

BUILT to Last

In last year's *Australian Innovation*, Keith Hampson delivered a scathing assessment of innovation in Australian construction. A year on, he sees a silver lining to the financial clouds hanging over much of the nation's industry.

Since the writing of last year's column for *Australian Innovation*, which examined the low rate of innovation in the Australian construction industry, there have been striking changes to both the state of the world economy and the state of the infrastructure and building industries. Ironically, innovation rates may ultimately receive a boost from the current slump as the market looks to better, more efficient ways of doing business and saving money, time and resources.

Staying upbeat in a downturn

The economic downturn has led the Government to re-examine the construction industry both financially and at a national policy level. As a consequence, over recent months we have witnessed a series of fiscal injections and strategies at the federal level that impact the built environment sector, including:

- ★ a \$29 billion stimulus package for construction and infrastructure spending to fund schools, social housing, home insulation, roads and boom gates;
- ★ the Green Building Fund of \$90 million for retrofitting existing commercial building stock;
- ★ the \$512 million Housing Affordability Fund Scheme, which works to reduce infrastructure costs that would otherwise be passed on to home buyers;
- ★ increases to the First Home Buyers' Grant;
- ★ the \$42 billion National Building and Jobs Plan, which will fund free ceiling insulation, schools upgrades, new



Dr Keith Hampson, CEO, CRC for Construction Innovation

- social and defence homes, one-off cash payments, tax breaks for SMEs and increased funding for local community infrastructure and local road projects;
- ★ the Australian Business Investment Partnership, with an initial \$4 billion seed funding from our largest four banks and the Government to provide liquidity support to viable major commercial property projects;
- ★ the formation of the Built Environment Industry Innovation Council; and
- ★ the appointment in all states and territories of Coordinators General to accelerate infrastructure spending.

The massive backlog of infrastructure and building projects, both in the pipeline and waiting to be completed, are significant incentives to get the stimulus packages rapidly translated into real activity on the ground. However, with the combined pressures of the financial crisis and climate



change, it has never been more important to instil 'world's best practice' and sustainability principles into projects. The Cooperative Research Centre (CRC) for Construction Innovation has been preparing the industry for this new era since its inception in 2001.

Transforming industry practice

While the applied research outcomes being developed and delivered to the industry are far-reaching, the CRC has been particularly active in leading innovation in four areas: sustainability, safety, dispute avoidance and digital modelling. Each of these areas will be highly relevant to the upcoming investment in our industry and to the Australian community as a whole.

The web portal developed for commercial sustainable buildings, 'Your Building' (www.yourbuilding.org), reached a major milestone on its handover to the Property Council of Australia. The move ensured that this valuable tool will continue to be a dynamic, up-to-date resource for a wide range of industry professionals focused on implementing sustainability.

Safe as houses

The CRC's 'Guide to Best Practice for Safer Construction' was delivered in partnership with Engineers Australia following a review of Australian and international best-practice initiatives. Overseen by a high-profile taskforce, the

guide provides a response to the widely held view that heavy-handed safety legislation is not the solution; rather, the key is leadership and cultural and behavioural change driven from within an organisation.

Clients, designers and constructors created the safety package, which integrates occupational health and safety into strategic and operational decisions at all stages of a construction project, with responsibility for a project's safety performance to be an integral component of the early planning activity.

No arguments

Due to be launched in May, The 'Dispute Avoidance and Resolution Guidelines' identify the root causes and costs of disputes in construction projects, and will offer practical strategies to avoid them. The research estimates that contractual disputes cost the industry and our community \$6 billion every year in project delays, cost blowouts and crippling uncertainty.

Finally, the release of the National Building Information Modelling (BIM) Guidelines and its accompanying case studies and workshops will provide the industry with a means for rectifying existing inefficiencies in digital modelling. These publications will also assist practitioners such as architects, cost managers, engineers, contractors and sub-contractors to work together and allow for better online collaboration between design-and-construct project team members.

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New era, new CRC

Having operated since 2001, Construction Innovation winds down later this year. However, in submitting rebid documentation for the 11th round of CRC funding to the Australian Government on March 20 2009, there is an expectation that the critical relationships and networks for progress can continue and grow under a refocused and industry-aligned applied research and education program.

The Sustainable Built Environment CRC (SBEcrc) proposed for the funding is heavily backed by key industry, government and research organisations. If approved in July 2009, it will mark the beginning of a further seven years of industry leadership.

The output stemming from SBEcrc in its key program areas – ‘Greening the Built Environment’, ‘Developing Innovation and Safety Cultures’ and ‘Driving Productivity through Procurement’ – will feed into national measurement and reporting frameworks and tools. It will also provide content for skills development packages with industry associations and deliver them through vocational education and training (VET) and higher education.

Beware de-skilling

One effect of long-term financial crises tends to be a de-skilling of the workforce. If this occurs, it will be at a time when the infrastructure and building industry will be most in need of a well-trained, sustainability-savvy and innovative workforce. Such a workforce will equip the industry to deliver optimal, long-term benefits from the government stimulus packages, and lead to greater community infrastructure for the stimulus dollar.

The SBEcrc’s expanded and more integrated training programs are focused on environmental sustainability, safety, productivity and digital modelling, and are perfectly aligned to deliver on each score. The need to prioritise training is backed by the report *Growing the Green collar Economy*. The report concludes that, under a carbon trading scheme, employment in high potential environmental impact sectors such as construction and transport will grow rather than decline, and new approaches to green education, training and jobs are needed.

The CRC for Construction Innovation engages in collaborative research and implementation for the property, design, construction and facilities management industries. It works with industry, government and researchers to improve productivity and sustainability and has delivered internationally recognised outcomes for its partners and for Australian industry, highlighting the critical role research and development plays within one of Australia’s most important industry sectors.

Website: www.construction-innovation.info



DONNA INGRAM

The Smart and Sustainable Homes program is a joint initiative between Queensland Government, local government and industry partners. The program is providing communities throughout Queensland with display homes which incorporate principles of sustainable design and performance, using the Smart and Sustainable Homes Design Objectives as the minimum criteria.



A smart and sustainable home is:

Environmentally Sustainable
reducing waste, water and energy use



Socially Sustainable
safer, more secure and comfortable



Economically Sustainable
cost saving over the life of the home

For more information on the program or homes open for display visit www.sustainable-homes.org.au and www.smarthousing.qld.gov.au



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Department of Public Works