

# Notes of the meeting of the ITP Research Managers and Metro Research Forum

## Held Friday 9<sup>th</sup> October ant Wellington Institute of Technology Church St Campus Wellington

### Present

Gary Mersham	OPNZ	Robin Day	Otago Polytechnic
Keith Baronian	CPIT	Steve Purdie	Wintec
Surya Pandey	Wintec	Ami Sundar	EIT
Simon Peel	Unitec	Kate Jones	Unitec
Vicki Christoffersen	CPIT	Sue Sewell	Whitiria
Deborah Kragden	MIT	Marian Bland	UCoL
James Chal	Waiariki	Amanda Torr	WelTec
Barry Saunders	Metro group		

Apologies were noted from:

Christine Fenton	WiTT	Clare Atkins	NMIT
Heather Hamerton	BoPP	Graeme Haywood	Northtec

### 1. Previous meeting – Action items

#### 2. Round table

##### *Open Polytechnic*

Gary reported that Open Polytechnic was preparing for the next PBRF round with a number of initiatives around awareness, portfolio preparation and questions of portfolio format. OP has made submissions in reaction to all of the PBRF consultation documents. They have held a number of open workshops for new and emerging researchers and established researchers. A recent workshop was attended by James from Waiariki Polytechnic.

##### *Otago Polytechnic*

Robin reported that Otago has undertaken a review of its research support and as a result there has been a reduction in funding and resource in the Research office. There has also been reduced funding to the departments and the institution is under pressure to continue to reduce funding in response to the squeeze being put on institutions by government. Robin also reported that he has been working with WelTec and CPIT on the establishment of Innovating NZ.

##### *CPIT*

Keith reported that he had been seconded from the Research Office to Innovating NZ to help its establishment. In his absence, Vikki has taken

over running of the office and she reported that CPIT had recently held a research week in which the focus for the whole week was research. The public and other key stakeholders were invited and it had been a great success. The plan was to widen it next year. 2009 has been the first year CPIT has used all its internal research grants funding and they have implemented an improved system for recording research outputs. The research focus has been broadened to include technology transfer. Keith and Vikki attended the Australasian Research Managers Conference in Christchurch.

#### *Wintec*

Surya reported that Wintec has recently completed a review of its research and technology transfer processes. As a result of this review, funding for research has been reduced and targets have been set for staff for the first time with the expectations that staff will determine how they will meet their targets in the performance planning and review process. Wintec have recently completed a mock-PBRF round using an electronic repository that they have created. Using this information, Surya has been able to analyse the results and anticipates that Wintec will be able to double the number of people able to participate in the PBRF in 2012. He has developed a strategy to support achievement of this outcome. Wintec is increasing its focus on technology transfer and industry development with an emphasis on supporting industry-led projects. Four have been selected for a 2009 pilot with the aim to expand this in 2010 to 10 projects.

#### *EIT*

Ami reported that EIT has undertaken a stocktake of PBRF outputs. They are currently undertaking a review of degree teaching to determine whether it is underpinned by research. EIT staff member Kay Morris-Mathews is a panel representative on the PBRF and has been part of the review panel. She reports that there have been few ITP submissions on the PBRF consultation documents and she would like the ITPs to inform her of any submissions they make so that she can advocate for them.

#### *Unitec*

Simon and Kate reported that Unitec had recently held an internal research conference that had been a great success and generated a great deal of positive energy. Unitec is aiming to hold a further event next year with the aim of making it bigger and better with engagement with the external community. They are currently rewriting all their research policies to reflect their changing focus on innovation and technology transfer activities. This includes developing policies on consultancy and commercialization. Unitec hopes to be able to bring good projects out of the woodwork and commercialise them to gain an additional revenue stream. Where a project is deemed as having good commercialisation potential, the Research Office will support it. They are setting up an

external panel to assess projects for commercialisable potential. Wintec commented that it has found that pursuing patents can be very expensive particularly where IP lawyers and patent attorneys are involved.

