

# 2004 BRITE innovation survey results >>

This year there were more than 1,300 participants in the BRITE (Building Research, Innovation, Technology and Environment) national innovation survey. BRITE is a Brisbane-based Cooperative Research Centre (CRC) for construction innovation. The survey aimed to measure industry innovation over time and provide useful data for the development of public policy.

The survey sampled the views of main contractors, consultants, clients, trade contractors and suppliers and achieved a 30 per cent response rate. Participants were ranked as high or low innovators according to their response.

## Who were the high innovators?

High innovators were:

- clients 43 %
- consultants 25 %
- suppliers 22 %
- main contractors 17 %
- trade contractors 14 %

## Characteristics of high innovators

Compared to low innovators, high innovators were likely to:

- develop innovation with a high degree of novelty
- develop innovations yielding higher levels of profitability
- adopt a higher number of advanced practices
- invest in research and development

High innovators differed to low innovators in the way they dealt with:

- innovation strategies
- business strategies
- the Commonwealth Government's R&D Tax Concession
- sources of ideas on innovation

## Innovation strategies

The survey asked participants which innovation strategies yielded the most benefit over the past three years.

Key Innovation Strategy	High Innovators	Low Innovators
Continuing development program	32%	27%
Formal evaluation program	24%	12%
Staff-related strategies	17%	14%
Customer/user feedback	15%	12%
No formal strategy	7%	33%
Other	5%	2%

High innovators achieved the most from their innovations and were likely to have a formal evaluation program. The survey found that formal evaluation programs were linked to success in organisational innovation and that the absence of a formal strategy reflected low profitability levels.

## Business strategies

Business strategies were a key driver of innovation and participants were asked to select which strategies were most critical to their business's success. The strategies were broken down into four subsets: human resources; technology; marketing and knowledge.

Innovators	High	Low
<b>Human Resource Strategies</b>		
Actively encouraging your employees to seek out improvements and share ideas	96%	60%
Providing or supporting training programs for your employees	94%	36%
Recruiting experienced employees	84%	51%
Recruiting new graduates	79%	12%
Use of multi-skilled teams	79%	30%
Participating in apprenticeship programs	45%	28%
<b>Technology Strategies</b>		
Enhancing your business's technical capabilities	91%	49%
Introducing new technologies	85%	28%
Participating in the development of industry standards and practices	74%	23%
Protecting your business's intellectual property	70%	23%
Investing in research and development (R&D)	56%	2%
<b>Marketing Strategies</b>		
Building relationships with existing clients	87%	79%
Delivering products/services which reduce your clients' costs	77%	42%
Attracting new clients	74%	64%
Providing a broader range of services to your clients	66%	40%
Increasing your market share	59%	27%
<b>Knowledge Strategies</b>		
We have robust relationships with key organisations in the industry	91%	38%
We actively monitor international best practice in our field	63%	7%
We have a formal system for transferring project learnings into our continuous business processes	59%	6%
We actively monitor advances in related industries that might be applicable to our business	55%	16%
When we make changes, we measure how well the changes have worked	51%	26%
We have a formal system to encourage staff to share ideas	43%	11%
We reward staff for maintaining networking linkages with strategically useful industry participants	37%	7%

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High innovators used each of the 22 strategies more often. There were several areas of major difference. Compared to low innovators, high innovators were much more interested in monitoring international best practice; capturing project learnings; reducing client costs and recruiting new graduates.

Low innovators were more interested in monitoring advances in related industries than overseas developments; and more interested in hiring experienced employees than new graduates which was reflected by their low participation in training programs. This may diminish not only their own potential, but that of the industry.

The relatively little importance that low innovators attached to "transferring project learnings into continuous business processes" was of concern, given other research findings which showed that knowledge losses between projects were a major cause of inefficiency in the industry. Considering the importance of business strategies, the results from all charts were ranked for the top 3 strategies for each innovator group:

Business Strategy	High Innovators	Low Innovators
Actively encouraging your employees to seek out improvements and share ideas	1st	3rd
Providing or supporting training programs for your employees	2nd	
Enhancing your business's technical capabilities	3rd	
We have robust relationships with key organisations in the industry	3rd	
Attracting new clients		2nd
Building relationships with existing clients		1st

These rankings showed the overall importance of employee-related strategies for the success of businesses, particularly in the high innovator group. It seemed that while high innovators had the in-house skills (and resources to develop such skills) to be able to rely on their employees as key drivers of success, low innovators were not in this position and saw existing clients as more important.

