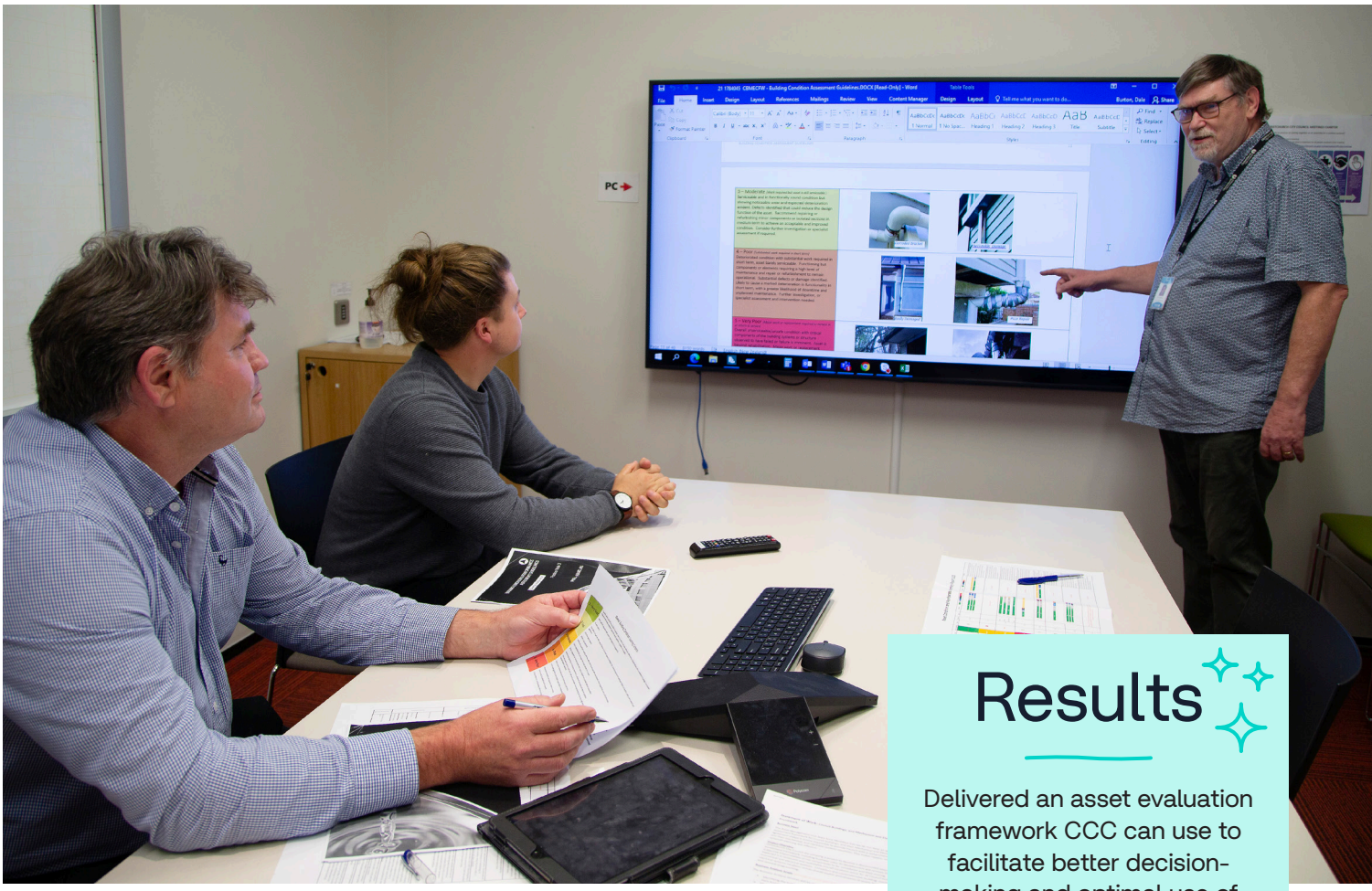
Making asset management more consistent through Business Analysis



One of the major challenges in asset management is assessing an asset's condition, which can be subjective. This can lead to the value of an asset being misrepresented. To address this, Christchurch City Council (CCC) collaborated with Assurity Consulting's Business Optimisation team to find a better way. Assurity helped create an overall condition assessment framework for all Council buildings. CCC personnel can now consistently appraise infrastructure, allowing for improved decision-making and the effective allocation of resources.

