

## RESEARCH, INNOVATION AND COMMERCIALISATION

## Learning from past successes

Stimulus funds could be used to ensure building projects meet the needs of future generations, reports **Joanna Mather**.

**D**espite the battering the construction industry has taken in the economic downturn, Keith Hampson is optimistic about the prospects of winning new funding through the Cooperative Research Centres program.

Contributing to his optimism is the fact that the federal government is plunging billions of dollars into infrastructure projects.

Secondly, there is a clear need for the construction industry to reshape itself around the principles of sustainability, he says.

Hampson is the chief executive of the Brisbane-based CRC for Construction Innovation, funding for which expires this year. But he insists there is a strong case for establishing a \$40 million CRC for the sustainable built environment to succeed the existing centre.

In its proposed reincarnation, the focus of research and skills development would be on the triple bottom line goals of environmental, social and economic sustainability in the construction industry.

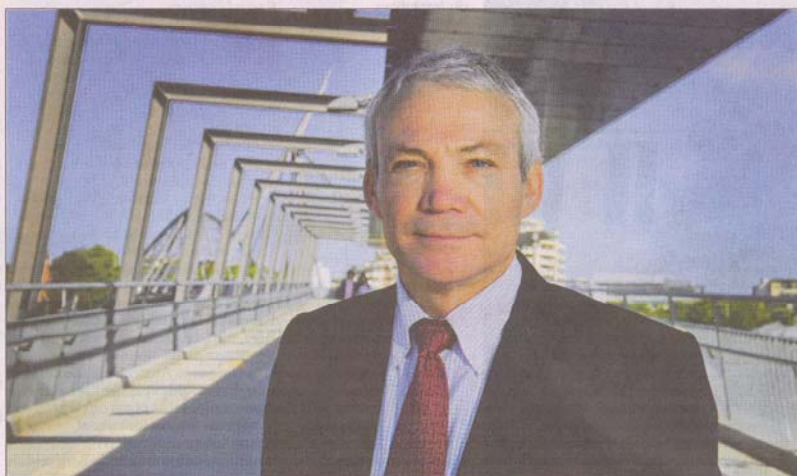
CRCs are funded for up to seven years at a time. Many have successfully applied for extensions.

"As the joint issues of the financial crisis and climate change have crystallised, with the new government putting our industry front and centre of the national recovery agenda, there is no doubt we need applied research to make a real difference to industry practice," he says.

Even if the bid fails — successful applicants will be announced midyear — the CRC for Construction Innovation will shut up shop having made significant gains in areas including sustainability, safety and advanced information and communication technology.

Specific successes have been in developing national safety standards and the creation of the Your Building website, which promotes commercial building sustainability (see box).

In partnership with Engineers Australia and in consultation with industry groups nationally, the CRC



Keith Hampson wants to create a new research centre to build on the success of the CRC for Construction Innovation.

## WEBSITE HANDOVER IS A SIGN OF A JOB WELL DONE

When the Property Council of Australia assumes control of the Your Building website soon, the takeover will be far from hostile. In fact, for the CRC for Construction Innovation and CSIRO, the handover signals a job well done: research and theory will have been translated into a practical tool for industry.

Developed with input from 100 contributors, Your Building is for investors, owners, developers, occupiers, designers, builders and managers; anyone interested in sustainable commercial buildings.

The idea was to bring together reliable information, case studies and practical advice about energy-

saving design and technologies, recycling and water efficiency, and carbon footprint reduction measures.

Articles posted on the site tackle issues such as reducing investment risk in sustainable building development, culture change and corporate social responsibility.

The role of the CRC program is to develop ideas and research that can then be applied to industry.

CRC chief executive Keith Hampson says the aim from the outset was to hand the website over to industry, adding that the key to the success of the project has been collaboration across industry, government and researchers.

Property Council chief executive Peter Verwer says the site will be upgraded.

"At the moment it's a portal for information contributed by academics and scientists," he says. "We'll be turning it into a more visual style while retaining the integrity of the base information."

Verwer wants to expand the content. "The main focus of this website at the moment is eco-efficiency, but I think sustainability is more broadly defined as an attempt to optimise the dividends which are derived from economic, natural, social and governance assets."

**Joanna Mather**

has developed best-practice guidelines for health and safety.

Launched in 2007, the guidelines cover the design, procurement, construction and commissioning stages of a construction project.

It might sound simple, but never before had there been such a concerted, industry-wide effort to minimise deaths and injury on Australian construction sites, Hampson says.

Another major achievement has involved breakthrough three-dimensional digital modelling of

facilities. In 2005, the CRC team combined seven existing, yet incompatible, digital information systems to form one 3D image of the Sydney Opera House.

The model can be updated to include information about maintenance and refurbishment work and facility managers can use the program for condition reporting, tracking energy consumption and room bookings.

At its inception in 2001, the CRC was awarded \$14 million from the commonwealth. Over the past seven

years the number of industry partners has grown from 19 to 27, with the line-up including industry heavyweights such as John Holland, Bovis Lend Lease, Mirvac and Thiess, plus state governments in Queensland and Western Australia.

In 2001, industry partners contributed an average combined total of \$1.4 million a year. Hampson hopes the proposed new CRC, which would be based at Queensland University of Technology, would attract cash investments of \$2 million a year

from industry, plus \$3 million in in-kind contributions.

John Holland has signed on to support the proposed new CRC.

Chief operating officer Glenn Palin says the company has played a leading role in improving safety through CRC projects and will continue to support research and development even in the downturn.

"It is difficult for companies to find spare cash but it's in our interest to take a long-term view," he says.

Hampson admits the financial crisis represents a huge challenge to the sector. But he points to the opportunities presented by the \$42 billion infrastructure and jobs stimulus package last month.

"It would be an enormous shame if in these stimulus packages we weren't taking the opportunity to do things that bit smarter to return more to our Australian economy," Hampson says.

The CRC has already done much work in the area of sustainability, but with commercial buildings accounting for an estimated 10 per cent of greenhouse gas emissions nationally, there is plenty more to be done, Hampson says.

"Environmental sustainability is clearly important in the context of climate change, but so too are social and economic sustainability issues."

Hampson has slated three major demonstrator projects for the proposed new CRC, one each in the critical areas of health, education and transport that would set the standard for future developments.

The projects are: the construction of the new Princess Margaret Children's Hospital in WA, a program of major rebuilding and refurbishment works in Victorian schools, and the proposed Gold Coast light rail project.

The CRC would work with owners, designers, builders and facility managers to ensure that the most up-to-date sustainability measures are applied in each phase.

"We would then work to ensure the lessons learned on those three major projects are encapsulated in learning packages for the industry," Hampson says.

"The danger in this global financial crisis is that we drop the ball and pull back on support for research and education. Never before has it been more critical to invest in applied research and skills development to prepare the workforce for the coming era."