

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.

## Mind the gap: more workers wanted

**Story:** Operational Workforce Gap

**Theme:** People and Culture

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A document which describes the process that SCIRT took to fill its operational workforce gap.

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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## Mind the gap: more workers needed

To resource the SCIRT infrastructure rebuild programme, an additional 600 operational workers were needed.

A capability analysis carried out by SCIRT’s Delivery Management Team in 2012 estimated a minimum of another 600 operational workers were needed in Christchurch to support the infrastructure rebuild. The existing workforce was ageing, with many highly skilled operational workers coming to the end of their careers. To add further complication, Christchurch ground conditions and local council specifications were relatively unique; meaning that even highly experienced workers from other parts of New Zealand needed time to get up to speed. The vertical and residential rebuild was also ramping up, which meant competition for skilled resource was set to intensify. These issues meant that SCIRT faced the risk of not having enough skilled and experienced people to get the work done safely and to the required quality. Existing workers would need to be upskilled and additional workers recruited during the programme. The estimate of how many was as follows:

Supply & Demand	FTEs	Notes
Current site-based staff	863	September 9, 2012
Site-based staff forecast at peak	1300	Based on \$32m per month net construction spend
Realistic local availability	900	From survey of infrastructure workers April 2012
Shortfall due to skill shortages	580	(>400 as available skills do not match those required)
Number of people to be trained/ recruited	FTEs	Allowing for Attrition
Year 2012-2013	880	Allows for annual churn of 25 per cent of overall labour force.
Year 2013-2014	300	Annual attrition
Year 2014-2015	300	Annual attrition

*From the October 2012 board report*

SCIRT’s founding Alliance Agreement set out a series of objectives, including the following which were particularly relevant to SCIRT’s HR and Training Teams:

- “Purposefully lift the capability of the sector wide workforce;
- Lift the capability of all sub-contractors;
- Establish greater capability for current specialist

infrastructure activities;

- Do something meaningful to reduce the level of unemployment in Christchurch;
- Target delivering a new wave of skilled resources into the market.”

To deliver on these objectives, SCIRT’s HR and Training Teams developed a three-pronged tactical approach:

1. Off-job pre-employment training, using local training providers;
2. A targeted recruitment campaign, offering a clear benefit to get involved in the industry;
3. Creating a SCIRT Training Centre.

Each tactic is explained in detail below.

### Pre-employment training, using established training providers

To deliver on its Alliance Objectives, SCIRT intentionally became involved in several employment entry-point programmes to varying degrees. These programmes focused on attracting new entrants to the civil infrastructure workforce and preparing them for work. Workforce Trainers, employed by the SCIRT Training Centre, continued to support trainees after their off-job training.

The first of these was the Salvation Army’s programme, **U Build 4 the Rebuild**, funded by the Salvation Army’s Canterbury Earthquake Appeal and run in partnership with InfraTrain, the Industry Training Organisation (ITO) for the civil infrastructure industry (later to become Connexis). U Build started in May 2012, offering a fast-track six-week, entry-level course based at the Aranui Service Centre. Salvation Army had a good relationship with local community groups, who could refer people or suggest people who wanted work or a career change. They also had referrals from the Ministry of Social

Development and from SCIRT's For Real recruitment campaign (outlined below).

SCIRT's involvement with the U Build programme differed to its relationship with other training providers, primarily because U Build didn't have the same resources or ready access to plant polytechnics (tertiary training providers) did. To help out, SCIRT's Training Team supported the U Build programme by providing access to some of these resources and trainer time (via a wide range of SCIRT-developed short courses and ongoing trainee support). SCIRT trainers and managers also attended U Build trainee graduations to demonstrate interest encourage ongoing development. SCIRT Training and Peak Performance Manager Mason Tolerton described these events as an "incredibly uplifting and inspiring experience to go to these graduations and see, at the end of six weeks, what a difference the Salvation Army had made in these people's lives. They were literally turning lives around."

Overall, 428 people were trained through U Build 4 the Rebuild programmes between June 2012 and June 2016.

In addition to U Build, SCIRT worked with other training providers, including the **Christchurch Polytechnic Institute of Technology** (now called Ara) and the **Tai Poutini Polytechnic** (both tertiary organisations). SCIRT helped frame the course content and training because, at that stage, there wasn't a six-week national certificate offering practical skills in infrastructure labouring. The qualification on offer at the time was Infrastructure Works Level 2, (IW2), a correspondence course delivered by InfraTrain. The polytechnics took components from IW2, under agreement, at the end of the six-week course SCIRT trainers would support the trainees through the remainder of their training to receive their national certificate.

SCIRT trainers sat in on some of the short courses at the polytechnics. Their involvement was targeted at forming ongoing relationships with trainees. Once trainees moved into the workforce, if they had a problem, or if their crew leader didn't support their involvement in on-site training, the trainers could help

smooth any issues and provide support. These issues typically arose because it wasn't standard practice for new entrants in the civil infrastructure industry to be involved in training. Because of the transitory nature of the workforce, people weren't usually signed up to complete a qualification until they'd spent at least six months "on the tools" and could demonstrate they knew the material required.

