

Digital technology Industry Transformation Plan: scoping document

A thriving digital technology ecosystem will be a necessary condition for a more productive, sustainable and inclusive economy. The digital technology Industry Transformation Plan (ITP) will articulate an agreed vision for the digital technology sector in terms of how it can underpin a more productive, sustainable and inclusive economy and society towards 2050, and an action plan for how to get there.

Implementing a long term vision and support for the digital technology sector will ensure that future generations inherit a digital nation, where the digital technology sector increasingly creates new opportunities and helps to solve New Zealand's problems, and where New Zealand is able to export its solutions to the world. In addition, all New Zealanders will be able to benefit from the advances and opportunities brought about by digital technologies.

The scope of the ITP will focus on groups of 'enablers' that will support the sector, and other sectors that rely on it, to succeed. It will also consider the need for an agile and proactive foresight function, so that government and the sector can be aware of and prepared to capitalise on emerging technology and global trends as they arise.

Enablers

The 'enablers' in scope of this ITP can be grouped into three themes:

People

- Developing a pipeline of skilled technology workers in New Zealand, including consideration of how work and training can be better linked, and of opportunities for workers to retrain and reskill
- Understanding the leadership skills gap in the sector and supporting the development of more globally-savvy, digital technology leaders
- Increasing diversity in the sector with a particular focus on women, Māori and Pasifika
- Recognising the important role of Māori in the tech sector and ensuring that government support is set up to enable Māori success.

Government

- Recognising that government is a large customer of digital technology and it has a role to play in supporting New Zealand businesses and innovation more generally
- Coordinating business support that is available for digital technology businesses, including support for New Zealand businesses to achieve international growth, and assessing whether there are any gaps to be filled
- Ensuring our regulatory and digital trade settings are enabling New Zealand firms to grow and export, and that our regulatory framework can accommodate the pace of change in the digital technologies sector.

Infrastructure

- Considering the use and availability of data as a critical resource and considering issues around data sovereignty
- Government coordination to develop a national digital twin¹ for New Zealand
- Considering the need for infrastructure resilience and choice
- Ensuring New Zealanders have equitable access to digital technologies
- Ensuring there is adequate investment being made into the sector, including identifying and addressing any investment gaps that exist.

Foresight

Because digital technology is a fast-changing sector and enabler of the economy, the scope of this ITP will need to include consideration of how government and the sector can ensure that the ITP remains relevant over time. Embedding a foresight function in the ITP will enable New Zealand to be more proactive in recognising and responding to emerging technologies and global trends.

The ITP will need to be adaptive and can be updated over time based on this foresight function to ensure that the sector is still on track to meet its long-term vision, and is able to maximise opportunities from, and in some cases be a leader in responding to, emerging technologies and trends.

Specific focus areas for growth within the sector may be identified from this foresight function, or may develop around certain enablers. For example, the global opportunities for fintech or indigenous tech may be identified as areas for focused government and industry support and leadership.

New Zealand businesses often succeed in global niches, so identifying not only what emerging technologies and global trends are on the horizon, but where New Zealand businesses can play in these areas, will be important for the success of the sector.

Other related work

The scope of the ITP will also cover ongoing work to increase the uptake of Industry 4.0 technologies in the manufacturing sector, in order to improve productivity and competitiveness. MBIE and Callaghan have an existing programme of work around Industry 4.0 that received funding in Budget 2019 and will form part of this ITP.

We note that consideration of the impact of digital technologies on workers in other sectors across the economy is a work stream that will be considered across all ITPs and is central to the work of the Future of Work Tripartite Forum. As this ITP progresses, we will consider how it can best contribute to this wider programme of work, such as how digital technology can provide solutions for workers that are impacted by future of work trends, and how we can upskill workers to address skills shortages faced by the digital technology sector.

There is also ongoing work within MBIE to increase the uptake of digital technologies by businesses, particularly small businesses. This ITP will complement and coordinate with this work.

¹ A digital twin is a digital replica of physical infrastructure, made up of data that can then be used for various purposes e.g. to allow digital consenting, monitor ageing infrastructure or map the impact of natural hazards.