

Environmental Communications Ltd
PO Box 147424
Ponsonby
AUCKLAND 1144

1 July 2021

Submissions Analysis Team
Te Waihangā New Zealand Infrastructure Commission
DX SX33303
WELLINGTON

Dear Submissions Team

Submission on He Tūāpapa ki te ora: Infrastructure for a Better Future

1. Environmental Communications Ltd appreciates the opportunity to provide a submission on the Commission's May 2021 Aotearoa New Zealand Infrastructure Strategy Consultation Document ('the Document').
2. The document sets out a proposed direction for developing an Infrastructure Strategy for Aotearoa New Zealand. Along with many other reforms including Taumata Arowā, climate change, biodiversity, the Reform of Vocational Education and the Resource Management Act, this creates a whole of nation enterprise to deliver current and intergenerational wellbeing.
3. Environmental Communications Ltd fully supports this enterprise and focuses on the workforce capability and capacity urgently needed if we are to deliver the broader outcomes required in the Government's Procurement Strategy and deliver on the targets in the government's Wellbeing Budget, as well as on the four future capitals and 12 wellbeing domains in the Government's Living Standards Framework.
4. As the Director of Environmental Communications Ltd, I strongly support the vision that 'Infrastructure lays the foundation for the people, places and businesses of Aotearoa New Zealand to thrive for generations' and comment below on the workforce needed to support this.
5. The terms 'skills', training, 'capability', 'capacity', 'workforce' and 'education' are respectively found on 8, 7, 30, 5 and 15 pages throughout the Document. Here I suggest that the Commission make some formal distinctions between:
 - (a) capability, referring to knowledge and skills we need to address our infrastructure deficit; and capacity, the headcount of people we need with that knowledge and those skills;
 - (b) education, in the sense of gaining a qualification from a polytechnic or university; and training in the sense of ongoing workplace-based training, both professional and vocational;
 - (c) education as defined above also including education in primary and secondary schools; as distinct from public information and engagement; and
 - (d) vocational training; referring to the trades qualifications gained from tertiary training and various options for ongoing workplace training; and professional training, which for the purposes of clarity I use to refer to ongoing professional development (CPD).

My reasoning here is that in the civil construction, water, waste, carbon and biodiversity sectors with which I am familiar, professionals are strongly expressing their needs for CPD training in order to adapt to the many new environmental laws, policies, regulations and other initiatives to which they must now give effect. Such professional training is an essential precursor to development of the right training content for trades people.

6. There are numerous estimates of the infrastructure workforce deficit with respect to both professional and vocational workers. Deloitte¹ estimates that the Government's infrastructure investment will deliver an additional 5,849 to 9,260 FTE jobs, but most horizontal construction firms are already struggling to attract and retain staff in a skills-short and skills-competitive environment². Deloitte also found (p12) that 'immediate pressure points are likely to be on specialist water consultancy expertise, which is seen as scarce and "boots on the ground" labour. Several interviewees noted that migration policies (once borders re-open) could help mitigate skill shortages in the near-term, but "growing our own" was viewed as preferential.'
7. In line with the first whakataukī on p23, the issue of professional and vocational workforce deficit needs to be specifically addressed in the three areas of Needs identified on p12 of the Document, and in the priorities listed on pages 13-14.
8. Other matters complementing my online responses include:
 - (a) A focus on life-long and life-wide learning that enables our society to achieve its goals needs to be a focus needs of the matters discussed on pages 31-35
 - (b) Creating a smoothed and sustained approach to new and existing infrastructure to avoid the boom-bust cycles that regularly afflict the construction sector (p37)
 - (c) Skills and career development of professional and vocational workers needs to be a focus of the Action Areas and Needs on pages 43 and 45
 - (d) Outcomes for ecosystem health and integrity need to be a core consideration (p70ff)
 - (e) Water sensitive urban design (p80) is of crucial importance. Much professional and vocational training is needed to design, install and maintain it
 - (f) Creating a better system also depends on a strategic approach to meeting the needs of professional and vocational workforce capability and capacity (p93)
 - (g) Care should be taken with narrow assessments of costs and benefits and ROI (p112-116). Monetising value added across Treasury's four future capitals and 12 wellbeing domains will support the identification and delivery of broader outcomes
 - (h) Post-implementation review is only effective if evaluation criteria across Treasury's four future capitals and 12 wellbeing domains are collaboratively agreed with mana whenua and stakeholders at the early design stage
 - (i) Developing and prioritising a pipeline of infrastructure work must take a long term sustainable point of view that smooths out past 'boom-bust' cycles (p117)
 - (j) Priority lists should be determined in partnership with mana whenua and stakeholders across Treasury's four future capitals and 12 wellbeing domains (p118) and should include sector utilisation considerations
 - (k) Establishment of a major projects leadership academy should include professional development training for industry experts as well as directors. This would need to seamlessly complement the work of the Construction and Infrastructure Centre of Vocational Excellence (ConCove) and Workforce Development Council as well as that of the Construction Sector Accord (p120)
 - (l) Improvement of consenting (p122), as well as of spatial planning and other aspects of the RMA reform, depends very much on good training of resource management professionals alluded to on p481 of the Randerson Review³
 - (m) Standardised design is helpful but runs the risk of stifling innovation. It must also contestably and transparently allow for regional variations especially in the natural environment (p123)
 - (n) Government funding of infrastructure and other Covid-response stimuli should be evaluated using the same four criteria used by Nobel Prize-winning economist Joseph Stiglitz and climate economist Lord Nicholas Stern in their analysis of recovery from the

