

SUBMISSION BY



to

NEW ZEALAND INFRASTRUCTURE COMMISSION

on

**TESTING OUR THINKING:
DEVELOPING A NATIONAL INFRASTRUCTURE PLAN**

December 2024

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NZTECH SUBMISSION ON DEVELOPING A NATIONAL INFRASTRUCTURE PLAN

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INTRODUCTION

NZTech welcomes the opportunity to comment on the Commission's discussion document. We believe it's crucial that the Commission recognize the pivotal role of digital infrastructure in an increasingly connected economy, and our brief submission is intended as an overview of the reasons why digital should play a more prominent part in the National Infrastructure Plan than is currently envisaged.

ABOUT NZTECH

NZTech is a member-funded, not-for-profit, non-governmental organisation that has multiple tech communities, associations and national initiatives that help create connections, promote tech and enhance New Zealand's ability to benefit from technology.

We bring together the NZ Tech Alliance and represent 24 tech associations such as AgriTechNZ, BioTechNZ, EdTechNZ, FinTechNZ, the AI Forum, the NZ Game Developers Association, Digital Health, Digital Identity NZ and more. We have more than 2,500 members who together employ 10 percent of the New Zealand workforce, comprising startups, local tech firms, multinationals, education providers, financial institutions, major corporations, network providers, hi-tech manufacturers and government agencies that work closely with the tech ecosystem.

COMMENTS

New Zealand's infrastructure landscape extends well beyond traditional elements such as roads, schools, and water networks.

Over the past five years, significant private sector investments have bolstered New Zealand's digital capabilities and the National Infrastructure Plan should explicitly acknowledge this robust digital infrastructure, encompassing both hardware and software technologies that enable modern service delivery. Digital technology is much more than just an enabler; it's a fundamental component of national infrastructure, facilitating "smart" digitalisation across all sectors with the capacity to alleviate pressure on physical assets and potentially reduce costs for future investments.

Effective digitalisation of infrastructure can alleviate pressure on physical assets and potentially reduce costs for future investments. The discussion document mentions telehealth, but there are numerous other examples, such as Distributed Energy

Resources (DERs) optimization through digital technology,^[1] machine learning for infrastructure management and maintenance,^[1] digital hubs in rural areas improving regional connectivity,^[2] and 5G deployment enabling real-time data transmission for emerging technologies.^[2]

A system-wide approach to infrastructure investment should consider interdependencies between sectors. Excluding digital infrastructure from the Plan risks overlooking critical investment needs, such as energy requirements for future digital infrastructure and the digital sector's role in supporting physical infrastructure.

High-quality, resilient telecommunications infrastructure is important as a horizontal enabler, benefiting the entire economy. This aligns with the need for a comprehensive view of infrastructure that includes digital components.

Digital infrastructure connects when other infrastructure is unavailable (such as in geographically remote communities), inaccessible (due, for example, to weather events impacting roads and rail) or unaffordable. The discussion document (p. 24) refers to the challenges New Zealand faces because of its geography, and in these situations such infrastructure options as digital learning platforms, online telemedicine services, and internet through satellite delivery are vital.

Clearly, New Zealand's investment in fibre infrastructure and provision of high-capacity connectivity has been transformational, rewarding the vision that brought fibre to New Zealand ahead of many countries 30 years ago.

Digital fibre infrastructure delivered \$31 billion of economic benefit to New Zealand between 2011-2023 and grew the economy by \$8.8 billion in 2023 alone. This infrastructure has the potential to add a further \$163 billion to the economy in net present value over the next 10 years.^[3]

Despite this progress, an NZIER report in 2023 found that other countries are well ahead of New Zealand on digitalisation and there are clear lessons we can take from them to increase our rate of uptake.^[4] Denmark, for example, is at the forefront of digitalisation. Its four-part approach sets a clear roadmap on what is required to be in the top 10 countries for digitalisation and includes digital infrastructure to ensure access and productivity (the other three are digital literacy at all levels of society; trust and security to maintain digital privacy and participation; and an integrated digital public service).

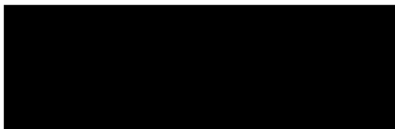
The NZIER report stressed the importance to New Zealand of investing in digital and urban infrastructure to promote digitalisation and encourage economic growth. (The report also cited the need to invest in digital literacy at all levels of society, to promote and subsidise the acquisition of digital skills as part of continuous learning in the workforce and education, to review the level of investment and regulatory frameworks of government research and development of digital technology, and to improve the competitiveness of our tech sector immigration policy.)

Tech also has a role to play in asset management. For example, where there are not enough skilled workers to maintain roads, tech can provide the ability for project managers to check issues remotely, or to oversee safety in facilities.

CONCLUSION

NZTech thanks the Commission for the opportunity to make this submission. We believe the proposed National Infrastructure Plan should explicitly recognise the importance of digital infrastructure, which has the capability of being far more than just enabling. Rather, it is a key driver for productivity of New Zealand and offers the ongoing potential of high-growth “weightless” exports.

We would be happy to provide further information or discuss in person any aspect of our submission with the Commission.




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^[1] <https://internetnz.nz/policy/the-five-point-plan-for-digital-inclusion-covid-19-and-beyond/>

^[2] <https://www.mbie.govt.nz/dmsdocument/11638-digital-technologies-industry-transformation-plan>

^[3] <https://www.deloitte.com/nz/en/about/media-room/digital-fibre-infrastructure-could-add-163-billion-to-the-new-zealand-economy.html>

^[4] <https://www.nzier.org.nz/hubfs/Public%20Publications/Client%20reports/What%20works%20for%20digitalisation.pdf>