittings that will last well into the next generation. Endurance and reliability are words that turn up again and again in the company’s literature. Cunningham says Hunza uses only top quality materials and components, and matches high-tech production techniques with attention to detail. Swedish quality car manufacturer Volvo, he says, is the inspiration behind Hunza’s quality controlled assembly process. “Volvo was the first car company to use a team of people to build a product, where a small group of people would follow the car down the production line, pick the parts and assemble the vehicle.

“We do the same kind of thing at Hunza – each lighting fixture is hand-assembled and one person takes responsibility for filling an entire order. Our people are trained to think along the lines of would I pay that money for that product, in other words, if I did a bad job how would I feel if I paid that money and got something that was rubbish.”

This level of customer care ensures plenty of repeat custom, creating a truly sustainable business model. “We aim to build long-term relationships with our customers,” says Cunningham. “We do the best we can, try to do the right thing, and make sure we help sort out any problems they have.”

Hunza began life as a bit of an experiment – necessity being the mother of invention, according to Cunningham. He started out in 1990 manufacturing low-voltage transformers for halogen reflector lights, which were becoming increasingly popular. But five years later, the company hit a roadblock.

“In 1995 it became evident that the light manufacturers were coming out with 240 volt version of these lights which would have made the transformers superfluous,” he says. “The transformers we were making could be used for outdoor lighting, so I thought why don’t we make the outdoor lights to go with it? I came up with a very simple design, walked round the corner to the local engineering shop and said can you make these?”

They could, and did; Cunningham had the first batch of 20 light fittings powder coated and went off on a sales trip to Australia. The customers loved them, so Cunningham started adding to the range, and Hunza Outdoor Lighting was born.

Swages Engineering is no longer round the corner – as business has boomed, both companies have moved to larger premises, but it still does all of Hunza’s precision CNC machining. Cunningham says they still meet every Tuesday to talk about delivery and quality issues.



Hunza's close relationships with component suppliers like Swages gives the company access to the latest technology, and allows greater flexibility in responding to market changes without expensive retooling. "We're using the latest technology even though it's not on our site; we've employed another company to do that and that's what he invests in," explains Cunningham. "So if we need to change the design, we can do it faster than most companies on the planet because we make smaller batches and it's done on CNC lathes and machining centres."

As well as working closely with upstream suppliers, Hunza ensures lines of communication are always open with the company's distributors and customers around the world. Cunningham says he makes four or five trips a year to Australia, where he goes out with the distributor and calls on end users to discuss ideas and deal with any complaints. The regular contact allows him to pick up on any changes in the market, and is fruitful ground for design innovation.

"One end user asked if we could make a flush floor light the same as another brand because he didn't particularly like dealing with this other company," says Cunningham. "So I said yes, that's not a problem, so we launched that product and it's subsequently become a worldwide product."

Hunza is continually looking to innovate, and is in the process of developing a state-of-the-art outdoor lighting range with funding from the Foundation for Science, Research and Technology. "There's still a lot of development work to do," says Cunningham, "but it will involve a technological jump up from what we're currently producing."

As a manufacturer and exporter, Hunza is very reliant on its distributors, "It's a bit of a two-edged sword - you've got to have a reasonable product and you've got to have a reasonable distributor, or you're wasting your time," says Cunningham.

The right chemistry, he says, is the key to success. Hunza has forged long-term relationships with many of its distributors; the company has been working with the same distributor in New South Wales for 13 years and in Western Australia for 10 years. "You need to get along with your distributors on a personal level, and that's what we do with the people we have in Australia," says Cunningham.

This focus on relationships with a human face has produced excellent results, he says. "The most successful market for us in terms of dollars per capita is Western Australia. The percentage they turn out is well in excess of anywhere else in the world by a factor of four."

Hunza's first foray into the UK market followed a different model, and came about as a result of a suggestion from its New Zealand Trade and Enterprise account manager. "He was our bouncing board if you like, and he said instead of racing off to the America where everybody else goes, try the UK. So we said, alright, we'll give it a try. So we put an ad on a website, UK Source, for six months, we got only one reply, and that's now our current distributor for Europe and he's our biggest customer."

The next step was America, and again it was all about the right distributor. Cunningham's initial hunch had been to pitch a high-quality product to the US market - "I had it in my mind that if we design it for the US market, make it heavy and robust, the Americans will like it, but in fact that was the market that we got into last." After an initial setback due to an unsatisfactory distributor, Hunza is now making inroads into the US market, although Cunningham says the size and structure of the market has made it harder to forge the personal links that have worked so well in Australia.

