

Submission to Productivity Commission

Inquiry into New Models of Tertiary Education

Auckland Construction Skills Alliance



Auckland Construction Industry Partners



May 2016

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*Joint submission from Auckland Construction Skills Alliance
and Auckland Construction Industry Partners*

Summary

This submission, from the Auckland Construction Skills Alliance¹ (“Alliance”) and the Auckland Construction Industry Partners², is a case study of a new approach being currently explored to better connect the Vocation Education and Training (VET) sector to the Auckland construction industry. This new approach uses major projects underway in Auckland as a catalyst for change and draws on similar successful work overseas, adapting it for the Auckland construction environment.

With strong endorsement from leading Auckland construction industry businesses and their supply chains, this new way of working is giving good pointers as to how the VET sector could reorganise itself to better deliver the right skills, in the right place, at the right time to meet industry needs.

A graphical storyboard of the journey toward this new approach is attached as Appendix 1.

1. Clarifying the Problem

A key driver for the VET sector is the Tertiary Education Strategy (2014-2019)³ which sets out the Government’s long-term strategic direction for tertiary education. This outlines six priority areas:

1. Delivering skills for industry
2. Getting at-risk young people into a career
3. Boosting achievement of Maori and Pasifika
4. Improving adult literacy and numeracy
5. Strengthening research-based institutions
6. Growing international linkages

The trigger for the new approach outlined here was the wall of construction work anticipated for Auckland, including new infrastructure, major commercial developments and residential housing. It was clear that this growth could last for quite some time (up to ten years) and would require a considerable expansion in the skilled workforce. The key questions were around the volumes required, the occupations involved, and the timing of when the skills would be needed.

¹ The members of the Auckland Construction Skills Alliance are the two main polytechnics in Auckland (Unitec and MIT) and the four Industry Training Organisations focused on the construction and infrastructure sector (BCITO, Skills Org., Connexis and Competenz).

² The Auckland Construction Industry Partners are Fletcher Building, Hawkins Construction, Dominion Constructors and Naylor Love Construction.

³ <http://www.education.govt.nz/further-education/policies-and-strategies/tertiary-education-strategy/>

Although the skills shortage problem was fairly apparent at a high level, the details at each occupational level were much less clear. To assist with defining the skills supply better, an Alliance was formed between six VET sector providers serving the Auckland construction and infrastructure sector and the creation of a “workforce skills roadmap” was proposed.

This “roadmap” would complement the existing National Construction Pipeline Report by examining the proposed workload for the wider Auckland region in more detail. Skills needed by each key occupational group over the next five to ten years would be highlighted and made publicly available.

The trigger for a Roadmap was the “wall of work” anticipated for Auckland

The construction industry contractors were reporting difficulty finding the right skills for existing work already underway. A Workforce Roadmap Forum was held in May 2013 in Auckland’s SkyCity to gain industry endorsement for this work, and the resulting Roadmap⁴ was completed in mid-2014.

The Roadmap was constructed as a robust, formal statement of the expected demand for skilled workers in each of 62 occupational categories for the known forward work programme across the Auckland construction sector. By comparing the 5-year demand picture in the Roadmap with the current Business-As-Usual (BAU) baseline it was clear that a significant skills gap would exist. The next step was to unpack the Roadmap and decide how the VET sector should respond, practically and quickly.

Other Government initiatives that informed this work were:

- “Building Skilled and Safe Workplaces” (part of the *Business Growth Agenda*⁵)
- “Boosting Skills and Employment” (part of *Delivering Better Public Services*⁶)

2. Designing Practical Responses

2.1 Skills Delivery Plan

With the completion of the Roadmap, the Alliance focused attention onto creating a “Skills Delivery Plan” (SDP) to understand how the VET sector should best respond. An Alliance project working group was set up to develop this Plan.

The SDP confirmed two key challenges facing both construction sector businesses and the VET providers supporting them:

1. Finding skilled labour (*new entrants were not keeping up with construction sector attrition*)
2. Achieving balance across the workforce (*from skilled labourers through to degree level*)

⁴ This is publicly available at www.workforceroadmap.org.nz

⁵ <http://www.mbie.govt.nz/info-services/business/business-growth-agenda>

⁶ <https://www.beehive.govt.nz/feature/better-public-services>

The first challenge is significant, and requires a sustained, collaborative effort across many fronts to show the construction sector as a more attractive career option for young people. Alliance partners are, individually and collectively, involved in many initiatives to try and address this.

The second challenge refers to meeting the skills demand in such a way to allow construction businesses to assemble appropriately balanced crew mixes for their construction activities. If the skills supply only partially fills the needed skill demand at a crew mix level, then the crews could be imbalanced creating practical issues for the contractor. This may have implications for changes being considered in the VET sector, such as potentially directly incentivising the VET sector to help with getting the balance right.

To meet the projected skills demand, new approaches would definitely be needed

An important point also noted was that the VET sector was not “broken” just because it could not respond rapidly to the high levels of growth identified in the Roadmap. The VET sector simply wasn’t designed to do this. Even without these high levels of growth, just responding to the steadily increasing attrition levels in the construction sector (overtaking the Roadmap growth over the same period) would have required attention by itself. The attrition just compounded the problem, as the total skills demand was now the sum of the two (growth *plus* attrition).

