



Deepening our understanding of business innovation

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Highlights

This research:

- › deepens understanding of business innovation and research and development (R&D) in New Zealand
- › is based on interviews with a diverse set of 30 New Zealand businesses
- › focuses on businesses' views about the meaning of, motivations for, constraints to, and government support of, innovation and R&D
- › finds that:
 - businesses tend to think of innovation as changes to products or operational processes, rather than changes to marketing methods or managerial processes which are also included in standard definitions of innovation
 - R&D tends to mean 'D' (development) rather than 'R' (research) to R&D-performing businesses
 - businesses seek a number of benefits from their innovations and R&D activities with the ultimate aim of improving their bottom lines
 - money, time and skills are the main constraints to innovation and R&D
 - despite the constraints that many businesses described, most businesses that want to innovate are able to do so nonetheless
 - awareness of government support for innovation and R&D is limited
 - businesses believe that government can do more to support business innovation.
- › implies, among other things, that there is an opportunity to increase awareness of government support for innovation and R&D.



Why we did this study, and what we did

Business innovation and R&D play a major role in economic growth. Business innovation is about businesses introducing new or improved products or processes. R&D is about generating new knowledge, and is one of the activities that supports innovation. Improved products, better ways of doing things, and new ideas help businesses to become more competitive and grow.

Government provides support for business innovation and R&D because of the widespread benefits from these activities – it is not just innovating businesses that gain from their innovations. Other businesses pick up the ideas. Consumers benefit from more variety and from cheaper prices.

The focus of the study is gaining a deeper understanding of what innovation and R&D mean in practice for New Zealand businesses. This can help government better support business innovation and R&D.

The study involved two MBIE researchers interviewing 30 New Zealand businesses in mid-2018. During the interviews, businesses' attitudes and experiences with innovation and R&D were explored in detail. The businesses were selected to cover a range of industries, business sizes, and levels of involvement with innovation and R&D. One common characteristic, however, is that the businesses were generally well established – many were 20 or more years old.

This in-depth approach with a relatively small number of businesses contrasts with that used in many previous studies on business innovation in New Zealand, which have tended to draw primarily on information from large-scale surveys.

Innovation is seen as changing products and operational processes

When we asked businesses what innovation means in practice to them, they discussed changes to their products or their operational processes (mainly their IT systems). Often these changes involve adopting and adapting others' innovations. This highlights the importance of businesses being able to absorb ideas from elsewhere.

None of the businesses mentioned, unprompted, the other two types of innovation included in standard definitions – marketing methods or organisational/managerial process innovation. When we prompted them about this, some businesses said they do in fact undertake these latter types of innovative activities. This suggests that these types of activities are not what come to mind when businesses think of innovation.

The relatively few businesses we spoke with that undertake R&D tend to focus on 'D' rather than 'R' – product and process developments rather than exploratory research.

We research a bunch of different technologies and software solutions...
A lot of work we do is fairly known and incremental, so there's quite a bit of development going on.

Auckland software company





Motivations for innovation are wide-ranging

Businesses that innovate and undertake R&D seek a number of benefits, including better meeting customer needs, increasing their revenue, increasing their staff satisfaction and improving their efficiency. The ultimate aim is to improve their bottom lines or (in some cases) to ensure their survival. Competition is a spur to innovation for many businesses.

The diagram opposite illustrates the range of motivations that businesses raised.

A number of businesses commented that innovation and (especially) R&D is risky and expensive. They said they do not always achieve the anticipated benefits from their innovation and R&D activities. A few businesses said that these failures are not all negative, as they learn from the failures, or they are able to pick up the ideas again at a later date. This highlights the importance of organisational culture in shaping businesses' attitudes to innovation.



Money, time and skills are the main constraints

A lack of money, time and staff with the right skills were the most frequently mentioned constraints to innovation and R&D. Regulation and a number of other factors were also seen as a constraint by some. These factors align closely with the findings from large-scale surveys.

Our discussions with businesses imply that the constraints to innovation and R&D are not insurmountable, and are in fact part of the normal experience. Many of the innovating businesses we spoke with mentioned a number of constraints to innovation, but are still able to innovate nonetheless. Those businesses that rarely or never innovate did not seem to face particularly strong constraints. Instead, these latter businesses said they have little need to innovate, for example because they face little competition; this highlights the role that competition plays in innovation. In combination, these findings suggest that constraints are not overly restricting innovation activity. Note, however, that young businesses may face quite different constraints to the established businesses we spoke with.

Awareness of government support is limited

Around half the 30 businesses we spoke with said they were aware of at least one thing that government does to support innovation and R&D. However, half said they were not. Given that businesses in the sample were more likely than the average New Zealand business to be innovating and undertaking R&D, this suggests a widespread lack of knowledge.

Those businesses that were aware of government support appreciate it. Callaghan Innovation's R&D grants, and especially New Zealand Trade and Enterprise's (NZTE's) services, were generally well received.

To be fair, I'm not too sure what government incentives there are out there. There isn't much information out there, and we don't have much time.

Christchurch manufacturer





Businesses made wide-ranging suggestions about how government might better support innovation and R&D. The main suggestions were for government to:

- › improve the skills system to better reflect industry's needs, increase access to migrants, and strengthen the links between universities and industry
- › provide more information about access to innovation expertise, what government support is available, and government's direction and strategies
- › broaden the definition of R&D in the R&D Tax Incentive (note that, since the interviews were undertaken, the definition was changed in response to the results from public consultation)
- › make sure that regulations support innovation, for example, that they are not overly prescriptive
- › make some changes to the tax system to encourage innovation
- › improve and digitise government's own processes.

Conclusions and implications

The study provides a deeper understanding of what innovation and R&D mean in practice in New Zealand. This is because it identifies businesses' own views of 'innovation' and 'R&D', as opposed to the definitions used by researchers. This is useful for policymakers, researchers and others when they interpret businesses' responses to large-scale surveys about innovation.

Overall, a key implication is that there is an opportunity to raise awareness among businesses of what government support is available for innovation and R&D. At the time the interviews were undertaken, awareness appeared to be quite low. Where there was awareness, the support was appreciated, suggesting that government can play a positive role in fostering an innovative economy.

Read the full version of the report at www.mbie.govt.nz or call us on 04 901 1499.