



TCF Submission to Infrastructure Commission
on the
Infrastructure for a Better Future: Aotearoa New Zealand Infrastructure Strategy
Consultation Document
2 July 2021

A. Introduction

1. Thank you for the opportunity to comment on the Infrastructure for a Better Future: Aotearoa New Zealand Infrastructure Strategy Consultation Document (the Document).
2. This submission is provided by the New Zealand Telecommunications Forum (TCF). The TCF is the telecommunications sector's industry body which plays a vital role in bringing together the telecommunications industry and key stakeholders to resolve regulatory, technical and policy issues for the benefit of the sector and consumers. TCF member companies represent 95 percent of New Zealand telecommunications customers. The forum facilitates the development of consensus-based, self-regulatory codes, that set standards and specifications for the way members follow procedures internally, and for the way industry interconnects on industry-wide issues. The TCF enables the industry to work together and to discuss issues and topics collaboratively, to reach acceptable solutions that can be developed and implemented successfully.
3. The TCF supports the aims of the Document. We have telecommunications infrastructure that we can be proud of. Nonetheless, we agree that there are areas that parties can focus on in implementing the strategy:
 - i. a focus on demand initiatives to make the most of infrastructure deployed; and
 - ii. working in partnership on rural connectivity.

B. General comments

4. The TCF would like to make some general points which underpin its position in relation to the Document:
 - i. Telecommunications infrastructure makes a significant contribution to people's wellbeing and the economy. New Zealand ranked 12th in the world for overall digital connectivity in the Global Connectivity Index for 2020¹, up from 13th a year earlier. 155,000 more homes and businesses were connected to UFB fibre network in 2020 – up 9%. 84% of New Zealanders can now access UFB, with 64% connected². Meanwhile, competition across industry has led to mobile coverage being delivered to 98.5% of where people live and work, soon to grow to 99.8%. Every year providers invest approximately \$1.6b³ in new infrastructure and services, and Statistics NZ estimates the telecommunications and information media services sector contributes approximately \$7b annually⁴ to the economy.
 - i. Telecommunications infrastructure is predominantly privately funded, and investment is driven by services demanded by consumers⁵. This approach has delivered world class telecommunications infrastructure and should be supported by the Infrastructure Commission in its 30- year strategy.
 - ii. Telecommunications infrastructure provides an underlying foundation for supporting other infrastructure and digital access. It is a key enabler of the digitisation and efficient use of other infrastructure. This is acknowledged in the Document, which states that 'increasing reliance on communications makes telecommunications infrastructure more critical'⁶.
 - iii. It is important that Telecommunications is considered by government in a long-term strategy so that the telecommunications sector can continue to integrate new technologies and support both private and public future projects.
 - iv. The telecommunications sector has made significant investments into its infrastructure and has a good track record of resilience and responding to emergency and social events, including supporting consumers of telecommunications services across both public and private sectors during Covid-19 lockdowns.

¹ <https://www.huawei.com/minisite/gci/en/index.html>

² Crown Infrastructure Partners Quarterly Broadband updates <https://www.crowninfrastructure.govt.nz/about/publications/>

³ https://comcom.govt.nz/data/assets/pdf_file/0030/247377/2020-Annual-Telecommunications-Monitoring-Report-Revised-version-16-March-2021.pdf see pg23

⁴ <https://www.stats.govt.nz/tools/which-industries-contributed-to-new-zealands-gdp> 2019 data

⁵ Page 95 of the Document

⁶ Page 34 of the Document

- v. Telecommunications infrastructure supports the building of a better future and enabling competitive cities and regions, for which there is a focus on delivering a significant increase in construction of housing and community facilities i.e., schools. To support this growth means that the Infrastructure Strategy 2050 must promote and enable the delivery of the integrated infrastructure that new urban communities and greenfield developments need. This infrastructure is not just the public roads and water systems but includes Telecommunications plus social infrastructure if we are to develop communities that can thrive economically and socially.
- vi. The TCF considers that the Infrastructure Commission’s definition of ‘critical infrastructure’ encompasses Telecommunications for the purpose of ensuring security and resilience.
- vii. We support the Commission considering further how to enable a responsive planning system that recognises the importance of, and infrastructure interdependences with, telecommunications services and gives effect to Te Tiriti o Waitangi. For example, ensuring lead infrastructure protections apply across all critical infrastructures, efficient processes for balancing sensitive cultural and environmental protections against other outcomes, and an aligned technology agnostic view of critical infrastructure.

