

The Chair  
**CABINET ECONOMIC DEVELOPMENT COMMITTEE**

**RESPONSE TO GIF TASKFORCES: PAPER 6: INFORMATION AND  
COMMUNICATIONS TECHNOLOGY (ICT)**

**PROPOSAL**

- 1 This paper is the sixth and final paper responding to the GIF Taskforces. It specifically addresses the government response to the Information and Communications Technologies (ICT) Taskforce Report. It describes the key findings of the taskforce and identifies the focus for the Government response, including existing work and proposals for a number of new actions, including funding recommendations.

**EXECUTIVE SUMMARY**

- 2 The ICT Taskforce was set up as part of the Growth and Innovation Framework (GIF) theme of “focusing resources”. ICT was identified for special attention because of its high growth potential as a sector and for its significant horizontal enabling effects across the economy. The taskforce, made up of successful private sector entrepreneurs, has provided a report with a number of recommendations designed to achieve a growth target of 100 ICT companies with \$100 million in annual sales by 2012, thereby contributing 10% of New Zealand’s GDP. The essence of this growth goal is the emphasis on growing large companies (by New Zealand standards) in line with the GIF themes of developing scale and critical mass. The key finding of the taskforce is that New Zealand ICT companies tend to hit a barrier and plateau at a point between \$10 to \$15 million in annual sales. The taskforce believe that this barrier could be overcome with sufficient mentoring, education and support for executives.
- 3 Relevant government agencies have been canvassed and have provided a response to the taskforce’s recommendations. These have been assessed and overall the response is very positive. Actions are in train to address issues in six key areas identified by the taskforce, particularly in the area of skills and talent, executive education and work on assessing suggested tax and regulatory changes. Some acceleration of work is required, particularly intensifying the technology curriculum implementation. Four new initiatives are proposed; the Futureintech programme, designed to raise awareness among secondary students of ICT as a career and create linkages between secondary schools and industry; a programme of improved statistics for ICT; creation of a highly targetted executive development programme to be delivered by the Icehouse training company; and a number of initiatives to enable the diverse ICT sector to engage more effectively with the education system, particularly tertiary institutions.

- 4 The taskforce recommended that an industry-led implementation body be set up as a project team to drive achievement of the growth goal by 2012, and support for this proposal is recommended.
- 5 The paper also addresses the issue of achieving improved productivity through the horizontal enabling impacts of ICT. The Government has taken a number of initiatives in this area over the last three years, and the paper indicates that the question of whether further initiatives are needed (and what they might be) will require further analysis, with a report to the Associate Minister of Information Technology by March 2004.

## **BACKGROUND**

- 6 The ICT Taskforce, comprised of eleven private sector ICT entrepreneurs and leaders, was established in May 2002 as part of the Growth and Innovation Framework (GIF) theme of “focusing resources”. ICT was identified for special attention because of its high growth potential as a sector and for its significant horizontal enabling effects across the economy (the “multiplier effect”). The taskforce was asked to look at both the growth potential of the New Zealand ICT sector and how to better realise its horizontal impacts. The aim was to agree priorities and develop action plans to stimulate the growth and international competitiveness of the ICT sector.
- 7 The taskforce released its final report in June 2003, *Breaking Through the Barriers*. This contained seven high level objectives with a number of specific supporting recommendations for both Government and industry. The taskforce has carried out an extensive consultation process with the wider ICT sector over recent months. This identified that, in the sector generally, there is a high level of approval of the taskforce’s analysis and enthusiasm for the growth strategy, including the target.

## **THE TASKFORCE’S APPROACH**

- 8 The taskforce focused primarily on realising growth within the sector itself. It identified the responsibility for strategy and decision-making about ICT use in other sectors as lying within those sectors. It acknowledged explicitly that some current Government policies already address some taskforce recommendations, particularly regarding tertiary education. As the horizontal enabling effects of ICT are a key part of the GIF approach, this paper also considers this issue.

## **KEY FINDINGS**

- 9 The taskforce’s key findings are:
  - There is no shortage of compelling innovation in New Zealand, but few New Zealand ICT companies reach their growth potential.

