Innovation in Action

Aspire 2025 – 27 June 2025

Dr Juliet Ansell – CEO Bragato Research Institute

World-leading research from grape to glass

BRAGATO RESEARCH INSTITUTE
RANGAHAU KAREPE, WAINA O AOTEAROA

Overview

- Who am I / What is Bragato Research Institute?
- What is our purpose and how do we work?
- An industry-led strategy
- Case studies:
  - Grapevine Improvement
  - Viticulture Innovation
- Summary

Respect the past

Bragato Research Institute

Bragato Research Institute drives the New Zealand wine industry's research and innovation, ensuring New Zealand remains renowned for its exceptional wine.

World-leading research from grape to glass

BRAGATO
RESEARCH INSTITUTE
RANGAHAU KAREPE, WĀINA O AOTEAROA

About Bragato Research Institute

Launched in 2017, Bragato Research Institute is the research arm of New Zealand Winegrowers, the national organisation for grape growers and wineries.

Bragato Research Institute is named after Romeo Bragato (1859–1913), a government viticulturist and visionary who played a significant role in the early development of the wine industry in Australia and New Zealand.

Romeo Bragato

Our locations

Marlborough

BRI's Head Office and Research Winery are based at the Marlborough Research Centre in the heart of New Zealand wine production.

Canterbury

Our Grapevine Improvement Laboratory is based in Lincoln. The Grapevine Improvement team run our Sauvignon Blanc 2.0 programme, house New Zealand's national vine collection and run several other grapevine projects and services. This location allows BRI to collaborate with the universities, other researchers and students.

BRI Research Winery

- Opened February 2020
- From here, we:
  - Partner with industry and other research organisations to set the national research agenda,
  - Trial world-first technologies,
  - Conduct commercial trials,
  - Connect educators and students to science and industry.

What is our purpose?

The conduit between science and industry

We focus on and deliver research that fills knowledge gaps specific to New Zealand's current and future grape growing and winemaking needs, so the industry can make better business decisions.

BRI works with industry to make sure our research is relevant and addresses industry challenges.

Our team communicates and delivers research findings, and ensures information and tools delivered by research programmes are being adopted and applied, so that winegrowers can make better informed decisions for their businesses.

An industry-led strategy

Member Survey - November 2024

Industry Workshop - February 2025

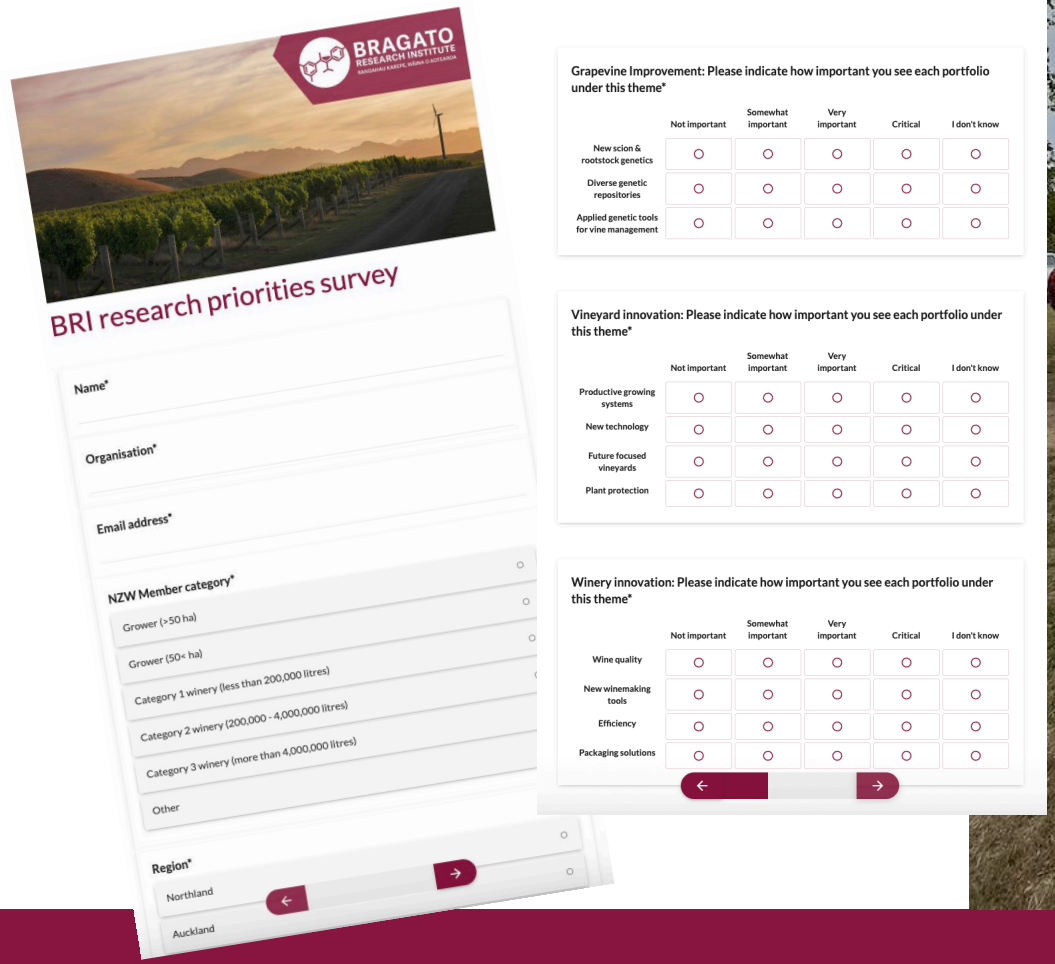
Leadership team input

Research Strategy refresh

Member Survey - November 2024

Aim

In 2024, BRI ran a survey amongst members to help inform an upcoming Research Strategy refresh and guide new research priorities. The survey also aimed to understand research areas that would be of interest to industry and to potential industry co-funders.