C. Comments on specific sections of the Consultation Document

- 5. Our telecommunications infrastructure is world class and something that New Zealand can be proud of. Nonetheless, as highlighted by the Document, we agree there are some areas where more focus is required.

6. F3: Adapt to technological and digital change

Digital divide

- i. We believe it is important that all New Zealanders have the opportunity to participate in a digital society. However, some members of our communities are still not able to access digital services online which are important to be able to participate in and contribute to society - like homework, banking, booking doctors’ appointments or looking for work or working from home.
- ii. Accordingly, the TCF supports its members working to improve digital inclusion and reducing barriers to internet access. We note that many of our members are taking action to address the challenges posed by digital exclusion.
- iii. However, we can also see areas where future partnership with government is needed to bridge the gap where communities are at risk of social exclusion and private investment alone can’t be expected to deliver the government’s desired

outcomes. For example, the Government Digital Inclusion Action plan⁷ and provision of rural connectivity through the Rural Broadband Initiative (RBI) continues to work on improving rural coverage and reducing blackspots due to the geography of the country.

- iv. The Government is reviewing its Digital Strategy. We support the Government updating its strategy and encourage a coordinated effort across government and industries. Given the importance of this, we recommend that the Commission engage with the telecommunications industry on this.

Digital change

- v. Whilst satellite may be one technology that could support provision of telecommunications services to remote rural communities, it is important that the sector remains adaptable and able to absorb new technologies, so a specific technology should not be singled out in a long-term strategy, but rather any strategy must remain technology agnostic. The strategy should also ensure that regulation is up-to date and reflects current availability of technology options so that resources are appropriately targeted for the benefit of the industry and consumers.
- vi. A national digital strategy is required to improve the demand and productivity of digital enterprise. Defining a national digital strategy for the medium to long term will encourage investment into technology change programmes to upgrade and invest in key business IT infrastructure, particularly across the public sector. We request that the Commission focus on demand side initiatives – this is where most effort is necessary. We’ve got great infrastructure but we need demand side initiatives if we’re going to make the most of this investment, i.e., make progress on the digital economy. MBIE has started work with the Digital Boost programme, however, this is a limited programme that applies only to small business.
- vii. Telecommunications infrastructure could be considered the high-performing invisible infrastructure that underlines other sectors as the conduit to enabling connection, and the ever-increasing expansion of the Internet of Things (IoT).
- viii. Building of good productivity tools is important, for example having a digital twin of infrastructure. This can help make better policy decisions to support the longer-term goals for the wellbeing of all New Zealanders.
- ix. The development of full open data environment, including mandated metadata standards, is critical for a move to the establishment of digital twins. We note that the Commission is promoting a digital twin for public infrastructure only. While it is a good starting point, it is limited and represents a lost opportunity as part of

⁷ <https://www.digital.govt.nz/dmsdocument/174~digital-inclusion-action-plan-20202021/html>

the 30-year strategic plan. It would be short sighted to promote and support a New Zealand national digital twin that does not include private infrastructure and social infrastructure, (education, reserves, national parks), as well as public infrastructure. For New Zealand, a national digital twin is critical to support our future if we are to achieve the outcomes and change required to support initiatives and reforms in the Environmental, Climate Change, Wellbeing priorities and sustainability growth.

- x. Cyber security is becoming an increasingly important aspect for all infrastructure providers and is essential for protecting all New Zealanders.

7. C1: Promoting a responsive planning system

- 8. The Commission notes that improvements in the consenting process through the Resource Management Act reform can lower infrastructure costs and enable the achievement of government environmental and social objectives. However, if we are to deliver these outcomes, a planning system that is more enabling of infrastructure and establishes a fit-for-purpose infrastructure consenting process is needed⁸.
- 9. We agree and recommend that the Commission consider how it might promote a more responsive planning system, including how:

All interdependent infrastructure is recognised in corridor protections [C4.1 and C4.2]

- i. The development of infrastructure as an integrated process recognises the interdependent nature of infrastructure. Telecommunications is an essential and critical input for all infrastructure. For example, an integrated infrastructure approach would see lead organisations take into account other infrastructure that was needed to support the road, community and end uses. However, an integrated approach is not always applied, and this risks infrastructure being considered in isolation.
- ii. Across New Zealand there are significant corridors either existing or proposed (generally designated under the Resource Management Act in District and Unitary Plans). Each designation is for a single infrastructure either rail, road or the national grid. The designation tool of the Resource Management Act is a critical mechanism in the Resource management system but needs changes to best support integrated infrastructure delivery. For example, authorities building linear network should be required to establish that they have consulted with other infrastructure providers and integrated their needs in renewed or new designations. This will ensure that corridors are not just protected for a single infrastructure provider such as roads.

