

SUPERCONDUCTOR VALLEY

Event Agenda

Victoria University of Wellington Te Herenga Waka | Paihau—Robinson Research Institute

Future Magnetic & Materials Technologies Platform

Mezzanine Level, Rutherford House, 33 Bunny Street, Pipitea

Tuesday, 17 November, 2026

Hosted by Paihau—Robinson Research Institute, the Superconductor Valley event will bring together academic researchers and industry partners to discuss the future of superconductivity and cryogenic technologies in New Zealand.

9:30am

Welcome | Introduction

Welcome from Paihau—Robinson and NZIAT leads

Prof. Nick Long
Director, Paihau—Robinson Research Institute

TBC
NZIAT

9:45am

Aviation

Introduction by Dr James Storey

New Zealand is heavily reliant on aviation, but the sector is particularly difficult to decarbonize. Superconducting technology combined with liquid hydrogen has the potential to deliver performance beyond the limitations of conventional electric motors and batteries. Is the sky the limit? Panelists from research and industry will discuss the challenges and opportunities ahead in getting solutions off the ground.

Dana Goodwin
Co-founder & CEO,
Crux Aerospace

Dr Duleepa Thrimawithana
Associate Professor,
University of Auckland

Dr Grant Lumsden
Principal Project Engineer,
Paihau—Robinson Research Institute

Jonas Meier
Head of R&D
Fabrum

Moderator: Prof. Rod Badcock, CTO, OpenStar Technologies

10:30am **Quick Fire** | Space Technologies Update | **Prof. Randy Pollock**

10:45am Morning Tea

11:30am

Magnets

Introduction by Prof. Nick Long

Hear from an expert panel exporting New Zealand-made high-field and precision electromagnets globally for a diverse range of applications such as health, accelerators, spectrometers and physical characterisation. Learn about the achievements, opportunities and ambitions for this high-value product sector.

Dr Nick Strickland
Chief Scientist/Engineer - Magnets
Paihau—Robinson Research Institute

Dr Taotao Huang
Principal Magnet Designer,
HTS-110

Theo Wordsworth
Head - Superconductor Engineering,
OpenStar Technologies

Moderator: Geoff Todd, Chairman, HTS-110

12:00pm **Quick Fire** | MRI Technologies Update | **Dr Ben Parkinson**

12:15pm

Fusion

Introduction by Dr Dominic Moseley

The race for fusion has never been hotter with a record $4B in venture funding raised by private companies in 2026. New Zealand's own OpenStar Technologies is pursuing a unique approach, achieving first plasma at unprecedented pace. Hear from panelists involved in the Wellington-Hutt valley fusion ecosystem working to deliver clean, abundant, and available fusion energy to the world.

Dr Bart Ludbrook
Senior Engineer,
Paihau—Robinson Research Institute

Dr Darrin Garnier
Chief Science Officer,
OpenStar Technologies

Jamie Gawith
Senior Lecturer,
Canterbury University

Moderator: Prof. Chris Bumby, Chief Scientist/Engineer - Clean Materials

1:00pm Lunch

2:00pm **Quick Fire** | Quantum Technologies Update | **Dr Simon Granville**

2:15pm

Cryogenics

Introduction by Hugh Reynolds

The New Zealand economy was transformed in 1882 using refrigeration in shipping. Today there is value in making and keeping a much wider range of things cold, including superconducting devices, liquid H2, other liquid fuels, and quantum computers. Our expert panel will discuss how cryogenics is a key technical enabler for many applications, and how this can translate to economic impact.

Dr Alan Caughley
Principal Researcher,
University of Canterbury

Emily Hunter
Mechanical and Cryogenics Engineering,
OpenStar Technologies

Neil Glasson
Chief Technology Officer,
Fabrum

Prof. Zhenan Jiang
Chief Engineer - Machines,
Paihau—Robinson Research Institute

Moderator: Pierre Malou, CEO, Wellington Univentures

3:00pm Break

3:30pm **Quick Fire** | Invest NZ | **Timothy Armitage, Investment Manager**

3:45pm

Next Steps

Introduction by Prof. Sally Davenport

Our goal is to make the whole more than the sum of the parts. Having heard from sector experts we will bring our thoughts together on where opportunities lie for increasing the global impact of our New Zealand ecosystem.

Alistair Robinson
Head of Strategy,
HTS-110

Hugh Reynolds
Technical Director,
Fabrum

Prof. Nick Long
Director,
Paihau—Robinson Research Institute

Prof. Rod Badcock
Chief Technology Officer,
OpenStar Technologies

Moderator: Prof. Sally Davenport, FMMT Platform Advisory Group Chair

4:30pm Drinks and Nibbles

5:30pm

Hēki Space Mission | Prof. Randy Pollock

Introduction by Prof. Sally McArthur

Hear the story of how we have taken a superconducting magnet to space. There are technologies for space which can only be addressed with superconductors, and nothing beats a demonstration in the real environment. At the same time engineering for space reveals the potential of the technology when you push the limits.