

Lessons learned from one of New Zealand's most challenging civil engineering projects: rebuilding the earthquake damaged pipes, roads, bridges and retaining walls in the city of Christchurch 2011 - 2016.

## Developing a Civil Trade Certification

**Story:** Developing a Civil Trade Certification

**Theme:** People and Culture

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A document which describes the process that SCIRT took to work with industry organisations to develop a civil trade qualification.

This document has been provided as an example of a tool that might be useful for other organisations undertaking complex disaster recovery or infrastructure rebuild programmes.

For more information about this document, visit [www.scirtlearninglegacy.org.nz](http://www.scirtlearninglegacy.org.nz)



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## Developing a Civil Trade Certification

SCIRT's Training Centre worked closely with Civil Contractors New Zealand, Connexis (the Industry Training Organisation (ITO) for the civil infrastructure industry) and other industry leaders to develop a Civil Trade Certification.



At the time of the Canterbury earthquakes, workers in the New Zealand civil infrastructure industry did not have an industry-wide, transferable trade qualification, unlike the plumbing, building and electrical industries. This was because the industry by nature is exceptionally diverse, ranging from road surface construction to pipe installation and maintenance, which meant no “one voice of industry” was in existence. When Industry Training Organisations (ITOs) approached companies about what their qualification needs were there was no consensus. Some companies said they needed a civil trade certificate to teach people to build roads, whereas others said a skilled labourer needs to know how to build structures and work with structural steel.

With up to 1,000 operational team members involved in rebuilding the whole spectrum of Christchurch's infrastructure (structures, roads and underground pipes), SCIRT became this voice of industry - not just because of its large workforce, but because it represented five major companies and subcontractors from all over New Zealand, here for the rebuild. SCIRT's Board recognised this, and by mid-2013 they were talking about how this presented a unique opportunity to do something meaningful. They discussed how developing a civil trade qualification

“with mana” (with credibility) would also help to deliver on SCIRT's Alliance Objective of “purposefully lifting the capability of the sector wide workforce”.

The Board understood a trade qualification could fundamentally alter the way the industry operated – typically, on a civil construction site, the only formally qualified individuals were the managers and the engineers signing off the work. The creation and embedding of a trades regime into the industry could flip this on its head – it could see certified site tradespeople taking ownership, as workers would be qualified to work to required standards unsupervised. It also would improve how civil infrastructure was perceived as a career option. Civil Construction workers would be more respected by wider industry, and would be empowered by having a recognised and transferrable trade certification behind them.

SCIRT's Training Team, realising they only had a limited timeframe in which to complete this task, intentionally decided to focus on two key things: the first was to improve the quality of the NZQA civil infrastructure training framework (via its relationship with InfraTrain, later to become Connexis), and the second was to support the development of a formal civil trade body which could certify individuals as tradespeople.

**“Purposefully lifting the capability of the sector wide workforce”**

- SCIRT Alliance Objective

To start the ball rolling, in late 2013 SCIRT's HR and Training and Peak Performance Managers attended a series of meetings in Wellington with industry leaders and industry groups, including Roothing New Zealand and the Civil Contractors Federation. Roothing New Zealand had already been talking to InfraTrain about developing a civil trade certificate.

InfraTrain needed the support of the industry to achieve this. They were having difficulty understanding what the industry as a whole wanted in such a certificate (they did not have access to the "voice of industry"), nor did they have the ability to develop the certificate in the timeframes that the industry wanted and needed.

InfraTrain and SCIRT already had a Memorandum of Understanding in place, which was focused on working to both grow the capability of the sector wide workforce through improving NZQA based training and realising the unique opportunity that existed with SCIRT's sector-wide view. SCIRT Trainers were already helping InfraTrain to develop new qualifications and determine how best to train to them. SCIRT, with its access to the five SCIRT Delivery Teams and wider network of subcontractors, had the ability to take draft qualifications to the industry and get feedback much faster than InfraTrain could do themselves.

In 2014, several things happened to slow the qualification development process down. InfraTrain and the Electrical Industry Training Organisation (ESITO) merged to become Connexis, Roothing New Zealand and the Civil Contractors Federation merged to become Civil Contractors New Zealand, and NZTA also went through their Training Review of Qualifications (TRoQ) process.