Global Financial Crisis. They found that green stimuli far out-performed all other stimuli⁴ and it seems intelligent to use the same four criteria aligned with the relevant indicators in New Zealand's Living Standards Framework and other indicator sets (p124).

9. Much of the expertise necessary to remedy Aotearoa New Zealand's infrastructure deficit already exists in the infrastructure and related sectors. What does not yet exist is a strategic approach to support the relevant experts to grow our own industry capability and capacity in order to enable the infrastructure sector to deliver the 'bold action' needed to address what you describe (p10) as the 'significant infrastructure challenges' we face.
10. Such a capability and capacity strategy involves a nationally integrated, partnership-based, rigorous and defensible approach to identifying, prioritising, funding, developing, delivering and evaluating the outcomes of both the professional and vocational training needed to deliver that bold action.
11. I have addressed selected consultation questions in in the online submission platform.
12. Environmental Communications Ltd wants to make an oral submission on the above if this option is available.

Yours faithfully



Director, Environmental Communications Ltd
Founder, Environment and Sustainability Strategic Training Institute
M: [REDACTED] | [REDACTED] | E: [REDACTED]
W: <https://www.clarefeeney.com/> | <https://esst.institute/>

References cited

- ¹ Deloitte Access Economics (2021) *Industry Development Study and Economic Impact Assessment*. A report dated 19 May 2021 prepared for the department of internal affairs. Downloadable from the page at <https://www.dia.govt.nz/Three-Waters-Reform-Programme>
- ² Teletrac Navman and Civil Contractors New Zealand (2020) *Construction Industry Survey 2020*. Downloadable from the page at <https://www.teletracnavman.co.nz/resources/resource-library/articles/new-zealand-2020-construction-industry-survey>
- ³ Resource Management Review Panel (2020) *New Directions for Resource Management in New Zealand*. A report by an independent panel chaired by retired Court of Appeal Judge, Hon Tony Randerson, QC. July 2020. Downloadable from <https://www.mfe.govt.nz/publications/rma/new-directions-resource-management-new-zealand> [accessed 30 July 2020].
- ⁴ Cited by the author of this submission on the page at <https://bit.ly/The-Learning-Society> . See also a presentation by the author in a presentation entitled *CIP Shovel Ready Projects – where is the money going, and do we agree?* This was part of a webinar Co-presented with Graham Mitchell, CEO of Crown Infrastructure Partners (CIP) and sponsored by CIWEM, the Chartered Institution of Water and Environmental Management, on 25 August 2020 and viewable at <https://youtu.be/PENRWxWOIUI>.