Hunza has now set up an umbrella company, Hunza International, to focus on overseas

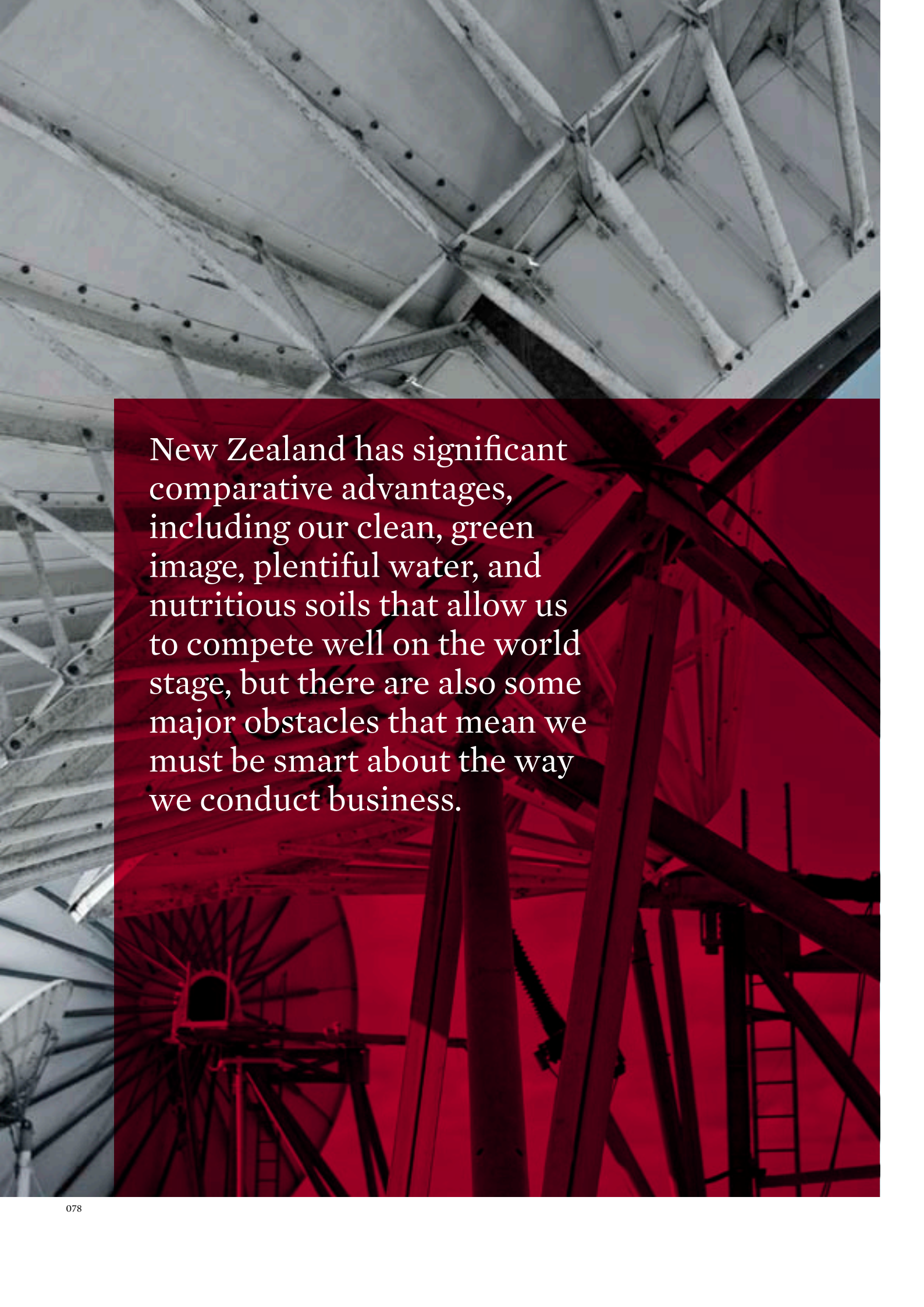
distribution in Australia (Hunza has its own distribution companies in Queensland and Victoria), the Middle East and the US (where the company operates as Landscape Lighting of New Zealand Inc).

The big-picture goal is to grow the business into a \$50 million company within five years. To achieve this, over the past two and a half years Hunza has been working through a series of NZTE programmes, including Better By Design, Lean Business, Manufacturing+ and Beachheads.

The results speak for themselves, says Cunningham. "We had a lady here who used to do 10,000 steps a day, and after the beginning of Lean and with the implementation of certain programmes in the factory, that's been reduced to 2,500 steps. That's a 75 percent increase in efficiency, because she's standing at the bench instead of walking around."

