

**Global Practice in Incubation
Policy Development and Implementation**

**New Zealand Incubation
Country Case Study**



infoDev



Global Good Practice in Incubation Policy Development and Implementation

*New Zealand Incubation
Country Case Study*

October 2010

Information for
Development Program



infoDev
www.infoDev.org



©2010 The International Bank for Reconstruction and Development / The World Bank
1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org
E-mail: feedback@worldbank.org

All rights reserved

The findings, interpretations and conclusions expressed herein are entirely those of the author(s) and do not necessarily reflect the view of *infoDev*, the Donors of *infoDev*, the International Bank for Reconstruction and Development/ The World Bank and its affiliated organizations, the Board of Executive Directors of the World Bank or the governments they represent. The World Bank cannot guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply on the part of the World Bank any judgment of the legal status of any territory or the endorsement or acceptance of such boundaries.

Rights and Permissions

The material in this publication is copyrighted. Copying and/or transmitting portions or all of this work without permission may be a violation of applicable law. The International Bank for Reconstruction and Development / The World Bank encourages dissemination of its work and will normally grant permission to reproduce portions of the work promptly.

For permission to photocopy or reprint any part of this work, please send a request with complete information to *infoDev* Communications & Publications Department., 2121 Pennsylvania Avenue NW; Mailstop F 5P-503, Washington, D.C. 20433, USA; telephone: 202-458-4070; Internet: www.infodev.org; Email: info@infodev.org.

All other queries on rights and licenses, including subsidiary rights, should be addressed to the Office of the Publisher, The World Bank, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2422; e-mail: pubrights@worldbank.org.



This document was produced as part of the World Bank infoDev project on developing a policy framework and implementation strategy for business incubators.

TABLE OF CONTENTS

1.	INTRODUCTION	5
2.	OBJECTIVES AND BROADER STRATEGIC PUBLIC POLICY FRAMEWORK OF INCUBATION ACTIVITIES	5
3.	INSTITUTIONAL ENVIRONMENT	9
4.	INCUBATION MODEL	10
	4.1 Example Incubators	13
	4.2 Incubator Process	17
	4.3 Government Funding	17
5.	MONITORING & EVALUATION	18
6.	CONCLUSIONS / STRENGTHS AND WEAKNESSES	20
	6.1 Areas for further Development	20
	6.2 Lessons Learnt	22
	STATISTICAL DATA	23

1. INTRODUCTION

This case study has been produced as part of the World Bank *infoDev* project on developing a policy framework and implementation strategy for business incubators. The purpose of the case study is to analyse public policy in incubator development and identify some critical success factors which should be considered in the development of incubators .

The New Zealand study was conducted using desk research and an in-country visit to meet some of the key players involved in incubator development, including government officials and incubator managers.

2. OBJECTIVES AND BROADER STRATEGIC PUBLIC POLICY FRAMEWORK OF INCUBATION ACTIVITIES

Incubator policy in New Zealand is deliberately oriented to generate growth-oriented and internationally competitive SMEs. The rationale for this lies in the country's remoteness from the rest of the world and its relatively small domestic market. Therefore economic development is highly dependent on a strong export sector and hi-tech, high growth companies which can 'build bridges' with the rest of the world and export their knowledge in particular.

The incubator policy was put in place in 2001 soon after the Asian financial crisis, which had an adverse impact on New Zealand. Boosting export revenues and commercialization of R&D were and are the main drivers of the incubation policy, with consequential high value employment creation that was particularly important at that time. The main objectives have been achieved by stimulating a 'pipeline' of high-growth businesses through incubators and other programmes.

The initial set up of incubators was based on the Israeli model – hi-tech and growth-oriented – combined with deliberate learning from USA, Australia and Europe. The idea was that the incubators would accelerate the development of new companies so that they would be ready for exports and that they would quickly graduate and become interesting for the VC industry that could see exit opportunities through trade sales and, in some cases perhaps, through an IPO (so far no incubated companies have achieved this, however it is still too early. Further developments will likely provide outputs also with respect to IPOs). Therefore, links into the venture capital community, including business angels became a very important part of the overall support package.

The main programmes supporting enterprise development in the country are provided by New Zealand Trade and Enterprise (NZTE). These support services include export support and market development assistance for exports, access to international networks, training and knowledge programmes, and a funding assistance service coupled by an international growth fund.

“Get Ready to Export” is the programme that helps SMEs to prepare for export. Here NZTE provides a range of information, support and references to other government resources.

“Market research by industry” is another profile of services that provides SMEs with detailed, country-specific market research in each of the following sectors: biotechnology and agri-technology; creative industries; education; food and beverage; ICT; specialised manufacturing; wood, building and interiors.

“Access International Networks” helps New Zealand businesses tap into targeted services from New Zealand Trade and Enterprise (NZTE), which are designed to connect them with opportunities in overseas markets, and that provide assistance operating internationally. The type of assistance available varies depending on the location of the market, the industry, and the client’s level of experience and capability.

