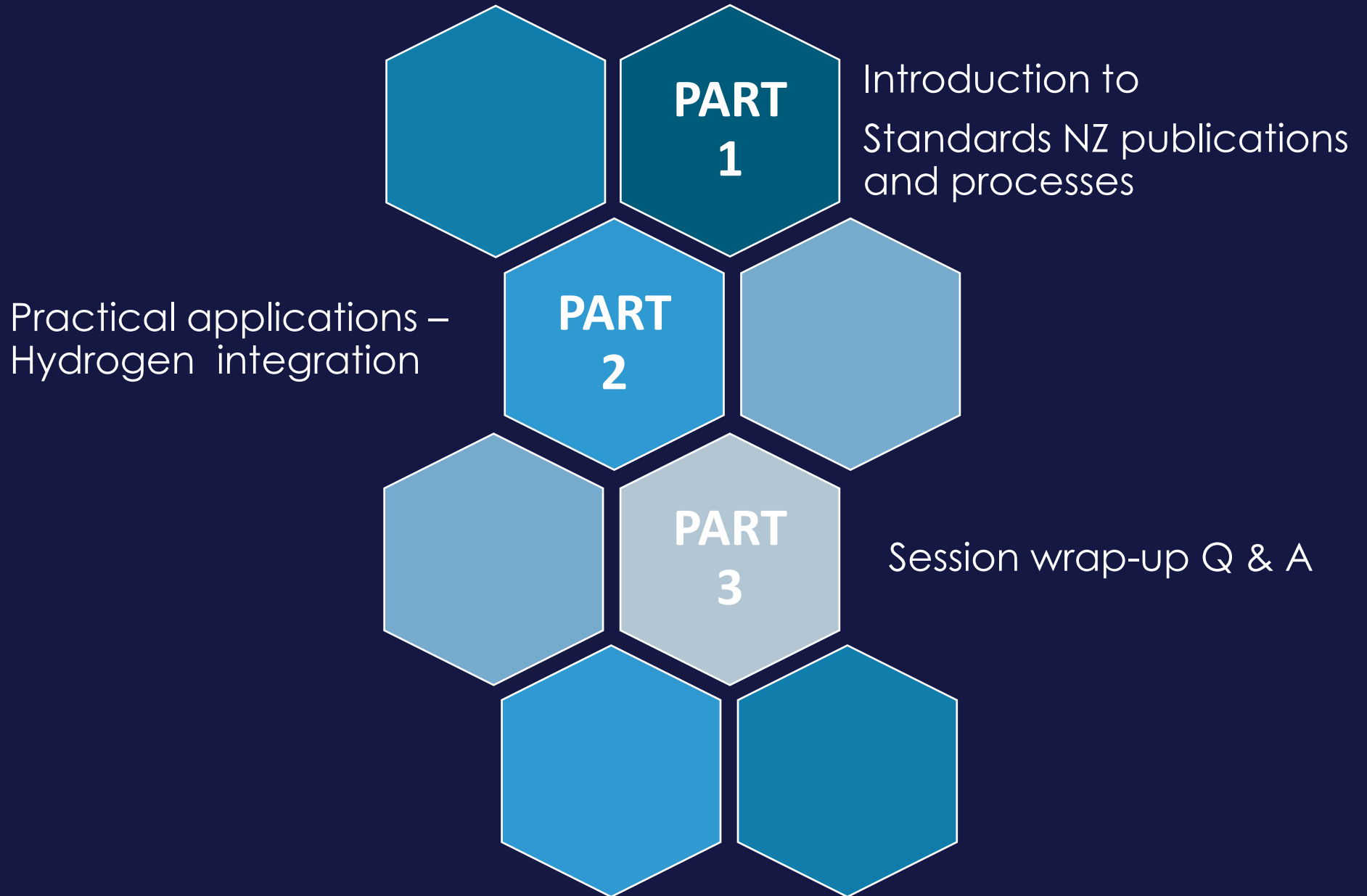


# Adopting international standards

[Chris.Forsman@standards.govt.nz](mailto:Chris.Forsman@standards.govt.nz)