**Stand-out value drivers for Hunza include:**

- **a total commitment to premium quality**
- **excellence and innovation in design and brand, including co-creating products and with customers**
- **being New Zealand owned and manufactured is an important part of the brand**
- **an emphasis is placed on face to face relationships and on building long term partnerships with distributors and customers**
- **being in tune with emerging technological trends and market behaviour to ensure products and services are continuously leading the market**
- **Employing world class manufacturing and technology, including smart use of outsourcing.**



New Zealand has significant comparative advantages, including our clean, green image, plentiful water, and nutritious soils that allow us to compete well on the world stage, but there are also some major obstacles that mean we must be smart about the way we conduct business.

# How to implement the Value Creation Model:

With our modest scale and distance from large markets, the natural strategy is deep niche, but there are other business models that are also suitable. It is unlikely that many New Zealand companies will operate across the complete value chain so it is essential that we understand where it is that we can add the most value and where we can apply maximum leverage.

This thinking leads to a business model of collaboration and co-creation; one in which we become strategic partners with other manufacturers and suppliers, and ultimately, with our customers.

Businesses exist to create value for the owner, employees, associates, shareholders, the local community and society at large. The way that we assemble our businesses governs what and how we perform, and hence the value that is created. Our research has shown that New Zealand's world leading manufacturers operate using clusters of Value Creation concepts that they leverage to create unique and high-value product, service and experience offerings. We have aggregated all these ideas into the comprehensive model, explained above.

The implication from this is that New Zealand businesses can improve their performance by examining and adopting clusters of the value creating concepts from the model. There is no simple golden rule for success and the context will determine

which of the concepts should be adopted and emphasised. World leading New Zealand exporters appear to perform well on all or almost all of the concepts, and exceptionally well on some of them.

Successful enterprise activity requires both creation and operational execution. Creative execution should be both strategic to the enterprise and connected to the needs of customers to ensure that value is created. These four ideas constitute the two axes of the Manufacturing + Value model, which in turn creates four quadrants of activity - Purpose, Share, Align, Deliver.

1. Develop a creative and strategic **PURPOSE** and business model.
2. **SHARE** and co-create ideas through close connectivity with markets and customers and end-users.
3. **ALIGN** value through every interaction throughout the value chain.
4. Combine operational excellence with the strategic determination of product designs and manufacturing infrastructure to **DELIVER** products of outstanding value.

As with all practical tools, the usefulness of the Value Creation model will only be realised by actually working with it in your business environment. We recommend that the questionnaire is used by enterprise leadership teams as a means of reflection and performance enhancement.

The following paragraphs discuss the implementation of each of the above four steps:

**Step 1. PURPOSE**

For many manufacturing businesses strategy and offerings will have evolved naturally from a product or production paradigm, that is, they started from a product idea or technical capability and went looking for a market. Later they develop a more market based strategy as the company matures and grows.

It has been apparent from the many conversations within the Manufacturing+ project that progressive manufacturing companies no longer have the latitude or luxury of time to evolve in this manner. Also there appears to be a natural ceiling that this paradigm reaches – to go further, companies identified the need to realign to take a more outward view. This has often occurred at a crisis point when the technology or production push strategy no longer provides growth or market success.

We recommend that companies should actively focus their strategy discussions from the traditional entry point of the DELIVER quadrant to the more strategic view of the PURPOSE quadrant, while focusing on the creation of value to the end-user.

Insights to Value Creation may arise through considering the stages in the following order - PURPOSE-SHARE-ALIGN-DELIVER.

This model represents an iterative process that encourages firms to work systematically through the value model as a continuing process. Once a company has established a purpose and business model and worked around the Value Creation model to what they will make and how they

will make it, it may decide that the purpose needs tweaking, and hence the process begins again.

This value model is not intended to be prescriptive. It is presented in a spirit aimed at encouraging reflection on the way we think about our businesses, with an emphasis on Value Creation. Only through creating value will we achieve enduring economic returns.

**Step 2. SHARE**

The share quadrant is crucial to success as this is where companies share their purpose, connect with the world and communicate their values and abilities to create new opportunities. Leading businesses are placing a considerable emphasis on sharing ideas resources and information, and co-creating new products and services.

One way of creating innovative products and services is to disrupt current patterns of thought, theories and activities by looking in other domains, sharing capabilities and collaborating with different industries. Collaboration has become less physically constrained as communication becomes instantaneous via the internet, and this has had a massive impact on the way we innovate. The rate of change has accelerated and manufacturers often now view their products as having short and distinct lifecycles.