Particularly relevant in this respect is the Beachheads initiative, a two-year programme designed for high-growth New Zealand companies looking to grow internationally. It connects participating companies to a network of advisors who can provide detailed insights into doing business in specific international markets, and provide valuable advice and contacts that can plug companies into the right partners and potential customers.

“Develop Knowledge and Expertise” provides specialist programmes to SMEs that want to grow and improve their competitiveness through knowledge-based investment and HRD.

“Find Funding Assistance” is an NZTE service that facilitates access to funding and other capital-oriented instruments and advice, to help qualified SMEs to grow and succeed in the global marketplace. Businesses working with NZTE on a plan of services to help them grow may also be eligible for the International Growth Fund, designed to help them succeed internationally and contribute to New Zealand's economy. If, instead, a company needs to raise significant capital or form strategic partnerships for growth, it can find capital raising advice and assistance through the Escalator service.

The NZTE incubation policy is therefore perfectly integrated into the broader SME support policy and coordinated within a much wider spectrum of programmes that support SME competitiveness and internationalisation.

Incubators are also supported under the Incubator Support Programme (ISP) within which qualifying incubators can receive an annual grant covering up to 50% of their operating budget. For incubated companies, which were established with the incubators support, starting their growth phase, investment funds are available through the New Zealand Venture Investment Fund (NZVIF)¹. NZVIF is a private equity fund (of fund investors) that manages \$200 million of funds, through two main vehicles:

- The Venture Capital Fund involving 6 partner investors with a total of NZD 160 million to invest in New Zealand-originated, high growth potential companies;
- The Seed Co-Investment Fund involving 9 partners (including private equity investment companies, angels groups and networks) with a total of NZD 40 million allocated to support early stage businesses with strong potential for high growth.

¹www.nzvif.com

To access the Fund, investors must be accredited. The evaluation process includes a desktop evaluation, a site visit and detailed due diligence on the capabilities of the potential investment partner.

There are also ‘angel’ investor networks and a programme titled ‘Escalator’ to get companies investment-ready.

The ultimate objective of the Incubator Support Programme is to enhance the success and growth of early-stage businesses via the development of high-quality, financially self-sustaining incubators. The intermediate objectives are to promote best practice among incubators in NZ, enhance networking among incubator managers and with organisations which have an interest in incubators and/or incubated businesses and also to enhance networking between incubators and Universities / CRI’s (see below) to encourage technology transfer and commercialisation.

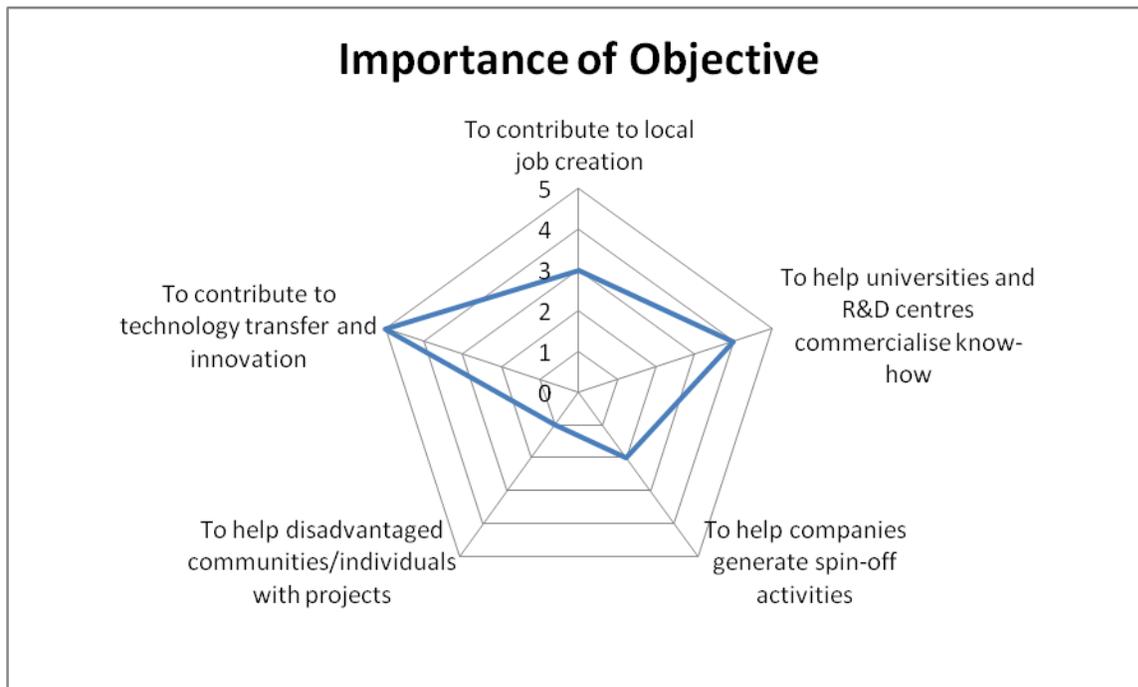
These objectives are achieved through two mechanisms: the Incubator Awards (annual merit-based financial awards to approved incubators) and the Incubator Development Unit (IDU) residing within NZTE. The IDU has been tasked with servicing the incubator network, identifying and supporting opportunities for sharing best practice, administering the Incubator Awards, strengthening linkages between incubators and Universities / CRI’s and encouraging incubators to collect performance data from former clients (the latter two objectives were added to the remit of IDU following an evaluation exercise in 2004).