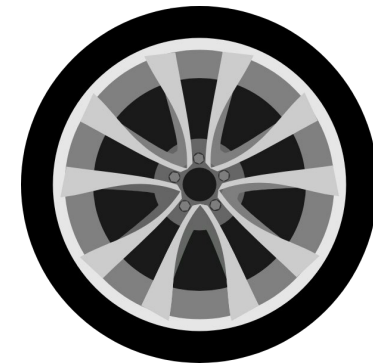
[Nick.Ascroft@standards.govt.nz](mailto:Nick.Ascroft@standards.govt.nz)

[Linda@nzhydrogen.org](mailto:Linda@nzhydrogen.org)



# Adoption? What? Why?

- No need to adopt a standard to use a standard, but ...
- Adoption gives an assurance to users within a country that a committee of experts has assessed the content
- Also, it involves the local users and local industry
  - committee membership
  - public comment
- Reinvent the wheel? International standards exist for most things:
  - ISO 3103 for testing the flavour of tea
  - ISO 3911:2021 wheels



# Part 1

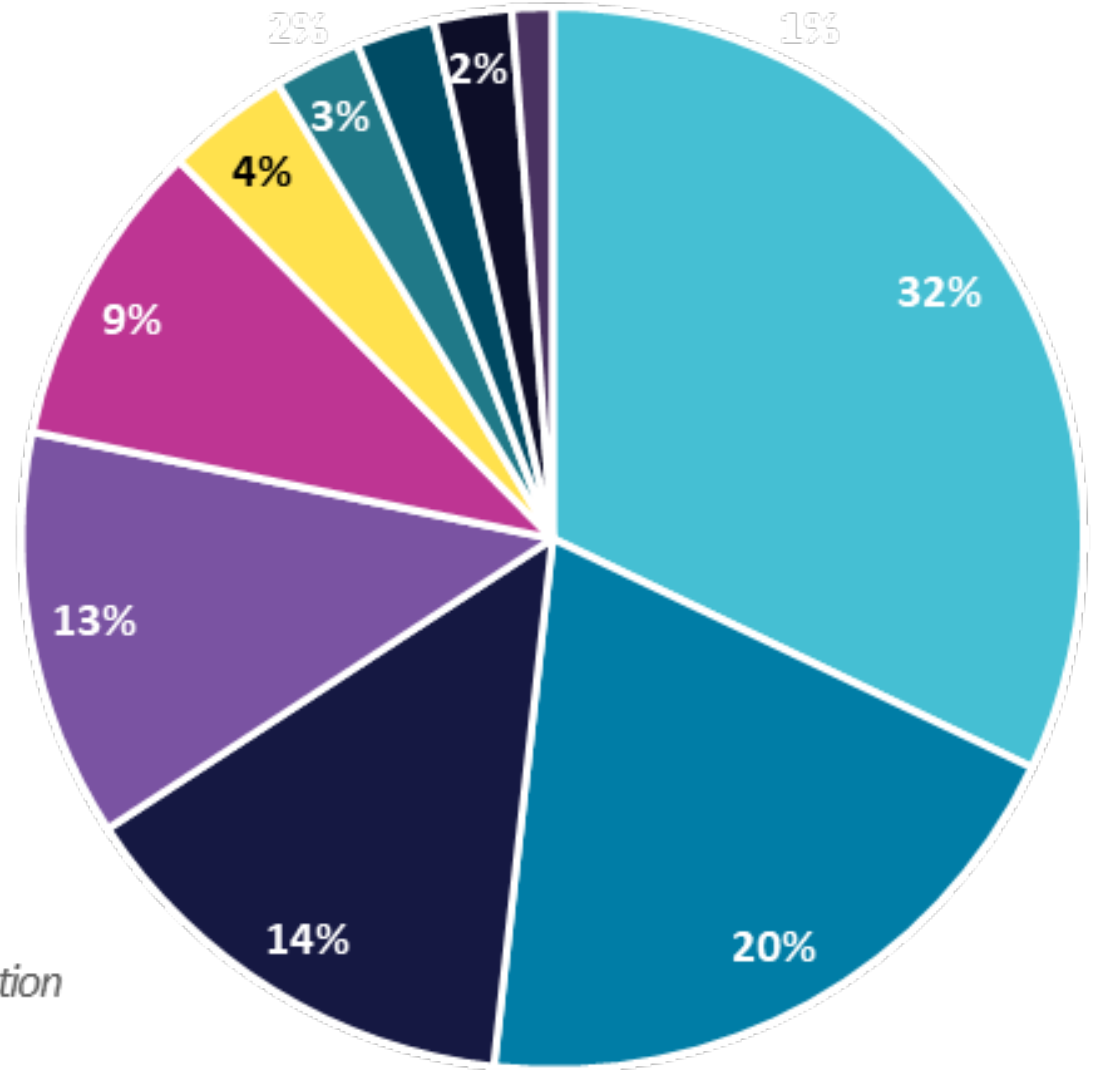
Introduction to Standards New Zealand processes

