

# NEW ZEALAND FOOD INNOVATION CENTRES: STRATEGIES FOR ECONOMIC DEVELOPMENT IN THE FOOD AND BEVERAGE SECTORS

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## Introduction

The backbone of the New Zealand economy is agriculture and related industries. The government has developed a number of strategies to enhance export earnings from this sector. One of its initiatives has been to establish taskforces to identify key growth sectors that have the potential to transform the economy. These sectors include Biotechnology, Creative Industries (film), Information and Communication Technologies (ICT) and Food and Beverage. In 2004, the Food and Beverage Taskforce was established in an effort to combine the resources of industry, government, science and education to enhance New Zealand's role in the international food industry.

The taskforce identified innovation and product development for export markets<sup>1</sup> as the key opportunity for transforming the sector (Food and Beverage Task Force, 2006). However, developing innovative products for export has proven difficult because most of New Zealand's food manufacturers are extremely small and do not have the resources, scale and expertise to successfully compete in international export markets.

The Government's response to the report, in July 2007, focused on key themes of collaboration, protecting core capability and transformation through the development of new products and markets. At the same time, additional funds were allocated to New Zealand Trade and Enterprise (NZTE) to implement a programme of expanded in-market assistance which currently includes:

- Increased support of the New Zealand presence at selected international food and beverage trade fair events
- Support of the aquaculture industry through funding of the market development component of the national aquaculture strategy

- Support of the horticulture industry in funding a market development strategy toward its \$10 billion by 2020 vision
- Support of the meat industry in investigations of emerging market opportunities
- Support of the wine industry in identifying and developing a super premium positioning strategy.

Most of the work is focused on projects and trade events in North America, Japan and China. These key markets represent New Zealand's first, third and fourth largest food and beverage export markets respectively and are collectively worth more than NZ\$5.869 billion per annum. Food and beverage sector exports from Auckland are estimated to be \$1.67 billion or 9.6 per cent of total New Zealand food and beverage exports.

New Zealand's income per capita has been falling relative to Australia's since the middle of the last century. As a result, the government has set two aspirational goals for New Zealand to achieve by 2025: to catch up with Australia's GDP per capita (the New Zealand figure is currently 76 per cent of Australia's) and for exports to be 40 per cent of our GDP (currently 31 per cent). To be successful it will require a GDP per capita growth rate 1.5 per cent per annum higher than Australia, and real export per capita growth of over 5 per cent per annum. The export target will require New Zealand to increase the real value of overseas earnings from around \$60 billion to \$157 billion by 2025. The food and beverage initiatives are designed to help achieve these goals.

Volatile, emerging and evolving international markets offer both serious threats and exciting opportunities for the export sector. In order to meet increasingly sophisticated, dynamic consumer demand, and attract premium returns, the food and beverage sector needs

<sup>1</sup> The Taskforce presented its findings in the report *Smart Food, Cool Beverage: New Zealand's Future in the Food and Beverage Sector* (2006).

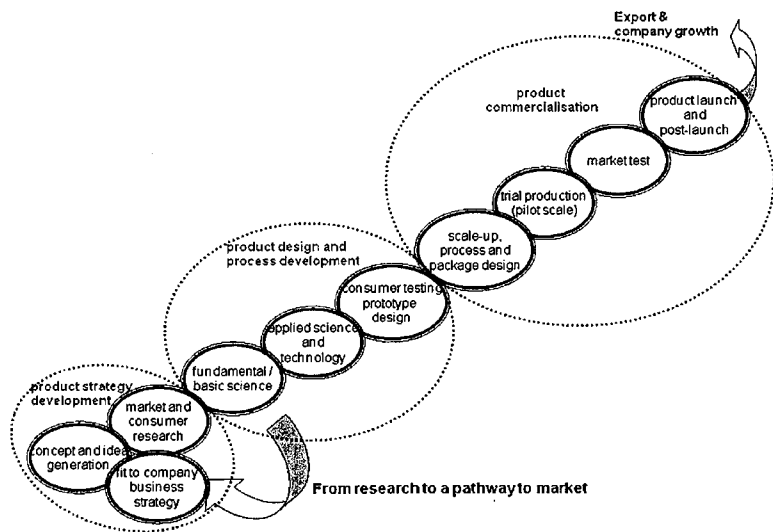
to change its focus on raw materials and ingredients to a much wider range of differentiated, value added, branded retail products. Such value-added branded products have been coined "Fast Moving Consumer Goods" (FMCG).

