



# DISCUSSION DOCUMENT

***The critical functions for a new national network of Commercialisation Centres***

*Closing Date: 21 July 2010*

## FORWARD

As you are all aware, effective commercialisation of publicly funded science/technology is a complex area. Operators, advisors and commentators share a common view that we can do better if we enhance the way we operate.

In the 2010 Budget the Government committed \$11 million over 4 years for the establishment of a national network of Commercialisation Centres (NNCC). The aim of the establishment of a national network is to bring together existing expertise from the commercialisation units already attached to public research organisations in order to share and leverage this expertise, and develop critical mass where needed resulting in increased successful commercialisation of publically funded research.

Section 1.3 summarises the issues that the NNCC is trying to address. However, at this point in time, the actual functions of the NNCC initiative have not been determined. The purpose of this discussion document is to seek your views on the critical functions which, if undertaken, by a NNCC would significantly enhance commercialisation success.

We really look forward to you helping us shape the NNCC initiative through this Discussion Document process.

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## SECTION 1: Introduction

### 1.1 - PURPOSE OF DISCUSSION DOCUMENT

This discussion document is being sent to all NZ based organisations involved in the commercialisation of publicly funded science/technology.

**The purpose of the discussion document is to seek views from Public Research Organisations (PROs) and other interested groups or organisations on the critical functions to be undertaken by the soon to be established national network of Commercialisation Centres (NNCC).**

The establishment of this initiative is one part of the Government's increased investment in business research and development as announced by the Prime Minister in the Budget 2010 ([www.morst.govt.nz/funding/budget-2010/](http://www.morst.govt.nz/funding/budget-2010/)). This discussion document is specific to the NNCC initiative in particular.

### 1.2 - BACKGROUND ON THE ESTABLISHMENT OF A NATIONAL NETWORK OF COMMERCIALISATION CENTRES (NNCC) IN NEW ZEALAND

The Government is committed to science playing a more significant role in lifting the long term performance of the NZ economy. The Government wishes to have in place a high-performing public science system which will support economic growth, and a wider innovation system that encourages firms to increase their investment in, and application of, research. The Government aims to improve the transfer of technology and knowledge from public research organisations (PROs) to businesses and other users. This will be achieved through a focus on both "commercialisation" and "knowledge transfer". "Commercialisation" is defined here narrowly, as the sale or licensing of knowledge, knowhow and technology, often in the form of IP, and the spinning out of companies. "Knowledge transfer" involves a wider range of mechanisms, such as knowledge exchange through conferences and seminars, intermediaries that improve translation/coordination with industry, provision of services and access to infrastructure, and researchers moving between businesses and PROs.

This discussion document deals only with commercialisation. The NNCC initiative (announced as part of the Budget 2010) is one of the actions supporting the Government's increased focus on successful commercialisation. The Government's goal is for firms to be making better use of R&D to take greater advantage of market opportunities, and for NZ science effort to be transformed into enhancement of the knowledge based economy through expansion of current export industries and growth of new ones.

In the 2010 Budget the Government committed \$11 million over 4 years for the establishment of a national network of Commercialisation Centres (NNCC). The aim of the establishment of a national network is to bring together existing expertise from the commercialisation units already attached to public research organisations in order to share and leverage this expertise, and develop critical mass where needed resulting in increased successful commercialisation of publically funded research. The Foundation for Research

Science and Technology (FRST) has been given the responsibility to implement this initiative, with the intent being to put out Request for Proposal(s) to operate and/or provide services within the new network later this year (2010).

### **1.3 – KEY ISSUES TO BE ADDRESSED AND THE OBJECTIVE OF THE NNCC INITIATIVE**

Operators, advisors, and commentators have identified opportunity for NZ to improve its performance in research commercialisation if it can find better solutions to the following issues:

- Lack of the appropriate incentives to give universities, polytechnics and CRIs the emphasis in this area
- Lack of scale (each commercialisation centre in NZ is small in terms of resource, and access to quality deal flow)
- Lack of depth and specialisation in capability (again the relative size of each unit limits the number and experience or personnel employed in commercialisation activities). This results in sub-optimal critical mass in the expertise required to extract value out of R&D in New Zealand which extends to deal making, IP identification and protection, capital raising, and going to scale
- The existence of “cultural” gaps between firms and universities/CRIs, with different incentives, timelines and objectives operating for each
- Limitations in terms of credible, consistent, international reach and penetration into international investment networks
- Limited collaboration between commercialisation centres within NZ which can result in duplication of activity and limits the leverage that could be gained from greater information sharing (both in terms of research capability and commercialisation activity)
- Lack of a focal point for interactions between PROs with venture capitalists and patent attorneys and other suppliers of commercialisation services
- The NZ venture capital industry itself is relatively immature from a global perspective, is not well linked globally and it is often influenced by relatively passive “angel investors”