# Standards NZ catalogue

- Energy, Electricity and Gas 990
- Building Construction and Fire Prevention 607
- Business and Trade 433
- Manufacturing and Processing 383
- Consumer and Occupational Safety 289
- Transportation and Logistics 116
- Digital and Media 82
- Healthcare and Community Services 74
- Environment and Sustainability 73
- Other\* 38

*\*includes Local Government, Primary Industries, Education*

During FY 2023/24 221 publications were added to the catalogue. **87% were international adoptions**



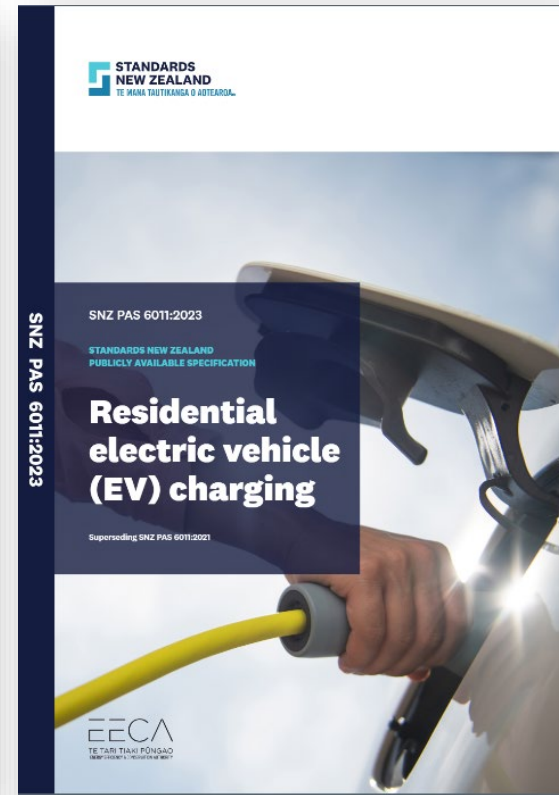
