

New Zealand firms: Reaching for the frontier (draft report)

Submission by The Icehouse – 5 February 2021

In response to the request for feedback on the Productivity Commission's draft report *New Zealand firms: Reaching for the frontier* dated December 2020, The Icehouse provides the following feedback for your consideration.

Background

1. Twenty years ago The Icehouse was started as a result of the 2001 Knowledge Wave conference which looked at ways to generate high-value industries – one of the government strategies to lift growth and productivity listed in the draft report. Since then The Icehouse and the supporting community has directly invested more than \$150m in over 200 startups, helped build leadership capability and transformed over 3,600 Kiwi businesses and contributed to building New Zealand's innovation ecosystem.
2. From this vantagepoint The Icehouse group, which includes Icehouse Ventures¹, broadly supports the report's findings that the key to New Zealand's economic future is innovation and that successful small advanced economies have large globally competitive firms that export specialised, distinctive products at scale. They, in turn, are supported by an ecosystem of small to medium enterprises (SMEs) that provide specialised products and services with deep globally competitive know-how.
3. The report noted how few frontier firms we have, our low export ratio, low economic diversification out of primary industries and provided evidence about our relatively low high tech firm penetration despite tech being now the second or third largest export for New Zealand.
4. Therefore, our sights must be on the next 10 years supporting the high-growth firms to go global or be part of the innovation ecosystem supporting larger frontier firms.

Innovation is more than R&D: value creation versus value capture²

5. As noted in section 6.1 innovation isn't just developing new products or technologies, it's how the value is captured through commercialisation, new business models, supply chains, distribution and marketing. For R&D to be successfully commercialised it must be considered within a firm's business context.
6. As shown in Figure 7.3 (Projected funding for research, science and innovation, 2021-22) the bulk of the \$2b government money is focused on 'value creation' versus 'value capture' – i.e. on the underlying science and research for core product IP rather than the downstream value capture of

¹ Icehouse Ventures is a venture capital company and subsidiary of The Icehouse Ltd. It backs Kiwi startup founders launching global companies from New Zealand. <https://www.icehouseventures.co.nz>

² *Value creation* is the core science or product development, *value capture* refers to the commercialization of core IP through business models, distribution, supply chains and customer experience. See Michel, S. (2014), **Capture More Value**, Harvard Business Review.

<https://hbr.org/2014/10/capture-more-value>

business models, distributions strategies, supply chain optimisation, firm capabilities and supporting firms' global growth.

7. Science lays critical groundwork for new technology, but after the science is done, much work remains. Businesses must shepherd the breakthrough to products and services, where they can actually affect productivity. This means building businesses that can scale production.
8. Figure 7.5 showing firms' interactions with government support for innovation shows the breadth of support is largely correct. The category of government support for 'incubation and piloting' is largely managed by Callahan Innovation rather than a separate group. It would also be useful to couple the government support spend information in Figure 7.3 with this diagram to show where the resources are being applied. This would illustrate the skewing of government resources to value creation activities.
9. We believe the government funding balance is tilted too far toward core pure R&D and the RSI strategy is not sufficiently focused on practical, strategic commercial variables at firm-level. We are not proposing a reduction in science spending, but a more balanced approach to funding the other types of innovation critical for lifting productivity and getting up the value chain.
10. Specifically, a greater part of the government policy funding should support firm-level **capability building** in frontier firms and their supporting ecosystem of SMEs. As noted in section 8, high quality management, leadership and governance are key for firm productivity.
11. In addition, our experience with deep-tech startups suggests that as well as university commercialisation organisations, individual students and researchers should be supported to consider entrepreneurship as a career progression option. As the report recommends, more work still needs to be done to connect the research organisations, firms and universities. In this respect the innovation ecosystem from where we sit lacks coherence, orchestration, material pools of money for deep practical entrepreneurialism or on founders / owners.
12. We support the recommendation for an independent review of New Zealand's innovation policy.

Without international focus and scale, you can't drive productivity

13. As Skilling³ suggests, small economies may be doomed to make a choice about which industries to focus on. The choices of specialisation in primary good and weightless (technology-led) exports make sense however we believe that government's role needs to evolve to back winners more strongly in targeted areas. This is not picking winners, but letting the private market thrive, and supporting those firms with dynamic capabilities who are export ready, and then coherently bringing in the machinery of the state forward to build a wider cohort of globally competitive firms. We support the report's assessment that international focus correlates strongly with higher productivity

³ Skilling, D. (2020), **Frontier firms: An international small advanced economy perspective.**

https://www.productivity.govt.nz/assets/Documents/frontier-firms/2580acf490/Frontier-firms_David-Skilling.pdf

and that moving policy to back winners is overdue. The current “rising tide raises all ships approach” across many industries and sectors, or the same old ones, is not working.