Eligibility for awards is dependent on a number of criteria including: having a physical location (this rules out the so-called ‘virtual’ incubators that work only with external clients), being a legal entity, having a focus on start-up and early-stage companies with high-growth international potential, working towards relevant international standards, having a clear exit strategy for tenants, having a financial sustainability plan and being a member of the industry association; Incubators NZ (INZ).

Within ISP, incubators are tasked with becoming financially self-sufficient by 2014. The supported incubators have adopted different models for achieving financial self-sufficiency (for example, ‘equity’, royalty’, ‘deferred debt’ – see below), which are based on different methods of raising income from the supported companies. It must be noted that incubators have failed to raise sufficient revenues from some of these income generation models, in particular the deferred debt model has been abandoned by HQ Creative because it was not working properly, to move into a new type of equity model. In general, NZ incubators are still far from achieving the hoped degree of self-sufficiency and it will be interesting to learn how successful, or unsuccessful, different models prove to be and the effect each model has in encouraging different types of businesses to become tenants.

All supported incubators are used to provide a pre-incubation programme of between 3-6 months for supporting potential tenants with advice, by conducting market scoping, feasibility studies etc. prior to the decision to admit them as resident clients.

The radar graph below, based on responses from interviewed stakeholders, indicates that the most important objective by which they are judging incubators is contribution to technology transfer and innovation, followed by commercialisation of know-how. Job creation is clearly a minor concern in the New Zealand incubator movement. This view of objectives is in line with the overriding purpose of the incubation policy to contribute to competitiveness by stimulating high-growth, export-oriented companies.



Incubators in New Zealand are apparently integrated well with SME support systems and regional economic development strategies. They are felt to be very cost-effective in terms of outcomes achieved per dollars expended (ISP budget is currently 3.1 million NZD). The 2008 evaluation results confirmed that ISP has been effective in both building appropriate incubator arrangement and delivering outcomes in the form of the growth of firms.

The first incubator was established in 2001. To date a total of 19 incubators have received grant awards to a total value of 16.73 million NZD. A number of incubators have, however, closed down, merged or have become ineligible. There are now 8 incubators in operation of which 7 have secured approved status and are in receipt of Government subsidies. Total number of tenants incubated at the time of the report research is around 160 (i.e. about 20 per incubator).

According to the GEM monitoring report in 2008², New Zealand is classified as an innovation-driven economy and with the United States, Canada and Iceland has the highest HEA index (high-growth expectations early stage entrepreneurial activity), which is well over 1%.

² http://www.gemconsortium.org/download/1248868924985/GEM_Global_08.pdf

3. INSTITUTIONAL ENVIRONMENT

The key stakeholders for incubators in New Zealand are as follows:

- Central Government (NZTE) for funding of incubators
- Local Councils and Economic Development Agencies which in some cases are the parent company or contributing sponsor
- Universities³, it can be said that all NZ incubators have linkages with universities. This is the result of an overall approach concerned with introducing entrepreneurship into learning environments and leveraging the outcome that emerges
- Crown Research Institutes (sector related)
- Private sector organisations and companies

The role of Government is generally seen as one of an active facilitator, highly involved in capacity building, establishing international linkages and providing the funding of incubators operating budget, but not interfering with their daily management, whose responsibility is left with the local shareholders.

The Incubator Development Unit (IDU) takes a more active role attempting to drive best practice. To this end, it undertakes comprehensive annual capability assessments and performance appraisal to encourage continuous improvement in operating standards. The assessments also play a part in annual funding decisions.

The Government has always facilitated and improved relationships between incubators and Universities and Crown Research Institutes. As an example, a number of incubators have established on-campus satellites which are giving better access to IP based opportunities and improving the commercialisation and entrepreneurship cultures within these institutions. Initiatives such as business plan competitions may also serve to reinforce this and at the same time raise awareness among a wider audience of the role of incubators.

Involvement with the private sector is mainly in terms of sponsorship, for example a number of professional service firms provide free or subsidised consultation to incubator tenants.

The main partners involved in setting up / operating incubators are as shown below. It should be noted that all the incubators operate under unique business models and therefore, apart from Government funding, there is a different configuration of support in each case.

³ There appears to be an element of competition between University commercialisation offices and incubators over the commercialisation of research, which has been managed fairly well by some incubators, ad for instance the Canterbury Innovation Incubator (CII) that has been able to attract 75% of its clients from universities.

TABLE 1 – INVOLVED PARTNERS IN SETTING UP AND OPERATING THE INCUBATORS

Organization Type	Yes	No	Comments
National & Regional Economic Development Agencies	X		Primarily funding though several regional EDAs are members/owners of incubators.
Universities and other R&D organizations	X		Majority of incubators have close links with some university investors/owners.
Private Investors and Venture Capital Companies	X		Usually most investment is focused on the incubated enterprises.
Companies, banks and other private sector organisations		X	Usually sponsorship role; donated hardware and in-kind services; some major companies are investors/owners alongside universities .
Community and voluntary organizations		X	Not actively involved .
International Donor Agencies		X	Developed economy does not attract such support.

