

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.

The Value of SCIRT Report - Summary

Story: The Value of SCIRT Report

Theme: The SCIRT Model

A short summary overviewing the detailed Value of SCIRT report and introducing the key themes, outcomes and challenges.

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



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The Value of SCIRT

Setting themselves the vision of creating resilient infrastructure that gives people security and confidence in the future of Christchurch, the Stronger Christchurch Infrastructure Rebuild Team (SCIRT), has delivered on that commitment.

The Value of SCIRT report formally defines the true value of the enterprise, capturing the journey and analysing the multiple positive outcomes for the earthquake-hit city.

It further proves the SCIRT adage: ***There is value in everything we do.***

Facing a rebuild of immense scale and scope, the government had sought a quick, effective and flexible response, value for money, and probity.

The destructive nature of the 2010-2011 quakes and bruising aftershocks had required a high-level, innovative solution: an “instant” delivery vehicle combining multiple groups in a collaborative arrangement, capable of defining, managing and delivering the significant scale and complexity of the rebuild of horizontal infrastructure.

Created in five months in 2011, SCIRT has proved to be a cost-effective, efficient vehicle that has put the city's civil infrastructure back on its feet.

Its \$2.2 billion five-and-a-half-year programme – funded by the New Zealand Government and the Christchurch City Council – has involved more than 600 individual projects across the city to repair and rebuild underground sewage, storm water and freshwater pipes, wastewater pump stations and roads, bridges and retaining walls.

Leadership, learning, and culture have played core roles in the success of SCIRT.

The document highlights the achievements of the SCIRT alliance objectives and the attainment of the best price for the right scope during the extensive programme of works.

It showcases the innovative model that utilises both competitive tension and collaborative processes to drive performance.

It details the restoration of essential water, storm water and wastewater services, thereby reducing public health risk to acceptable levels and improving the quality of residents' lives in the harsh post-earthquake environment. The repairs to roads, retaining walls and bridges have re-established transportation routes and, together with services restoration, enabled businesses and service providers to resume operations and take a big step towards normality for Christchurch residents.

Flexibility and well-defined processes have been the strong struts so key to the management of the SCIRT programme. With an ever-evolving scope, the impact of such a massive programme of works on a recovering community has had to be carefully and strategically managed.

Focused education and rapid deployment have delivered the capacity to meet the overwhelming infrastructure rebuild needs.

By facilitating and promoting game-breaking performances, the commercial model, peak performance plans, innovative design and construction and value initiatives have delivered the powerful processes and fresh benchmarks.

Community, stakeholder and environmental risks have been recognised and deftly targeted via breakthrough solutions.

A framework for high-level governance has been complemented by customised communication flowing to all stakeholders, SCIRT staff and, most importantly, the community.

SCIRT has also utilised a suite of management plans. These have steered the development of the delivery vehicle. With an integrated team set up as a corporate office function, the delivery vehicles have remained in their own organisations, using their own systems and procedures to deliver the work.

The document highlights the importance of achieving the alliance objectives while also showcasing a fresh approach to safety and effectively managing critical risk.

All of this is underpinned by SCIRT values and a high-performance culture that permeates the project.

In the document, the cornerstones of SCIRT are clearly defined – and the multiple benefits are revealed in eight integral elements:

- The SCIRT Model
- Governance and Decision Making
- Programme Management
- People and Culture
- Communications and Community
- Finance and Business Systems
- Design
- Construction

The outcome of the SCIRT efforts has been:

- Industry best levels of safety, while delivering on time to budget
- Lifting construction quality outcomes in difficult work environments
- Accommodating changing funding limits and mixes while delivering continuous throughput
- Providing enjoyable work culture and experience to staff
- Engaging with and being recognised by communities, to a degree previously unknown in the city
- Delivery of value.