**Current publications n=3,085**

# A variety of standards and related documents

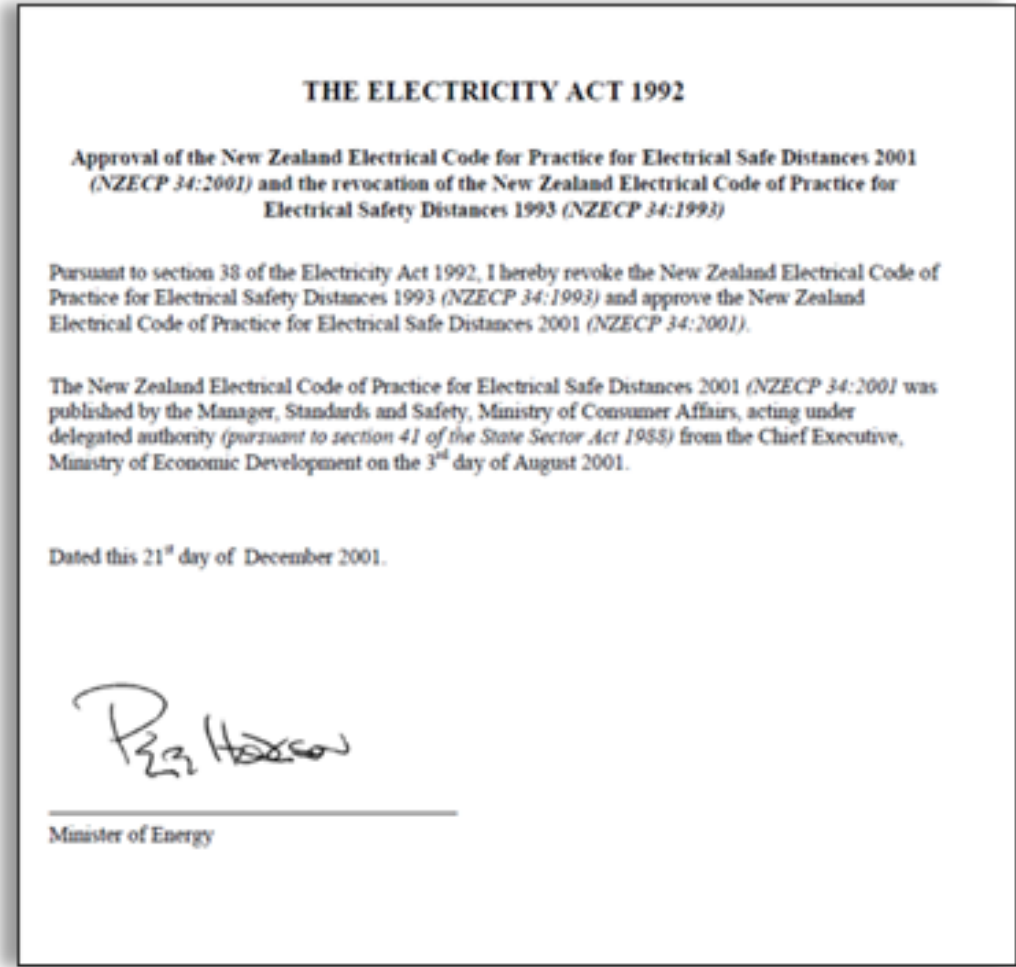
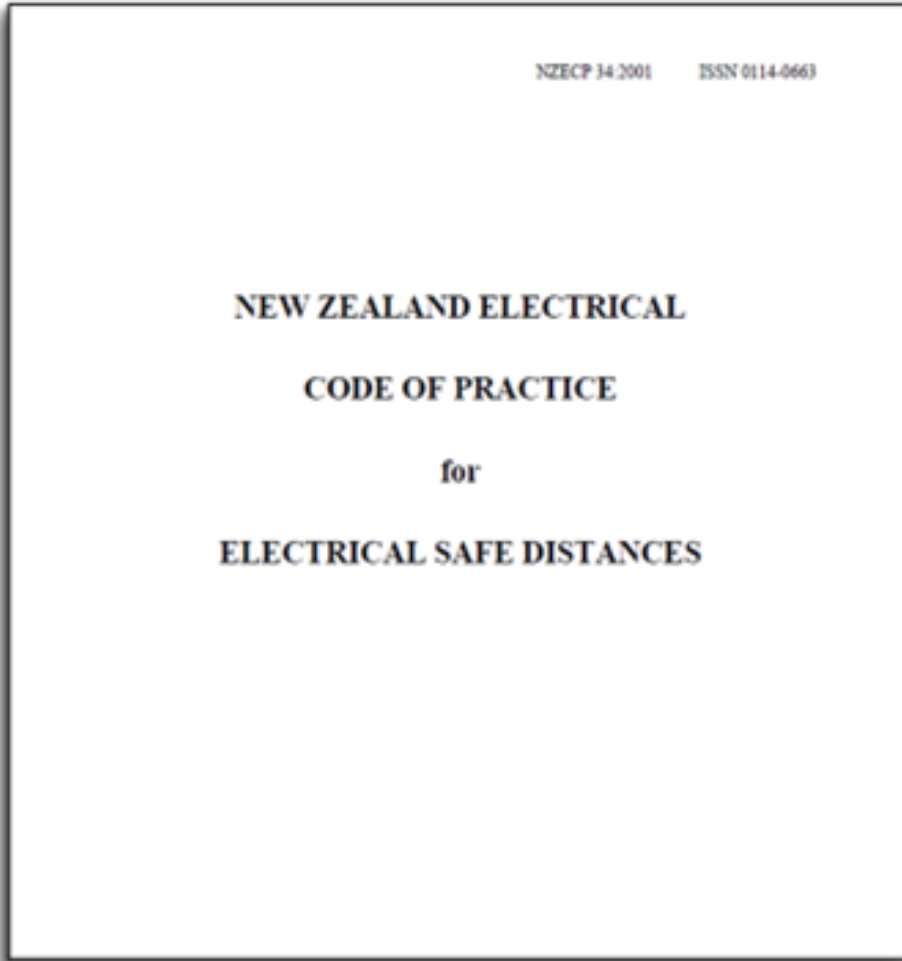
- Revisions of existing Joint (AS/NZS) or New Zealand only standards - including 'Interim' standards
- New standards development
- **Identical adoptions (IDT)** of international standards
- **Modified adoptions (MOD)** of international standards
- Standards related solutions
  - Technical specifications (TS) and technical reports
  - **Publicly available specifications (PAS)**
  - **Codes of practice (COP)**
  - Guidelines/handbooks