⁸ Page 122 of the Document

Balancing the needs of critical infrastructure, protection corridors and sensitive areas

- iii. It is increasingly difficult to build and upgrade infrastructure networks when applying processes that seek to recognise and protect sensitive cultural areas and environments. It is essential that these areas are protected however, better mechanisms are required to allow appropriate work in sensitive environments where there is a “functional and operational” infrastructure need.

Ensure security and resilience of critical infrastructure [F6]

- iv. The TCF submits that for the purpose of ensuing security and resilience, Telecommunications is ‘critical infrastructure’. Current processes do not apply a common technology agnostic definition. For example, the Auckland Unitary Plan, RMA and Australian national guidelines all take differing approaches.

Ensure equitable funding and financing [S1.1, S2]

- v. The existing funding tools, such as reserve contributions or financial contributions, only enable public infrastructure, such as roads, parks and water, to be funded by developments or subdivisions, especially residential. However, given that access to telecommunications is essential to redeveloped and new communities i.e., housing projects, private infrastructure networks should also have access to those same funding tools developed for financing of public infrastructure. The Infrastructure Strategy needs to explore funding tools and mechanisms that support both private and public infrastructure, where this infrastructure is required to support growth and new housing/urban areas.

Enable a responsive planning system and develop a planning system that is more enabling for infrastructure. [C1 and S7.3]

- vi. Having an effective resource planning system is critical. For the new National Planning Framework to be effective, environment system professionals must remain focused on finding constructive and engaging solutions to achieve positive outcomes for projects, the environment and communities; and able to be accessed effectively through, say, a one-stop-shop for all plans and tools. We believe that the Commission and private sector infrastructure providers can help build this system.
- vii. Bridging the needs of national infrastructure providers through initiatives such as the National Environmental Standards for Telecommunications⁹ and proposed National Planning Standard for all Network Utilities under the RMA brings

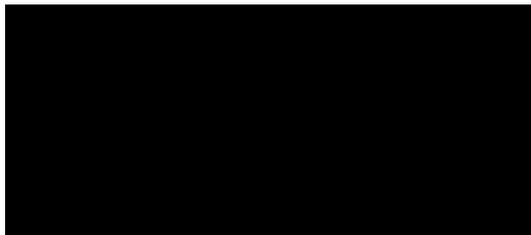
⁹ An initiative led by TCF with Transpower and MfE to develop a national standard. The Planning Standard would mean that the Unitary or District Plan would have national consistent objectives, policies, or rules/standards for Network Utilities instead of the complex and potentially inconsistent regional plans.

significant benefits for all parties. Any new process should seek to maintain a national view.

D. Summary

- i. The TCF supports an update of the existing national digital strategy. This strategy should consider how to promote the use of digital infrastructure by both businesses and consumers to gain economic benefits and the wellbeing priorities as currently set out in the indicators and analysis of the Treasury Living Standards Framework Dashboard¹⁰.
 - ii. The telecommunications industry would benefit from assistance in ensuring that various communications technologies can be provided in Greenfields developments at the critical pre-design stages, not after people have moved in. A review of funding options for private infrastructure is needed, for example the use of development contributions, as the current options are not adequate.
 - iii. The 30-year strategy is focussed on what the government spends money on. The telecommunications infrastructure investment is primarily driven through private markets, and this has been producing good outcomes for consumers. Infrastructure should have a combination of private and public investment, and planning models need to be integrated across both.
 - iv. These partnerships, however, should work in parallel to not undermine the private model which has been working well, with the Document acknowledging telecommunications infrastructure is performing well by international standards¹¹.
10. The TCF is happy to discuss further any views set out in this submission and answer any questions the Infrastructure Commission might have.

Yours sincerely,



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¹⁰ <https://lsfdashboard.treasury.govt.nz/wellbeing/>

¹¹ Page 88 of the Document