

Research to support BCITO's industry skills strategy

Phase one – scoping study

Report to BCITO

October 2005



Preface

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Executive Summary

Introduction

In the context of the legislated leadership role of ITOs in matters of skills and training, BCITO has previously commissioned research to help it better understand the current and future skill needs of the building and construction industry. It now wishes to draw together the findings from this research and that conducted by other organisations into one document which can form the basis of its strategic training plan(s) (STP(s)) and industry skills strategy.

NZIER has recommended a two-step process:

- A scoping phase
- The development of a discussion document to support BCITO's STP.

This report presents the findings from the scoping phase.

BCITO's strategic training plan development

Little guidance has been provided to ITOs on what the term "strategic training plan" means in practice, or the process for developing one. Our understanding is that the term has been interpreted in widely different ways.

However, from reviewing the information available on expectations around the leadership role, and from examining the (limited number of) STPs that have already been developed, it is likely that an STP should:

- Have a strong industry focus and be forward- and outward-looking
- Encompass the entire training system, not just industry training
- Be evidence-based and reflect a strategic understanding of the issues
- Have a process for development which is consultative, with strong stakeholder engagement. Key stakeholders in this context are industry and tertiary education providers.

We have identified a number of factors for BCITO to consider when scoping out its STP. Probably the critical issue is to determine BCITO's role in the relevant labour markets.

We have also identified two broad approaches for developing an STP, of which we believe that the one most suited to BCITO's needs is the "research/consultation" approach. This involves one or more iteration of conducting some skills-related research, identifying the key strategic training issues arising from the research, consulting on the findings and drafting the STP.

Research to support the STP

BCITO's STP will need to be evidence-based, and will therefore require some supporting research. However, it is important that BCITO is discriminating in the data it collects. Any research that BCITO undertakes will need to build on the platform of existing research. It also needs to increase BCITO's strategic understanding of the dynamic interaction between activity in the industry and the supply of labour, as opposed to collecting data for data's sake.

We have conducted a gap analysis between our recommended "wish list" and the research that BCITO has already conducted. The key gaps we have identified are:

- Qualitative stakeholder research to increase BCITO's understanding of the labour markets it operates in, such as evaluating how effectively the current training system is working and identifying appropriate skills-related strategies to meet industry skill needs
- Additional (mainly supply-side) desk research, to better understand the characteristics of the existing workforce and training provision in the industry.

Recommendations

A summary of our recommendations are that BCITO:

- Adopts the "research/consultation" method of developing its STP
- Develops one STP for the entire construction industry
- Considers linkages/joint approaches for the development of its STP with those of other construction-related ITOs
- Demonstrates the linkages and congruence between its STP and its other accountability documents (Charter, Profile etc)
- Determines the scope of its research requirements by reviewing the data "wish list"/gap analysis developed by NZIER
- Considers commissioning stakeholder research to increase its strategic understanding of the labour markets it operates in
- Considers commissioning additional desk research to supplement its existing research with further (supply-side) analysis
- Considers commissioning the development of a stakeholder discussion document, which draws together the various existing and additional research and forms the basis of BCITO's STP.

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1. Introduction

1.1 Background

In the context of the legislated leadership role of ITOs in matters of skills and training, BCITO has previously commissioned research to help it better understand the current and future skill needs of the building and construction industry. The most significant pieces of research were undertaken by BRANZ - “Regional construction activity trends and forecasts” (2003) and “Regional construction activity and skills forecasts” (2005).

It now wishes to draw together the findings from this research and that conducted by other organisations into one document which can form the basis of its strategic training plan(s) (STP(s)) and industry skills strategy¹. The focus will be on the implications and *interpretation* – what the findings mean for BCITO and the industry. BCITO has asked NZIER to assist with this process.

NZIER has recommended a two-step process:

- A scoping phase (this phase)
- The development of a discussion document to support BCITO’s STP.

1.2 Objectives

The objectives of this scoping phase are to:

- Outline possible generic approaches for developing a STP, and the fit of a discussion document in that process
- Scope out the contents, approach and data requirements (over and above the research already undertaken by BCITO) for developing the phase two discussion document.

The objective of the overall project is to assist BCITO in developing its STP, which we understand has to be drafted by 20 June 2006 at the latest. However, the development of the STP itself is outside the scope of the project. This is because we believe that the STP needs to be “owned” by BCITO, and its development led by BCITO’s Board and management team.

¹ It should be noted that the terms “strategic training plan” and “industry skill strategy” are used synonymously throughout this report. However, we understand that the latter phrase has been developed to encompass broader skills-related issues (eg human resourcing and organisational development strategies) in addition to training. It should also be noted that when we use the term “strategic training plan” we are referring to the development of one or more such plan

1.3 Approach

The approach used for this scoping phase was an internet search and literature review. This included reviewing the research provided by BCITO (including the two BRANZ reports); reviewing research and data available on ITOs' websites, the websites of ITO equivalents overseas, ITF, TEC, Statistics New Zealand etc. In addition, we have noted some of the findings in relation to relevant work that NZIER has previously conducted for the Industry Training Federation (ITF) and other ITOs, where this does not constitute a breach of confidentiality for those organisations.

