

CRC for *Construction Innovation*

Key Messages

The CRC for Construction Innovation is working with 19 industry, government and research partners to deliver the property, design, construction and facility management sectors applied research outcomes. Together we are:

Our initiatives are delivering significant industrial, commercial and economic benefits.

- Independent economic experts estimate *Construction Innovation's* work will deliver in excess of \$500 million towards Australia's GDP over 15 years.
- *Construction Innovation's* Facility Management Exemplar project will consolidate seven existing (and incompatible) digital information systems in the Sydney Opera House to one 3D digital plan that allows cost-effective maintenance and reduces costs and inefficiency.
- *Construction Innovation's* Road Asset Investment project saves the Queensland Department of Main Roads \$4 million each year on road pavement testing.

We have created tools that are boosting productivity, sustainability and safety.

- *Construction Innovation* has developed a series of smart tools that analyse a 3D Business Information Model of a building to automate design checks against building codes, estimate the quantity and cost of construction materials, schedule construction to improve productivity, reduce errors and reduce delays.
- By December 2006, *Construction Innovation's* Sydney Opera House Facility Management Exemplar project will have created a benchmark for facility management excellence in Australia.
- *Construction Innovation's* eBusiness project is providing practical recommendations for industry take-up of new on-line business processes.
- *Construction Innovation's* noise management tool is helping urban and infrastructure designers at the Queensland Department of Main Roads to create living environments that are not adversely affected by noise from busy transport corridors.
- *Construction Innovation's* BRITE project is fostering innovation in Australian small business by providing case studies of successful innovations and a self-help diagnostic tool.

Our research is making workplaces safer for construction workers.

- *Construction Innovation* is working with owners, designers and constructors on the Construction Safety Taskforce to develop a national and coordinated approach to improving safety in the built environment, saving lives and increasing productivity.
- *Construction Innovation's* Construction Site Safety Culture project will, by December 2006, make training packages and learning tools available to TAFE, industry and other training institutions to better understand safety culture and improve the industry's overall safety performance.

Our work is helping to reduce energy and water use in our buildings.

- *Construction Innovation* is developing the 'Your Building' web portal to help owners, designers, builders and tenants create more sustainable commercial buildings by providing case studies and advice about energy-saving design and technologies, recycling and water efficiency, benchmarking of best practices and other 'green' initiatives.
- *Construction Innovation's* LCADesign software is being trialled by the Queensland Department of Public Works, Stanford University (USA) and in the Netherlands to optimise the environmental impact of buildings at the design stage, reducing greenhouse emissions, air and water pollution, and saving energy.
- *Construction Innovation's* Sustainable Subdivisions has created a model for developers in tropical and subtropical areas to optimise energy-efficient housing.
- *Construction Innovation's* Regeneration Construction project assists in developing a six-star rating system for 'green' refurbished buildings, reducing their ecological 'footprint' and enhancing the indoor environment for greater productivity by occupants.

Our work is bringing industry groups together to create a better future.

- *Construction Innovation* was instrumental in bringing together a group of disparate bodies to create the Australian Sustainable Built Environment Council (ASBEC), which is working collaboratively to develop a whole-of-life approach to sustainable built environments.
- *Construction Innovation* has consulted key industry groups to create the visionary document 'Construction 2020', providing a future direction to Australia's policy makers and the property, design, construction and facility management industry.