# Publicly available specification (PAS)



# Codes of practice





# Part 2

Practical applications – the adoption process and hydrogen integration

# The process

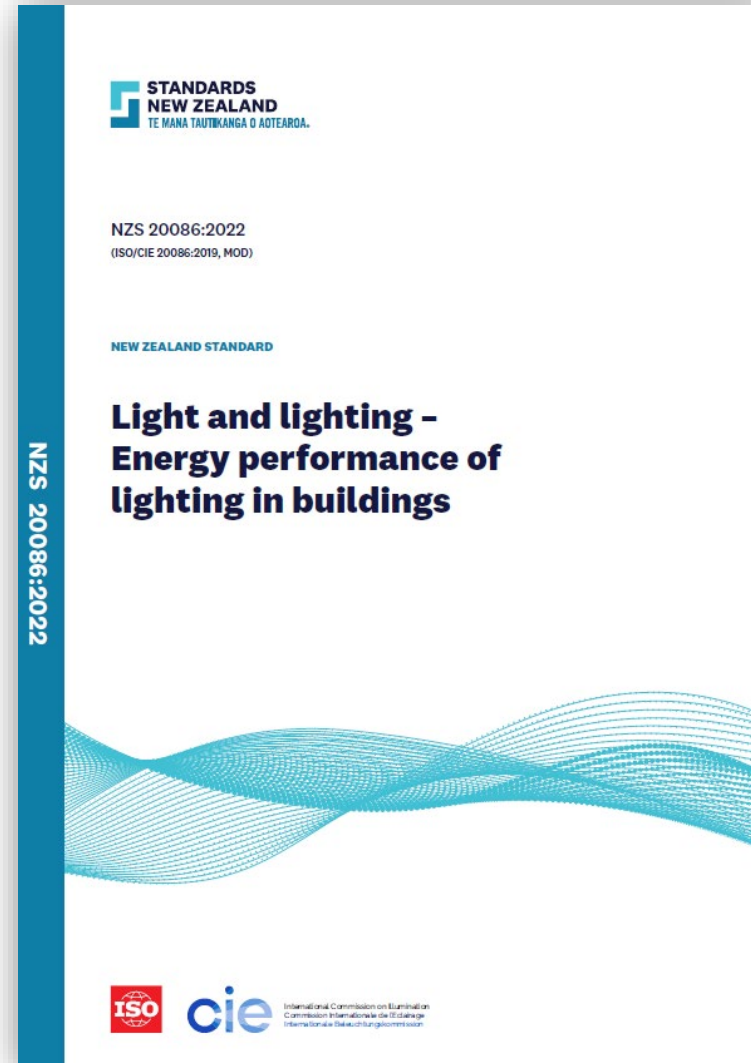


# Modified adoption

## NZS 20086:2022

(ISO/CIE 20086:2019, MOD)

- Add preface
- Add national variations
  - Introduction
  - Normative references
  - Terms and definitions
  - Specific clauses



# Typical timelines for adoption: from scoping to publication

## PAS process



## Standard process



## Direct Adoption process



## Modified Adoption process



## Technical Review process



\* relative to complexity, document length, PC feedback, consensus and any copyrighting issues and timing of Standards Approval Board (SAB) meetings

# Implementation strategy





**NZS ISO/IEC 17050-1:2024** *Conformity assessment – Supplier's declaration of conformity – Part 1: General requirements*

**NZS ISO/IEC 17050-2:2024** *Conformity assessment Supplier's declaration of conformity Part 2: Supporting documentation*

**NZS ISO 14687:2024** - *Hydrogen fuel quality – Product specification*

**NZS ISO 19880-3:2024** *Gaseous hydrogen – Fuelling stations – Part 3: