





CHRISTCHURCH



Christchurch,
New Zealand

In Christchurch, progressive partnerships have been formed to tackle the massive task of rebuilding the city after an earthquake struck in 2011. Some involved community volunteers, who not only helped to clean the streets and feed its residents but also instilled a sense of hope. New partnerships between the government and private sector were also forged in order to cut through red tape and expedite rebuilding efforts. Four years on, while Christchurch is still very much a city under construction, many lessons can be learnt from them. Not just in the way cities can become more resilient, but also how cities may look and function in the future.





On 22 February 2011, an earthquake measuring 6.3 on the Richter scale hit Christchurch, New Zealand's third most populous city of around 340,000 people. The Central Business District (CBD) was just 10 kilometres from the epicentre of the earthquake and as a result, about 80 per cent of the buildings were reduced to rubble. 185 people lost their lives and a further 11,000 were injured that day. An estimated 10,000 suburban homes were either destroyed or irreparably damaged. Another 10,000 residential homes needed extensive structural work, and 150,000 needed repairs. The overall cost of rebuilding Christchurch was estimated at NZ\$40 billion – approximately 10 per cent of New Zealand's GDP.

In the face of such devastation, the residents of Christchurch would have been forgiven for giving into despair. Instead, led by intrepid community leaders, many residents rallied to reclaim their city. Student volunteers were seen shovelling silt from streets and driveways while local farmers organised themselves to truck water supplies to affected households.

01 The Christchurch gondola.



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Christchurch Mayor Lianne Dalziel believes these people, and many other volunteer groups, have become an integral part of the city's rebuilding efforts. "They have a real values-based approach which is inclusive and participative," she says. "Fundamental to developing our resilience strategy is ensuring that this is done with a community, not for or to a community – as is often the case. No one sector, organisation or group has all the answers."

The Canterbury Earthquake Recovery Authority (CERA) is a central-government agency that was set up to deal with the disaster. But even before it was able to launch Christchurch's new urban blueprint plan in July 2012, community organisations and volunteers stepped up to the fore. One organisation, Gap Filler, had a bit of a head start. Formed after an earlier earthquake hit Christchurch in 2010, Gap Filler recognised that there had to be temporary responses while the city is being rebuilt. This led to various temporary projects on sites that had been cleared and left vacant. For example, to raise the spirits of local residents, Dance-O-Mat was created on one such site, where a dance floor was set up with a coin-operated music player that was built within the shell of an old washing machine. There is even Gap Golf, built by volunteers and community groups who were invited to design and install mini-golf holes on vacant sites around what was once the CBD.

- 01 The Re:START container mall is Christchurch's out-of-the-box idea to revitalise the central city.
- 02 Gap Filler's Dance-O-Mat at the corner of Gloucester and Colombo streets. *Photo courtesy of Gap Filler.*
- 03 Gap Golf at Peterborough Street.
- 04 Christchurch's annual FESTA revives the city centre with luminous, large-scale installations, a plethora of activities, and live performances.
- 05 Temple for Christchurch is a temporary structure built from reclaimed materials, forming a space for people to reflect on one's losses. *Photo courtesy of LIVS.*

Gap Filler also played the important role of convincing the Christchurch City Council (CCC) that it had to do more. Coralie Winn, the co-founder and creative director of Gap Filler recalls: “We basically went to [the council] and said transitional activity has massive potential for Christchurch and it needs an entity that can broker access between sites, vacant buildings and projects.” The outcome was the council-funded agency called Life in Vacant Spaces Charitable Trust (LiVS), which has since gone on to broker access to 112 projects on 40 different sites and vacant buildings. Some of these projects include those by community organisations such as Greening the Rubble and the Agropolis Urban Farm, as well as large events like the annual Festival of Transitional Architecture (FESTA) that explores and celebrates creative urban renewal – the first and only festival of its kind in the world. “Things come about by virtue of people having ideas that they want to test out, and us undertaking to make them happen,” says Jane Gregg, Director, LiVS.

Meanwhile, planning for permanent projects like a new public library and sports stadium are underway. However, before anything can be constructed, the task of rebuilding the city’s underground infrastructure has to be completed. This job has been given to the Stronger Christchurch Infrastructure Rebuild Team (SCIRT), which comprises three “owner” government agencies – CERA, the CCC, and the New Zealand Transport Agency – and five engineering companies.

SCIRT oversees a budget of about NZ\$3 billion for more than 650 infrastructure projects including underground pipes carrying drinking water, stormwater and wastewater, utilities such as gas and electricity, and fiber-optics and communications cables. All this is targeted for completion by December 2016, an impressive feat not least because public works often get tied down by bureaucracy.

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To meet its targets, SCIRT adopted a framework which drives both competition between the parent-company organisations, and also collaboration – generating an ongoing cycle of continuous improvement in terms of both ‘cost’ and ‘non-cost’ outcomes. “SCIRT uses the benefits of competition to drive ‘best for community’ outcomes, and designer and constructor inter-team collaboration ensures lessons learnt are shared amongst all the teams,” adds Duncan Gibb, SCIRT’s former and founding general manager.

Overall, SCIRT says it has tracked within a couple of percentage points of its programme budget as at March 2015, even though the final scope of work is still to be confirmed.

01 The Cardboard Cathedral, Christchurch’s transitional cathedral.

02 SCIRT at work installing vacuum wastewater pipes and chambers. © Neil Macbeth, licensed to SCIRT.



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What can be confirmed, however, is that Christchurch is a city that has a lot to teach the world, not only in terms of disaster response and resilience but also in how cities of the future might take shape.

One of the first structures to be completed in Christchurch since the February 2011 earthquake is a NZ\$5 million building made of cardboard tubes. Built as a replacement structure to house the congregation of the damaged Christchurch Cathedral, the cardboard structure was designed by Shiguru Ban, the acclaimed Japanese architect who has made it his life's work to design disaster relief architecture. The building is sublime by any measure. It has also been built to last 50 years, by which time, a new Christchurch will have risen from the rubble.



Arthur Sim is a freelance writer and journalist with 15 years of experience in the fields of real estate, design and architecture. Trained as an architect, he also has a special interest in urban planning and socio-economics. He is currently an adjunct with the Centre for Liveable Cities, where he writes for and edits its publications.