- The opportunity for the New Zealand ICT sector is to focus on exploiting markets for high-value niche products and services, in particular applications that arise from ICT innovation in areas of traditional strengths (e.g. primary industries) but also in information-rich areas where there is potential for high ICT investment (health, education, government services).
  - The taskforce identified the critical success factor for growing an ICT business in New Zealand as having the necessary commercialisation experience and skills to go global, including at the start-up phase. Without these skills many ICT companies appear to grow rapidly to the \$10 to \$15 million sales level (and up to \$30 million for electronics companies) and then hit a barrier. The nature of the barrier is two-fold:
    - i) the small size of the New Zealand market means that New Zealand companies have to expand into international markets in order to maintain growth, while still very small by global standards; and
    - ii) continued growth beyond the barrier requires a transformation of the company requiring a more formal management structure and a more sophisticated set of skills.
  - A number of companies (including some started by taskforce members) have overcome the barrier, and the taskforce believes the skills and knowledge required to do this can be taught, both through formal courses and through more informal means such as mentoring and sharing knowledge through networks.
- 10 The essence of the suggested ICT strategy is for both industry and government to support companies to grow to a scale to enable them to compete successfully on the global stage.

### **GROWTH TARGET**

- 11 The overarching recommendation of the taskforce report is that key stakeholders in the ICT sector should adopt a target of growing a further 100 ICT companies through the annual sales level of \$100 million per company and develop and implement coherent plans to achieve this goal over the next ten years. This goal can also be expressed as lifting the contribution of the ICT sector to GDP from its current rate of 4.3% to 10% by 2012. Achieving this goal will require an annual growth rate in the ICT sector of 13% per annum (assuming a 3% growth rate overall). A significant proportion of this growth would have to come from exports, although the ability of firms such as Telecom, EDS and IBM to increase sales in the local market will also be important.
- 12 The growth target is aspirational and should be viewed as an entrepreneurially driven endeavour. The taskforce is clearly encouraged by the growth in the ICT sector over the last eight years, with exports of hardware, software and services now worth a billion dollars annually. The taskforce is not asking the Government to achieve the target – it is instead asking the Government to enrol in and support its entrepreneurial vision. Such vision will be required – and should be encouraged – if the goal of returning to the top half of the OECD is to be achieved.

- 13 Risks include the ability of New Zealand institutions to supply sufficient appropriately skilled labour, the current lack of people with the necessary international marketing and sales experience and the availability of sufficient capital to drive accelerated growth over ten years.

### **Taskforce Recommendations**

- 14 The taskforce recommendations are designed to address the risks and are divided into six key objectives:
- grow New Zealand ICT businesses that are globally competitive;
  - elevate the leadership capabilities of New Zealand ICT entrepreneurs to that of world-class entrepreneurial chief executive officers;
  - grow, sustain and retain a highly skilled ICT workforce;
  - build an entrepreneurial ICT culture that supports and celebrates business success;
  - government contribute to ICT growth by improving the regulatory environment, its purchasing policies and performance in research and development, so that ICT businesses can flourish; and
  - implementation proposals including an industry-led implementation body and improved statistics to measure progress.

### **PROCESS FOR RESPONDING**

- 15 The recommendations contained in the taskforce's report have been assessed by relevant government agencies. Agencies were asked to indicate whether current policies/programmes addressed the recommendation and, if so, how; whether existing work needed to be accelerated; or whether the recommendation required a new initiative.
- 16 The response overall was very positive:
- existing actions address issues in all six areas identified by the taskforce, particularly in immigration, improved commercial focus of R&D expenditure through FRST and some regulatory changes contained in the Business Law Reform Bill;
  - some acceleration of work is required, particularly in intensifying the technology curriculum implementation in secondary schools; and
  - four new initiatives are recommended, one of which is already being implemented (detail below).

## KEY RESPONSE MESSAGES

17 The key response messages are:

- Recent policy changes and initiatives taken by government, both as a consequence of GIF and as a result of industry and regional development efforts, mean that issues raised by the taskforce in the six key areas are being addressed.
- Government is committed to supporting the growth of the ICT sector because of the economic benefits to the economy as a whole, and in particular wants to strengthen the partnership begun through the taskforce process. To this end, it is prepared to assist in building the leadership capability of the sector by funding an implementation body for four years, with the aim that the sector would contribute funding thereafter.
- Government endorses the focus of the taskforce on growing companies of scale with a global focus.