Valves*

**NZS ISO 19880-5:2024** *Gaseous hydrogen – Fuelling stations – Part 5: Dispenser hoses and hose assemblies*

**NZS ISO 19881:2024** *Gaseous hydrogen – Land vehicle – Fuel containers*

**NZS ISO 19882:2024** *Gaseous hydrogen – Thermally activated pressure relief devices for compressed hydrogen vehicle fuel containers*

**NZS ISO 11114-4:2024** *Transportable gas cylinders – Compatibility of cylinder and valve materials with gas contents – Part 4: Test methods for selecting steels resistant to hydrogen embrittlement*

**NZS ISO 16111:2024** *Transportable gas storage devices – Hydrogen absorbed in reversible metal hydride*

**NZS ISO 19880-8:2024** *Gaseous hydrogen – Fuelling stations – Part 8: Fuel quality control incl: AMD 1 : Alignment with Grade D of ISO 14687*

**NZS ISO 17268:2024** *Gaseous hydrogen land vehicle refuelling connection devices*

**NZS ISO 23273:2024** *Fuel cell road vehicles — Safety specifications — Protection against hydrogen hazards for vehicles fuelled with compressed hydrogen.*

**NZS ISO 21266-1:2024** *Road vehicles - Compressed gaseous hydrogen (CGH2) and hydrogen/natural gas blends fuel systems Part 1: Safety requirements*