Food Product Development (FPD) involves a complex, integrated series of steps from idea inception to product launch (Figure 1). All steps are needed to optimise the chance of success and reduce the risk of failure in the marketplace.

These critical steps include the product commercialisation scale-up, trial production and test marketing component of FPD. This mandates a commercial-size pilot plant capable of producing the desired FMCG product in batches greater than 100kg. At present, there is no publicly available facility of this nature in New Zealand. This paper details the strategies developed and the steps taken to establish such a facility.

**The FoodBowl concept**

There are more than 300 food and beverage businesses in the greater Auckland region (see Figure 2 below). These firms form a cluster<sup>2</sup> of food related activities. Despite the large number of small firms in

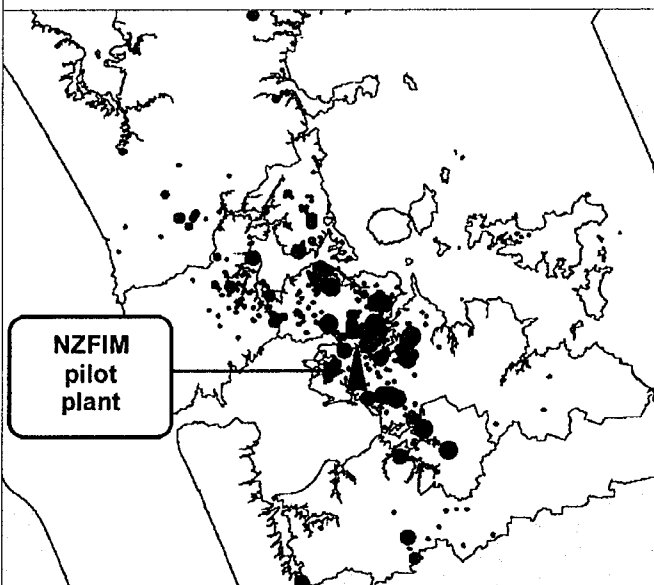


**Figure 1:** The FPD pathway

the sector, most of these businesses do not have the capacity to commercially test their products. In order to promote product development and new job creation, several key university and industry leaders suggested that a pilot processing plant was needed.

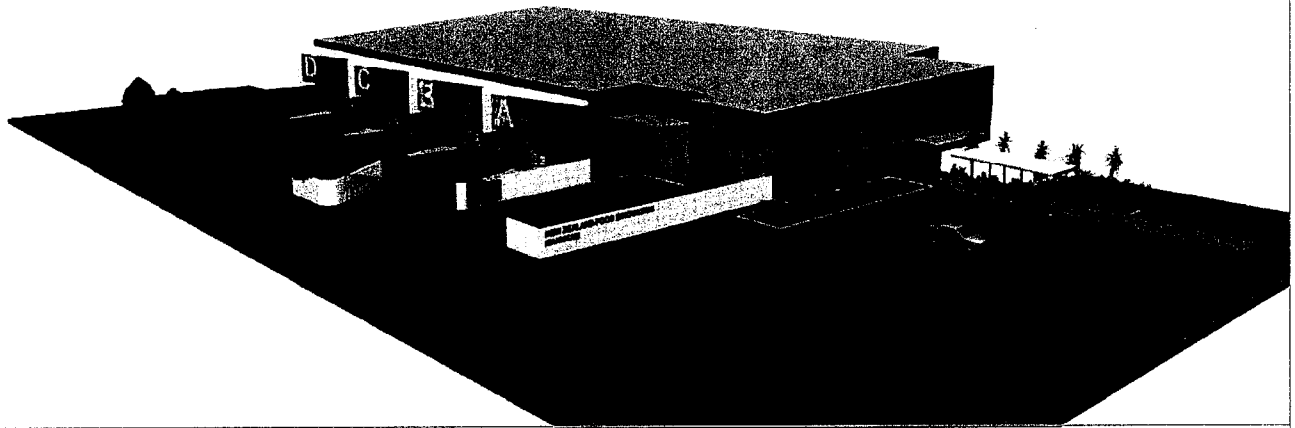
The original concept of establishing a cluster of food related businesses was first promoted in 2003 by Ross McCallum, formerly Founder and Managing Director of Kapiti Cheese. The concept was termed the FoodBowl and was proposed to be sited near Auckland International Airport. The term was adopted because the greater Mangere area was considered the original food bowl of New Zealand from early Māori settlements to modern times. The concept essentially endeavoured to create a cluster of food and beverage related activities and businesses from research, product development, production, branding to marketing. The anchor for the proposed FoodBowl was a pilot processing plant.

