

26 March 2025

Mr Cameron Brewer  
Chairperson,  
Finance and Expenditure Committee  
Private Bag 18888  
Parliament Buildings  
Wellington 6160

Hon Judith Collins KC  
Minister for Space  
Parliament Buildings  
Wellington 6160

Hon Nicola Willis  
Minister of Economic Growth  
Parliament Buildings  
Wellington 6160

Hon Dr Shane Reti  
Minister for Science, Innovation and Technology  
Parliament Buildings  
Wellington 6160

Dear Mr Brewer,  
Dear Ministers:

I am writing to you on behalf of The Australian and New Zealand Optical Society (ANZOS) in collaboration with SPIE, the international society for optics and photonics, in support of a continued commitment to investing in science and research in New Zealand's as a driver of economic growth. New Zealand's photonics-based industry sector accounts for around \$1.5 billion of economic activity and employs around 4,700 people in 354 companies<sup>1</sup> with an output comparable to the country's fishing and aquaculture industries.

We strongly believe in the critical role of scientific research across the entire economy of New Zealand. While acknowledging the prevailing budgetary constraints, we encourage you to boost the comparatively low level of public investment in scientific research. **In 2023, New Zealand's R&D expenditure was 1.47% of GDP—significantly below the 2.7% OECD average.** An increased investment would serve several crucial purposes:

1. **Economic Growth:** Targeted investments in agricultural science research present a strategic opportunity to leverage New Zealand's comparative advantages and boost the economy, with dairy products as the country's largest export. New Zealand has also proven to be a successful incubator for start-ups, as in the case of Halter in the agritech sector. To further encourage innovation, we support revising tax incentives and grants to de-risk industry research and development, ensuring it remains onshore while holding industries accountable for the investments they receive.

In its earliest stages, Auckland-based Quantifi Photonics, which specializes in developing high-density photonics test and measurement instruments for the optical communications industry, received up to \$2.5 million from New Zealand Growth Capital Partners' (NZGCP) Aspire Fund to help foster innovation and stimulate economic growth. Since then, Quantifi has raised \$15 million in a Series C funding round, solidifying New Zealand's position as a leader in photonics technology. This success not only enhances the global demand for high-speed data transmission but also strengthens New Zealand's reputation in the tech industry, attracting international investment.

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<sup>1</sup> Verboeket, A., & Lincoln, J. (2024). Photonic and Quantum Technologies in Australia and New Zealand: 2024 Industry Report. In <https://optics.org.au/2024-industry-report>. Australian and New Zealand Optical Society.

2. **Global Competitiveness:** New Zealand has a timely opportunity to catch up with other developed nations in translating fundamental research into saleable products. A commitment to increased investment in our unique research infrastructure will better position New Zealand as a global leader and provide our scientists with the resources they need to attract talent from around the world, conduct cutting-edge research, and make groundbreaking discoveries. In this regard, we support the establishment of a collective industry body in Australasia to improve the ecosystem and advance areas of photonics and quantum technologies critical to maintaining competitiveness.
3. **International Collaboration:** New Zealand's strategic investments in its unique research infrastructure have positioned it as a valuable partner in Horizon Europe, fostering innovation and economic growth through international collaboration. Recently, New Zealand became an Associated Country in the EU's Horizon Europe program, the world's largest research initiative with a €95.5 billion budget. This association allows New Zealand partners, including SMEs, to lead or join research consortia on equal terms with European counterparts and benefit from investments through the program. The collaboration focuses on science and technologies aimed at addressing major global challenges, such as climate change, energy, health, and the UN's Sustainable Development Goals.
4. **Education and Workforce Development:** Investing in research will create high-paying job opportunities, incentivize careers in science and technology and address a severe STEM workforce gap. According to MBIE's Labour Market Statistics Snapshot, the average salary for science and technology fields is significantly higher than the national median wage (\$47.07/hour versus \$41.98/hour as of September 2024<sup>2</sup>). We therefore support more mission-led research facilities that will foster a highly skilled, well-compensated workforce and drive scientific and economic innovation.

New Zealand has the undeniable potential to rank among the world's leading research ecosystems, on par with countries whose governments invest at or above the OECD average of 2.7% of GDP in R&D. Failing to seize this crucial opportunity would leave New Zealand at a competitive disadvantage, impacting the entire spectrum of photonic-enabled technologies—from defence to agriculture—and diminishing our global standing.

Our ardent request is that you work collaboratively with your esteemed colleagues to increase support for scientific research as a driver of economic growth. Under your leadership, the New Zealand innovation ecosystem can remain adaptable and resilient to a rapidly changing future, and become far more connected – to itself, to industry, to investment opportunities, to users of research, and to the world.

Sincerely,



Professor Frédérique Vanholsbeeck  
The Australian and New Zealand  
Optical Society



Kent Rochford  
CEO, SPIE, the international society for  
optics and photonics

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<sup>2</sup> <https://www.mbie.govt.nz/dmsdocument/29846-labour-market-statistics-snapshot-september-2024-pdf>