The SDP involved considerable behind the scenes work (outlined in Appendix 1: Storyboard, slides 6, 7 and 8) and included additional modelling of workforce attrition for each occupational group over the same period. Results showed the current system was simply not going to meet projected skills demand and new approaches would definitely be needed. To assist the whole supply chain, it was clear that upskilling existing workers was just as important as training new workers.

This Plan was presented to the construction industry partners group for endorsement and included a number of practical initiatives (see Appendix 2) among them the concept of a “Skills Exchange” which had shown to be effective overseas assisting major projects to upskill existing workers.

2.2 Skills Exchange

The Skills Exchange was an initiative first pioneered in the UK at the London Olympics, and successfully applied in Australia, notably at the Barangaroo South Project in Sydney⁷. The focus at Barangaroo was to help rejuvenate the construction sector as a whole, to both boost skills of the existing construction workforce and attract new workers into the sector.

Upskilling existing workers is just as important as training new workers

This approach is currently being applied in a modified form at Auckland Airport. A new initiative called “Ara” (meaning “*pathway*”) has been launched by Auckland International Airport Ltd. (AIAL) to help connect job opportunities in the expanding airport business precinct with the wider South Auckland community. The Alliance is supporting this initiative by supplying a “Skills Exchange” service to lead contractors to

⁷ <https://www.barangaroosouth.com.au/about/discover/people/our-training-hub-for-construction-workers>

help provide a new approach to on-site, on-job training for the existing workforce. Once a new employee is taken on by a construction contracting business, they can access the training on offer.

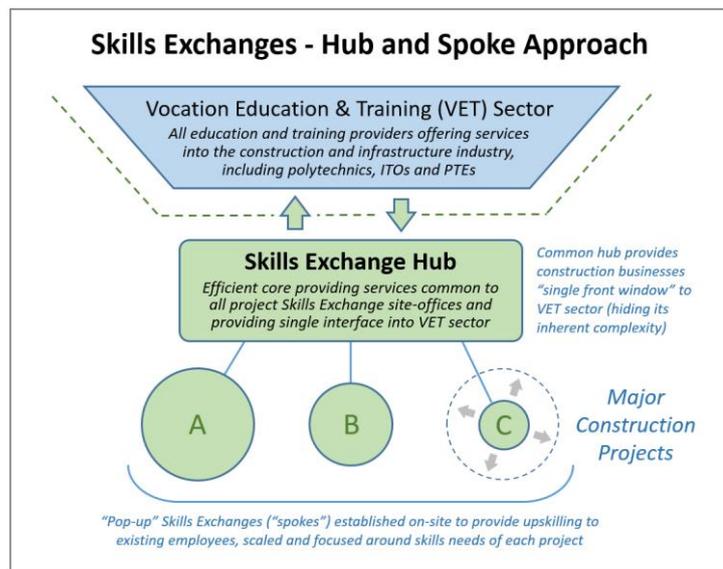
This service is connecting the whole VET sector (including PTEs and other specialised training providers) to the project training needs, not just to the Alliance member organisations.

A “single front window” to provide training services & hide VET sector complexity is very welcome by industry

A companion service called “Skills Connect” is also part of Ara, offering a job matching function for both construction businesses involved the expansion projects, as well as other businesses (such as retail, logistics and hospitality) operating in the airport precinct. Individuals interested in work at Auckland Airport, either in construction or elsewhere, can register with the “Skills Connect” service and be actively matched against requests from employers at the airport.

The construction industry lead contractors are very supportive of this approach. At present, both Fletcher Construction and Hawkins Construction (both members of the skills roadmap group) are supporting the Ara initiative by providing space for the Ara services to operate within the construction compounds making them highly accessible to workers and encouraging their supply chains to use the service.

The focus of the Skills Exchange service onto lifting the skills of current workers is helping construction businesses to make room for new workers to be taken on with appropriate supervision (a key limiting issue to date) and has been described as a “siphon effect” by a senior Fletchers manager. At the airport, Fletchers want to see “everyone working on the project leaving better off”.



At this point, there is no formal contractual requirement for employment and training project outcomes, but this is expected to change. When it does, the Skills Exchange will be a very important support service not just for on-site contractors but for the VET sector to represent itself seamlessly.

Other major projects in Auckland may also benefit in adopting this new approach, and some have expressed interest. Among these are the new NZICC Convention Centre, City Rail Loop, Wynyard Quarter and Tamaki housing redevelopment. This is important, as the usefulness of the approach on projects with scale and duration, coupled with the economies of scale needed to ensure the Skills Exchange service is viable long term, sets the scene for the changes needed within the VET sector to make this new approach “business as usual” for everyone concerned.

A hub and spoke model is being investigated to support rapid scaling up and efficient management of this concept to meet demand for multiple major project support over the foreseeable future. In this model, “pop-up” Skills Exchanges of varying sizes would be established quickly to provide on-site support to construction projects for their duration, ensuring provision of upskilling is focused around the needs of the project as it unfolds. The “hub” would provide common services to ensure the Skills Exchanges functioned effectively. The “spokes” could come as go as required, but the “hub” would remain as an interface to the wider VET sector for construction industry projects and businesses.

3. Systematising the Result

With the Auckland construction sector “skills gap” identified, and new initiatives to help address this underway involving more construction projects, attention is now being given to how to shift the VET sector response from the current “one-off project” reactive mode to a more proactive “whole of system” approach.