The concept was championed by Enterprising Manukau, the local economic development agency (now incorporated into Auckland Tourism, Events and Economic Development Ltd) and the economic development unit of the former Manukau City Council (now part of Auckland Council). Both organisations promoted and advocated for the project because the initiative aligned with the Council's economic development strategy and Central Government's transformation agenda. It also had strong industry and university support. The initiative eventually garnered funding commitments from Central Government and Council.



**Figure 2:** Food and Beverage centres of concentration

<sup>2</sup> Porter (1998) defined a cluster as a geographic concentration of interconnected companies, specialised suppliers, service providers, firms in related industries, and association institutions in particular fields that compete but also cooperate.



**Figure 3:** Rendering of the New Zealand Food Innovation Manukau facility

### New Zealand Food Innovation Manukau

The Cabinet Policy Committee noted, in 2008, that a proposed Manukau Food Innovation Centre (MFIC) would provide the processing capacity for the small food manufacturers in the Auckland region. The proposed facility would create an innovation ecosystem of firms and supporting organisations, focused on high-tech and fast growing businesses (see Figure 3 above.)

#### The MFIC and the surrounding FoodBowl area would improve:

- Growth and innovation by clustering value chain businesses together and improving the commercialisation of investment in research and development, particularly time to market;
- Industry-research linkages, technology transfer from research organisations, and the relevance of education and research;
- Economic returns to the Auckland and New Zealand economies.

The New Zealand Food Innovation Manukau (NZFIM) pilot plant has been developed as a partnership between Central Government (MED), Local Government and the Food and Beverage Industry, who will pay "market rates" for using the facility. NZFIM will operate an independent, open access, food pilot facility in a building being purpose-built and leased back by Auckland International Airport Ltd (AIAL). This key location is at the heart of processed food manufacturing in New Zealand with over 85 per cent of Auckland's food manufacturing industry within 15km of the Auckland International Airport. Extending the region's hinterland to include Waikato and Bay of Plenty incorporates 48 per cent of New Zealand's food manufacturing companies and 36 per cent of its labour force.

The NZFIM pilot plant is part of a network of food innovation entities that will initially comprise four pilot facilities (Manukau, Waikato, Palmerston North and Canterbury- see figure 4 over page) and an overarching network organisation.

Firms that will be most interested in locating in the FoodBowl will be medium-sized with 10-100 employees. The companies will be on a growth track and understand the benefits of being co-located. Such firms will understand the benefits of being co-located with like-minded firms throughout the Auckland region, or with current or potential value-chain participants, who are able to respond rapidly together to new opportunities. The new complex will provide facilities and expertise to both start-up and established businesses looking to develop new products or to test new processing technologies. The centre will be a focal point for advanced commercial food and beverage product and process innovation in New Zealand. It will become the anchor for the growing food cluster in the South Auckland region.

The complex will offer unique, world-class food and beverage commercial scale pilot facilities for companies to trial innovative 'near market' processes and food products on a flexible and cost-effective basis. It provides regional capability in new food product development linked to both industry and research. The facility will also provide rapid, confidential innovative product development and robust technical advice, together with sufficient production capacity to test market preferences and likely demand. Examples of International food clusters are the Wageningen Business Generator in the Netherlands (Food Valley); the Food Innovation Centre in Oregon, USA; the POS Pilot Plant in Saskatoon, Canada and the Food Science Centre in Victoria, Australia.

The Manukau facility will be part of the New Zealand Food Innovation Network (NZFIN). The Food

Innovation Network will provide facilities that enable development of value added foods and allow companies to close the gap in knowledge of the relationship between the product and the market.

**Core attributes are:**

- A 2000m<sup>2</sup> building (see fig 4) with 1000m<sup>2</sup> pilot plant working space, capable of producing 250-500kg industrial batch sizes of food products focused on the needs of the FMCG sector
- World-class, state-of-the-art, flexible food and beverage manufacturing facilities for companies to trial innovative “near market” processes and food products on a flexible and cost-effective basis
- Standard food processing unit operations that can be flexibly combined in many configurations to suit the specific needs of a client from any sector of the food industry
- Seven simultaneous, mutually confidential food and beverage manufacturing activities
- Availability 24 hours a day, seven days a week operation
- Stringent industry “redline” hygiene standards, certified for export
- Opportunities for suppliers to showcase new or improved technologies or equipment
- A commercial facility for tertiary students and industrial workers seeking advanced training in all aspects of industrial operations
- An “own brand” which clients may use for test marketing

**Project funding**

The Government’s investment in this facility is \$9.48 million over five years and the funding agreement will be administered by the Ministry of Economic Development (MED).

