How innovative are we?

The BRITE Project is a research project of the Cooperative Research Centre for Construction Innovation, based at the Queensland University of Technology in Brisbane. The project's aim is to increase the rate and quality of innovation in the industry. The research team is doing this by widely publishing information on successful innovations, drawn from the BRITE Innovation Survey and from more detailed case studies.

The Innovation Survey polled more than 1,300 businesses in the commercial building and road/bridge sectors (including electrical and communications contractors (ECCs)) in New South Wales, Victoria and Queensland.

Ten percent of ECCs were classed as 'high innovators' by the survey. Twenty-five of the survey respondents developed 'new-to-the-world' innovations, and one of these was an ECC. Twenty-seven percent of ECCs adopted 'new-to-industry' innovations.

The survey polled all industry players including main contractors, trade contractors, clients, consultants and suppliers. The survey team identified what 'high innovators' do differently and made recommendations that will help businesses to improve their innovation performance.

The survey looked at two types of innovations (ECCs adopted roughly the same number of the two types):

- technological innovations: services, materials, products, plant, equipment etc
- organisational innovations: advanced business practices such as marketing, human resources, financial systems, strategic planning, collaboration, relationship management, health, safety, environment etc.

Following are the key points from the survey as they relate to ECCs:

Profitability

Eighty-nine percent of ECCs said innovation had a positive effect on their profitability.

Reasons to innovate

The three key reasons (apart from profitability) that drove most ECCs to innovate were:

- improving efficiency/productivity
- responding to clients' needs
- meeting regulations or standards.

These are significant, because they show there is increasing emphasis in the industry on client needs, and that regulations and standards have a growing importance, as more performance-based approaches are adopted in preference to prescriptive approaches.

Key sources of information

'In-house staff', 'suppliers' and 'professional or trade associations' were the key sources of ideas about innovation for most ECCs. 'Previous projects' were more important to the whole high innovators group than to ECCs, so ECCs could benefit more if they found ways of preserving the lessons they learn from one project to the next.

Obstacles to innovation

The two most important obstacles to innovation were the 'cost of initiatives' and 'insufficient time.' ECCs were more likely to find 'lack of skilled staff' an obstacle than high innovators did, while they were less likely to find 'conservative clients' or 'inadequate government support' an obstacle.

Innovation drivers and blockers

ECCs believed that 'large repeat clients' were the main drivers of innovation, followed by 'manufacturers' and 'architects.' ECCs saw 'other suppliers' and 'organisations that set industry standards' more positively than other industry respondents did. The 'suppliers' result is in line with a finding that ECCs frequently get their key information on innovation from suppliers.

The majority of ECCs did not see their own sector (trade contractors) as drivers of innovation – 35% nominated them as drivers, 17% as blockers.

ECCs believed that 'government regulators,' 'insurers,' and 'main contractors' were the main blockers of innovation.

The rest of the industry saw trade contractors more often as innovators (27%) than as blockers (18%).

Investment in research and development

ECCs had a low rate of investment in R&D – only 13% reported that they did this. Only half of these had the support of the Commonwealth Government's R&D tax concession. Amongst 'high innovators,' 56% invested in R&D, so this is another area that may benefit ECCs.

Recommendations

Those who would like to improve their innovation performance can learn from the following strategies of 'high innovators':

- Enhance in-house skills by providing training programs and employing new graduates, rather than relying on recruiting experienced employees
- 2. Use more innovations to reduce clients' costs
- 3. Actively monitor developments internationally and in related industries
- 4. Have formal systems to (i) include lessons from previous projects in work processes and (ii) encourage staff to share ideas
- 5. Formally evaluate the effectiveness of advanced technologies and practices
- Invest in research and development, possibly using the R&D Tax Concession and/or Australian Research Council Linkage Grants to subsidise costs
- 7. Increase links with universities and other research institutions
- Implement a broader range of the technology, knowledge and human resources strategies listed in the survey report
- Consult more of the sources of ideas on innovation listed in the survey report
- 10. Implement a broader range of the advanced practices listed in the survey report.

You can read the 2004 BRITE Innovation Survey report at www.brite.crcci.info or email k.manley@qut.edu.au for more information.

Innovators being asked to step forward

BRITE Innovation Survey researchers are calling on innovators to step forward and share their successes.

A number of case studies on high innovation companies are already available (www.brite.crcci.info/case_studies/index.htm), and the team is seeking nominations from other organisations that would like their innovations to be profiled for industry dissemination.

To be eligible, the innovation should have been used on a completed commercial building or construction project. There should be measured benefits from the innovation such as reduced energy costs, building costs, whole-of-life costs, time etc. The team is particularly interested in the activities of small to medium-sized businesses, especially in regional areas. Innovation can include:

- technological innovation (services, materials, products, equipment etc)
- organisational innovation (advanced business practices including marketing, human resources, financial systems, strategic planning, collaboration, relationship management, health, safety, environment etc).

To register interest, send an email to k.manley@quy.edu.au or phone Dr Karen Manley on 07 3864 1762.

THE BRITE PROJECT



CRC Construction Innovation