The main potential investors in incubator companies and graduates are business angels and five of the incubators have set up active networks of angels. Also some venture capital companies are involved. Sale of stakes, mainly to industrial investors, is the most common exit mechanism, while IPO are also sought for, but, as yet, no incubator client nor ex-client has achieved IPO, partly because in the current NZ capital market the costs of going for public listing can still outweigh the benefits for smaller companies. In terms of survival of companies post-incubation, a survey of 82 exited companies indicated that 87% are still in business after two years. The government requires incubators to monitor the performance of graduate companies for 5 years post-exit. The data is used to measure the impact that incubators, individually and collectively, are having on New Zealand’s economic development and transformation.

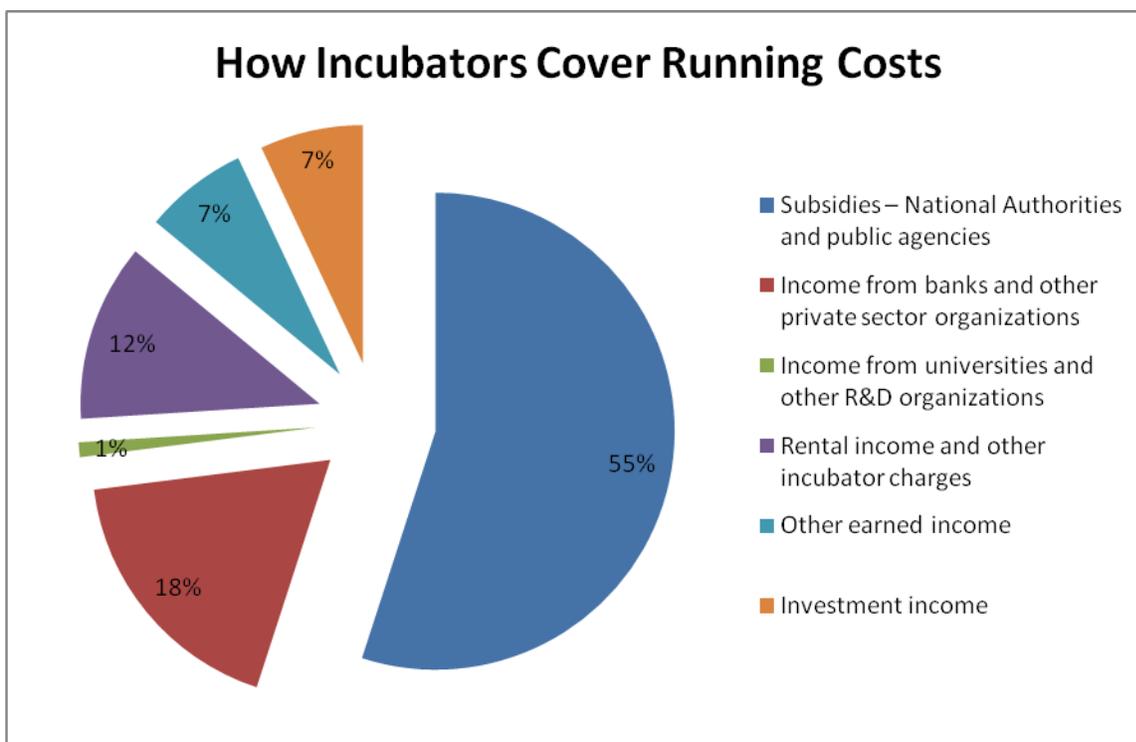
There is an association of incubators called Incubators New Zealand (INZ) set up in 2003. Internationally, there are linkages with AABI (Asia), NBIA (USA), UKBIA (UK), and GBIN -the global network of networks for incubators.

4. INCUBATION MODEL

Incubators in New Zealand are generally commercial entities operating under a range of ownership structures. Most are wholly owned by universities or regional economic development agencies, sometimes with sponsorship from private companies, while a small number are joint ventures between these organisations and well known national and multi-national companies.

There is one specific case of an incubator, the e-Centre of the Massey University, which has established the CMC Technology Export Centre as a joint venture with CMC Limited, a subsidiary of the Tata Group.

From the government funding figures, a review of incubator published accounts and interviews the average incubator has space for 15-20 resident clients. Average operating costs are around 750,000 – 1 million NZD per year. On average, 12% comes from rent, 18% from sponsorship, and up to 55% from Government and regional agencies.



Source. Interview held by NZTE Rachel Dillon, Ministry of Economic Development, Wellington

In terms of location, most incubators are in urban areas, although this in NZ often means little towns, deeply integrated in the surrounding rural economy. Currently some are exploring the potential of developing regional satellites and two satellite incubators are already operational. There is one so-called incubator (non-funded and not part of the NZTE network) that has around 5,000 “virtual” clients. The Government funding criteria rule out this type of incubators since there is a requirement under the funding rules for on-site management and physical premises. However, the government is currently considering how this policy might be moderated in light of the international trend towards the provision of outreach and non-resident incubation services.