The Ministry of Business, Innovation and Employment (MBIE), who were part of the Roadmap supporting contributors group, has agreed to take the Auckland Construction Skills Roadmap under their wing as part of the National Construction Pipeline Report they administer (while still retaining the existing regional data granularity). This will ensure the information is updated regularly and available in a useful form aligned with the national forward construction picture.

The next logical step is for the VET sector to move from “exploration” mode to “embedded” mode, to take what is working and valued by industry and make it business as usual (part of people’s day jobs within the VET sector). This sounds simple, but the current system is designed to deliver qualifications quickly and efficiently but not necessarily in a way that is aligned to what industry needs in all cases.

VET sector needs to adopt a “whole of system” response, embedding this new approach into people’s day jobs

3.1 Skills Exchange

The Roadmap identifies the skill volumes needed for each occupation using the ANZSCO classification system⁸. A significant problem encountered during the creation of the SDP was the complexity of matching ANZSCO skills levels up to existing NZ qualifications. The complexity arose for two reasons:

1. The one-to-many relationship between qualifications and skills (one qualification can apply in multiple occupational areas)
2. Employees in part time study (or students leaving full time study part way through to take up a job) and not completing the qualification once the needed skills were obtained on the job.

⁸ The ANZSCO occupational classification system is widely used by industry with five levels roughly equating to qualifications as follows:

Level 1: Bachelors degree or equivalent experience
Level 2: NZ Register Diploma or similar
Level 3: NZ Register Level 4 qualification or similar
Level 4: NZ Register Level 2 or 3 qualification or similar
Level 5: NZ Register Level 1 qualification or similar

This latter case is clearly a “success” (a skilled employee is now in the workforce with the right skills) but is recorded as a “failure to complete” within the VET system.

This arises in part because education focuses on the delivery of qualifications (which are seen as a proxy for skills) whereas industry focuses on the skills themselves. This is why the Roadmap used the ANZSCO system over the NZSCED system⁹, as the former recognises both the qualification level as well as the equivalent skills and experience this represents in practice.

3.2 Repackaging Learning

This prime focus on skills is important and may be useful in informing changes to the VET system. It suggests a more flexible approach might be needed to obtaining qualifications than is currently the case, where learning and competency credits can possibly be earned in smaller amounts, in a different order and over a longer period if necessary matched to real life on-job opportunities as these arise.

This new approach is being explored worldwide at present under names such as “stackable credentials”, “micro-credentialing” and “badging”.

Ironically, industry refer to this as “industry training” where these small lumps of learning are gained as and when needed. Since industry appears to really value the speed with which the required skills can be delivered when needed, this would suggest more of a focus onto on-job learning of these skills around the known work ahead, even

if this means it may take longer to get the target qualification. The current success measures and funding mechanisms for the VET providers are focused primarily on obtaining qualifications as the priority, so increased flexibility here may be desirable.

A new approach is being explored worldwide under names such as “stackable credentials” and “badging”

Another important factor is ensuring that all relevant work experience earns credits towards an appropriate qualification and that these credits are robustly quality assured and recorded.

3.3 Incentivising Collaboration

The Alliance is testing a new “single skills provision” interface to the VET system for the construction sector in Auckland. The current system does not directly incentivise collaborative behaviour between VET sector players, although generally it is supported and welcomed when it happens. Funding provision to assist with collaborative activity is the exception rather than the rule, and this may need to be addressed.

The VET sector could be strengthened by introducing stronger incentives to focus on delivering the skill needs of industry through collaborative means in addition to existing competitive means, where the former is appropriate. The Skills Exchange approach is an example of where the collaboration is both effective and practical, but is not currently directly incentivised.

⁹ https://www.educationcounts.govt.nz/data-services/collecting-information/code-sets-and-classifications/new_zealand_standard_classification_of_education_nzsced

3.4 Incentivising Skills Development via Procurement

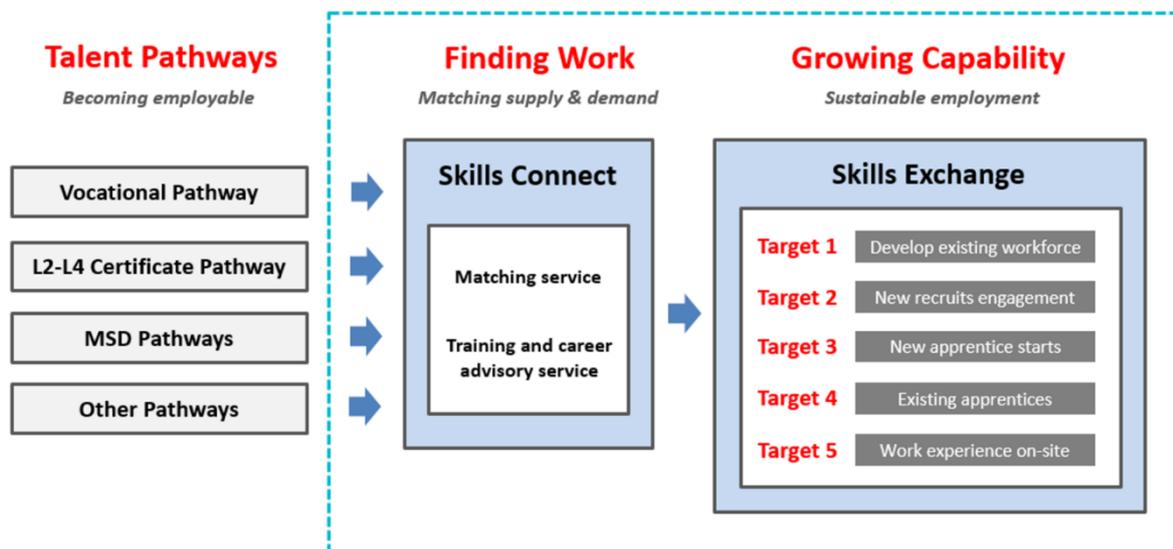
Another emerging trend around the world at present is the move to procure local employment and training outcomes in major construction contracts. This is the case at Barangaroo in Sydney, and is being looked at by several other major projects in Auckland currently. This is a significant advancement and promises to help level the playing field during the tendering process.