Specifically, we have:

- Analysed the content of five selected STPs
- Identified two broad approaches to developing an STP
- Developed a data "wish list" of research and data to support the development of an STP, and undertaken a gap analysis of BCITO's existing research against this wish list.

1.4 Structure of the report

The report is structured in such a way as to initially focus on STPs in general – what they are and the process for their development – before considering the role of research in the development of an STP. We then make specific recommendations for the development of BCITO's STP, based on the analysis of selected STPs and the gap analysis. The resulting structure is therefore:

- Section 1 (this section) provides an introduction
- Section 2 provides some background information on STPs
- Section 3 identifies some considerations with regard to the scope and content of an STP
- Section 4 considers the process for developing an STP
- Section 5 suggests ways in which research can support the development of an STP
- Section 6 presents the findings of a gap analysis between our data wish list and the research BCITO has conducted to date
- Section 7 presents our recommendations
- Section 8 identifies some of the implementation issues associated with our recommendations
- The appendix presents the analysis of the content of five selected STPs, sets out the data "wish list" and sources to meet the data requirements, and briefly outlines the relevance of various research methods to skills-related research.

2. Strategic training plans - background

This section provides some broad considerations around the term “strategic training plan” before we examine the possible content of an STP and how to develop one in sections 3 and 4.

2.1 Expectations of ITOs

In this section we review our findings on the likely expectations of ITOs in relation to the leadership role generally, and the development of STPs specifically.

2.1.1 Legislative requirement

The Industry Training Amendment Act 2002 has charged ITOs with the following tasks in addition to the roles identified in the original Act:

“Provide leadership within the industry on matters relating to skills and training needs by

- i) identifying current and future skill needs
- ii) *developing strategic training plans to assist the industry meet those needs;* and
- iii) promoting training that will meet those needs to employers and employees.”

2.1.2 Guidance from officials

To date very little guidance has been provided to ITOs by officials on what these new roles entail, especially in relation to developing STPs.

In 2003, TEC produced some guidelines for ITOs in relation to the leadership role – commonly referred to as the “10 step process”. However, the guidelines contain little guidance on the scope, content or process for developing an STP. What they *do* say in relation to STPs is:

“Strategic training plans need to have a strong industry focus, be grounded in a viable vision for the industry’s future, and have a long-term time horizon. It should also identify strategies for producing change and establish the resources to achieve that vision....Writing up the analysis in a way that allows readers to understand what led to the specific recommendations for action by different industry stakeholders. An important element of this stage is deciding who to circulate the draft document to, and how feedback will be sought and analysed from key players both within and outside industry.”

More recently, the Statement of Tertiary Education Priorities (STEP) 2005/7 states that: “Industry training organisations are responsible for identifying future skill needs for the industries they represent and developing strategic plans to meet those needs. Tertiary education organisations, schools and the industries themselves will share ownership of the overall vision and training strategy.”

We understand that TEC has recently (2005) advised ITOs that it expects the following outcomes from the leadership role:

- Current and future skills development at both an enterprise and industry level
- Informing TEC's assessment of strategic relevance of programmes within the tertiary sector
- Informing and influencing tertiary education providers
- Informing government and key policy/decision makers.

2.2 What is a strategic training plan?

In the previous section we explored the expectations around the ITO leadership role and STPs. Before we examine in detail possible processes for developing an STP and its content, it is helpful to briefly consider what is meant by the term “strategic training plan” – see previous section.

2.2.1 Linkages with strategic plan

One of the first things to consider is how a “strategic training plan” differs from a “strategic plan”. It is interesting to note that in the STEP 2005/7 the word “training” has been omitted from the phrase “strategic *training* plans” referred to in the legislation (see previous section).

Whilst a detailed discussion of the strategic planning process is outside the scope of this study, it is worth noting that effective strategic plans usually:

- Are outward looking, adopting a “future backwards, market inwards” approach as opposed to a “current forwards, company outwards” approach. For example they usually contain a SWOT analysis
- Have a strategic focus, but contain strong links with the business planning cycle and operational plans
- Are relatively concise.

Possibly the most significant difference between a “strategic plan” and a “strategic training plan” (based on our understanding) is that the former relates to an individual organisation, in this case an ITO. In contrast the latter relates to the entire training system and therefore touches a wide range of organisations and stakeholders. In other words, the STP should cover all types of training in an industry, including provider-based training.

2.2.2 Linkages with ITO accountability documents

The STP is one of a suite of ITO accountability documents, which include the ITO Charter and Profile:

- A Charter is a high-level governance document that describes an organisation's role in the tertiary education system and how it aligns with the government's Tertiary Education Strategy (TES). It covers a medium to long-term time-frame and provides the basis for a Profile
- A Profile is prepared annually and demonstrates how an organisation gives effect to its Charter and what its contribution in terms of the TES and STEP will be.

The STP is a high-level planning document that essentially sits alongside these other accountability documents. Again, a key difference between these accountability documents is that the Charter and Profile relate to the individual ITO, whereas the STP covers the entire training system. However, there should be strong linkages between the “top-down” (in this case STP and BCITO Charter) and “bottom-up” (BCITO Profile and operational) plans. It is therefore important that BCITO ensures that there is congruence between the various accountability documents.