Traditional manufacturing models tend to emphasise controlling in-house and supply-side issues, for example production costs and equipment, whereas world leading New Zealand manufacturers are focusing on influencing their external relationships and demand-side opportunities. In particular this takes the form of actively working on how they can collaborate to compete in a variety of structures and relationships.

## 9\ How to implement the Value Creation Model

New Zealand's leading manufacturers are proactively leveraging their relationships to share their ideas, discover new opportunities and solutions, and collaborating to capture new markets. This takes a range of forms and is epitomised by the continuing discussion of owners and managers at the front line in New Zealand companies, forging new relationships and actively maintaining their overseas networks.

Leading New Zealand companies are increasingly seeing the potential for differentiation through design of both products and services as well as communication design. Products, the stories that are told about them, the experiences they engender and the brand that embraces all of this and engages with customers and consumers are becoming intertwined and inseparable.

### Step 3. ALIGN

Business success is dependent on the quality and quantity of connections. Connections enable new business opportunities, ideas and insights and create market opportunities. How businesses connect and manage relationships with the market, their suppliers and distributors is a key determinant of their ability to respond to changes and innovate rapidly.

For New Zealand's world leading manufacturers, the ability to identify and assess their own strengths in relation to competitors and collaborators is an important skill which allows them to accurately determine in which aspects of the value cycle they will compete.

Well-connected companies are able to make better assessments of their own capabilities, prevailing market conditions and other risks. They are also better able to co-create new

opportunities with their partners, or identify new partners required to exploit specific opportunities. Being well engaged and connected therefore plays out on several levels. Successful New Zealand exporters continuously examine and prioritise practices that enhance the links and ties with their markets, customers and suppliers.

### Step 4. DELIVER

We suggest that a tangible product is only a subset of the broader customer and consumer experience, and it is the total experience that is critical, no matter what the type of products – retail, commercial and industrial. This in turn implies that a key to the transformation of the manufacturing industry is redefining what manufacturing means. The Manufacturing+ project is aimed at collectively redefining our understanding of the term manufacturing to mean creating valuable product and services experiences as a key driver for success. Value is defined by the customer and user.

Traditional manufacturing is synonymous with mass production, assembly and automation. Modern manufacturing now and in the future is likely to be increasingly focused on the process of developing much more complex offerings and experiences. The physical product is only part of the value created. World leading New Zealand manufacturers often leverage unique production methods to compete by co-creating production solutions with clients. Enhanced design often occurs through the production process itself. Sophisticated production methods are important way of protecting ideas, securing intellectual property over designs and generating enduring value.

# Conclusion

Value Creation is the determinant of enduring profitability and business success. The Value Creation model explained in this booklet will assist organisations to reflect on all aspects of their business to identify opportunities for enhanced performance.

Successful companies are strong on all or most of the 12 Value Creation concepts and outstanding on an innovative cluster of ideas that uniquely differentiates their product and service offerings.

Clarity and focus of purpose and business model is a vital starting point in value enhancement. Close connectivity with customers, consumers and end-users is a driving force for value. Value is only created if it is perceived in the minds of the customer, consumer and end-user. Alignment within the global value cycle and a deep understanding of actual and potential channels to market are vital to ensure that value is created and captured. World leading production and delivery completes the picture.

## **PURPOSE - SHARE - ALIGN - DELIVER.**

The value model introduces new language and views familiar concepts in new ways to help look at businesses in a transformational way. Value Creation goes beyond business as usual, and aims to accelerate the journey towards becoming a world leading New Zealand company.

Five concepts in particular, discussed throughout the booklet, have disproportionate power to accelerate Value Creation and engender a differentiated New Zealand enterprise culture. These are:

1. Embedded innovation systems throughout all aspects of the business
2. Sustainable design
3. Lean thinking
4. Creative branding
5. Close connectivity with markets, customers, consumers and end-users.

The Value Creation concepts can be used by all types of business and at all stages of development. There is significant potential to enhance the ability of New Zealand companies to achieve high growth and export success through the adoption of these concepts.

We wish you every success on the never-ending Value Creation journey and look forward to hearing your stories of world leading New Zealand enterprise.





**New Zealand Trade and Enterprise (NZTE)** is the government's national economic development agency. We work to stimulate economic growth by helping to boost export earnings, strengthening regional economies, and delivering economic development assistance to industries and individual businesses. Through our network of offices worldwide, we connect

New Zealand businesses to people, knowledge and opportunities. In 2008, NZTE was judged 'best of the best' at the World Trade Promotion Organization Awards.

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