An important driver is the procurement of employment and training outcomes via major construction contracts

Target expectations can be signalled early during the ECI (pre-tendering) phase of the project to ensure all tenderers understand the project’s employment and training objectives and submit how they intend to support these. Although they vary by project need and opportunities available, typical target areas include:

1. Existing employees upskilled
2. New recruits engaged
3. New apprentice starts
4. Existing apprentices advanced
5. Work experience provided on-site

As such project-focused procurement increases, it will provide tangible alignment between the construction industry and VET sectors around which sustained new training initiatives can be developed and embedded. (See Appendix 1: Storyboard, slides 11 and 12).



Overseas experience in this area is being followed closely to see how new ideas and practical approaches can be quickly adapted for the New Zealand construction scene. Initiatives already underway in New Zealand are likely to become an increasingly important factor in establishing the closer links between the VET sector and construction businesses that are needed to help ensure the right skills are provided in the right place at the right time.

4. Key Messages and Challenges

Key Messages:

- Construction industry leadership is essential, but VET will need to assist ongoing
- VET sector is not “broken”, but has not been designed for a fast skills delivery response
- High value collaborative outcomes require a whole-of-system response
- Single “front window” to hide complexity for VET sector very welcome by industry
- Faster ways to get required skills are needed, even if getting qualifications takes longer
- Funding to assist with collaborative activity is currently the exception rather than the rule
- All relevant on job experience should be credit bearing towards an appropriate qualification
- Collaboration across VET providers to delivery right skills consistently should be incentivised

The right skills, in the right place, at the right time

Key Challenges:

- Ensuring sustained and meaningful industry-led engagement (construction industry acknowledges it is fragmented and this is difficult for them to achieve without help)
- Incentivising collaborative behaviour among all VET providers
- Current funding model incentivises competitive not collaborative behaviour
- Need to clearly distinguish between any new operating mode for the VET sector, and the *transitioning* into this new operating mode

Appendices

Appendix 1 – Storyboard: “*The Journey So Far*”

Appendix 2 – Skills Delivery Plan – Key initiatives

Appendix 3 – Skills Exchange – Key enablers for success

Appendix 4 – How Skills Exchange and Skills Connect services can support major projects

Appendix 1: STORYBOARD: “The Journey So Far”

1. Starting Point – Presentation to Construction Skills Summit (Nov 30, 2012)

MIT & Unitec jointly presented on work underway to develop a more aligned engineering and trades curriculum for the wider Auckland region. This work recognised the following key documents as inputs:



Tertiary Education Strategy: Relevant and efficient tertiary provision, with tertiary providers working closely with industry

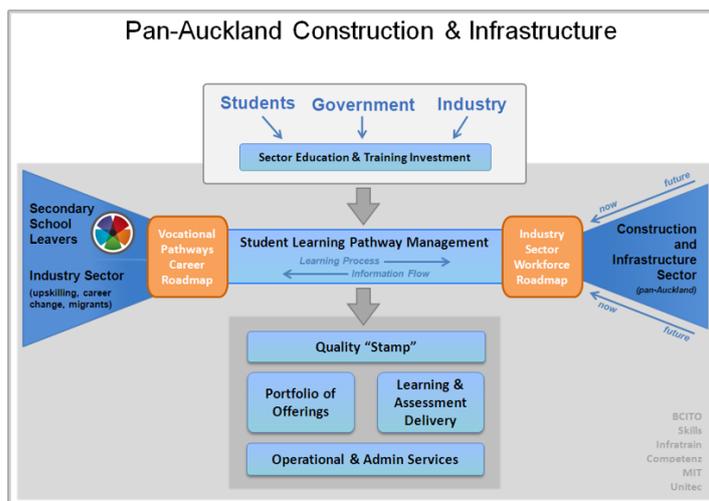
Built Environment Skills Strategy: Fragmentation to Collaboration thrust; goal of “20% increase in productivity by 2020”

Building Skilled & Safe Workplaces: More productive & innovation workforce with embedded workplace safety

Delivering Better Public Services: Increase % 18yr olds at NCEA L2 or higher, increase % of 25-34yr old at L4 and above

2. Strategy – Key high level strategy for Auckland Construction Industry

In essence, the skills demand and the skills supply needed to be better aligned for the “wall of work” approaching Auckland’s construction industry. The alignment needed to use the upcoming needs of the construction sector as a reference, which suggested a formal “skills roadmap” was required.