The main focus of incubators is on technology / ICT companies and there are some instances of creative and bio-tech companies.

The service mix incubators provide to their tenants is extensive and comprehensive, though the precise mix varies between incubators, reflecting location, size and other factors. The service mix available is summarised in the table below:

TABLE 2 — THE PROFESSIONAL SERVICES OFFERED BY THE INCUBATOR SYSTEM

SERVICES AVAILABLE TO INCUBATOR TENANTS	
Pre-incubation services	√
Business planning and forming a company	√
Training to develop business skills	√
Accounting, legal and other related services	√
Market research, sales and marketing	√
Help with exporting and/or partner search abroad	√
Help with e-business and other aspects of ICT	√
Advice on development of new products and services	√
Help with raising bank finance, grants, seed and venture capital	√
Incubator seed/venture capital fund, business angel network	√
Advice on recruitment of staff and personnel management	√
Networking, e.g. with other entrepreneurs, potential customers	√
Mentoring and advice by staff & board members (and other incubatees)	√
Connections to R&D resources for product development and problem solving	√

The main types of incubator as indicated below are Business Incubators, University incubators and specialised incubators. The latter are ICT, ICT / creative, and biotech.

4.1 *Example Incubators*

E-CENTRE LTD

e-Centre Ltd. is an innovation centre located on the Massey University campus in Albany, Auckland. It is a limited company 100% owned by the University. The centre targets entrepreneurs who are targeting a global market and where technology will be a key driver in their growth. The centre is linked into regional development (through Enterprise North Shore), global development (through its alliance with Indian company CMC – 51% owned by Tata group), applied innovation (through the Massey university Innovation team and ‘PG Garage’) and best practice models through programmes in idea evaluation, pre-incubation, incubation and export acceleration.

The incubator size is 2,000 m sq. (gross floor area) and houses 14 resident clients including ‘strategic tenants’ who provide around 50% of rental income and are resident on a long-term basis, providing services to other tenants. There are also 2 virtual tenants who come in to the incubator once a week and are charged on a royalty basis.

Criteria for acceptance include: good potential market, leading edge or faster-better, global relevance (i.e. niche), technology focus (including being able to leverage capacity / expertise from University). The incubator receives applications from 50-60 companies per year of which only 5% are accepted.

Throughput of companies is around 2 per year (i.e. 12 in total have ‘exited’).

Ultimately, performance is measured according to the export earnings of the incubator companies and graduates, as well as domestic revenues, investment rate and market capitalisation.

The CMCTEC venture was launched with funding from both the Indian company CMC and NZTE (80,000NZD each) with the aim of significantly increasing the successful export of New Zealand technology and innovation to India. 55 NZ ventures have been involved or considered and 20 are currently active. Formal MOU’s have been signed between CMC and five companies. By this means, exporters are taken to the Indian market, as they are matched up with opportunities arising within CMC. The involvement of the incubator allows for de-risking of the project both from the companies and CMC’s viewpoints. It is anticipated that this venture will generate revenue for the e-Centre to the tune of around 150,000NZD per year from royalties on the export revenue of the companies involved.

‘PG Garage’ is a way of bringing together researchers and businesses to identify business and research opportunities and assist researchers to identify and secure IP. The intention is to facilitate the establishment of interdisciplinary, business-facing research and thereby increase innovation and the commercialisation of research.

ICE HOUSE

The Ice House is a knowledge-based incubator founded in 2001 by the University of Auckland Business School and constituted as a charitable trust. It has a number of commercial partners including Microsoft, HP, Ernst and Young, Boston Consulting Group and Bank of New Zealand.

The Ice House provides three tailored learning environments and three growth enablers for companies. The learning environments are the Ice Accelerator for start-ups with global ambitions (intensive mentoring and acceleration in a custom-built office space), the Ice Bridge for more established companies to focus on growth opportunities and plans, and Ice Global to enable senior managers to execute global opportunities. As well as these learning environments, there are the three growth enablers: Ice Angels who inject cash and experience into start-up businesses, Ice Lab with an R&D focus on owner-managed businesses, and Ice Network bringing together partners, alumni and useful contacts.

The Ice House incubator has 630 m sq. of space and currently 14 residents and 7 commercial tenants (the former are involved in incubator programmes of market validation and acceleration). In total, Ice House has assisted 65 start-ups. 51 of these have already exited the incubator, out of which 31 are still in operation, many with an expanding turn over that already exceeds 10 million NZ\$ per year. Among the graduates from Ice House there are some very successful companies that have achieved impressive results, including a company that has reached a market capitalisation in the range of 40 million NZ\$.

Criteria for acceptance are mainly to do with: export-focus, viability, IP and coachability. Around 10 applicants per month are screened and of these only 2 get through (20% acceptance).

The incubator pursues a high capital-raising model through its business angel network. 30 million NZD has been raised in investment funding over the past 7 years including 9 million NZD in 2007.