A key decision for BCITO in the development of its STP is the role that the ITO wishes to play in the labour markets in the industries it covers, which we discuss more in section 3.1. This is especially important bearing in mind that the STP covers all parts of the training system. This then gives rise to the question as to how an ITO can formulate and give effect to objectives, strategies and actions that are outside its control.

2.3 Conclusion

As we have noted previously, little guidance has been provided to date on what the term “strategic training plan” means in practice, or the process for developing one. Our understanding, based on discussions with a number of ITOs, is that the term has been interpreted in widely different ways.

However, from reviewing the information available on expectations around the leadership role, and from considering general principles of effective planning, the following themes emerge. An STP should:

- Have a strong industry focus and be forward- and outward-looking
- Encompass the entire training system, not just industry training
- Be evidence-based and reflect a strategic understanding of the issues
- Have a process for development which is consultative, with strong stakeholder engagement. Key stakeholders in this context are industry and tertiary education providers.

3. Strategic training plans – scope/content

In this section we examine the possible scope and content of an STP.

We are only aware of one ITO in New Zealand that has actually developed an STP as at October 2005 – Retail Meat ITO (RMITO). However, strategic training plans have been produced by national ITABs in Australia for a number of years. In Appendix A we analyse the key features of five STPs, four of which have been developed in Australia plus the one developed by RMITO.

Because of the lack of official guidance in relation to STPs, it is difficult to present firm recommendations on the scope and content of an STP. Instead we pose some questions for BCITO to consider, and where appropriate make suggestions based on an analysis of the five STPs and our understanding of the requirements of ITOs in relation to STPs.

3.1 Scope

There are a number of issues of scope that BCITO will need to consider.

3.1.1 Role of the ITO in the labour market

First up, it is important to determine BCITO's view of the role it plays in the relevant labour markets. This role may include addressing some sort of market failure (eg lack of information, insufficient supply of training) or equity issue (eg groups under-represented in training). We believe it is important to avoid a “manpower planning” type approach, as these historically have proven to be resource-intensive and unsuccessful.

The STP clearly needs to have a training focus. In addition to training, ITOs will need to consider the extent to which the STP covers broader skill-related issues. These might include HR and organisational development issues such as wages and working conditions, employment practices etc.

Our understanding is that the term “industry skills strategy” has been developed recently by officials to cover some of these broader HR issues. There therefore appears to be an expectation that the ITO leadership role encompasses this broader definition.

3.1.2 Time horizon

The time horizon appropriate for BCITO's STP will depend on:

- The business cycle of the industry
- The time period to develop new training programmes, and to train them
- The time horizon used for BCITO's other accountability documents.

A time horizon of five years upwards is probably most relevant here. We note that the BRANZ report (2005) commissioned by BCITO contains employment forecasts for the period 2005-2010, suggesting a five year time horizon may be appropriate.

3.1.3 Industry coverage

BCITO will need to consider several issues with regard to the industry coverage of its STP. First up, it needs to decide how broadly it will define the “building and construction” industry. We note that the BRANZ report (2005) uses all 21 of the 6-digit ANZSIC² within the broader 3-digit codes “General Construction” and “Construction Trade Services”.

However, these 21 classifications encompass the industries covered by a number of other ITOs, such as bricklaying, plumbing and glazing. BCITO will therefore need to consider the linkages, and possible joint development, between the STPs of the relevant ITOs and its own STP.

A further issue is the number of STPs BCITO wants to develop. For example, does it envisage one for the entire construction industry or individual STPs for various sub-industries?

NZIER’s recommendation would be to keep things simple and have one covering the entire construction industry. Many of the drivers of the various sub-industries will be common. Although some analysis at a sub-industry level is likely to be required, it is helpful to use common data sources and to draw comparisons between the various sub-industries within the context of an overall report.

3.1.4 Regional coverage

BCITO will need to decide the extent to which the STP has a regional focus. We note that both the BRANZ reports have quite a strong regional focus. In particular, the 2005 report contains employment forecasts by region.

3.1.5 Training coverage

As noted previously, our understanding is that the scope of STPs includes the entire training system, not just industry training. In particular, TEC has indicated that it anticipates that the ITO leadership role (and presumably the STPs would be crucial in this context) will assist in its assessment of strategic relevance of programmes within the tertiary sector, as well as informing and influencing tertiary education providers.

The inference therefore is that an STP should encompass all types of training provision and tertiary education in an industry (that provided by

² Australian and New Zealand Standard Industrial Classification 1996

schools, PTEs, institutes of technology and polytechnics, universities and industry training) across all levels of the National Qualifications Framework, not just those levels which traditionally have been the focus of industry training.

3.1.6 Strategic v operational emphasis

Having reviewed the five STPs referred to in Appendix A , it is evident that some have more of a strategic and others more of an operational focus. For example, some largely contain information about the external environment, whilst others are much more explicit in their operational plans.

BCITO will need to consider the balance in emphasis between strategic and operational content that it considers most appropriate. This will be influenced by factors such as the degree of transparency BCITO wishes to have with regard to “going public” with its detailed operational plans. Flexibility is important, as changes in the environment will affect how strategy is operationalised in the future.