For this to succeed, the following steps were identified:

1. Establish the actual skills demand via a sector roadmap (with industry mandate)
2. Ensure all participants in skills supply align their resources to deliver the roadmap
3. Incentivise collaborative “collective impact model” approach and outcomes

3. Getting an Industry Mandate – Workforce Roadmap Forum (May 22, 2013)

The investment of time and focus by education providers would be considerable, so it was essential that both the construction industry and the relevant government departments supported this initiative. The purpose of the Workforce Roadmap Forum was to gain this “in principle” support before proceeding.



Industry Sponsor Group

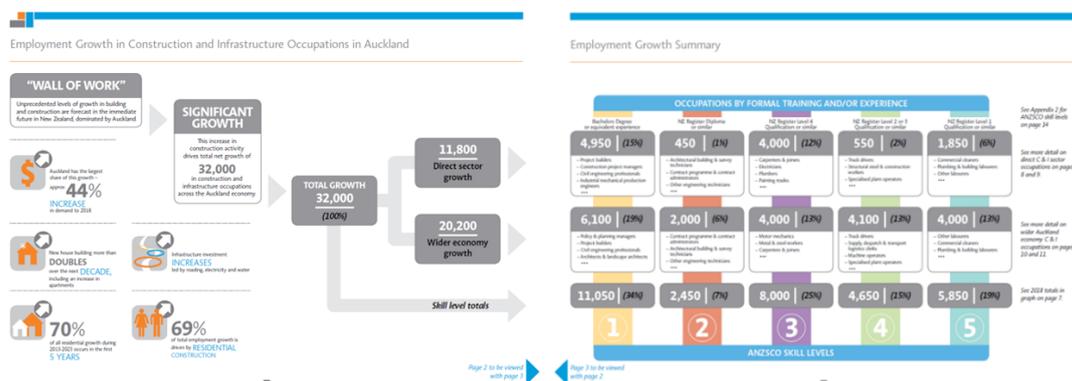


Supporting Contributors



4. Workforce Skills Roadmap – Method and Results (1)

The “wall of work” for Auckland was broken down into its major components and these were modelled within the Auckland Economic Futures framework over the next five years to identify the growth in skills needed at different levels:

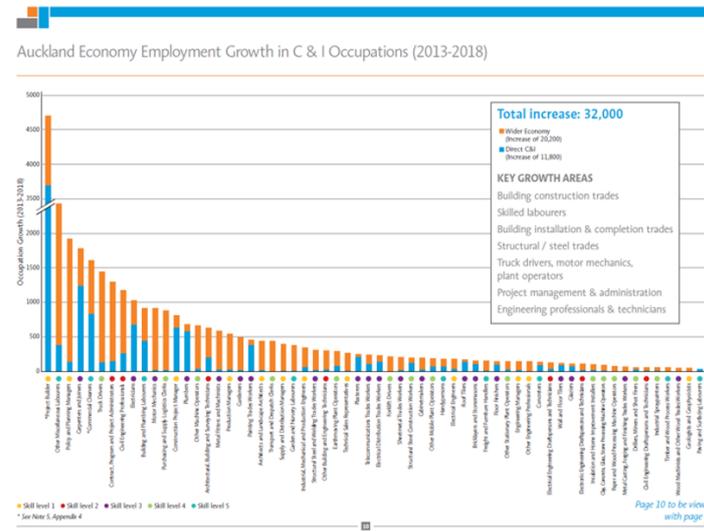


The results were summarised and made available publicly at www.workforceroadmap.org.nz

It showed that a balanced approach was needed over all ANZSCO Skill categories 1-5. Level 1 (Degree or equivalent) made up one third of the new skills required, with Level 2 & 3 (Diploma and Certificate) making up another third. Skilled technical and labourer roles made up the remaining third (Levels 4 & 5).

5. Workforce Skills Roadmap – Method and Results (2)

Growth was identified for each of 62 main occupations in the construction sector, and showed 12,000 new roles would be required directly by the Auckland construction sector (shown in blue below) with a further 20,000 required in the wider economy supporting the construction sector (shown in orange).

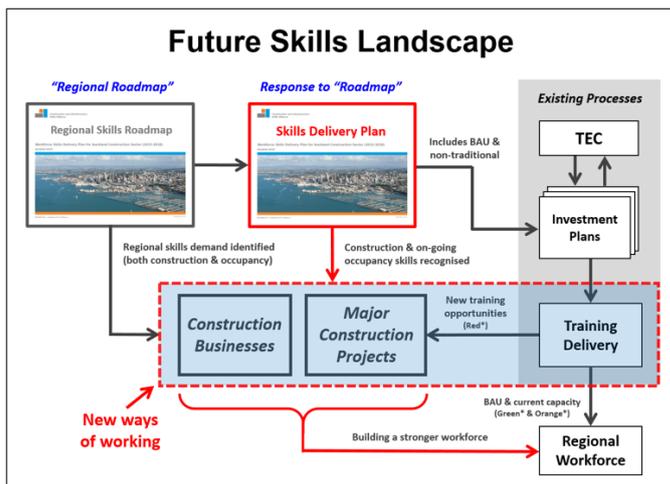


One key insight from this work was that if the construction industry had perfect knowledge of their forward requirements and could have provided this, this would have only have provided the blue (direct sector) growth on the detailed roadmap on the left.

The larger orange component (wider sector support growth needed) could only be discovered through this type of sector growth modelling.

