



**APEC Business Advisory Council**

**SWG III 2024**

**Digital technology  
and the climate response**

**Introduction by Brett O'Riley, ABAC New Zealand  
Presentation by Mitchell Pham, NZTech/CodeHQ**

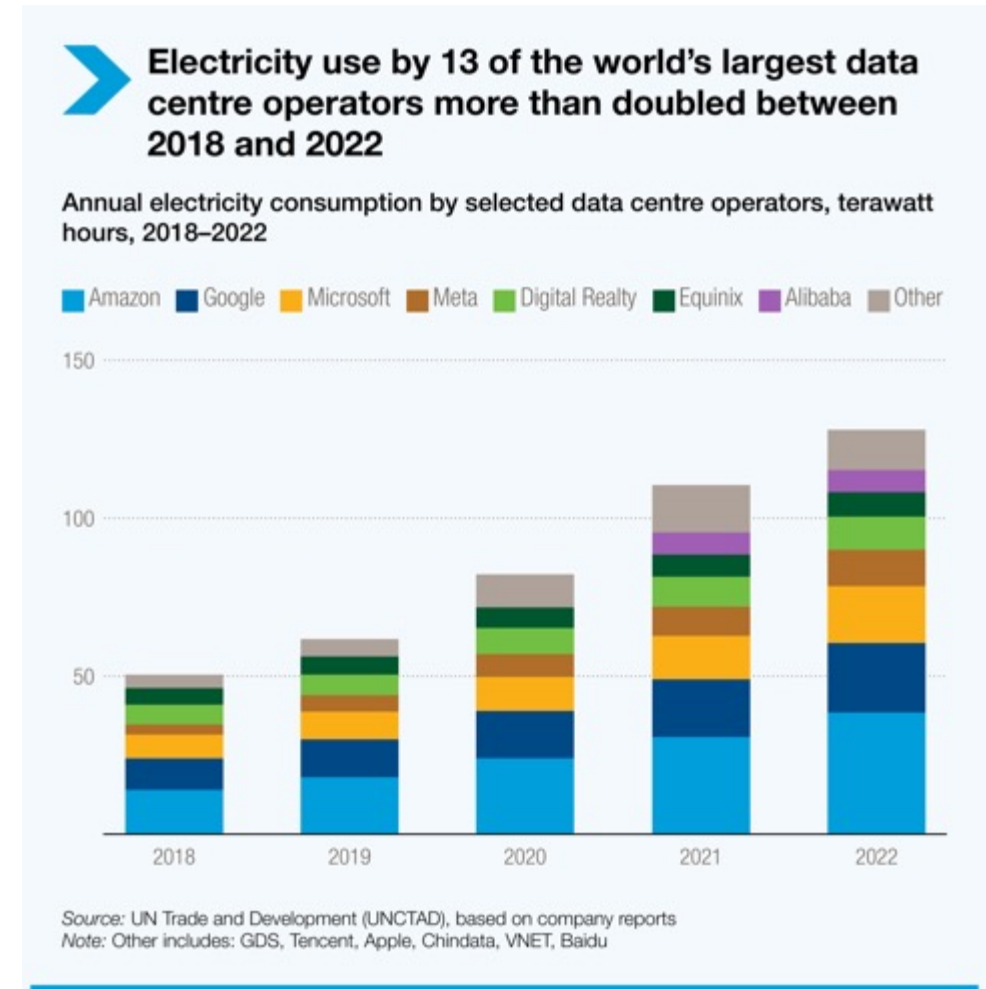
**Saturday 3 August 2024**

[www.abaconline.org](http://www.abaconline.org)

# The relationship between digital tech and the climate response

## UNCTAD *Digital Economy Report 2024*

- Digital technologies can play a key enabling role in the climate response
  - Digital technologies can help improve energy efficiency, cut emissions in important sectors (e.g. transport, construction, agriculture, energy) and support innovative solutions for adaptation and Just Transitions
    - We will shortly hear from Mitchell Pham on this
- At the same time, there is an urgent need for sustainable strategies throughout the digital lifecycle
  - Environmental impacts are generated from raw material extraction, waste generation, and from usage of digital technologies (including the energy needs of compute for AI and other emerging tech)