## NEW INITIATIVES

### *Global Executive Development Programme*

18 The taskforce identified the single biggest constraint to the growth of New Zealand ICT companies as being the shortage of skilled leaders and marketing/sales executives with the appropriate experience for taking a global company through the sales barrier New Zealand Trade and Enterprise (NZTE), after an RFP process, has already provided a grant of \$0.100 million (GST not applicable) to the training company *The Icehouse* to develop a highly targeted Global Executive Development Programme in line with the taskforce's recommendation, with the first course to be run in November 2003. I propose further funding to support this programme be provided from the GIF Taskforce Contingency, including establishment of a CEO Online community to share experience and knowledge. It is expected that by 2006/07 the programme will become fully self-funding. Refer Appendix A for detail. NZTE and TEC will work to ensure the experience gained from this programme is fed into the wider Entrepreneurship and Knowledge Transfer initiative proposed in *Paper 2: Cross Sectoral Initiatives*.

### *ICT Statistics*

19 The taskforce placed high priority on the need for improved alignment and timeliness of ICT statistics, to track changes in the sector and to convey internationally a more complete picture of the New Zealand ICT sector (e.g. in OECD data). It is proposed that new ICT statistics be funded from the GIF taskforce contingency as part of a package of GIF related statistics initiatives (see also Paper 2: Cross Sectoral Initiatives). The new statistics will apply internationally accepted templates. These have been designed with a view to collecting information to give policy-makers a good basis for assessing the importance of the sector, its contribution to the economy and how it changes over time. They will also provide a basis for more in-depth evaluation of GIF related policies. Refer to Appendix B for details.

### *Futureintech Awareness Programme*

- 20 The taskforce placed high priority on government and industry implementing a national awareness programme to encourage more secondary students into ICT careers and raise the profile of the sector generally. Such a programme, Futureintech, has been scoped by NZTE in association with the Institute of Professional Engineers (IPENZ), the Information Technology Association of New Zealand (ITANZ) and the New Zealand Computer Society. I propose that this be funded from the GIF taskforce contingency. Refer Appendix C for detail.

### *Education*

- 21 The ability of the education system to respond to and deliver industry needs was a key concern of the taskforce. There have been a number of recent policy changes designed to produce greater alignment between industry needs and education and industry training outcomes. For these to be successful, ICT – as an emerging sector – needs to build the necessary capability to engage effectively. To address this the Ministry of Education and the Tertiary Education Commission (TEC) have developed a package of initiatives designed to better meet the needs of GIF sectors generally, including facilitating meaningful engagement between the sectors and the education system. This package is explained in Paper 2: Cross-Sectoral Initiatives.
- 22 In addition, the following two ICT-specific initiatives are noted. Firstly, NZTE in association with the ICT implementation body once established (see below) will jointly organise a workshop of public and private sector stakeholders, including TEC and the Department of Labour, to identify how best to address the skills and training issues raised by the taskforce. This will take place by December 2003.
- 23 Secondly, the taskforce identified as a key issue the need for research on future skill requirements of the ICT sector. The Department of Labour will begin work by December 2003 with the ICT implementation body (once established) on how best to address this issue.

### *Immigration*

- 24 The taskforce identified the ability to easily recruit skilled ICT workers from offshore as important to growing and maintaining the skill base in New Zealand. In the 2003/04 Budget, the Government allocated GIF funding of \$33 million operating and \$16 million capital funding (over four years) to Vote Immigration for targeting potential migrants with key skills. The Talent Visa policies introduced in 2002 also enable ICT employers to recruit offshore more easily.

### *Government Procurement*

- 25 The taskforce identified a concern that New Zealand-owned ICT companies were not always given fair and equal opportunity to bid for government contracts. In response, I propose that the government do more to ensure its procurement policy is effective, including education initiatives aimed at building both vendor and purchaser capability and awareness and improved monitoring processes. The Ministry of Economic Development (MED) will convene an ICT procurement working group including government buyer and industry representatives, to examine and make suggestions to Ministers on further steps, including procurement process improvements and supplier capability development.
- 26 MED and NZTE are tasked to jointly report within twelve months to the Associate Minister of Information Technology, the Minister for Economic Development and Associate Minister of Commerce on the implementation and effectiveness of the foregoing steps. MED's Statement of Intent will include continuing responsibility for monitoring and advising Ministers on the effectiveness of government procurement policy in general.

### **EXISTING WORK**

#### *Regulatory and Tax Changes*

- 27 Work on the taskforce's suggestions for regulatory and tax changes is already underway:
- some are addressed in the Business Law Reform Bill, which will be given a high legislative priority;
  - work on share options will be given a high priority by MED;
  - remaining work on evaluating tax-related proposals will be completed by December 2003.