6. Skills Delivery Plan – Alliance partners response to Roadmap

The Auckland Construction Skills Alliance partners proposed a new approach to align their response to the Roadmap. This was documented in a “Skills Delivery Plan” and presented to the Industry Sponsor Group for their endorsement. This plan sat within a more joined up view of the future skills landscape:

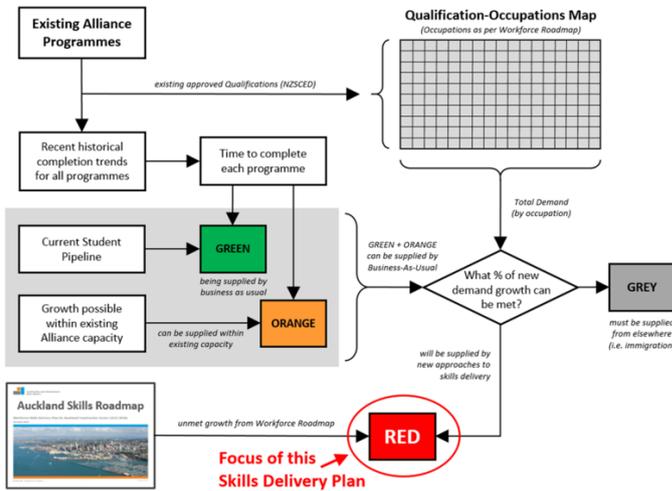


To ensure that responses could be deployed as fast as possible, no change to the proposed educational system was assumed (at least initially). The Roadmap and Skills Delivery Plan would better inform the “mix of provision” in the existing investment planning processes.

This would be complemented with new direct on-site training in major projects, which was proving very effective overseas.

7. Skills Delivery Plan – Overview of the SDP creation process

The SDP adopted a “traffic light” approach: **Green** for “Business-as-usual”, **Orange** for “could be supplied within existing capacity if resources permitted” and **Red** for “requires new ways of working” to respond. The main focus of the SDP was on the **Red** area, responding directly to the new growth in the Roadmap.



The biggest hurdle to overcome was mapping qualifications to occupations. This sounds straightforward, but it was not for two key reasons:

1. The one-to-many relationship between qualifications and skills (one qualification can apply in multiple occupational areas)
2. Employees in part time study (or students leaving full time study part way through to take up a job) and then not completing the qualification once the needed skills were obtained on the job.

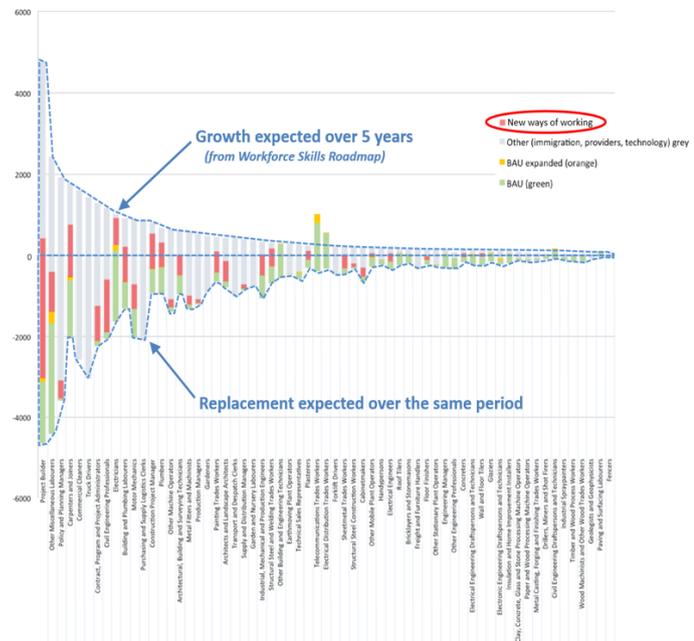
8. Skills Delivery Plan – Attrition over the Roadmap growth period (5 years)

The expected attrition was also modelled during the preparation of the SDP.

This showed that while the anticipated Roadmap growth of 32,000 was very significant, the expected attrition through retirement, career changes, and other factors over the same period (5 years) was even higher (around 55,000).

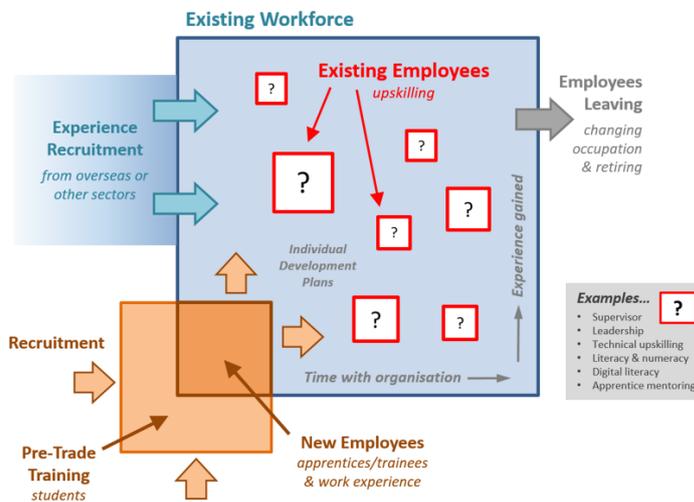
The VET sector was really designed to supply the replacement for the sector on average under normal conditions, not the high growth being experienced. However, it was clear that attrition was predicted to be higher than historical as well, compounding the problem.

New approaches to skills delivery were clearly no longer discretionary!