Collaborations between PROs are already in existence and are making progress in regard to addressing these issues (e.g. UniCom, a commercialisation consortium led by Waikato University, which involves Canterbury, Lincoln and AUT Universities and AgResearch and potentially others). The objective of the NNCC networking initiative is to provide the opportunity and incentive to increase this type of collaboration and further address the issues identified

**The first step in developing the initiative is to establish the critical functions which should be undertaken by and/or within a national network of Commercialisation Centres (NNCC),** in order to add value to and leverage the performance of the existing commercialisation units in NZ.

## 1.4 - DISCUSSION DOCUMENT PROCESS

This document is set out in four sections:

1. The goal of a national network of Commercialisation Centres(NNCC)
2. A set of principles which may underpin the functions of a NNCC
3. Opportunities/gaps to be addressed to accelerate successful commercialisation for PROs
4. An overview of possible functions to be undertaken by or within a NNCC to address the identified opportunities/gaps

After each section there are questions where we seek your views on what is presented and/or what is not covered. We invite you to provide your views on these questions.

In answering the questions please bear in mind:-

- We want your help in establishing the critical functions (not structure) to be undertaken by or with a national network of Commercialisation Centres. There are a number of other initiatives in business R&D which were announced in the 2010 Budget. This discussion document **does not** address these other initiatives. Please limit your response to the NNCC initiative.
- Many in the sector have “generalist views” on what the functions of and benefit from a NNCC could be. In this discussion document we particularly want to hear your views on the **specific functions** to be undertaken by or within a NNCC.
- The appropriation in the 2010 Budget for the NNCC initiative is **\$11 million over four years**. We need your views on the priority functions for this money (i.e. what would be the most effective public intervention for this \$11 million).