Pricing of services is now with NZD1,000 per month physical fee, NZD2,500 per month advice fee, 6% equity (usually diluted to 1% after entry of venture capital) and 4% capital-raising commission. Portfolio of Ice House equity interests is now at NZD650,000. It is estimated that NZD4 million creates independence from Government funding predicted to be achieved in 2012/13. Currently 45% of incubator funding comes from Government (22% of total) with the remainder coming mainly from customers and a small amount from sponsors.

CREATIVE HQ

operates in premises of 4000m sq. which are able to house up to 40 resident clients. At any time there are also eight clients in the pre-incubation 'Activate' programme that are supported to translate their ideas into feasible business plans. The incubator management has recently decided a change from deferred debt financing (basically allowing the tenants to pay off their rental debt over time plus interest) to an equity model where the incubator takes a 5-6% stake in each tenant company.

All graduated companies are still trading (i.e. 100% survival) and one quarter of them are defined as 'high growth' (minimum NZD500,000 turnover and capital plus doubled number of employees)..

On average, the Creative HQ graduated businesses are growing by 40% per annum. In the 2008-2009 financial year their combined economic value generated was over \$45m and they created 104 new jobs in the Wellington region the same year.

An investment club called 'Angel HQ' has been set up and a seed fund is also under development.

The funding model is one of roughly 50% from Government in the form of an annual incubator grant, 25% from the parent company, 20% from sponsors and 5% from income. In the future this model will change to include an equity component (see above). Creative HQ is non-profit with a board including the local Mayor and representatives of major sponsors.

Creative HQ is adopting a new entry procedure whereby applications are first of all screened by the Activate Manager and a decision is made whether the applicant enters the Activate programme (4 months duration) or goes directly into the incubator. Following the Activate programme there is normally a 25% conversion to incubator entry. The main screening criteria are high-growth potential and personal suitability (e.g. good idea, capability, coachable).

Duration of stay in the incubator ranges from 18 months to 4 years with an average of 2-2.5 years. Monthly reviews are conducted with each company to determine forward actions in each case, which can include for example changing to a different advisor suitable for the stage of development of the company.

Linkages with NZTE, Chambers etc. are important but alumni seem to be the most important referral source for new potential tenants. Sponsors provide discounted services to tenants e.g. law, accounting etc. usually up to 8 subsidised hours.

Partly the sharing of best practice takes place via NZTE. The best source however seems to be NBIA (USA).

CII – CANTERBURY INNOVATION INCUBATOR

The Canterbury Innovation Incubator (CII) is a business incubation facility, established by initiative of the Canterbury Development Corporation (CDC), the economic development agency of Christchurch, to accelerate the growth of emerging high technology companies in Canterbury. Jointly with powerHouse Ventures Limited (PVL), an angel investment group specialising in early stage Canterbury seed and start-up companies, CII has developed a complete incubation programme that spans from research through to company growth, utilising a proprietary process for venture development. This process is underpinned by an extremely advanced opportunity assessment tools. The CII offering of incubation services is one of the broadest in New Zealand and includes:

Pre-incubation

- screening of IP or idea based on market assessment
- review of strategic IP position
- shaping of venture strategy
- developing a business plan
- focus groups and meetings with potential customers

Technology Incubation

- formulating investment case
- investing proof of concept funding
- attracting government funding from FRST and NZTE
- identifying industry mentors
- sourcing non-executive directors and CEO
- assistance in engaging early trial customers
- formation of advisory boards or boards of directors

Business Incubation

- strategic development
- engagement with channel or industry partners
- assistance in management and technical team recruitment
- ongoing IP strategy
- seed and start-up funding
- networking events

Growth Post Incubation

- advisory board participation
- assistance with follow-on funding
- resolving market and customer issues
- assistance interfacing with NZTE and FRST programmes
- annual review of strategy

4.2 Incubator Process

With regard to measures to ensure proper management, incubators funded by government have to report certain statistics on a regular basis and undergo annual capability and performance assessments conducted by the IDU. They are expected to operate to high standards of international best practice. They must have clear governance rules and be able to articulate entry and exit procedures. These governance rules, entry and exit procedures and standards are defined by NZTE but can be interpreted flexibly at local level.

Incubators also have their own criteria for screening projects (see examples). They all have plans for self-sustainability which are required as part of the funding mechanism.

4.3 Government Funding

The ISP conducts a contestable annual funding round, to which incubators submit detailed applications, including business plans, and undergo interviews with a panel of government and independent experts. The panel assesses each incubator on the quality of their “operations” (best practice rating (taken from capability assessments), management, financial performance and planning) and “impact” (portfolio quality, number of successful exits, capital raised for clients, average export revenues of graduate companies, new initiatives and influence in their local community).

The process ensures the best incubators remain well supported and keeps them accountable for their performance.

5. MONITORING & EVALUATION

NZTE is used to collect annually relevant industry data. Performance data is obtained both from companies while they are in incubation (helping also to keep incubator management focused and accountable) and from graduated companies, in order to have a true measure of incubator success and economic impact.