From the (limited) official guidance available, the desired emphasis appears to be strategic - identifying the key strategic issues and then indicating at a high level how these will be addressed. Probably the key issue here is that there are clear linkages between the STP and BCITO’s operational plans.

3.2 Table of contents

From our analysis of selected STPs (see Appendix A), we have identified that BCITO may want to include the following in its STP:

- BCITO’s mission, vision and values
- Linkages between BCITO’s STP and TES, STEP, BCITO’s operational plans and accountability documents, and the STPs of other ITOs
- Industry overview
- Current and future skill needs in the industry
- Issues for training
- Key result areas. For each one – objectives, strategies and KPIs.

These suggested headings are discussed further in section 5.2.

3.3 Conclusion

We have identified a number of factors for BCITO to consider when scoping out its STP. Probably the critical issue is to determine BCITO’s role in the relevant labour markets.

4. Strategic training plans - process

This section examines the broad approaches that we are aware of for developing an STP, based on an internet search and work we have previously conducted in relation to the leadership role.

It should be noted that, although ITOs have adopted a range of approaches, we have tried to strip them down to the bare essentials and identified two broad approaches. It should also be noted that, although some ITOs have conducted quite a lot of work in relation to the leadership role, we are only aware of one ITO that has actually produced an STP as at October 2005 – RMITO.

4.1 Approach one – human capability group

This approach centres on the formation of an industry-wide reference group or “taskforce” to consider human resourcing and skills-related issues in the industry. The group can consist of representatives from a number of stakeholders, including industry associations, key players in the industry, tertiary education providers and the ITO itself. The role of the group may include conducting/or commissioning labour market research, identifying career pathways and developing HR management processes and tools.

Typically the adoption of this approach has been driven by industry itself as opposed to the ITO.

4.2 Approach two – research/consultation

This approach involves the ITO conducting or commissioning some research on skills and labour market issues, either through desk research, stakeholder interviews/focus groups or surveys. The key findings from this research are then circulated to stakeholders for consultation, usually in the form of a discussion document. This approach seems to broadly follow that inferred in the ITF “8x8” conceptual model, which refers to various stages of research/dissemination in the “levels” of the matrix.

In some cases, ITOs have developed discussion documents which not only draw out the key strategic issues to emerge from the research, but also identify possible strategies to address the strategic issues. In these instances, stakeholders are invited to provide comment on the proposed strategies. In other cases, the research findings are presented to stakeholders in a workshop setting, and key strategies are identified from the workshop.

Some ITOs have planned or undertaken several iterations of research and stakeholder consultation. In other words, they have conducted some research, consulted on the findings, conducted further research, and consulted on possible strategies to address the strategic issues.

4.3 Advantages and disadvantages

Table 1 Comparison of two approaches to developing an STP

	Advantages	Disadvantages
Human capability group	Strong stakeholder buy-in. Should result in more ownership of resulting STP	Requires co-operation amongst stakeholders. Not suitable for highly competitive or fragmented industry
	Broad HR focus, as opposed to considering training in isolation. Therefore useful for developing "industry skills strategy". Also, training strategies may be more contextualised	Training not sole focus. Possibility of losing focus
	Ability to potentially draw from a wide range of resources amongst the group	No clear ownership of responsibilities/outcomes. May become a "talkfest"
		Can be unwieldy/time consuming Group may not be seen as representing whole industry. Therefore additional stakeholder consultation may be required
Research/ stakeholder consultation	Clear leadership by ITO	Possible lack of buy-in from stakeholders. Resulting STP may therefore not be "owned" by industry
	Resource-intensive for ITO	ITO controls timelines and approach. Can assist stakeholders who do not have time/resources to commit
	Consultation process can be wide, depending on method used. Possibility to obtain feedback from a broad range of stakeholders	Some consultation processes (eg electronic, postal) unlikely to elicit much feedback from key stakeholder groups eg employers

Source: NZIER

Notes: (1) The criteria in the "advantages" column do not necessarily line up with those in the "disadvantages" column

(2) The relative attractiveness of each approach cannot be inferred from the number of advantages/disadvantages

The most appropriate of these two approaches for an individual ITO will vary depending on a range of factors, including the capability and resources of the ITO.

Probably the most important factor is the key driver for the development of the STP. If it is driven by industry, then the human capability group approach is likely to be most relevant; if it is driven primarily by compliance reasons then the research/stakeholder consultation approach is likely to be more appropriate.

4.4 Conclusion

We have identified two broad approaches for developing an STP:

- The formation of an industry-wide human capability group, one of the outputs of which is skills-related research and a draft STP
- The ITO undertaking one or more iteration of conducting some skills-related research, identifying the key strategic training issues to emerge from the research, consulting on the findings and drafting the STP.

Our understanding from discussions we have had with BCITO is that the second of these two approaches may be more relevant to BCITO.

5. Research to support an STP

So far we have focused on the likely scope, content and process for developing an STP. Here we consider the implications of these factors to the research that will underpin an STP.

5.1 Role of research in the development of an STP

It is relatively clear that an STP should be evidence based, and identify key strategic training issues based on research. Indeed some of the STPs developed in Australia appear to primarily consist of an analysis of research (industry trends, employment and skills- and training-related issues), as opposed to the objectives, strategies and tactics usually associated with planning documents.