#### *Whitireia*

Sue reported that Whitireia is currently thinking about what central role might be needed to co-ordinate and support research across the organisation. They currently have a devolved system where funding and resources are managed by the faculties. Key areas of research focus are health, teaching and learning including flexible learning, and creative practices. Whitireia is accepting an offer from the National Library to host their CODA research repository.

#### *MIT*

Deborah reported that MIT had appointed her as 0.5 Research Coordinator and had introduced a contestable fund aimed at lifting research quality. They had 20 research projects funded through the contestable pool and are joining the Innovating NZ group. They have pulled out of Coda and are looking at what system to move to. They are exploring Opensource options and expressed an interest in looking at the system developed by Wintec.

#### *UCoL*

Marian reported that she was new to the Forum. UCoL are not planning on entering the PBRF in 2012 and are instead focusing activities on strengthening their research processes. They have instituted research seminars and a formal allocation of research time for staff.

#### *Waiariki*

James reported that he was a new appointment to the role with a focus on increasing research outputs and the research culture of the institution. Waiariki have adopted a research strategy and implemented a research repository. They have recently held a writer's retreat and aim to hold two of these events in 2010. They are keen to open these up to other staff in the ITP sector and to encourage collaboration. They are currently establishing processes and systems to support research including ethics policies and processes and have established research links with Ako Aotearoa and Auckland University. They are planning to run a research retreat to be facilitated by an external researcher aimed at building capability.

#### *WelTec*

Amanda reported that WelTec are about to agree a new three-year research strategy that will focus on building capability for the 2012 PBRF round. She reported that WelTec is really keen to collaborate with other

ITPs who have experienced the PBRF to ensure all the ITP sector does well next round. She noted that WelTec has completed its review of its Centre of Smart Product – its technology development and transfer centre – and has been actively involved in the establishment of Innovating NZ.

### **3. Todd Foundation**

Robin reported that the Todd Foundation has a fund ringfenced for ITP student research which is \$25,000 per annum. This year there has only been one application for the fund and concern was expressed that if this is not taken up the sector risks losing it. Robin suggested that some of the problems could be to do with the timing of the funding process but noted that in 2008 the process had been changed to attempt to get more interest. He asked all the ITP representative's to go back to their Institutions and identify at least one project that could be put up for funding and that these be notified to him by the end of the month. Information about the fund is available on the ITP research Forum website at [http://www.wikieducator.org/Institutes\\_of\\_Technology\\_and\\_Polytechnics\\_Research\\_Forum](http://www.wikieducator.org/Institutes_of_Technology_and_Polytechnics_Research_Forum)

***Action: All representatives to notify Robin of at least one project at their institution by the 30<sup>th</sup> of October.***

### **4. Distinctive nature of ITP research**

The group had a very wide ranging discussion on the importance of research for the ITP sector and what, if anything, distinguished ITP research from that undertaken in universities. Key points raised include:

- PBRF is a big issue and a key driver of research. ITPs must continue to be eligible for funding through the PBRF
- Research must underpin degree delivery and the way in which it does this must be explicit
- ITPs undertake all forms of research not just applied research
- Professional practice is particularly important for ITPs who deliver degrees to support the professions such as engineering, nursing, social work, accountancy, teaching and midwifery
- Technology transfer and innovation are increasingly important for ITPs and many are shifting their focus to these activities
- ITPs specialize in dealing with industry-led projects
- Would like to see the PBRF tweaked to better support industry-led/driven research
- Original aim of Business Links was to provide funding to support industry-led and responsive activity
- ITPs focus is on our contribution to the social, economic and cultural development to New Zealand
- Need to reflect focus of new TES which is on research to support economic development

- Need to also include the research ITPs do to drive innovation in teaching
- There is increasing convergence between the different sectors in the tertiary education system so trying to define the distinctive contribution of the ITPs will be difficult.

Based on the discussion, a draft discussion document has been put together and is attached to these notes.