### **IMPLEMENTATION BODY**

- 28 The ICT Taskforce recognised and placed high importance on the need to build the sector's networking and knowledge transfer capability. To this end it recommends that an implementation body be established, with government funding for an initial period and industry funding thereafter.
- 29 The taskforce has provided a proposal that broadly outlines its intentions for this body, and suggests the name "HiGrowth". The body will operate as a project team for the ten year life of the growth strategy, with the purpose of driving the achievement of the growth target and building on the strategy over time, in particular by devising a critical path with milestones and key performance indicators. HiGrowth will therefore be the key mechanism for ensuring industry ownership of the growth target.

- 30 Issues relating to the implementation bodies proposed by all four taskforces are addressed in *Paper 2: Cross Sectoral Initiatives*, including setting up a GIF Sector Projects fund to provide additional resources to the GIF Sector Industry bodies to run a range of practical projects.

#### **HORIZONTAL ENABLEMENT**

- 31 In recent years the government has undertaken initiatives to improve the supply of ICTs in New Zealand and to encourage the uptake and use of these technologies by business. Initiatives include improved competition through the Telecommunications Act 2001, the enactment of the Electronic Transactions Act 2002, the E-commerce Summit and E-commerce Strategy, the E-commerce Guide for Business, the work of the E-commerce Action Team, the E-commerce Regional Events, the TradeNZ developed E-commerce Roadmap, the E-Government Strategy, Project Probe (broadband), increased funding for ICT related research and development through Technology New Zealand, and a number of research projects.
- 32 Research indicates that New Zealand is already in the top half of the OECD in terms of ICT infrastructure and business uptake. The conclusion is that there is no fundamental problem with supply of ICTs to New Zealand businesses or their uptake. The challenge is to extract greater value and productivity gains from this high uptake.
- 33 Potential for significant productivity gains lies in using ICTs to drive process or product innovations primarily in sectors that are information rich – it is the innovative use of information these technologies enable which is key. One such sector, banking, is already a world leader in ICT use. The ability of ICTs to monitor and process a range of farm management information, which was not previously feasible, is delivering productivity gains in the agricultural sector.
- 34 Government policy can play an important role in supporting the diffusion, up-take and innovative use of ICT. The experience of the last decade suggests that there is no single government policy that will guarantee success. Rather, as reflected in the GIF, a broad suite of mutually reinforcing policies is needed to create conditions conducive to realising the economic benefits of ICTs and other emerging technologies. The question is whether there are further specific policies which are required over and above the initiatives of recent years.
- 35 As part of its work programme, I have asked the Ministry of Economic Development to explore future directions for ICT policy. I propose that this work address the issues raised above, and that MED report back to the Associate Minister of Information Technology outlining policy options by March 2004, in consultation with NZTE, SSC, Treasury and DPMC. This work should also provide a stock-take of current ICT business capability programmes and assess their effectiveness and alignment.

## CONSULTATION

36 The following agencies have been consulted and agree on the contents of this paper: Treasury, Inland Revenue Department, Department of Prime Minister and Cabinet, Statistics New Zealand, New Zealand Trade and Enterprise, Department of Labour, New Zealand Immigration Service, Ministry of Education, Tertiary Education Commission, Ministry of Foreign Affairs and Trade, Department of Internal Affairs, Foundation for Research Science and Technology, State Services Commission, Ministry of Research, Science and Technology.

## FISCAL IMPLICATIONS

37 This paper includes financial recommendations for allocation of the GIF Contingency budget. Details are provided in Appendices A-C. The proposals in this paper will impact on the Government's operating balance in each of the financial years.

## LEGISLATIVE, REGULATORY & COMPLIANCE COST IMPLICATIONS

38 There are no legislative or regulatory implications arising from this paper.

39 Any potential compliance cost implications, as a result of the recommended statistics initiative, will be managed by sampling and other statistical methods together with the use of existing relative administrative data, with the aim of minimising any additional burden for business.

## LEGISLATIVE IMPLICATIONS

40 There are no legislative implications arising from this paper.

## PUBLICITY

41 A communication strategy has been outlined in *Paper 1: Overview Paper*

## RECOMMENDATIONS

### Summary of Initiatives

#### *Operating Initiatives (Impact on Operating Balance)*

		All figures \$m, GST-inclusive where applicable				
Ref.	Initiative	2003/04	2004/05	2005/06	2006/07	2007/08 & Outyears
<b>Vote Statistics</b>						
13	Improving the Alignment and Timeliness of ICT Statistical Information	0.534	2.558	1.473	1.473	1.473
<b>Vote Economic, Industry and Regional Development</b>						
14	Futureintech	1.400	1.400	1.400	1.400	1.400
15	CEO Lifelong Education	0.250	0.150	0.100	-	-
<b>Total Operating</b>		<b>2.184</b>	<b>4.108</b>	<b>2.973</b>	<b>2.873</b>	<b>2.873</b>