Tolerton referred to this as "backfill training" and explained this approach was common within the industry at the time.

SCIRT wanted to "front-end load" people with the skills they needed to work to a high standard on site.

### Recruiting new entrants

Before the Canterbury earthquakes, recruitment for the civil infrastructure industry was either via word of mouth (asking at the local pub if anyone knew someone who was looking for work) or through recruitment agencies. Because of the sheer scale of SCIRT's rebuild work and the number of people required, there was an urgent need for SCIRT to develop additional entry pathways to the industry, and to upskill new entrants as efficiently as possible.

SCIRT's HR Team created For Real, a South Island-wide SCIRT-led recruitment campaign which was launched in November 2012. For Real was designed to attract new entrants to the civil infrastructure industry. SCIRT's General Manager and HR Team, armed with a branded bus, kitted out with a high-tech, multi-media, video and digital introduction to SCIRT, travelled the length and width of the South Island, speaking at schools, public events and town hall meetings.



On the road: SCIRT's For Real bus



*Inside the bus: high tech mobile recruiting*

The For Real bus was promoted via radio, bill posters, print, social media and a purpose-built website. People were able to express interest in the SCIRT programme several ways: on the online recruiting kiosk whilst exiting the For Real bus; on the For Real website or via text.

Once people registered on the For Real website, an HR person from one of the SCIRT Delivery Teams would contact them and ask the individual a series of questions to establish which training provider they would best suit. For Real offered successful recruits a minimum of six weeks of training delivered by either the Christchurch Polytechnic Institute of Technology or the Tai Poutini Polytechnic, at which trainees would enrol in IW2, obtain basic Site Safety training, Wheels, Tracks Rollers (WTR) licence endorsement and other New Zealand Qualifications Authority (NZQA) unit standards in civil infrastructure. At the successful completion of their training, recruits were linked to a job with one of the SCIRT Delivery Teams and given ongoing support through SCIRT's Training Centre to obtain their NZQA level 2 national certificate. Having new entrants trained prior to starting work was hugely beneficial. In a business as usual situation, a new start would turn up on site untrained, and the foreperson would need to spend time training the new start. This new approach meant senior site staff could focus on the important things: safety, time, cost and quality.

The For Real campaign attracted more than 2000 responses. More than 150 people started working within the civil infrastructure industry as part of SCIRT. Another 600 people were referred to the Canterbury

Skills and Employment Hub, an organisation which matched people looking for work with organisations involved in the wider Canterbury rebuild.

### The SCIRT Training Centre

With only a small number of contracting organisations that were familiar with Christchurch's ground conditions and local government requirements, there was a need to get experienced workers up to speed. The SCIRT Training Centre was established to provide support, primarily via on-the-job training and short courses, to people working on the SCIRT programme. Refer to the separate story on the [SCIRT Training Centre](#) for further detail.

### Lessons learnt and suggestions for success:

- Work with industry employers to develop solutions:** SCIRT's HR Team found that even though it was cheaper for employers to support the For Real campaign and training using one of the providers (see "For Real Employer Information Sheet" for estimations of costs), they preferred and continued to use their existing recruitment and training methods. This was likely to be because the For Real recruitment and training model was very different to what the industry was used to. It would have been more successful if employers had been involved in developing and delivering the solution.
- Develop political astuteness:** SCIRT learnt it was important to leverage the knowledge and experience of its board and other organisational contacts familiar with the workings of government. This was invaluable, both to progress initiatives within governmental organisations and departments, and also to assist in brokering the formation of long-term relationships.
- Develop flexible funding solutions:** A suggestion for government in future disaster recovery situations: small to medium sized organisations (for example, SCIRT subcontractors) typically do not have time, knowledge or resources to devote to pursuing government funding. How can government make it easier?



- **Understand the political constraints of partnering organisations:** SCIRT found it beneficial to work with each training institute and Industry Training Organisation (ITO) individually rather than collectively. This was because these organisations typically compete with each other for government funding, making it difficult for them to work collaboratively.
- **Do it smaller (For Real campaign):** Because the campaign didn't deliver the numbers of recruits hoped for, SCIRT's return on investment in this campaign was low – but in saying this, the numbers hoped for were unfeasible (training providers and SCIRT work sites would have been unable to cope with 600 trainees at once). Having the large, fully branded bus did have an unplanned benefit of raising public awareness of SCIRT. SCIRT's HR Team suggest a longer term, lower-cost, less high-tech campaign would have been more successful.
- **Provide ongoing on-job support and training:** New entrants may struggle. Industry needs to support these individuals and set them up for success. SCIRT Trainers helped with this; providing ongoing support and assistance, working to remind struggling trainees of the long-term benefits they could achieve by sticking with their training.
- **Educate Crew Leaders:** a suggestion for future organisations – more work could have been done by SCIRT's HR and Training Teams to prepare crew leaders for a different kind of new entrant into their crews, one with higher expectations and skills as a result of their pre-employment training.