Research clearly plays a central role in both of the two broad processes for developing an STP that we have outlined in section 4. In particular, the research/stakeholder consultation approach relies on research to identify the key training strategies and stimulate stakeholder feedback.

However, it is important that any research BCITO conducts contributes to its strategic understanding. As noted previously, a “manpower planning” type approach is probably not helpful.

5.2 Research content and fit in STP

If we return to the suggested outline table of contents for BCITO’s STP from section 3.2, we can examine the linkages between research and the overall table of contents, which is presented in Table 2.

It should be noted that the proposed research content we have suggested to support the STP (which is outlined in more detail in Appendix B) is based on a number of factors including:

- Guidelines from officials (eg TEC’s “10 step” process, ITF’s “8x8” matrix)
- Work we have previously conducted for other ITOs
- Our general recommendations in relation to skills and labour market research.

Table 2 Research requirement and link with BCITO's STP

STP contents heading	Broad research requirement
BCITO's mission, vision & values	
Linkages with TES, accountability docs, STPs of other ITOs	Cross-refer to information in "Industry overview" section to explain relationship between BCITO's STP and that of other ITOs
Industry overview	Industry supply chain and industry/occupation matrix
Current & future skill needs	Demand & supply of skills - context (general labour market issues affecting all industries), employment trends & forecasts in construction industry, qualifications of existing workforce, type of skills needed, labour flows (including training provision), demographic profile of workforce, matching demand & supply (skill shortages)
Issues for training	Draw out implications from "Current & future skill needs" section. Evaluate effectiveness of the current training system
Key result areas – objectives, strategies & KPIs	Identify strategies to address industry skill needs

Notes: (1) See 0 for more details on research requirement

Source: NZIER

5.3 Research scope

In the same way that BCITO needs to scope out the contents of its STP, it also needs to consider the scope of the research to support its STP.

Many of the factors that we considered in section 3.1 are relevant here – time horizon, industry coverage and definitions, regional coverage, coverage of broader skills-related issues. We therefore do not repeat them again.

5.4 Conclusion

BCITO's STP will need to be evidence-based, and will therefore require some supporting research. However, it is important that BCITO is discriminating in the data it collects. There is a danger of collecting a lot of data which may not increase its understanding of the dynamic interaction between activity in the industry and the supply of labour.

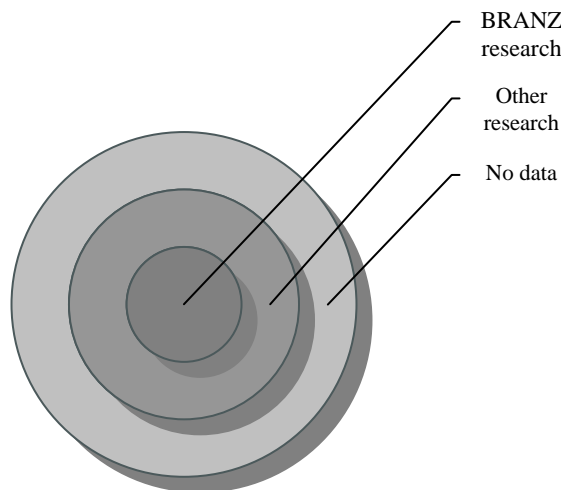
6. Research to support BCITO's STP – gap analysis

In the previous section we considered the possible research requirements to support BCITO's STP. In this section we undertake a gap analysis between our recommendations and the available research.

6.1 Overview of gap analysis

We have reviewed the research that BCITO has provided us, and conducted our own internet search of data available, and identified some possible gaps in data requirements. It should be noted that we are referring to several layers of “gap” here, as illustrated in Figure 1.

Figure 1 Data available to address gaps



Essentially the process we have adopted for the gap analysis is:

- Identified a data “wish list” developed from the factors set out in section 5.2
- Reviewed the two BRANZ reports as the primary data sources
- Identified potential additional data sources (including the additional reports passed to us by BCITO) to address any gaps in data
- Identified any data gaps that are likely to be unfilled.

The data wish list and potential sources are presented in Appendix B .

6.2 Gaps identified

In broad terms, the research that BCITO has undertaken to date provides a strong platform from which to develop an STP. The BRANZ reports develop forecasts of employment in the construction industry, based on forecasts of industry demand. The model developed shows implied new entrants to the industry, based on various assumptions around labour flows. The reports also include some strong demand-side analysis.

Our understanding is that BCITO's requirements from any future research activity is primarily to draw together, *interpret* and identify the *implications* of existing research. This will then be used to inform the objectives, strategies and more operational aspects of BCITO's STP.

However, we consider that there may be some benefit in supplementing the existing research with some additional research, over and above the mere interpretation of the existing findings. The additional research requirements we have identified, and the rationale for their inclusion, are presented in detail in Table 3. In summary, there are two broad areas of additional research:

- *Stakeholder research.* The main benefit of this would be to increase BCITO's strategic understanding of the labour markets it operates in – to explore the underlying causes of skill shortages, evaluate how effectively the training system is working and/or identify strategies to address skills-related issues. It would also have the benefit of ensuring that BCITO's STPs are well grounded and therefore more likely to be owned by industry, especially as the existing research that BCITO has commissioned has essentially been “desk-bound”. It would consist of qualitative research (focus groups and/or depth interviews) with stakeholders such as employers, apprentices and training providers
- *Additional desk research (mainly supply-side).* The main purpose of this is to supplement the existing BRANZ research to better understand the characteristics of the existing workforce in the construction industry, and training provision in the industry. Desk research is a relatively quick and cost-effective solution, and we know that there is a range of research and data available that could “plug the gaps”.