9. Upskilling Existing Employees – Making room for new employees

The key issue was how to deliver the skills industry needed, and this shifted the focus onto all employees, existing as well as new. Employers had identified that upskilling existing workers was a priority to provide the capability to grow their businesses and take on new workers.



This approach was tested with key industry associations and peak bodies to confirm the areas for which upskilling would be most beneficial.

Technical skills, front line supervisory skills, and support with language, numeracy and digital literacy were all highlighted.

Recognition of existing competencies and experience in the existing workforce was another important consideration.

10. Overseas Experience – Barangaroo, Sydney, Australia

The Barangaroo South commercial development project in Sydney drew on earlier work during the UK Olympics to introduce a “Skills Exchange” concept to upskill on-site construction workers. The project set a target of having at least 20% of all construction work done by employees in training of some form.



The benefits of this approach became rapidly evident:

1. Training lifted on-site skills
2. Improved skills resulted in less rework and downtime
3. Less rework and downtime significantly improved productivity

4. Conclusion:
Compelling project ROI for on-site training which will then flow back into the wider construction industry.

This approach is becoming the new norm in projects with scale and duration.

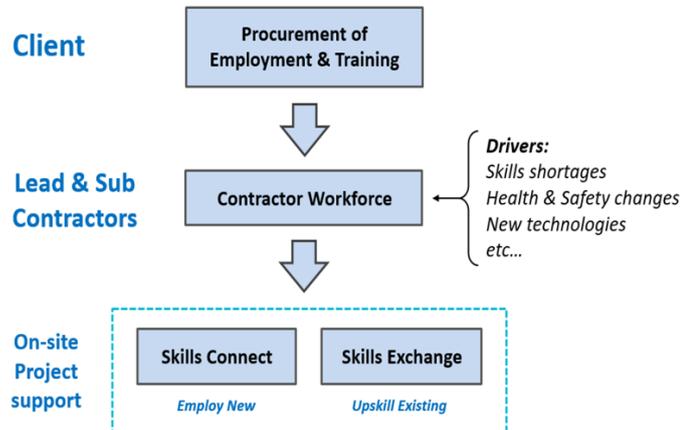
11. Adapting the “Skills Exchange” approach for Auckland

The clear advantages of better supported on-site training with construction major projects at their core raised two important questions:

- (1) Would it work just as well if scaled down to smaller projects? and
- (2) Could it be successfully transferred to the NZ construction scene?

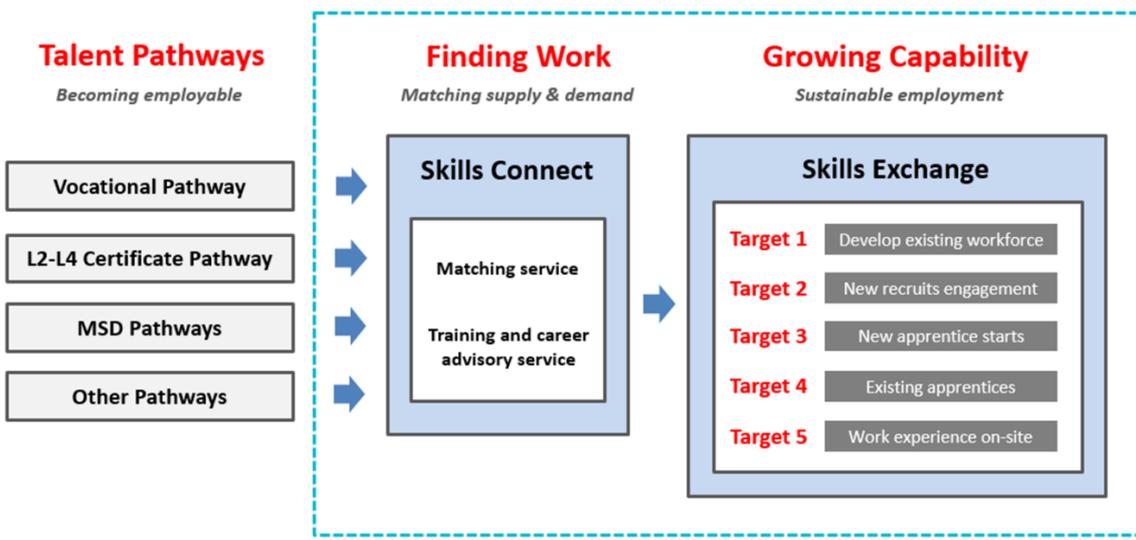
A key factor in the successful implementation of this approach is the procurement of employment and training outcomes early on during the major project tendering process, and a willingness of the whole construction supply chain to support this.

This is being implemented at Auckland International Airport as part of their major expansion project currently underway. A new initiative called Ara is providing recruitment and upskilling services directly on-site within the contractors construction compound.



