Construction innovation delivers for stakeholders

MANY contractors and consultants in the construction industry have traditionally been sceptical about the potential benefits of innovation. The Brite Project has explored this issue and documented results in a new guide *Innovate now!* Over the past three years, the Brite Project of the Cooperative Research Centre for Construction Innovation has conducted a large-scale industry survey and 12 best-practice case studies, with participation from over 400 businesses, 14 government organisations, eight industry associations and four universities.

The Brite research revealed that scepticism about the value of innovation was misplaced. It showed that 93 per cent of all innovators in the construction industry achieve higher business profits as a result of their efforts, while all of them reap improvement to their reputations and are subsequently likely to be more successful in winning projects over time. Clients are keen to work with innovative businesses because of the substantial benefits that can be achieved on projects. The improved prospects for future work provide the incentive for consultants and contractors to search for new ideas.

Four of the documented projects were in Queensland, four in NSW, two in SA and one each in Victoria and WA. They included three sporting stadiums, two bridges, two art galleries, two commercial buildings, two very different roads (a motorway and an access track) and one case of contaminated land.

The size of the project made no difference to the extent of benefits gained. At Cattle Creek Bridge (Case Study No 6), 50 per cent of the project cost estimate of $1 million was saved, while on the National Gallery of Victoria (Case Study No 4), 5 per cent of the project cost estimate of $65 million was saved.

From iconic building projects, to small road projects, the case studies show that it pays to innovate.

The *Innovate now!* guide and contributing case studies are lodged at www.brite.crcci.info for free download. The guide provides detailed steps for businesses wanting to improve their innovation performance, along with checklists to help businesses develop an innovation program.

	Case study 1	Case study 2	Case study 3	Case study 4	Case study 5	Case study 6
Project name	William McCormack Place	Lang Park Sports Stadium	Port of Brisbane Motorway	National Gallery of Victoria – Australian Art Building	Coutts Crossing Bridge	Cattle Creek Bridge
Innovation summary	Chilled water thermal storage tank and moisture absorbing thermal wheel	Precast prestressed polystyrene voided concrete planks with formed rebates	Project delivered under an alliance contract	Fire engineering enabled use of unprotected steel	Fibre-reinforced polymer (FRP) bridge deck	Ground penetrating radar to find defects in bridge beams
Main benefit achieved	37% saving in energy costs	8% saving in cost of grandstand steelwork	10% project cost saved, 30% time saved	5% of project cost saved	75% saved in transport costs, 90% saved in traffic management costs	50% of project cost saved
	Case study 7	Case study 8	Case study 9	Case study 10	Case study 11	Case study 12
Project name	Gladesville Road Community Centre	Imago Site	Stadium Australia	Art Gallery of South Australia	Adelaide Oval	Tomago All-Weather Access Road
Innovation Summary	Managing stormwater with storage gutters and infiltration	Saving site-remediation costs through a new waste disposal method, sprinkler and wheel wash system	Post-tensioned steel trusses to create long span roofs	Twin-coil air-conditioning to improve energy efficiency	Relationship based contract and 3D CAD to efficiently deliver complex project	Using recycled tyres to create a permeable road pavement while meeting strict environmental and community requirements
Main benefits achieved	26% reduction in mains water demand	13% project cost saved	50% reduction in steel weight; 25% reduction in roof erection time	30% reduction in energy consumption	50% reduction in prefabrication time, 90% reduction in requests for information	15% of project cost saved

The Brite project has studied 12 innovative projects in detail and this benefits table displays a summary of the findings.