42 It is recommended that the Committee:

- 1 **Agree** to endorse the thrust of the ICT Taskforce's strategy to grow the ICT sector, namely to support ICT companies to grow to a scale to enable them to compete globally;
- 2 **Note** the suggested growth target of growing a further 100 ICT companies through the annual sales level of \$100 million per company over the next 10 years and that this would require an annual growth rate in the ICT sector of 13%;
- 3 **Note** that recent government policies have been agreed and are being implemented to improve the responsiveness of education, training and immigration policy to industry needs, and that responding to the recommendations of the Taskforce will provide an opportunity to ensure these work in practice;
- 4 **Note** that NZTE in association with the ICT Implementation Body – once established – will jointly organise a workshop by December 2003 of public and private sector stakeholders including TEC and the Department of Labour to identify how best to address the skills and training issues raised by the taskforce;
- 5 **Note** that the taskforce identified as a key issue the need for research on the future skill requirements of the ICT sector and that the Department of Labour will work with the ICT Implementation Body – once established – on how best to address this issue;
- 6 **Note** that a range of initiatives to ensure the local ICT industry has full and fair opportunity to compete for government ICT contracts will be undertaken, in particular immediate convening of an ICT procurement working group by MED and advising Ministers on the effectiveness of government procurement policy in general, buyer and vendor education initiatives, and inclusion of a requirement to monitor the effectiveness of government procurement policy generally in MED's statement of intent;
- 7 **Direct** MED and NZTE to jointly report within twelve months to the Minister of Information Technology, the Minister for Economic Development and the Associate Minister of Commerce, on the implementation and effectiveness of the initiatives in recommendation 6 above;
- 8 **Note** that recommendations regarding regulatory and tax changes are either addressed in the Business Law Reform Bill or are the subject of current work programmes, and that IRD and Treasury will provide a report to Ministers on tax changes by December 2003;
- 9 **Note** that the ICT Taskforce recommended that an Implementation Body (HiGrowth) be established to act as a project team to drive implementation of the ICT strategy over ten years;

- 10 **Note** that over the last three years the government has undertaken a wide range of initiatives to improve the supply and uptake of ICTs in New Zealand including the e-commerce and e-government strategies and Project Probe, and that New Zealand is already in the top half of the OECD in terms of ICT infrastructure and business uptake;
- 11 **Note** that a broad suite of mutually reinforcing policies is needed to create conditions conducive to realising the economic benefits from ICTs and other emerging technologies, and that this is consistent with the GIF.
- 12 **Direct** MED, in consultation with Department of Prime Minister and Cabinet, State Services Commission, Treasury and New Zealand Trade and Enterprise, to report back to the Associate Minister of Information Technology by 30 March 2004 on policy options to achieve further productivity gains from ICTs.
- 13 **Invite** the Ministers for Information Technology, Social development, Education and State Services, in consultation with the Minister Responsible for the National Library, to report to the Cabinet Economic Development Committee by 30 November 2003 on an over-arching digital strategy for New Zealand, taking into account existing government initiatives such as Project Probe (regional broadband extension), the e-commerce and e-government strategies and the work undertaken on digital divide issues.

### Enhancing the Innovation Framework

- 14 **Approve** the following changes to appropriations to provide funding for improving the alignment and timeliness of ICT statistical information:

	\$m – increase/(decrease)					
	2003/04	2004/05	2005/06	2006/07	2007/08 & Outyears	GST
<b>Vote Statistics</b> Departmental Output Class: Economic and Business Statistical Information Services (funded by revenue Crown)	0.534	2.558	1.473	1.473	1.473	Incl.

## ICT Growth Strategy

- 15 **Approve** the following changes to appropriations to fund the Futureintech initiative, a national ICT awareness programme to raise the awareness among students, teachers, and parents of ICT as a rewarding career:

	\$m – increase/(decrease)					GST
	2003/04	2004/05	2005/06	2006/07	2007/08 & Outyears	
<b><i>Vote Economic, Industry and Regional Development</i></b> Non-Departmental Output Class: Enabling Services – Facilitating the Development and Implementation of Sector and Regional Strategies	1.400	1.400	1.400	1.400	1.400	Incl.

