



Column // Karen Manley  
**INNOVATION OF THE NATION**

NEW FIGURES FROM THE AUSTRALIAN BUREAU OF STATISTICS (ABS) SHOW VARYING LEVELS OF INNOVATION IN THE CONSTRUCTION INDUSTRY. **DR KAREN MANLEY** LOOKS AT WHERE THIS INNOVATION IS HAPPENING AND WHO ARE THE MAIN INSTIGATORS.

Many contractors and consultants in the construction industry have traditionally been sceptical about the potential benefits of innovation. However, the benefits have now been well documented in numerous case studies.

Indeec, 93 percent of all innovators in the construction industry achieve higher business profits as a result of their efforts, and 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.

**So what exactly is 'innovation'?**

Innovation is about trying something new, that is, implementing new technologies and new practices in a business or on a construction project. Innovation can improve productivity and other project outcomes such as those related to safety, quality and the environment. It does not have to be world-first innovation – simply moving from a business-as-usual mode of operating to adopting best practice, or even better practice, is innovative.

Innovation takes many forms, including new technologies and new and improved management practices. In terms of new management practices, we are seeing companies employing new contract styles to involve project participants in a co-operative environment, and contractors are developing strategies to support employees in producing and harnessing new ideas. In terms of technologies, contractors are adopting new goods and services offered by manufacturers and consultants.

The construction industry as a whole has been relatively slow

to change. ABS statistics show that the number of construction businesses innovating increased 4 percent between 2002/3 and 2004/5. Although this is roughly equal to the average growth over the same period for businesses across all Australian industries, construction still remains at a lower level than other industries as shown in Chart 1.

Levels of innovation are influenced by the predisposition of business owners and managers toward innovation. Innovation performance is also influenced by the type of projects required by clients and the capability of clients. More complex projects and more competent clients lead to higher innovation opportunities.

The location of a business can also frame its innovation opportunities. The rate of construction innovation varies markedly across Australia's states and territories, as shown in Chart 2.

Landmark projects such as the Alice to Darwin Railway are likely to be the reason for high levels of innovation in the Northern Territory, South Australia and the ACT. Such projects involve new challenges that create innovation opportunities.

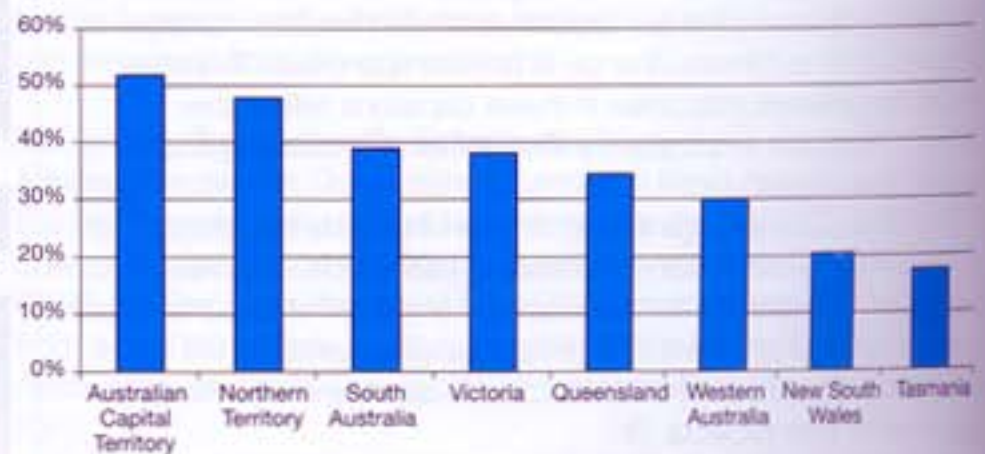
NSW is below the national average of 30.8 percent of businesses innovating. This may reflect its large population of contractors, including Australia's smaller contractors, who have relatively low innovation rates.

There appears to be a strong innovation culture in South Australia, with high rates of innovation by construction businesses, as well as the highest rate of innovation in the country 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.

**Chart 1: Australian industries by percentage of businesses innovating, 2004-2005**



**Chart 2: Percentage of construction businesses innovating by state and territory, 2004-2005**



(Note: results for the four smallest population centres (ACT, NT, TAS and SA) have high relative standard errors of between 25 and 50 percent.)



**Does size matter?**

The data shows that contractor innovation rates vary according to how many employees they have, as shown in Chart 3.

For both the construction industry and all industries, the data show that innovation rates increase with number of employees. This is due to larger businesses having more resources available to encourage innovation, and a greater source of employee ideas. The data also shows that large construction businesses, employing more than 100 people, are more innovative than average large businesses across the Australian economy. This is quite an achievement and suggests that large construction businesses have a role to play in initiating and diffusing innovative practices.

Medium-sized businesses lack both the intimacy and flexibility of smaller businesses and the extensive resource-base of larger businesses. These features can make effective relationship-management more difficult than for smaller and larger businesses. 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.

**The challenge ahead**

The latest ABS data indicates that despite growing interest in innovation by construction businesses, more companies need to take up the challenge if the construction industry is to keep pace with productivity growth in other Australian industries. Diffusion of ideas and effective government assistance programs, particularly aimed at medium-sized contractors could greatly affect the overall standing of construction industry innovation performance. <sup>16</sup>

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**Chart 3: Percentage of businesses innovating, by industry, by employment size, 2004-2005**