In Appendix C we outline various research methods and their relevance to skills and labour market research.

Table 3 Additional research required

STP heading	Additional research	Rationale for inclusion	Method
Industry overview	Supply chain	Will enable BCITO to "profile" the industry in terms of strategic relevance to the economy. Will show linkages between BCITO's coverage and that of other ITOs in related industries	Desk research
	Industry/occupation matrix	Useful for determining how industry-specific are occupations, and for linkages with other ITOs	
Current & future skill needs	Context – labour market issues that affect all industries	Many of the skill strategies that BCITO develops to meet industry skill needs will depend on general labour market conditions	Stakeholder research and/or desk research
	Qualifications of existing workforce	Can be useful for identifying skill gaps	
	Types of skill required	Important for formulating training strategies	
	Training activity by provider type - enrolments, completions, regional take-up of training relative to employment	Important in evaluating the effectiveness of the training system, and possible areas of over or under-supply. This could be used by TEC in its assessment of strategic relevance of programmes, as well as influencing tertiary education providers	
	Demographic structure of the industry – age, gender, ethnicity	This is important in terms of identifying under-represented groups and developing effective promotional strategies for the industry	
	Matching demand and supply – skill shortages	Important to understand the causes of skill shortages to formulate effective strategies	
Issues for training	Effectiveness of training system	Crucial to understand how well the current training system is working and potential improvements	Stakeholder research and/or desk research
Key result areas	Strategies to address industry skill needs	Important to understand the broad range of strategies available, and the specific role of training	

Source: NZIER

6.3 Conclusion

Any research that BCITO undertakes will need to build on the platform of existing research, by interpreting the findings. It also needs to increase BCITO's strategic understanding of the labour markets it operates in. We therefore recommend that BCITO considers conducting some stakeholder research to ensure that its STPs are well grounded and owned by industry.

7. Recommendations

7.1 Strategic training plan

We recommend that BCITO:

- Adopts the “research/consultation” method of developing its STP, and determines the number and type (workshop or written feedback) of stakeholder consultation phases required
- Develops one STP for the entire construction industry
- Considers linkages/joint approaches for the development of its STP with those of other construction-related ITOs
- Applies a strategic as opposed to an operational emphasis to its STP
- Demonstrates the linkages and congruence between its STP and:
 - TES and STEP
 - Its other accountability documents (Charter and Profile)
 - The STPs of other ITOs
- Determines the scope of its STP in terms of:
 - BCITO’s role in the labour market
 - Time horizon
 - Industry coverage
 - Regional coverage
 - Training coverage.

7.2 Research to support the STP

We recommend that BCITO:

- Determines the scope of its research requirements by:
 - Considering the issues of STP scope identified above
 - Reviewing the data “wish list”/gap analysis developed by NZIER
- Considers commissioning stakeholder research to increase its strategic understanding of the labour markets it operates in
- Considers commissioning additional desk research to supplement its existing research with further (supply-side) analysis
- Considers commissioning a discussion document which draws together the various existing and additional research and forms the basis of the STP.

8. Implementation considerations

This section considers some of the implementation issues of the recommendations we made in the previous section.

8.1 Overview

Table 4 below identifies the key activities, roles and timelines, assuming that BCITO wishes NZIER to assist it with the development of the stakeholder discussion document.

Table 4 Implementation of STP and associated research

What	Who	When	Deliverable	
Complete phase one scoping document	NZIER	Oct 05	This document	
Review recommendations, determine scope and method of developing STP & discussion document, decide on research requirements	BCITO	Nov 05	Decisions on way forward	
Develop "industry overview" & "current & future skill needs" sections of STP via desk research	NZIER/ BCITO	Dec 05/ Jan 06	Report. Partially complete draft discussion document ¹	
Identify "issues for training" and "key result areas" ² sections through...	...desk research and workshop with BCITO mgt team/Board <i>and/or</i>	NZIER/ BCITO	Report. Completed draft discussion document	
	...stakeholder research <i>and/or</i>	NZIER		Feb/Mar 06
	...stakeholder consultation ³ (workshop or written feedback)	NZIER/ BCITO		Feb/Mar 06
Circulate (1 st or 2 nd) discussion document to stakeholders and obtain written feedback	BCITO	Apr 06/ May 06 ⁴	Finalised discussion document endorsed by stakeholders	
Develop more detailed strategies and operational plans if required	BCITO	Jun 06	Draft STP	

Notes: (1) The discussion document may be circulated to stakeholders at this stage if two phases of stakeholder consultation are required

(2) High level objectives & strategies

(3) Assumes two stages of stakeholder consultation are undertaken

(4) These timelines may be earlier if the "issues for training" and "key result areas" are identified by desk research and a workshop with BCITO mgt team/Board