14. Our domestic market is too small to provide the scale to support a globally competitive company. We must think global from day one and support successful companies to go global. Leaders in firms, founders, owners and senior management must have the capabilities, aspiration and confidence to enter overseas markets. Our experience is that the hidden causality between these factors is aspiration. The New Zealand domestic market is large enough to support a comfortable lifestyle for a sole-proprietor business owner in many industries. It takes a brave soul, with networks and drive to expand beyond the New Zealand market.
15. Not all frontier firms are today’s large companies - tomorrow’s frontier firms are today’s high-growth start-ups and SMEs. As in Germany’s *mittelstand*, the ecosystem of SMEs that are tightly bound to the supply chain of the frontier firms must be supported and encouraged.
16. As noted below, building leadership capabilities, particularly in the area of international connections, is critical. One NZTE-led programme that was effective in both building international connections, global mindsets and dynamic capabilities was the Global Executive Leadership Programme (GELP) developed and delivered by The Icehouse, University of Auckland Business School and Thunderbird School of Global Management. Our business leaders aspiring to enter international markets are underprepared for what it takes to be taken seriously overseas.⁴

Support the innovation ecosystem – going further together

17. We support the F7.6 and R7.6 which recommending policies to encourage firms to collaborate in the development of innovation and export strategies in the areas chosen for focused innovation policy. We would like to support this recommendation through to implementation nationwide.
18. We believe that there is significant room for improvement in the coordination, measurement, discussion and orchestration in the innovation ecosystem between innovation policy makers (MBIE), innovation execution agencies (Callaghan Innovation and NZTE) and real-world founders and leaders at firm level.
19. Our experience with running over 50 owner-manager programmes over the last 20 years is that business owners often feel isolated. They learn as much from one another as they do from the facilitators and programme content.
20. We also support R7.7, a review of the suite of programmes designed directly to assist firms with innovation and export. Firms can be bewildered with the choices. A fundamental market-failure underlying a variety of the firm-level symptoms identified in the report is the reluctance of Kiwi business owners to reach out to each other or to professional advisors. This DIY spirit is an

⁴ Quotes from two C-suite leaders of global NZ businesses who participated in GELP include: “NZ’s future must lie in being in the world – we need to get this realized through programmes like this.” and did it add value? YES, to me, to the business and to the intellectual capital of NZ! Only 1 company needs to get a lift of \$4m and the government is square. Need 200 to have done this programme in 10 years.”

advantage in building a small business but can be a blocker to a company scaling to a global level. There is a role for government to identify, support, promote, and part-fund proven interventions such as leadership training, business mentoring and benchmarking.

21. Referencing Figure 7.5 showing firms' interactions with government support for innovation, The Icehouse group creates the most value in the areas of skills and capability building, venture funding, investor networks and business community building for SMEs.

Building leaders' "dynamic capabilities"

22. We fully support the assertion that firms with more strategic ability – "dynamic capabilities"⁵ are able to identify areas of competitive advantage then seize opportunities in these areas by innovating in the way strategic management is done at firm-level. Management capability critically matters and yet is largely ignored in existing policy and funding efforts, and is left largely "to the market" to fill these gaps. The market has not. It's vital that the leaders of firms (the owners, executive and board) have the experience and ability to sense the right products for sustainable global markets then applying the right resources. These "dynamic capabilities" are the essence of strategic innovation.
23. **Innovation is about people and decision leaders are making in firms everyday.** Without wise leadership in firms then government policies on grants, tax incentives or core research will be ineffective.
24. Our experience at The Icehouse is that leadership must be transformed before companies can take the next leap in growth. It takes a combination of unique industry insight plus a global aspiration and capability to successfully grow export businesses.
25. Section 8 in the report on talent and leadership is relatively light on policy recommendations to address this critical area. We do believe the government has a key role in providing indirect part-funding for programmes that are proven.
26. The report is right that many leaders learn through commercial experience rather than training, however many New Zealand businesses underinvest in the certain types of proven programmes that are positioned and delivered in a way that is practical and builds effective cohorts of leaders who learn from one another. For example the Owner-Manager Programme⁶ delivered by The Icehouse supported by the underlying principles summarised in *Gearing Up*⁷,

Recommendations

27. We recommend a review of government funding to rebalance the spend on value creation (core science and R&D) and value capture. Critical value capture capabilities include but are not limited

⁵ Teece, D. and Brown, K. (2020). New Zealand Frontier Firms: A Capabilities-Based Perspective
<https://www.productivity.govt.nz/assets/Research/adbadb53b7/NZ-Boards-and-frontier-firms-v2.pdf>

⁶ <https://www.theicehouse.co.nz/programme/owner-manager-programme>

⁷ Irving, D. et al (2020). **Gearing Up**, Auckland University Press.

<https://blog.theicehouse.co.nz/announcing-the-launch-of-gearing-up>

to: dynamic capabilities of founders and senior teams, international alliance and joint-venture building, and dynamic governance for innovative frontier firms. We are not proposing a reduction in science spending, but a more balanced approach to funding the other types of innovation critical for lifting productivity.

28. We recommend the government consider sponsoring a consortia of private and public organisations to drive dynamic capabilities in export-focused frontier companies.

Concluding comments

29. The report resonated in the context of The Icehouse Group's purpose: to enable Kiwi business owners and start-ups to fulfil their extraordinary potential through knowledge, investment and connections. The response that we saw from Kiwi businesses pivoting and adapting during COVID showed the grit and determination of our SMEs and start-ups. What's needed now is the support and resources to turn that innate determination towards a more global ambition.
30. We look forward to continuing to be part of the innovation ecosystem helping to transform New Zealand's productivity. We support the report and encourage the government to focus on practical policy implementation that is relevant to the brave and gritty reality of building and scaling a business from New Zealand.