Incubator Performance Data

- # incubators reporting
- # resident companies
- # pre-incubation clients
- Total # clients
- FTEs employed by resident companies
- Capital raised by resident companies
- Domestic revenue generated (annualised)
- Export revenue generated (annualised)
- Total revenue generated (annualised)
- Successful company exits (graduations)
- High growth company exits

Alumni Performance Data

- # Incubators reporting
- Total # alumni companies
- # providing performance data
- FTEs employed
- Domestic revenue generated
- Export revenue generated
- Total revenue generated
- Capital raised

Major evaluation studies targeting the programme were conducted in 2004 and 2008⁴ by the Government. In both cases evaluation reports were signed off by the Government and made available. The 2004 report was an intermediate evaluation to identify best practice. 2008 is a full evaluation with final outcomes in terms of performance of incubators and their clients and graduates, as well as an update on intermediate objectives. One of the main findings is that incubators have actually facilitated an accelerated growth since the majority of exited companies, although not reaching the criteria for high-growth companies, had performed better than comparable non-incubated companies. This may also indicate that high growth targets were too ambitious and need to be recalculated. However, the overall performance of the programme has been rated positively and the decision was to continue it, moving from one-year to three-year funding phases. Currently, New Zealand research suggests that, to gain an accurate picture of performance, financial data on companies should be evaluated at ten years of age.

The data below, collected on the 2008 performance of graduated companies, shows a high economic impact and an excellent return on the government's investment.

⁴ http://www.med.govt.nz/templates/MultipageDocumentTOC___39186.aspx

Total graduates	180
Number still trading	132
Number providing data	95
Number exporting	54
Total revenues	\$ 101.8 m
Total exports	\$ 44.9 m
Total FTEs	997
Total capital raised	\$ 30.5 m
Economic impact in 2008	\$ 424.1 m

Economic impact is calculated using the formula Total revenues + Total investment + (FTEs x NZ\$80,000) x 2. \$80,000 is the average salary earned by FTEs in the New Zealand information technology sector. The majority of incubator graduate companies operate in the ICT sector.

The key outcomes of 2008 evaluation were an extension of the program for a further 6 years, a 65% increase in annual funding (now \$5.1m p.a.) and the ability to make 3 year funding commitments to qualifying incubators (currently annual). The extension of the funding period will promote planning, recruitment and retention and other fundraising initiatives. These outcomes represent a significant endorsement for the program and a significant step forward for the incubation industry in New Zealand.

In collaboration with the ISP, the industry association, Incubators New Zealand, runs twice-yearly incubation conferences ('summits') to discuss best practice, hear from invited experts and build industry collaboration and networking. The association has also established annual industry awards to recognise and promote industry achievements and the success of emerging companies.

6. CONCLUSIONS / STRENGTHS AND WEAKNESSES

The main strengths of the incubator system in New Zealand include:

- Achievement of best practice
- Good networking
- Push towards financial independence
- Weeding out of under-performers through natural attrition
- An effective partnership between government and the incubation industry based on shared goals and a commitment to best practice incubation.
- The industry has a clear focus and direction as a result of industry and government collaboration.
- Success sharing models, as opposed to rent based models. Some incubators had to be pushed in this area, others had to restructure because their initial structures did not allow taking equity.
- Driving for manager/advisor: client ratios of 1:6-8, which is crucial for intensive high growth incubation and aligns with VC benchmarks.
- Leverage of angel investment and formation of early stage angel investment networks – incubators have played a key role in stimulating this industry.
- Focus on high growth and export, for which the metrics look very good even though 10 years + is really required to achieve the most impact.
- Funding process that balances nicely an outcome orientation with quality processes, leading to a diversity of models, each carefully tailored to the local conditions.
- Calibre of the managers – successful entrepreneurs many of whom have come home after successful careers overseas.
- With equity and royalty models virtual incubation is more viable and attractive and all incubators are developing virtual clients, as opposite to real estate models.

6.1 *Areas for further Development*

The main areas for further development include:

- Further improve relationships with Universities in relation to the commercialising of research
- Further contribute to develop the performance assessment system

Overall, the New Zealand incubation system provides a useful and possibly applicable model based on independent entities supported in part by Government but also by other stakeholders (e.g. Universities, local economic development agencies). There are relatively few incubators in New Zealand, but probably the right number of technology incubators for a country of this size. Their emphasis is on technology-driven, high-growth enterprises. This reflects government policy that is focused on economic transformation through development of a knowledge economy.

Each incubator must meet certain criteria to receive Government funding and these are quite stringent and have steadily acted to 'shake-out' less effective or less relevant incubators. Indeed, since the incubator policy was introduced in 2001, 20 incubators have received funding at one time or another. Of these, 7 still receive funding, 6 have closed or been disbanded, 4 are no longer classified as incubators (e.g. following a purely a real estate model), 2 have been incorporated into another incubator which receives funding, and 1 is a satellite of another incubator which receives funding.

The main seven incubators have each developed a business model which can take them towards sustainability in future. In some cases it is an equity model where the incubator takes equity stakes in the tenant companies with a view to realising a return through trade sale at exit once the value of the company has increased, or even through IPOs or in some cases dividend payments. In other cases it is a royalty model where the incubator takes a percentage of revenues / profits generated by the tenant company. These two models are both on top of rental payments, which however is less significant than in other more traditional models, and payments for other immaterial services including training, consultancy, technical support, etc.