Source: NZIER

It should be noted that:

- Overall, we have assumed that the “research/consultation” (as opposed to the “human capability group”) approach for developing an STP is adopted. We believe this former approach is likely to be more relevant to BCITO, and has the additional benefit of being less time consuming than the latter
- It would be challenging to accommodate a pan-ITO approach to developing an STP (ie collaborative venture with all construction-related ITOs) in the suggested timelines
- We believe that the STP needs to be “owned” by BCITO, and its development led by BCITO’s Board and management team. Therefore the identification of key result areas for the STP (ie high level objectives and strategies), as well as the more operational aspects, require some input in addition to NZIER undertaking desk research. At a bare minimum they should be based on a workshop with BCITO’s management team/Board. Alternatively, they could be achieved via stakeholder research or stakeholder consultation. In the latter case, this would ultimately result in two stages of stakeholder consultation.

8.2 Roles

Clearly it would be important for NZIER to work closely with BCITO to discuss in detail their respective roles. However, at this stage we envisage that the key roles would be as follows.

NZIER:

- Conduct desk research
- Conduct stakeholder research, if required
- Facilitate workshop with BCITO management team/Board, if required
- Facilitate stakeholder workshop, if required
- Draft discussion document(s), including high level objectives and strategies.

BCITO

- Review NZIER’s recommendations (ie this scoping report), determine scope and method of developing STP and discussion document, decide on research requirements
- Develop and administer stakeholder consultation strategy – circulate the discussion document to stakeholders, review and respond to stakeholder submissions
- Draft final STP, including detailed operational plans if required.

8.3 Costs

The anticipated costs, based on NZIER undertaking the roles identified in the previous section, are as follows.

8.3.1 Stakeholder research

The cost of conducting stakeholder research (focus groups and/or depth interviews with employers, apprentices and training providers) to explore the underlying causes of skill shortages, evaluate how effectively the training system is working and/or identify strategies to address skills-related issues is in the range of \$30,000-\$40,000 excluding GST. The exact costing within this range would depend on the scope and coverage of the research, which we would discuss with BCITO in more detail if this project is of interest.

This costing excludes incidentals and project administration (ie setting up the interviews).

8.3.2 Desk research/develop discussion document

The cost for conducting desk research and developing a discussion document which would form the basis of BCITO's STP is in the range of \$20,000 to \$25,000 excluding GST. The exact costing within this range depends on what data BCITO requires from the (available) data identified in the data "wish list" in the appendix.

It includes obtaining data via customised data requests from TEC, Statistics New Zealand etc, including the data acquisition costs for those requests which incur a charge.

However, it does not include the cost of preparing for or facilitating a workshop, either with BCITO's management team/Board or with a wider group of stakeholders. We anticipate this would add an additional \$2,000 excluding GST to the project cost.

Appendix A Selected strategic training plans

Table 5 Analysis of selected strategic training plans

Criteria	STP for the Retail Meat Industry Training Organisation 2004-2008	Building and Construction Workforce 2006 Strategic Initiatives (2002 Update)	2004-2005 Training Plan	The National Automotive Industry Strategic Training Plan 2002-2005	Strategic Training Plan 2002-2003
Author/organisation	RMITO (NZ)	Construction Training Australia	Building & Construction Industry Training Fund (Queensland)	Automotive Training Australia	Seafood Training Australia
Date published	2003	2002	2004	2002	n/k
No of pages	16	67 (only 6-page executive summary reviewed)	19	33	41
Time horizon	Five years	Five years	Two years	Four years	Two years
Vision/mission statement	Yes	Yes	No	Yes	Mission only

Overview of key features	Identifies five key goals. For each goal, the issues (external environmental factors), outcomes, milestones and actions are identified	Majority of the report appears to be focused on the external environment – construction industry workforce, industry & employment forecast, training profile, migration. Also contains a “Factors affecting skill development” section which appears to be more operational/training oriented	Identifies seven operational “programs”. For each one, objectives, outcomes and strategies are identified. Includes a limited environmental scan	Identifies five key result areas. For each one, the current situation, objectives, critical success factors, key strategies and KPIs are identified. Also includes a reasonably comprehensive industry overview section, plus a section which considers links with operational plan and the accountability framework	Report split between two broad areas. The first covers industry background, directions for training, issues for training & skill shortages. The second identifies five key result areas and for each one, objectives, how they will be achieved and performance measures
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Notes: (1) The first three of the five documents analysed were provided to NZIER by BCITO. The remaining two (which do not relate to the building and construction industry but are analysed for comparison purposes) were identified by NZIER

Source: NZIER

Appendix B Data wish list & gaps

Table 6 Data wish list & gaps for research to support BCITO's STP

Question	Data	Underlying data source	Availability	Comment
Where does the construction industry fit in?	Industry supply chain & links with other industries	N/a ¹	General lit review ²	
	Industry/occupation matrix	SNZ ³ Census	SNZ website	
What contextual issues affect skills and training across all industries?	General labour market issues (ageing population, migration etc)	SNZ, OECD etc	NZIER report for ITF	Available Dec 05
What is the demand for labour (ie derived from the demand for buildings)?	Time series of residential/non-residential building fixed capital formation	Value of Building Work Put in Place (historic) and BRANZ forecasts	BRANZ reports	
	Legislation & regulation changes in construction industry	N/a	General lit review	
	Time series of numbers employed (by sub-industry)	SNZ Business Frame (historic) and BRANZ forecasts	BRANZ reports	
What types of skill are needed?	Qualifications held by existing workforce	Census	SNZ	Would require sdr ⁴
	Impact of changes to licensing regime	N/a	General lit review	
	Skill types (foundation, generic, technical)			