Results

Delivered an asset evaluation framework CCC can use to facilitate better decision-making and optimal use of maintenance funds.

Helped focus attention on assets where active management delivers a positive return on investment.

Set the scene for a broader rollout of the framework to the many other asset classes managed by the Council.

Christchurch City Council

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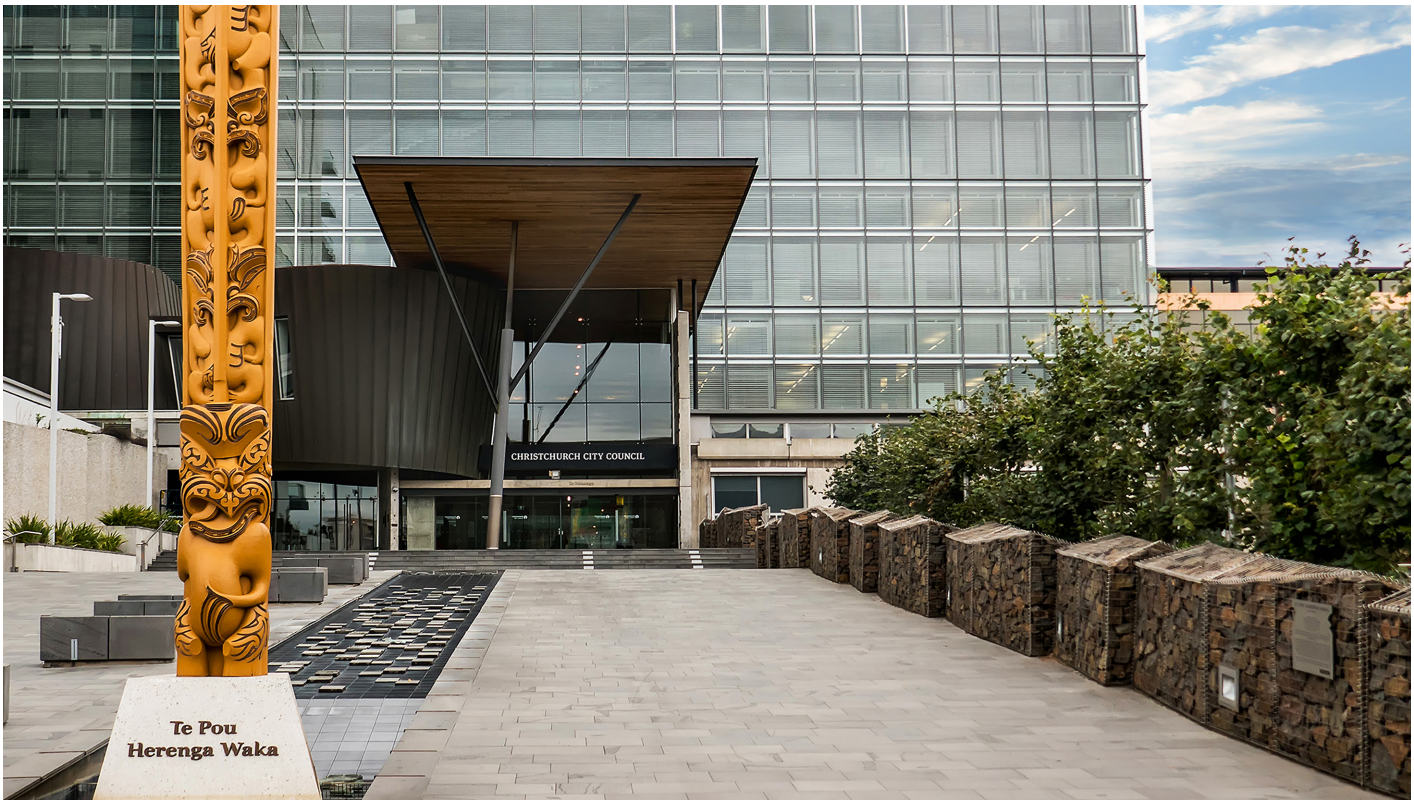

About

Organisation
Christchurch City Council

Industry
Public Sector

Solution
Business Analysis

CCC is the local government authority for New Zealand's second-biggest Council. The elected territorial authority represents the 392,100 people of Christchurch. Like other councils across the country, CCC maintains billions of dollars of assets, all expected to deliver value to the community. The condition of these assets requires careful management to enable them to perform to accepted standards.