**Action: Feedback on notes and each institution to provide two best practice examples that reflect the distinctive contribution of ITP research.**

## 5. PBRF

The group had a brief discussion on PBRF consultation paper on Evaluation of Evidence Portfolios. It was noted that this was a really exciting opportunity for ITPs as it again proposed panels for evaluating applied industry-led research.

Robin commented that he had already begun to draft a submission on this and that he was happy to coordinate any comments so that there was a comprehensive ITP response to this consultation paper. Keith commented that he had been part of a group that put in a submission on this in the earlier consultation process. He agreed to give his paper to Robin to inform the submission.

**Action: Robin to draft ITP submission.  
Keith to provide Robin with suggestions on assessment of applied research  
Everyone to provide comments to Robin**

Amanda led a discussion on opportunities for the ITPs to collaborate to improve overall ITP performance in the 2012 PBRF round. Areas of collaboration identified included:

- Sharing research repository software – Wintec has agreed to make theirs available and the determine the cost of purchase
- Training – Wintec and EIT are experienced in running mock PBRF rounds. The suggestion was made that instead of having an ITP Research Conference in 2010, we should have a conference or roadshow that could tour main centres and provide advice, guidance, training and support for staff to put together their evidence portfolios.

**Action: The next ITP research Forum in April should consider how this could be done.**

Robin commented that we needed to have policy on how ERI should be shared for collaborative projects. He noted the VCC had a policy and undertook to get hold of this and circulate it to other Forum members.

**Action: Robin to obtain and circulate the VCC policy on sharing ERI for collaborative projects.**

## **6. Innovating NZ**

Keith provided a summary of the activity undertaken to date to establish Innovating NZ and its roll out across the participating ITPs over the period of the establishment phase. Innovating NZ is an entity that aims to link industry with capability within the ITP sector to support innovation, technology development, research and organisational capability development. The founding ITPs are CPIT, Otago and WelTec. Wintec and MIT are coming on board in the second phase.

Progress to date includes:

- Establishing the operational entity and infrastructure
- Establishing a brand
- Agreeing governance structures
- Setting up regional managers to provide linkages with industries in the regions and to identify ITP expertise.
- Negotiating with a provider to develop a website to act as the portal for contact with INZ
- Agreeing operational policies and procedures

Discussion focused on how INZ would be rolled out to include other ITPs. Keith emphasized that INZ is an ITP initiative and not just a Metro one so would include all ITPs interested in being a party to it.

## **7. Next meeting**

Simon commented that Unitec had agreed to host and chair the next meeting with Wintec as co-chair. It was agreed that the meeting would be held in April 2010 and that Simon would circulate dates to everyone.

Amanda closed the meeting thanking everyone for attending. She noted that Graeme Northtec's representative who had been very active on the Forum in that past had recently retired and wished him well.

## The Distinctive Nature of ITP Research

There are a number of definitions of research used in the tertiary education environment including those of NZQA, the PBRF, Boyer and the OECD (this is used by HERC in Australia). According to NZQA's definition, research is:

... an intellectually controlled investigation which leads to advances in knowledge through the discovery and codification of new information or the development of further understanding about existing information, and practice.

It is a creative, cumulative and independent activity conducted by people with knowledge of the theories, methods and information of the principal field of inquiry and its cognate areas(s). Research typically involves either investigation of an experimental or critical nature, or artistic endeavour of the type exemplified by musical composition.

The results of research must be open to scrutiny and formal evaluation by others in the field of enquiry and this may be achieved through publication in peer-reviewed books and serials, or through public presentation.

Research undertaken within the tertiary education environment – including that undertaken by Institutes of Technology and Polytechnics (ITPs) and universities – covers:

- discovery or blue sky research – addressing questions where the outcome is not known
- development or applied research – activities aimed at answering questions or problems where the fundamentals are understood, and an application is developed because of its foreseen utility
- creative work – undertaken on a systematic basis to enhance knowledge, culture and society and to use this knowledge to devise new applications.
- professional practice – addressing knowledge and practice issues within a profession that lead to innovations in practice
- integration and technology development and transfer – activities involving the development of products, systems and applications where problems of implementation in NZ companies are solved and/or adapted to NZ conditions.