Source: UNCTAD *Digital Economy Report 2024*

# Leveraging trade for climate: 2024 workstream

ABAC has proposed that APEC develop a *Greener Trade Framework*

- Based on a set of agreed principles (GATT/WTO, MEAs)
- Structured according to the ABAC Climate Leadership Principles
- Aims:
  - to create an enabling environment for the trade tools needed in the climate fight
  - to avoid green protectionism



Reductions



Adaptation



Just Transitions

Digital technology is a key enabler across all three pillars, and should be reflected in a future APEC Greener Trade Framework

## *Introducing* Mitchell Pham, ONZM

Co-Founder and Director, CodeHQ

Chair, Augen Vietnam

Director, Easy Crypto

Strategic Advisor, Chief Digital Officer, TradeWindow

Entrepreneur-in-Residence, University of Auckland Business School

Former Chair of NZTech, FinTechNZ, Digital Council of New Zealand





The background of the slide shows a close-up of a human hand holding a small globe. On the globe, there are green energy-related icons: a water drop, a sun, a leaf, a lightbulb, and a battery. A wind turbine and solar panels are also visible on the globe's surface. A glowing white line curves around the globe.

**Reduce Emissions**

**By Unlocking Technology**

**Technology for Emissions Reduction  
A Framework for Aotearoa's Climate Technology Map**

# The Framework

## Strong Leadership

- Effective coordination and oversight, involving industry and political support.

Industry partnerships can simulate new innovations, attract investment and provide necessary expertise.

## Critical Foundations

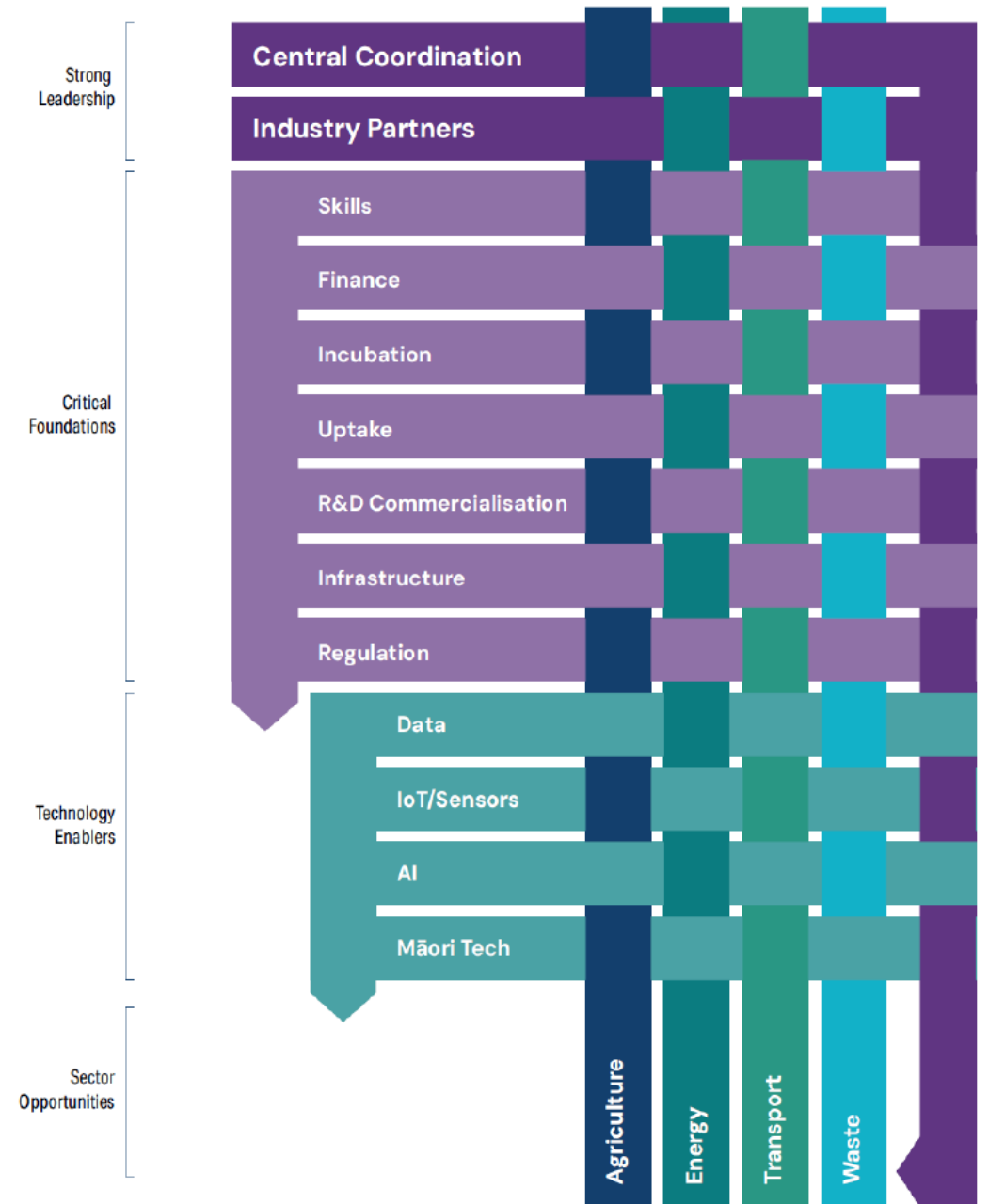
- Seven critical foundations required to support the growth of the technology system in New Zealand.