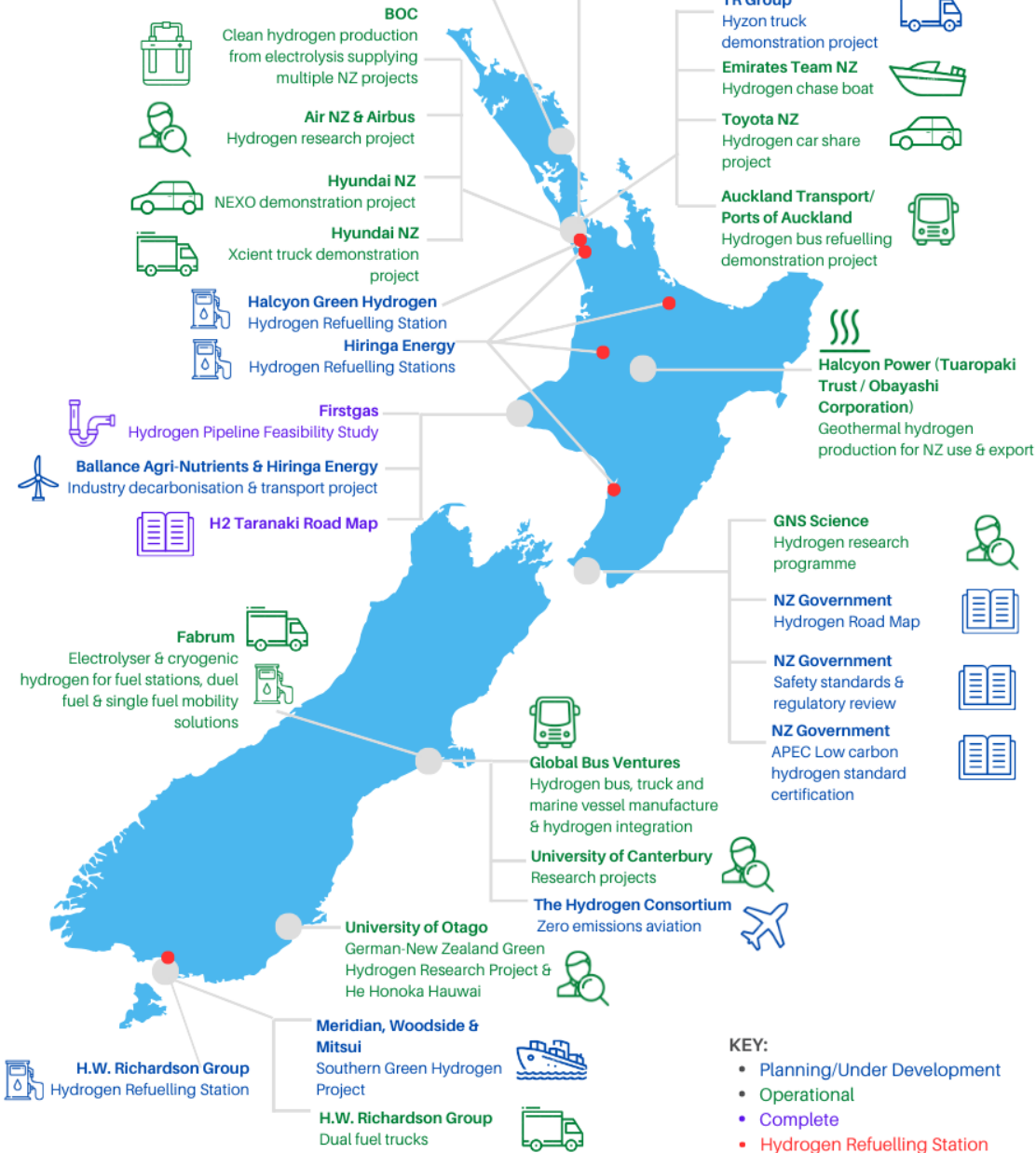




**HYDROGEN**  
NEW ZEALAND

Advancing New Zealand's transition to a low emission economy

Hydrogen Safety Standards – A prerequisite for the successful delivery of a hydrogen industry



# Hydrogen Projects

- Technology providers (electrolysers, cryogenics, ammonia, compressors)
- Heavy vehicles (trucks & buses)
- Hydrogen systems integration
- Light passenger vehicles
- Electricity production
- Industrial feedstock
- Gas reticulation
- Refuelling
- Aviation
- Marine
- SAF
- Export
- R&D





# Part 3

Q & A