In reality, these are not distinctly different activities. Instead they represent a continuum of research activity the ranges from the highly specialised application of research to a unique situation or workplace to the general “blue skies” research aimed at expanding knowledge. All are valuable, undertaken by universities, CRIs and ITPs to a greater or lesser degree and should be funded appropriately.

Funding to support research is allocated either directly through the allocation of research grants or purchase of research outputs from a provider, or through the competitive allocation of TEC funding on the basis of quality as determined by the PBRF assessment process.

## **Why do ITPs research**

ITPs carry out research to support:

- the development and delivery of qualifications and programmes ;
- innovation in the professions and vocations they work alongside;
- innovation and development in teaching and learning; and
- economic, social and cultural development of their regions.

In this, ITPs are not distinct from universities who carry out research for the same reasons. What is distinct about many ITPs when compared with universities is the focus and intensity of research effort and activity, that is, while the activities may be similar, the focus and intensity of the research endeavor in the ITP sector is towards the external profession/industry/vocational area/community they serve while in the university the focus and intensity of effort is aimed at increasing knowledge for society as a whole.

## **Contribution ITPs make to the economic, social and cultural development of New Zealand**

Through their research activities, ITPs make a positive contribution to the social, economic and cultural landscape of New Zealand. The focus of their research activity is on applied research, integration and technology development and transfer that supports and adds value to their stakeholders/communities. In this the ITP sector is well positioned to respond to the emerging focus for tertiary education research as spelled out in the Draft Tertiary Education Strategy 2010 to 2015 as outlined below (NZ Government, 2009):

The Government is taking a long-term perspective on research and innovation policies, and believes New Zealand must have a strong contribution to research and innovation from the tertiary education sector. Research-driven innovation will be a major factor in helping New Zealand industries to become more productive.

As well as underpinning good teaching, high quality research is critical for economic growth. However, public investment in research on its own does not drive economic growth: it is firms that translate public research into profit. Better linkages between firms, universities and other public research organisations will inform firms of the research



that may be relevant to them, and inform researchers of the research that firms want and need.

What is unique about the ITP sector is its willingness and ability to engage directly with the professions, communities, businesses and industries it works with, to directly address issues and problems encountered by the industry/community/business/ profession and the wide range of initiatives it is able to support, for example, product design and prototyping, process redesign, evaluation of programme effectiveness or the development of commercialisable outputs for industry. See Appendix One for examples of outputs from across the ITP sector.

The ITP is successful in responding to the needs of external stakeholders because it is:

- **Responsive** to the needs of industry rather than being driven by an internal programme of research
- **Flexible**, able to work directly on the issues and problems encountered by stakeholders by supporting seamless approaches that integrate the workplace with the staff and students of an institution
- **Willing to work** directly with an enterprise no matter how small
- **Collaborative**. Increasingly the ITP sector is working together to maximise opportunities to support the needs of stakeholders. Collaborative venture occur nationally, within a region and internationally.

The establishment of Innovating New Zealand to support this responsive, flexible and collaborative approach to meeting the needs of stakeholders is an example of the willingness of the ITP sector to make a positive impact on the social, cultural and economic landscape of New Zealand

## Future opportunities and constraints

Many ITPs have established industry outreach centres and/or incubators aimed at supporting the economic development of their region. With the introduction of Innovating NZ the ITP sector has the opportunity to establish a regionally networked, New Zealand-wide entity able to support enterprises to meet their development aspirations. Innovating NZ has been established under an ESI grant from TEC that provides seeding funding for three years. After this period it is expected that the model will have a well established and sustainable business model that supports enterprise's demand for product development, prototyping, systems development, enterprise capability development; advice and support, evaluation and technology transfer.