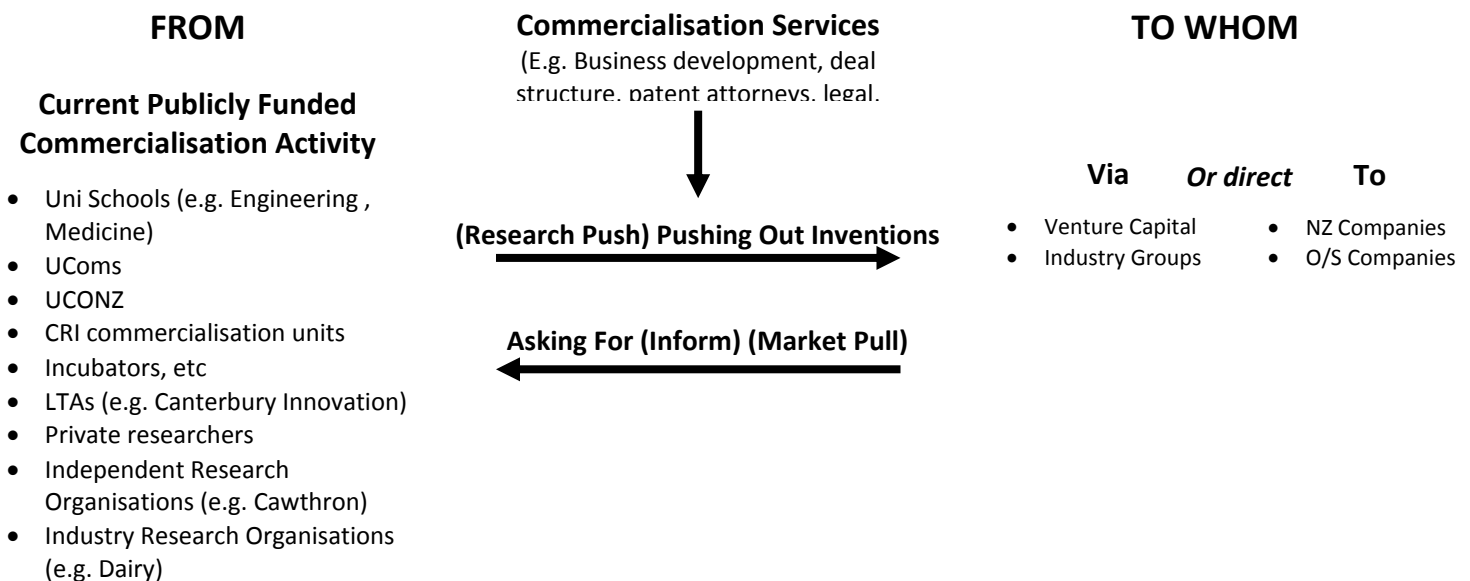
## SECTION 2: Discussion Document Focus

### 2.1 – GOAL OF THE NNCC INITIATIVE

**Goal of the NNCC initiative:**

To increase the amount of successful commercialisation from NZ sourced publicly funded research in order to make NZ wealthier. This will be achieved through leveraging the work of existing commercialisation units **within publically funded** research organisation (PROs). The NNCC initiative does not differentiate between research push from PROs and market pull from companies reaching into PROs (with needs, or to inform research) as illustrated in the diagram below.

## The Commercialisation Model



***The Definition of Commercialisation for the purposes of the NNCC initiative***

Deal flow resulting from sales or licensing of unconstrained publically funded IP and/or spinning out new companies, utilising new innovation.

**Questions**

1. Is this the appropriate goal for the NNCC initiative? If not, what enhancements/changes/tightening of scope would you suggest and why?
  
2. Is the commercialisation definition appropriate for the focus of the NNCC initiative? If not, what enhancements/changes would you suggest and why?

## 2.2 – PRINCIPLES UNDERPINNING THE FUNCTIONS AND MODUS OPERANDI FOR A NNCC

Recognising that:

- Commercialisation is a people intensive process
- Commercialisation effort must be resourced and supported locally
- There is no single point solution for successful commercialisation
- There is no prescriptive process for successful commercialisation
- Successful commercialisation which develops wealth for NZ, will often require an international focus because the NZ market for the IP is too small
- Successful commercialisation requires highly effective two way exchange between the public and private sector
- Successful commercialisation requires real understanding of deal structure, screening ideas, and clear identification of value points, and not just “selling”. This requires commercialisation personnel working closely with scientists to ensure their work is attractive to the market.

Referring to the issues to be addressed by the NNCC initiative (section 1.3), the principles (not listed in any order of priority) that may underpin the functions and modus operandi of a NNCC could be:

1. NNCC functions will complement, enhance, but **not** duplicate commercialisation activity within or between existing commercialisation units. The initiative seeks to complement collaboration between existing commercialisation centres
2. NNCC functions will not change the existing point of IP ownership
3. The relationship between a NNCC and existing commercialisation centres will not be prescriptive and would be at the discretion of both parties. Any relationship between the parties would be commercial and accountable
4. NNCC functions will complement and leverage other programs, and funding mechanisms directed at improving commercialisation performance. Existing funds are currently provided by multiple public funding vehicles (FRST, PSAF, TechNZ, T&E, TEC, Royal Society etc).
5. A NNCC must measurably and transparently demonstrate sustained value-add to existing commercialisation activities
6. A NNCC must remain a lean organisational arrangement which first looks to have the appropriate third party bodies perform the functions it is responsible for, rather than resourcing them itself
7. The functions and modus operandi of a NNCC will evolve over time as NZs innovation system evolves. Consequently the activities and expenditure for a NNCC may change over time

### **Questions**

1. Do the listed principles embrace the functions and modus operandi for a NNCC? If not, what additional principles are required and/or which of the listed principles are not appropriate and why?

## 2.3 – OPPORTUNITIES/GAPS TO BE ADDRESSED TO ACCELERATE SUCCESSFUL COMMERCIALISATION FOR PROs

When considering the role of a NNCC and the issues identified in section 1.3, the following have been identified (listed in no order of priority) as potential opportunities/gaps which, if addressed, could accelerate successful commercialisation for PROs:

