



**Research**

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# Comparing the innovation performance of contractors across Australia

## Where are Australia's most innovative contractors located?

Recently released ABS data on construction innovation reveals higher growth rates than all-industry averages, but who is driving this growth? Chart 1 reviews this question by looking at the location of innovative contractors.

\* Thanks to Greg Keane for assistance in interpreting this chart. Also, note that the results for the four smallest population centres (ACT, NT, TAS and SA) have high relative standard errors of between 25 and 50%. However, even assuming the highest level of error, ACT performance is 25%, still higher than that of NSW.

Contractors can take some responsibility for the outcomes in this chart, as their innovation performance has been critically influenced by their internal culture and the predisposition of owners and managers toward innovation. However, innovation performance is also influenced by the type of projects required by clients and the capability of clients. More complex projects and more capable clients lead to higher innovation opportunities. This is reflected in Chart 1.

Despite the fact that ACT and Northern Territory (NT) represent very small markets, during the reference period they hosted a

number of landmark projects such as the Alice to Darwin Railway. These projects involve new challenges that create innovation opportunities. Furthermore, interstate expertise is likely to have been involved with these projects, influencing the behaviour of local subcontractors.

At the other end of the chart, Tasmania's performance is likely to have been dominated by its small local market and associated absence of innovation opportunities. The opposite effect appears not to dominate in New South Wales (NSW) which also has poor performance. The result may reflect their large population of contractors, including a large proportion of Australia's smaller contractors. It is shown later in this article that smaller businesses are less likely to innovate, so that the industry composition in NSW may drag down its overall innovation rate. The NSW result may also reflect the dominance of relatively standard construction projects and/or relatively low levels of technical competency within client organisations; both of which would constrain innovation opportunities.

The strong result for South Australia (SA) could indicate the existence of competent clients, or landmark projects, particularly projects

emphasising positive environmental outcomes, such as the Parafield Stormwater Harvesting Initiative. However, there is a broader influence as South Australia has the highest rate of innovation in the country, when accounting for businesses across all industries. This may suggest that government initiatives such as the Centre for Innovation and Upskill SA are having a positive effect.

Contractors in Victoria, Queensland and Western Australia (WA) share a similar propensity to innovate to those in SA. For Victoria, the result is likely to reflect building construction associated with the showcase Docklands development. For Queensland, likely drivers include rapid population growth, infrastructure investment, the resources boom and high levels of client competency within government agencies.

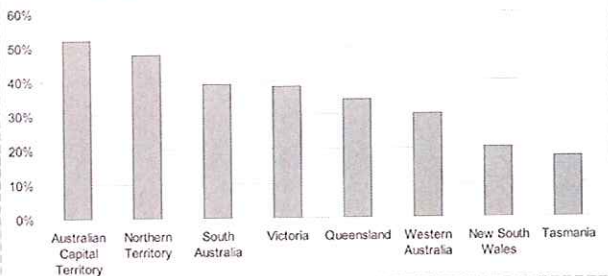
For WA, the resources boom and an overheated economy are obvious opportunities for contractor innovation. Together with this, there is some evidence that businesspeople in WA have a strong desire to 'do it their way' and to avoid duplicating the behaviour of their peers in the eastern states, which can drive innovation. Indeed this cultural desire to be free of tradition has been argued to exist in WA, Queensland and NT, supporting their strong performance in Chart 1.

Clearly the location of contractors impacts on their innovation opportunities and innovation performance. Another key determinant of innovation performance is company size. Chart 2 shows that contractor innovation rates vary according to how many employees they have.

For both the construction industry and all-industries, the data shows that innovation rates increase with the number of employees. This is due to larger businesses having more resources available for innovation, including employee ideas. The data also shows that large contractors, employing more than 100 people, are more innovative than the average for large businesses across the whole Australian economy. This is quite an achievement and suggests that large businesses can play a useful role in pulling innovation through the supply chain, by helping to upskill their subcontractors.

In terms of small businesses, with between five and 19 employees, Chart 2 shows that

**CHART 1: PERCENTAGE OF CONSTRUCTION BUSINESSES INNOVATING BY STATE AND TERRITORY, 2004-2005\***



Source: Dr Karen Manley, CRC for Construction Innovation, based on ABS (2006) Cat. 8158.0

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construction businesses have a similar innovation rate to the average performance of their peers in all industries. The most marked difference in innovation rates between contractors and the all industry average is for middle-sized businesses, which employ between 20 and 99 people. For this size range, contractors' performance is markedly less than the Australian average. This finding suggests that policy makers should focus their attention

on assisting medium-sized contractors to improve their innovation performance. Medium-sized businesses lack both the intimacy and flexibility of smaller businesses and the extensive resource-base of larger businesses. Both can make effective relationship management more difficult. This problem appears to have had a particularly significant impact on medium-sized businesses in the construction industry, where the quality

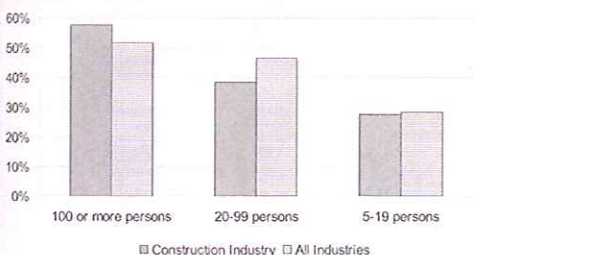
of relationships is crucial, given the demands of temporary, multiple-stakeholder projects.

Hence, the ABS data shows that location and size are key determinants of contractor innovation. Yet there is much that internal management policies can do to improve a company's innovation performance. This is a desirable strategy as we know that innovation drives business growth. The BRITE Project of the CRC for Construction Innovation, and other Construction Innovation projects, are actively engaged in assisting medium-sized contractors and other construction industry participants to achieve their innovation potential. Visit [www.brite.crci.info](http://www.brite.crci.info) for assistance in improving your innovation performance.

The CRC for Construction Innovation ([www.construction-innovation.info](http://www.construction-innovation.info)) is a national collaboration of 21 industry, government and research partners focussed on creating technologies, tools and processes for the property, design, construction and facility management sectors.

# The construction industry is defined by the ABS as main and trade contractors in the civil and building sectors. Consultants and construction suppliers are allocated to other industries.

**CHART 2: PERCENTAGE OF BUSINESSES INNOVATING, BY INDUSTRY, BY EMPLOYMENT SIZE, 2004 AND 2005.**



Source: Dr Karen Manley, CRC for Construction Innovation, based on ABS (2005) Cat. 8158.0