What attracts people to enter the industry?	Motivational factors	N/a	General lit review	
What is the flow of labour (flows into and out of the workforce) in the industry?	Training activity (enrolments, completions, regional take-up relative to employment)	BCITO, TEC, MoE, NZQA	BCITO, TEC, MoE, NZQA	Would require sdr
	Migration flows	SNZ Migration (historic) and BRANZ forecasts	BRANZ reports	Would require sdr
	Retirements	SNZ Census (historic) and BRANZ forecasts	BRANZ reports	
	Movements to/from other industries/occupations (wastage)	N/a	General lit review	Unlikely to be available
What is the demographic structure of the current workforce in the industry?	Numbers employed by age, gender ethnicity and region	SNZ Census	SNZ	Would require sdr
What is the relative wage rates/ working conditions in the industry?	Average hourly rate	SNZ Labour Cost Index, DoL SERA	SNZ Website, DoL Skill Shortage reports	
	Conditions (H&S etc)	N/a	General lit review	
What evidence is there of mismatches between demand and supply? What are the underlying causes of skill shortages?	Vacancy rates	DoL Vacancy Monitor, DoL Skill Shortages reports	DoL website General lit review or qualitative stakeholder research	

How effectively is the training system as a whole meeting the industry's skill needs?	N/a	N/a	General lit review or qualitative stakeholder research	
What strategies are required to meet current and future skill needs?	N/a	N/a	General lit review or qualitative stakeholder research	

- Notes: (1) N/a = not applicable
 (2) Includes the literature that BCITO has provided NZIER
 (3) SNZ = Statistics New Zealand
 (4) SDR = special data request (ie incurs a charge)

Source: NZIER

Appendix C Types of research

There are two broad types of research - primary research (which involves some original data and information gathering) and secondary research (which uses existing available research and data). The main techniques, and their relevance to skills-related research, are briefly outlined below.

It is worth noting that typically, a research programme would start off with some secondary research, followed by primary research - usually a qualitative phase and then a quantitative phase.

C.1 Desk research

This is a form of secondary research, and involves investigating what data/research already exists in the area of interest. It avoids "reinventing the wheel" and is relatively quick and inexpensive. It is therefore generally useful to start off a research programme with desk research, to avoid embarking on (costly) primary research if information already exists. However, the down side of desk research is that the research/data found may not exactly meet the needs of the project, and it may be out of date.

In relation to skills and labour market research, there is a wealth of information available, including that from official data sources such as Statistics New Zealand, TEC, Department of Labour. Some of this is available free of charge on the internet, but in other cases a customised data request may be required - see 0. The benefit of using official data is that it is widely recognised, regularly updated and allows some comparative analysis (for example between an ITO's industries and all industries) to be undertaken.

C.2 Qualitative research

Qualitative research is a form of research where the outputs are usually words as opposed to numbers. However, qualitative research can in some instances broadly indicate volumes/amounts/levels etc.

Primary qualitative research often involves interviewing a limited sample of people, usually face-to-face and using open questions. The main methods used are focus groups and depth interviews. The purpose is to provide detailed feedback on the subject of interest. It is a very useful tool to understand attitudes and opinions, generate and test ideas, diagnose problems and ensure that the subject is fully explored. Because it involves a small sample, the results of qualitative research aren't statistically reliable. In other words, although it is known that some people in the target population hold the views expressed, it cannot be inferred how widely those views are held.

Qualitative research techniques can be used for a variety of purposes in relation to skills research. For example, they can be used to understand the key drivers of skills in the industries covered by an ITO, or to evaluate how effectively the training system is working and what improvements can be made, or to identify strategies to ensure that the industries obtain the skills they need.

C.3 Quantitative research

The output of quantitative research is generally numbers, and it is usually used to measure issues that have been uncovered by desk or qualitative research.

Primary quantitative research usually involves using a structured questionnaire (conducted face-to-face, by phone, internet or by post) consisting mainly of closed questions, with a large statistically reliable sample of people. It is useful for measuring things, for example rating attributes, uncovering differences in opinion amongst different groups of people, identifying regional variations. However, it can be expensive, and, unless there is an ongoing programme of research, only usually provides a "snapshot" at a given point in time. In addition, if a survey is commissioned specifically in relation to the industries relevant to an individual ITO, it is unlikely to provide any comparative analysis with other industries. Plus, if the response rates are low, this will limit the usefulness of research which aims, for example, to measure the size and demographics of various occupations/industries.

A number of quantitative techniques can be used in relation to skills and labour market research. One that is frequently mentioned is "econometric modelling", which essentially means measuring mathematically the relationship between a number of variables. Often this involves identifying a "best fit" line for a time series to try and project historical trends into the future.