High innovators also stood out in terms of the *average number* of strategies they used:

Average strategies used	HR Strategies	Technology Strategies	Marketing Strategies	Knowledge Strategies	All Strategies
High Innovators	5	4	4	4	17
Low Innovators	2	1	3	1	7

## R&D Tax Concession

The survey asked whether respondents were entitled to claim the Commonwealth Government's Research & Development Tax Concession. R&D was a key input indicator of technological innovation.

Entitled to Claim?	High Innovators	Low Innovators
Yes	40%	0%
No	25%	37%
Don't Know	35%	63%

High innovators were more likely to be entitled to claim the concession. More of them have checked if they were eligible. High innovators seemed to have structured their business in a way that maximised their access to this scheme. The survey also found that they invested in R&D more frequently.

## Sources of ideas for innovation

Sources of ideas was another key driver of innovation.

Source of Ideas or Information on Innovation	High Innovators	Low Innovators
In-house staff	90%	42%
Previous projects	50%	26%
Conferences/workshops	49%	36%
Clients or customers	43%	31%
Technical support providers	34%	14%
Overseas sources	30%	2%
Consultants	29%	10%
Professional or trade associations	28%	63%
Suppliers	26%	35%
Research Institutions	23%	6%
Journals/magazines	23%	37%
Competitors	17%	12%
General contractors	7%	6%
Trade contractors	7%	14%

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Many of these sources were used significantly more often by high innovators than low innovators:

- in-house staff
- previous projects
- technical support providers
- overseas sources
- consultants
- research institutions

Only one source was used significantly more often by low innovators and this was "professional or trade associations". High innovators used on average five sources while low innovators used on average only three.

### Tips for improved innovation performance

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Businesses wishing to improve their innovation performance could consider:

- enhancing in-house skill levels by providing employee training programs and employing new graduates, rather than relying on recruiting experienced employees
- focusing on using more innovations to reduce client's costs
- actively monitoring inter-industry and international developments
- developing formal systems to integrate project-based learnings into ongoing business processes and to encourage staff to share ideas
- adopting procedures to formally evaluate their success in adopting advanced technologies and practices
- investing in R&D, possibly using the Commonwealth Government's R&D Tax Concession and/or Australian Research Council linkage grants to subsidise costs
- growing linkages with universities and other research institutions
- implementing a broader range of technology, knowledge and human resources strategies listed in the BRITE innovation survey [www.brite.crcci.info](http://www.brite.crcci.info)

■ consulting a broader range of the sources of innovation ideas listed in the BRITE innovation survey [www.brite.crcci.info](http://www.brite.crcci.info)

■ adopting a broader range of the advanced practices listed in the BRITE innovation survey [www.brite.crcci.info](http://www.brite.crcci.info)

Commonwealth and state government agencies interested in improving the environment for construction innovation should consider the following:

- implementing programs to assist skill development within industry associations given the central role the associations play in providing ideas to low innovators
- reviewing the value and accessibility of the R&D Tax Concession Scheme for small and medium-sized enterprises within the construction industry, given the industry's low rate of access
- strengthening education and training programs given that the construction industry relies more on organisational innovation than the manufacturing industry and, therefore, is less able to gain value from other initiatives such as the R&D Tax Concession
- improving regulation of the construction industry to reduce its negative impact on innovation, in part by improving national consistency and moving more rapidly from prescriptive to performance-based approaches

The above recommendations reflected the overarching vision of the Australian construction industry, as reported in a recent national study, Construction 2020 conducted by the CRC for Construction Innovation. That vision stressed the need for an improved business environment, particularly in relation to regulation, education and training.

*For more information, see the BRITE website [www.brite.crcci.info](http://www.brite.crcci.info) or contact Dr Karen Manley at the CRC for Construction Innovation on (07) 3864 1762. **BA***