## Technology Enablers

- Several emerging technology enablers will play a vital role and should be factored in across all sectors.

## Sector Opportunities

- Taking sector-level advantage of technology opportunities depends on readiness of the technology enabling environment.





# Quicker wins

The report provides 40 industry originated sector emissions reductions quicker wins. Some examples are included here:

## Agriculture

- Boost uptake support for the technologies already being deployed in top three on-farm areas: existing animal management (and milking), crop protection and fertiliser/nutrient management.
- Address cost of technology implementation and proof of return on investment to increase uptake and deliver efficiency benefits.
- Utilise crop vision and sensing systems to reduce nitrogen use and nitrous oxide emissions.
- Prioritise GMO technologies tailored for the farming business model and conditions which can help reduce methane emissions from animals.

## Energy

- Prioritise regulation for smart EV charging to plug the gap in demand response technology management to better optimise energy resources.
- Prioritise options to better encourage and support new solar energy systems.
- Moving to smart demand management and the management of peaks is an urgent priority using new innovative approaches.
- Prioritise support for New Zealand heat battery storage solutions.
- Boost promotion to farm waste for energy production solutions.





# Quicker wins

## Transport

- Prioritise increase in EV infrastructure in urban centres to address EV uptake constraints.
- Progress Mobility-as-a-Service (MaaS) technology pilots using incentives and policy tools, similar to Finland, to encourage tech use to deliver a more service-based transport system.
- Start a work programme to update legacy system traffic signals with new transport technology. Existing market technology can be deployed.
- Fast-track smart systems to reduce the cost of electricity storage, advance innovative demand response technologies and develop new ways of balancing the grid to prepare for the impact of EVs.

## AI & data

- Encourage and support use of big data/AI tools on-farm and in New Zealand businesses to drive productivity.
- Share climate data between Government agencies and the private sector to enable more/faster innovation, richer insights, more meaningful disclosure, and better decision-making.

Quicker wins are valuable for making initial emissions reduction progress. However, more substantial and durable climate action requires the more systemic change that the roadmap would introduce.





## Recommendations

- Members to note the presentation on the '*Technology for Emissions Reduction: A Framework for Aotearoa's Climate Technology Roadmap*', including its key message on the importance of a well-designed strategic climate response roadmap which integrates digital technologies;
- Members to continue to advocate for a Greener Trade Framework, including the integration of digital technologies in the Framework.