In late 2014 SCIRT's Training Team again approached the Board to recruit a Project Manager to aid in driving the process forward. The role of this individual would be to work with all industry parties and mobilise the influence of the SCIRT Board. The Project Manager was employed by McConnell Dowell in early 2015. She was seconded to the SCIRT Training Team, and from there seconded to Connexis. SCIRT's Project Manager worked with Connexis and CCNZ and mobilised the SCIRT Board's experience, advice and input to develop

an apprenticeship system and a civil trade certification. The end result was a completely reshaped framework of infrastructure qualifications with a Civil Trade Certification at the top of it.

Throughout 2015 the SCIRT Training Team continued to work closely with Connexis to fully develop the first range of packages for the civil trade certificate, in particular focusing on the importance of adding training as a first principle rather than simply assessment.

It wasn't possible to train someone from "zero to hero" (taking someone brand new to industry and training them to civil trade level) within SCIRT's remaining timeframe. Because of this the SCIRT's Training Team identified "Champions", or people they felt were already at a civil trade certificate level, with the aim of working with them to have them recognised as trade qualified. To do this, the Trainers worked with Connexis backwards from the point of competence to develop a Recognition of Current Competency (RCC) assessment framework and packages. They worked with Connexis to identify what the Champions needed to demonstrate to an RCC assessor to prove they were at that particular level.

In December 2015 the Civil Trade Certification was launched in Parliament's Grand Hall. 15 people from throughout New Zealand were awarded a trade certification, having been through the RCC process that SCIRT helped Connexis to develop. Of this group, four had worked for SCIRT.

### **Where to from here**

There is still work to be done. The industry needs to continue to work together and speak as one voice to the industry training organisations, to continue the development of current, relevant qualifications. Qualifications need to be made more user-friendly. More work needs to happen to gain industry-wide buy-in; ITOs, industry bodies and industry leaders need to advocate for workforce planning across the civil infrastructure industry, to embed the apprenticeship framework into organisations, and to fundamentally change how they approach recruiting, training and developing their people.



With the above aims in mind, an industry-wide Training Advisory Group was established at the end of 2016. For further information, please see story about [Training Advisory Group](#).

**Lessons learnt:**

**Train first, assess second:** not just in practice but in design – both the ITOs and industry need to orient towards developing a consistent training framework to deliver consistency of competency, rather than focusing on assessments to verify competency.

**Sell the long-term vision:** it's not just about developing a framework; it's about changing how the industry thinks about training its people. Ideally, mature civil infrastructure companies will create long-term plans for how to train and develop their people, and civil infrastructure will become an aspirational career choice for school leavers.

**Good things take time:** changing and developing national qualifications takes time. Industry Training Organisations are government funded, with complex funding models and limited resources. To aid the process, industry needs to engage its own resources to assist the ITOs.

**Engage people who can drive the process:** SCIRT recruited a Project Manager, and seconded them to an ITO. This assisted in driving the process forward. In addition, having the support of industry leaders (in this case, the SCIRT Board) who can mobilise resources from within their organisations is invaluable.

**Take everyone on the journey:** meeting with and engaging as many industry representatives as possible is required to set the wheels in motion.

**Bridge the gap:** Industry Training Organisation employees often produce qualifications from an office and don't understand what this might look like on site. SCIRT's Training Team were able to "speak a middle language", taking the qualification or unit standard to the people on site to test it. This allowed the fast tracking of qualification development, as SCIRT Trainers could quickly and easily test qualifications on site and provide feedback to the ITO.



SCIRT attendees at the Civil Trade Certification launch, from left, Mason Tolerton (SCIRT IST), Patrick O'Brian (City Care), Belinda de Zwart (SCIRT IST), Barry Bowden (City Care), Wes Jefferys (City Care), Fiona Malloch (Connexis), Kenny Brown (Fulton Hogan), Che Gallagher (Fletcher), Tony Foster (Fletcher), Tony Gallagher (Fulton Hogan).