Having said that, on-going funding will be an issue. At present the Government recognises that the PBRF does not adequately support the type of research activities needed to support enterprise development. It is proposing changes to the PBRF and implementing a voucher system for enterprises to purchase research from recognised providers. The ITP sector welcomes these changes and proposes that simple changes could be made to existing funding instruments to further incentivise activity.

## Incentives and support to grow innovation and research in the ITP sector

In 2004 the TEC introduced Business Links funding, to be allocated to ITPs to support engagement with industry. While this pool of funding has been successful in supporting engagement with industry as show by the examples in Appendix One, the opportunity of the next Investment round in 2011 presents an opportunity to redesign these funds as a competitive funding pool allocated on the basis of quality of outcomes.

ITPs believe that if this funding pool were made available on a competitive basis alongside the PBRF, the ITP sector would be strongly incentivised to continue to focus its research activity on the needs of the enterprises, professions, industries and communities, while at the same time ensuring that the qualifications they provide are underpinned by high quality research. This funding pool could be renamed the ITP Technology Development and Transfer Performance Fund (ITPTTF).

Quality measures for assessment and allocation of this ITPTTF should utilise outcome measures that focus on the impact of the activity rather than just its output. In this way, the value added by the activity and therefore its “quality” could be measured and assessed. Some measures that could be used to assess impact and value of the research activity are outlined in the table below.

Research Type	Possible Measures of Impact
Applied Research/ Technology development and transfer/ consultancy	<ul style="list-style-type: none"> <li>• Number of businesses spun out of an incubator</li> <li>• Number of patents awarded</li> <li>• Number of projects undertaken for industry</li> <li>• Number of innovations commercialised or put into practice</li> <li>• Number of units manufactured/sold</li> <li>• Royalties paid on intellectual property</li> <li>• Number of times research has resulted in changes to professional practice and/or policy</li> <li>• Number of other professions/organisations/enterprises adopting practices</li> <li>• Endorsement as best practice through benchmarking or similar activities</li> <li>• Renewal of cultural practices measured through increased activity</li> <li>• Number of books/articles published/sold</li> </ul>
Creative work	<ul style="list-style-type: none"> <li>• Number of performances of a play/dance/performance</li> </ul>

	<ul style="list-style-type: none"> <li>• Number of people visiting an art exhibition and/or number of times exhibition picked up/toured</li> <li>• Number of books/performances/works/publications sold</li> <li>• Renewal of cultural practices measured through increased activity in relation to creative work</li> <li>• Changes to policy and/or community practices</li> <li>• Royalties paid on intellectual property</li> <li>• Number of citations by other researchers of original work</li> </ul>
--	--

ITPs do not support removal of the legislative requirement for degree teaching “to be undertaken mainly by people actively engaged in research” as it is agreed that research should continue to inform teaching and the quality of that research should be rewarded.

Much of the research activity in ITPs is aimed at enhancing professional practice in disciplines such as nursing, midwifery, occupational therapy, social work and IT and this research activity is the expectation of the professions accrediting the institution. Staff within institutions delivering degrees leading to professional recognition are actively engaged in peer reviewed activities that support ongoing development of their profession, as evidenced by publications, advances in practice and adoption of innovative practices.

Any institution offering degree programmes should continue to have access to the funding pool available through the PBRF as a legitimate means of supporting these valuable activities. ITPs believe that as they further develop the research culture of their institutions, they will be increasingly successful in gaining funding from this pool.

At the same time, ITPs welcome the willingness of the Government to review the ability of the PBRF to adequately recognise applied and professional research and look forward to this weakness being addressed for the 2012 round.

## Appendix One

### Examples of innovation and applied research in the ITP sector

#### Examples from Wellington Institute of Technology

##### **Development of alternative fuels**

WelTec is working with a local company to develop alternative Fuels. This has involved undertaking emissions testing, testing a variety of products and designing, prototyping and testing products to support the use of alternative fuels. It has also including prototyping electric car conversion technology.

##### **Developing, prototyping and testing demining equipment**

WelTec has been actively working with a local company to develop, prototype and test demining equipment. The resulting products have been through a number of iterations and is now going into production.