Challenge

CCC project manager Eric Fletcher explains the challenge faced by the organisation, "While our assets are closely managed, we didn't have a consistent way of assessing and reporting their condition. This meant that when buildings and their subsystems – like elevators, lighting and so on – were being assessed by knowledgeable staff, there were no guidelines or definitions to assist them in interpreting the condition observed consistently and objectively.

Building-related condition assessments are carried out down to the equipment level, with a rating of 1 (very good) to 5 (very poor), indicating the assessed condition of the asset. With subjective assessments, one person's 1 out of 5 could be another person's 3 out of 5.

'Asset management' includes anything from maintenance to asset replacement if the cost of servicing the asset is too high. "This applies to the buildings themselves and the components within the building. Knowing the condition of an asset feeds into every decision concerning that asset, short-term and long-term planning and budgeting, as well as contracts with service providers," Fletcher explains.

"Starting with some of the bigger assets – buildings and their mechanical and electrical systems, Assurity helped create a framework based on internationally recognised standards."

Solution

With its focus on human-centred design, Assurity's Business Optimisation team immediately engaged the people who perform the assessments, those working at the coal face who would use the resulting framework. At the same time, Assurity clearly defined and agreed with CCC on the assets to be covered, with an appreciation that excessive detail (by going into asset subclasses, such as the components of an electrical subsystem) would hamper meaningful reporting.
"We realised we had to make it practical. If we went too deep, we'd have too much information and wind up like a deer in the headlights, so we agreed to keep the scope tight from day one," says Fletcher.

Rather than 'reinvent the wheel', Assurity drew on practices and procedures from the International Infrastructure Management Manual and aligned our assessment framework with the ISO55000 standard for best practice in Asset Management. An initial template was drawn up with the Parks department, reviewed, and then modified to make it applicable to buildings in other Council units.

Representative buildings for each building type in each business unit (Facilities, Parks, Transport, Three Waters) were identified for use as examples for developing the framework, while an asset register review confirmed that the buildings and their mechanical and electrical systems were loaded. This was followed by defining and confirming with Council personnel the components contributing to an overall condition assessment, with rating scales and criteria for identifying defects created for those items. In an iterative process, the framework was applied to the representative buildings while identifying and correcting issues as they arose through the practical exercise.

A collaborative approach directly involved the business units in the process, with regular reviews of issues and lessons learned shaping the developing assessment framework. In due course, the work resulted in the documentation and socialisation of the tool across the business units, with the establishment of an implementation plan to expand its use to cover all Council buildings.

Fletcher has praised the way in which collaboration with Assurity delivered the work. "They did an excellent job of looking at the asset structure in SAP, diagramming it and assessing what the framework will and won't apply to.

There was a clear understanding of the necessity for deliverables that could apply across the business units in terms of a framework explaining how to perform an assessment without changing the methodologies used by different units. With guidance and tools, which would nevertheless improve assessment consistency for each asset element and component. Then Assurity provided clear definitions of what constitutes 'very good', through to 'very bad', and had that agreed to across the board."

> "The workshops were particularly good. In fact, these were the best workshops I've participated in."

Results

The best indication of the initiative's success, says Fletcher, was a 'stress test' using the new assessment framework against the old. "Immediately, we saw clear differences which validated the work done."

Specifically, the emergent framework now enables reliable, consistent data capture of the condition of structural, electrical, and mechanical systems. The data, in turn, facilitates better decision-making and planning across the short, medium, and long term, optimising the use of maintenance funds and other resources.

At a higher level, asset owners benefit from accurate data, providing confidence that maintenance activities are executed as required while enabling improved scenario modelling when assessing budget envelopes for asset management and its Long-Term Plan.

Ultimately, citizens benefit too – as the Council buildings and component parts that contribute to their living experience in Christchurch are kept in the appropriate condition.

"Accurately knowing an asset's condition helps with decision-making throughout it's lifecycle. It's our way of making sure ratepayers get the level of service and value from the asset they deserve."

— **Eric Fletcher**
Project Manager, Christchurch City Council

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