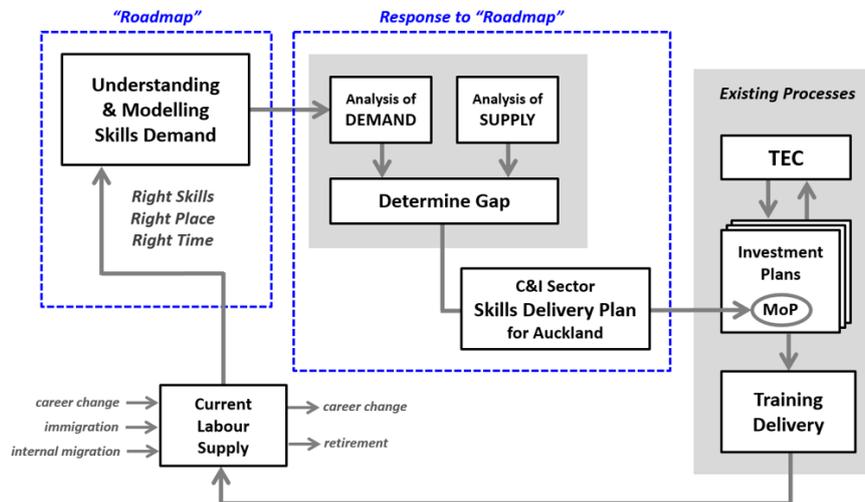
12. Line of Sight to Employment – Targeting pathways to needed skills

With the Skills Roadmap as a guide, this approach has generated new insight into how a more connected up system could deliver more targeted skills for the construction industry. In principle, this approach could also be applied in other sectors. Although details may differ, the same principles should still apply.



13. Closing the Loop – Assisting the whole system to be more responsive

One important function of the Skills Delivery Plan (SDP) was to generate greater visibility in the connection between the analysis of the Demand-Supply “gap” and the existing tertiary education system mechanisms to fund the agreed “mix of provision” (MoP) that the VET providers are contracted to deliver.



A New Way of Working

Projects where “everyone leaves better off”



Appendix 2: Skills Delivery Plan – Collaborative Initiatives

A series of collaborative initiatives were identified by the Auckland Construction Skills Alliance in the creation of the Skills Delivery Plan. These included:

- Developing a pan-Auckland curriculum for construction and engineering trades
- Establishing specialised new pan-Auckland industry advisory groups for trades
- Managing transition of students into employment at any suitable point in their pre-employment training
- Better aligning off-job learning components to fully complement actual on-job experience
- Managing all on-site work experience to be credit bearing towards an appropriate qualification
- Improving the achievement of Maori & Pasifika learners through collaborative trades trading programmes
- Assisting Construction Employability Passport initiatives by getting students endorsed early
- Aligning promotional and recruitment initiatives to attract young people into the C&I sector
- Supporting current sector-based initiatives to secure training and employment outcomes in construction contracts
- Exploring the introduction of a *Skills Exchange* approach for major projects in the Auckland region (this approach had proven successful overseas)

Some of these were already underway but now needed accelerating.

The following constraints and shared strategies were also identified during the creation of the Skills Delivery Plan (SDP):

Current Constraints	Shared strategies to manage constraints
Attraction of new recruits to C&I sector	<p>Increasing active pipeline of new recruits to achieve and then sustain apprenticeship and training saturation levels</p> <p>Partnering with responsive pipelines of new recruits that can provide ongoing supply of apprentices and new workers available when required by contractors</p> <p>Improving the “work readiness” of new recruits through managed credit-bearing work experience</p>
Industry saturation levels reached	<p>Maintaining safe and sustainable onsite ratios of <i>New-to-Experienced</i> workers in all businesses in the sector and on major projects</p> <p>Supporting further onsite contractors to recruit apprentices</p>
Maintaining quality training outcomes during growth using new approaches to training delivery	<p>Balancing training quality against quantity by developing appropriate individual develop plans for each trainee.</p> <p>Improving completions and learner progress for selected C&I qualifications without compromising quality.</p>
Specialisation vs broad-based skills	<p>Working collaboratively with industry to arrange and deliver components of qualifications/training as determined by a project enabling industry access to the skills they need at the right time.</p>
Lack of established mechanisms to manage collaborative responses	<p>Addressing existing funding rules to ensure appropriate flexibility for proposed new skills landscape</p>

Appendix 3: Skills Exchange – Key Enablers for Success

The Skills Exchange approach is a key part of the Alliance Skills Delivery Plan to directly support the construction growth underway in the Auckland region, aligned with the Tertiary Education Strategy's number one objective: *Deliver Skills for Industry*.

There are **three key enablers** that have been identified to help ensure the success of this first Skills Exchange at Auckland Airport can be subsequently scaled up into an ongoing Skills Exchange network across the region. These are:

1. Procurement of training via major construction contracts coupled with a strong commitment to ensure obligations in the contracts are supported and met by all subcontractors. (Central and local government can provide leadership as construction clients)
2. A transparent and independent mechanism to ensure “best-of-class” skills training provision, including Just-In-Time (JIT) skills training, is aligned to the needs of the project and the workforce development needs of the contractors.
3. A flexible funding model to support enhanced workplace competencies, including Just-In-Time (JIT) skills training delivery as an expected integral part of all major C&I projects.

Key requirements for success include:

- **A clear picture of demand** (addressed through the creation of the regional skills roadmap, and being further addressed for work at Auckland Airport with the creation of a specific project level roadmap currently underway)
- **A supply of new talent** into the sector (an issue that has been widely recognised and is being addressed by this project through coordinating with Skills Connect and via other initiatives such as the “Got A Trade” campaign)
- **A more responsive tertiary education sector** (being addressed by the Alliance partners transparently opening up this new space on behalf of all tertiary providers)
- **Active industry-led engagement** by the C&I sector, including aligning their current training and mentoring initiatives with the Skills Exchange model
- **Active support from clients and contractors** through negotiated employment and training outcomes as part of contract procurement.

Appendix 4: How Skills Exchange & Skills Connect services can support major projects