- The opportunity to introduce incentives to promote a more effective commercialisation process into many publically funded research contracts. This will ensure the market is informing research throughout and that the best skills are available and resourced as part of the project itself so as to ensure commercial outcomes where that is appropriate in the R&D process.
- The opportunity to introduce the right incentives (see point 1 above) to encourage PROs to invest appropriately in the quantity and quality of capability required in their commercialisation unit/functions. Capability development may be required to satisfy increased internal demand arising from the commercialisation component of funded projects and a need to reach into the research community to assist with the development of skills and with commercial and entrepreneurial mentoring.
- The opportunity to provide better information for industry/firms to be able to find out where they can get research undertaken within NZ PROs (i.e. which organisation, with whom, and on terms that work for the firm)
- The opportunity to broker improved relationships between research capability and NZ industry sectors where this relationship does not currently exist
- The opportunity to facilitate greater connectedness between NZ commercialisation units and international networks (using a NZ Inc focus). This could involve resourcing appropriate, readily accessible, capability offshore to introduce NZ PROs and companies to investors/firms networks in order to commercialise their research/technology, as well as being responsive to specific enquires from PROs. The international presence could formally show-case NZ IP, demonstrating critical mass and ongoing deal flow to potential investors
- The opportunity for an up to date readily accessible database on competent external service providers in the commercialisation space, centres of competencies and expertise within existing PROs, and facilitating the leverage of this expertise across commercialisation units
- The opportunity for the provision of an up to date readily accessible national portfolio on investment opportunity for potential investors to view (by relevant industry segmentation, etc)
- The opportunity to provide “seed and kill” funding resources available in flexible small grants to accelerate technology shaping at the pre-PSAF phase.
- The opportunity to provide simplified and standardised contracting documentation to ease the transaction costs for PROs and firms working together in the commercialisation space

**Questions**

1. Do you agree that if the opportunities/gaps identified are addressed within a NNCC they would help accelerate successful commercialisation by PROs? If no, please identify which opportunity/gaps you don't agree with and explain why?
2. What additional opportunities/gaps need to be addressed (in the context of a NNCC) and explain why?
3. What are the top priority opportunities/gaps that will best meet the goal of the NNCC (section 2.1) and should therefore be the focus of the NNCC initiative?

## 2.4 – POSSIBLE FUNCTIONS FOR A NNCC

Given the opportunities/gaps identified in section 3 and the issues identified in section 1.3, the following interventions may be some of the functions that are carried out by or within a NNCC. How and by whom these functions would be carried out is flexible.

### ***Possible functions for a NNCC to provide which would leverage the activities of individual Commercialisation centres could be:***

- Identification and provision of national capability (available to PROs who choose to be part of the network) to effectively reach and talk to on-shore and off-shore commercialisation networks (investors and/or companies and/or expat investors) (e.g. capability placed in Singapore, UK, USA, etc)
- Facilitating the provision of an effective service to help NZ firms find the right PRO and the right person within a PRO (with the goal of handing over the relationship to the PRO). This could include provision of an active database as well as one to one assistance
- Provision of an up to date and dynamic national database of commercialisation capability such as
  - Capability within existing PROs which could be further leveraged across the network
  - Patent attorneys
  - Effective industry groups
  - Specialists consultants
  - Etc
- Identification (in conjunction with commercialisation centres) of the need for, and then facilitating the provision of entrepreneurship training/capability development across PRO commercialisation entities.
- Provision of a robust up to date national database of available (unconstrained) IP (for showcasing national and internationally) from NZ PROs
- Proactively facilitating further leadership and sharing between PROs (building on the approach of UCONZ)
- Ensuring the monitoring and publishing of meaningful NZ Inc commercialisation outcomes from Government RS&T investment, identify and publish gaps, and give advice on interventions needed to address these gaps
- Identifying areas of common strength across commercialisation offices (for example, in agri-tech), and facilitating collaboration opportunities between these offices
- Provision of advice on commercialisation funding levers to the new Ministry of Science and Innovation, to ensure better alignment of commercial drivers with commercialisation behaviours within PROs
- Monitoring effectiveness of implementation of commercialisation funding levers (possibly facilitating the provision of effective review of commercialisation performance)

### **Questions**

1. Given the issues (section 1.3) and opportunity/gaps (section 2.3, plus your feedback) which have been identified that limit the effective successful commercialisation of public funded research in NZ PRO, are the suggested interventions the priority functions for a NNCC? Please indicate those which you think are priority functions, those that you do not see as functions of a NNCC, and add additional interventions which have not been identified (explaining what these are and WHY they should be the responsibility of a NNCC)
2. Given your response to Question 1 above, what are the top three priorities to be provided by a NNCC?

### **2.5 – OTHER**

Are there any other comments you wish to make?

## SECTION 3: The Process from Here

The feedback from this discussion document will inform an Expression of Interest document (EOI) which will be issued to identify parties wishing to provide all or some of the priority functions identified for a NNCC as a result of the feedback received. The EOI will be issued late July for response by late August. By mid September a short list of parties responding to the EOI will be issued with an RfP which will be used for the final selection process.

## SECTION 4: Further Information

If you have any questions in relation to this discussion document process please contact either Richard Bentley or Sue Suckling . Please send your responses to Cathie Purvis at the Foundation at [cathie.purvis@frst.govt.nz](mailto:cathie.purvis@frst.govt.nz)

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