A further model has been used by one of the incubators involving 'deferred debt' allowing deferral of rental payments so long as they are repaid at an agreed date together with interest. This is almost a bank overdraft model and depends on the incubator having enough cash flow to cover its operations when there is no rental income coming in. This model has been recently abandoned and replaced by an equity model. Main reasons were the high financial pressure put on companies at the moment of leaving the incubator (a bad time to repay the debt because many other expenses were concentrating in the same period) and the fact that the quantitative and qualitative expansion of premises was putting the incubator itself in a position that it could no longer afford the scheme.

The incubator policy in New Zealand allows for diversity of incubator models while meeting some common criteria for central funding. On this basis it could be applied with appropriate variations (e.g. ratio of government funding) to less developed countries where there is already some capacity for developing 'technopreneurs' and high-growth ICT enterprises.

One of the most significant advances for the incubation industry in New Zealand is the emergence of a business angel industry in recent years. Incubators have been at the forefront of this, setting up their own business angel networks and contributing to policy development that has led to the establishment of a government Seed Co-Investment Fund. The impact of the increase in early stage funding together with the active role of angels in company growth is already becoming evident.

6.2 *Lessons Learnt*

The main lessons learnt from the New Zealand experience are as follows:

- Importance of Government pump-priming of incubators and provision of ongoing funding support in conjunction with other revenue streams.
- Importance of a clear national strategic approach and vision to guide industry development – high growth and export.
- Clear, agreed criteria are required for what constitutes an ‘incubator’ so that the provision of public funds can be carried out in a transparent and fully-accountable manner.
- Diversity of incubator models, although all based on success sharing, is useful to provide a range of experience-exchange possibilities and a demonstration of what can work in different contexts.
- For success sharing a portfolio and scale in the order of 20+ clients is critical.
- Long-term sustainability is an important consideration and can be achieved by a range of funding models including equity stakes or royalty payments as well as rental income, fees for services, private sponsorship etc. Incubators are expected to operate as successful, sustainable, role model businesses in their own right. Nevertheless, at the core of sustainability, there should be a widely promoted and applied approach of success sharing.
- A focus on high-growth enables a cross-sectoral approach although many tenants by definition will be in technology-related fields including ICT, biotech etc.
- Regular capability assessments by suitably qualified people, together with performance assessment drives continuous improvement in incubator operations and ensures incubators are accountable for their use of public money.
- An effective mechanism for obtaining performance data from incubator companies and graduates is important in facilitating impact measurement and analysis.
- Government and industry can work effectively together if they operate as partners.
- Improved access to early stage capital will accelerate growth prospects and survival rates.
- How to engage with universities and public research institutions – many lessons as to what is required and what works – some learnt the hard way.
- Importance of international linkages: e.g. CMCTEC with India, arrangements with Chile, China, Singapore, USA (Market access Centre in San Jose and others), etc – all important when the ultimate objective is to grow export revenues for the country.
- Importance of pre-incubation to nurture and drive quality deal flow.

STATISTICAL DATA

Number of Incubators (A)	8
Number of SMEs (B)	280,000
Ratio A:B	1:35,000
% of ICT related	65%
% of incubators in growing sectors (sectors that have a competitive advantage for the country)	100
AVERAGE Incubator space (sq meters)	1500
AVERAGE occupancy rate (% of incubator space let to tenants)	85%
AVERAGE number of tenants	20
AVERAGE Incubators investment cost	NZ\$1m
Proportion of public funds in setting up	90%
Ratio of public to private sector funding	c. 50%
Average duration of the incubation process (average time in the incubator)	2.85 years
Average number of employees	5
Average survival rate (of graduated companies) (In most industrialized countries is 85%)	87%
Survival rate of non-incubated companies	69%
Percentage of graduated companies remaining in the local area	82%
% of tenants leaving the incubators every year	30%

About *infoDev*

infoDev is global development financing program among international development agencies, coordinated and served by an expert Secretariat housed at the World Bank Group, one of its key donors and founders. It acts as a neutral convener of dialogue, and as a coordinator of joint action among bilateral and multilateral donors—supporting global sharing of information on ICT for development (ICT4D), and helping to reduce duplication of efforts and investments. *infoDev* also forms partnerships with public and private-sector organizations who are innovators in the field of ICT4D. The *infoDev* Secretariat is housed in the Global ICT Department (GICT) of the World Bank Group.

For additional information about this study or more general information on *infoDev*, please visit www.infodev.org/publications or contact us at info@infodev.org or tel: +1.202.473.4868.

Information for
Development Program

The logo for infoDev features the word "infoDev" in a serif font, with a cluster of small dots above the "i". Below the name is the website address "www.infoDev.org".
www.infoDev.org



Information for Development Program (*infoDev*)

1818 H Street NW

Washington, D.C. 20433

Phone: +1 202 458 4070

Fax: +1 202 522 3186

www.infodev.org