Government agreed to support this facility on the basis that:

- The lease for the building would be underwritten by Manukau City Council for five years; and
- City Council would invest \$2.5 million over five years at a rate of \$0.5 million per year.

Manukau City Council’s financial obligations have been transferred to the new Auckland Council.

The government funding is broken down into working capital (\$1.48 million) and equipment (\$8 million). NZFIM has received \$107,000 of this funding through an interim funding agreement to enable it to complete lease negotiations with AIAL and to complete specification of the building design and equipment. A funding agreement has been drafted but has yet to be signed between MED, NZFIM and ATEED.

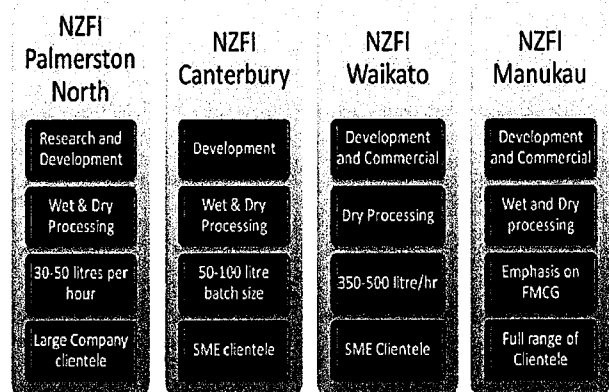
**Food and Beverage Sector Support**

The ATEED has established a strong industry network throughout the Auckland region and this will continue unabated and represents a major source of active promotion for the NZFIM. An active F&B Sector Group of more than 130 companies has been established together with a cluster of F&B industry support organisations. These support organisations include universities, research facilities, certification and QA agencies, product developers, suppliers to the industry and transport and logistic expertise.

A primary focus of the NZFIM is the development and expansion of F&B exports. The ATEED F&B Sector Specialist has launched a “Journey to Export” programme that is designed to meet the need of preparing sector members for the challenges of exporting. The goal is to lift the capacity and performance of the sector and generate a higher rate of increase in export revenue for the New Zealand economy than current. NZFIM will provide participants with an industrial-scale facility to develop and commercialise product, especially for the export market. Also the JTE Programme will provide way to prepare businesses for acceptance into the NZFIM facility.

An agreement is in place with New Zealand Food Innovation (Manukau) Ltd that the ATEED Food and Beverage Sector Specialist will dedicate 50 per cent of their time to support the establishment and operation of the NZFIM facility and the food and beverage sector as a whole. The associated economic development objective will be to lift the capability and capacity of the food and beverage sector through increased productivity, strengthening of business

**New Zealand Food Innovation**



**Figure 4:** New Zealand Food Innovation Network

models, acceleration of research and development, expansion of exports and the addition of job opportunities.

### Journey to Export programme

Another initiative designed to meet the need of preparing sector members for the challenges of exporting is the Journey to Export (JTE) programme. The goal is to lift the capability and performance of the sector that will lead to a higher rate of increase in export revenue for the New Zealand economy than current levels. Businesses that commit to the programme will be part of a JTE cluster that will meet regularly with the aim of realising the export potential of each business. Within the cluster the participants will be provided with assistance, training, mentoring, guidance and networking opportunities.

New Zealand Food Innovation Manukau (NZFIM) will provide the sector with an industrial-scale facility to develop and commercialise product, especially for the export market. The JTE programme will provide a resource and means to ready businesses for acceptance into the MFIC facility.

The JTE programme targets those businesses that are not currently exporting and those that export a

low percentage of production will be the main participants in the programme. However some established exporters may see real benefit in having non-exporting divisions of their businesses participate in the programme. A substantial increase of production within the sector, based around growth in exports will have a positive effect in the creation of new jobs within the Food and Beverage industry.

### Conclusions

The establishment of the New Zealand Food Innovation Centre in Manukau is a good example of the importance of prioritising initiatives that are aligned with both local and central government strategies (in Australia - state and federal strategies). Central government funding was garnered because of strong advocacy over a sustained period of time and significant local matching funding commitments. The lesson for local economic development practitioners is that large development projects have a better chance of success if they have local stakeholder support and align with both a local economic development strategy and the priorities established by higher levels of government.

### REFERENCES

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