- 16 **Approve** the following changes to appropriations to support CEO lifelong education:

	\$m – increase/(decrease)					GST
	2003/04	2004/05	2005/06	2006/07	2007/08 & Outyears	
<b><i>Vote Economic, Industry and Regional Development</i></b> Non-Departmental Output Class: Enabling Services – Facilitating the Development and Implementation of Sector and Regional Strategies	0.250	0.150	0.100	-	-	Incl.

- 17 **Agree** that the changes to appropriations for 2003/04 above be included in the 2003/04 Supplementary Estimates and that, in the interim, these expenses be met from Imprest Supply.
- 18 **Note** that the Minister for Information Technology indicates that consultation is not required with the government or other parties represented in Parliament.

**Hon David Cunliffe**  
**Associate Minister for Information Technology**

## **APPENDIX A**

### **ICT Global Executive Development Programme**

#### **Description**

- The aim of this programme is to provide business leaders in the ICT Industry with the tool set to take their companies international.
- This initiative will support the NZTE-selected training company 'The Icehouse', to run a global executive development programme, "Go Global". This includes:
  - building up brand recognition of the Go Global programme; and
  - the development of a facilitated online community as recommended by overseas experts in the development of high-growth company CEO programmes.

#### **Issue/s Addressed**

- The ICT Taskforce identified the single biggest constraint to the growth of New Zealand ICT companies as being the shortage of skilled leaders and marketing/sales executives with the experience appropriate to take a company global.
- The programme is tightly targeted at the chief executives of high-growth globally-orientated companies that typically employ a minimum of 50 staff and have a turnover of typically less than \$30 million per annum.

#### **Agencies Involved**

- NZTE

#### **Timeline**

- Current: development of programme
- November 2003: Pilot programme delivered
- 2004: implementation of full programme, including CEO Online community.

#### **Total Cost (over three years)**

- \$500,000 over three years.

## **APPENDIX B Statistics for ICT**

### **Description**

- Provide statistics to monitor progress towards the ICT growth target;
- Redesign the ICT supply-side survey to meet OECD standards;
- Design and develop a 'business use of ICT' survey to measure demand;
- Design and develop an ISP survey. No regular statistics are currently collected for ISPs in New Zealand;
- Design and develop a 'household use of ICT' survey to measure use of ICT by households;
- Design and develop a 'Government use of ICT' survey to measure use of ICT by the Government;
- Prepare an annual publication of all ICT statistics;
- Prepare ICT satellite accounts to provide an integrated picture of the supply and use of ICT goods & services, the use of ICT resources and the value added by the ICT industry.

### **Issue/s Addressed**

- The ICT Taskforce placed high priority on the need for improved alignment and timeliness of ICT statistics for two reasons:
- to track the growth of the ICT sector and identify gaps, issues and growth opportunities; and
- to convey internationally a more complete picture of the New Zealand ICT sector e.g. in OECD data
- Improved ICT sector statistics will use internationally accepted templates designed to collect information to give policy-makers a good basis to assess the importance of the sector and changes over time, and will assist in-depth evaluation of the GIF ICT sector strategy.

### **Agencies Involved**

- Statistics New Zealand

### **Timeline**

- The first annual ICT publication will be released in 2005/06

- ICT satellite accounts will be under development from 2003/04 -2005/06
- The remaining ICT statistic initiatives will be developed in 2003/04 & 2004/05 and the first surveys will be conducted in 2004/05 onwards

**Total Cost (over four years)**

- \$6.038 million

## **APPENDIX C**

### **Futureintech (National ICT Awareness Programme)**

#### **Description**

- A programme to raise the awareness among students, their teachers and parents, of ICT as a rewarding career. The proposed outcomes of the programme are:
- improved understanding by careers advisors of careers in science, engineering and technology;
- students will be exposed to industry role models;
- improved understanding by science, maths and technology teachers of careers in these areas and enablement of greater collaboration with industry professionals;
- significant expansion of existing programmes that promote technology careers such as Neighbourhood Engineers Awards; and
- partnerships between schools and industry will be established.

#### **Issue/s Addressed**

- Rapid growth of the ICT sector will require an adequate supply of appropriately trained graduates. Research indicates that career decisions are made predominantly during secondary schooling. This programme is directed at actively encouraging more secondary students to make ICT their career choice. An adequate supply of ICT graduates is also important for the other GIF focus sectors and for the economy generally.

#### **Agencies Involved**

- NZTE

#### **Timeline**

- Development commences August/September 2003/04;
- Regional pilots commence February 2004/05;
- National programme commences January 2005/06.

#### **Total Cost (over four years)**

- \$5.6 million