Member Survey - November 2024

What was asked:

1. Rank portfolios (Critical through Not Important) within research themes
2. Describe vision for next 10 years of New Zealand wine industry

Portfolio	Grapevine improvement	Vineyard innovation	Winery innovation	Sustainable winegrowing
	1. New scion and rootstock genetics 2. Diverse selection repositories 3. Applied genetic tools for vine management	1. Productive Growing Systems 2. New Technology 3. Future-focused Vineyard 4. Plant Protection	1. Wine quality 2. New winemaking tools 3. Efficiency 4. Packaging solutions	1. Carbon and climate 2. Waste management and utilisation 3. Water footprint and quality 4. Chemical footprint 5. Supporting ecosystems

Industry workshop - February 2025

Summary:

- Attended by BRI and NZW Board members
- Invited key industry stakeholders from viticulture and winemaking
- Externally facilitated to bring objectivity and ask hard questions

Design an industry vision

Define priority outcomes for BRI

Confirm the right ratio and level of innovation

Industry workshop - February 2025

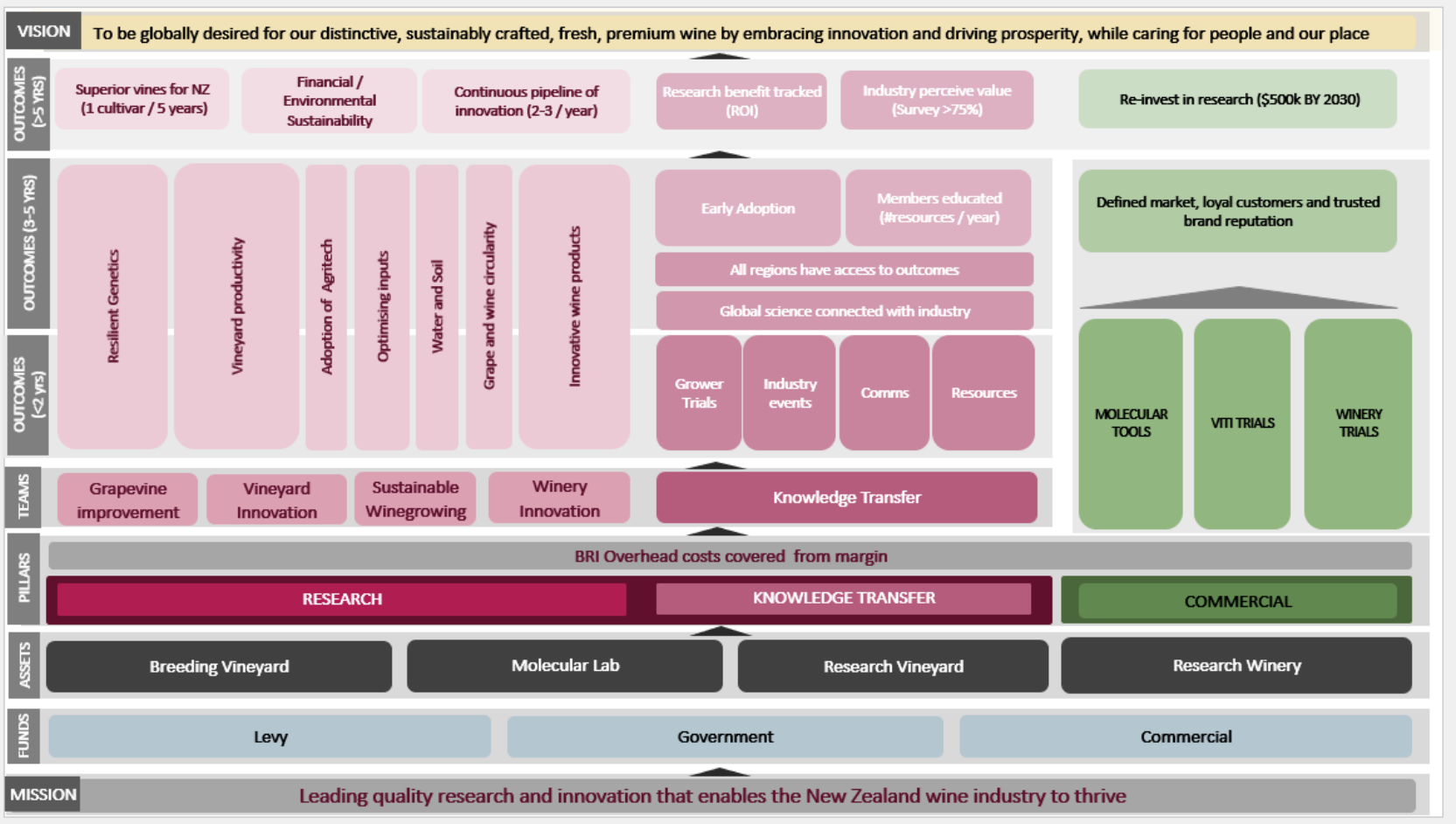
To be globally desired for our distinctive, sustainably crafted, fresh, premium wine by embracing innovation and driving prosperity, while caring for people and our place

Activities

- Defining industry vision
- Agreed Research Priorities

- Improved vine productivity and grape quality
- Plant genetic resilience against environmental challenges
- Efficient vineyard systems
- Improved soil health
- Reduced chemical inputs
- New innovative wine products
- Supply chain circularity

Leadership team input - June 2024



Activities

- Developed Logic Model
- SWOT analysis
- KPIs
- Action Plans
- Seek Board / member endorsement

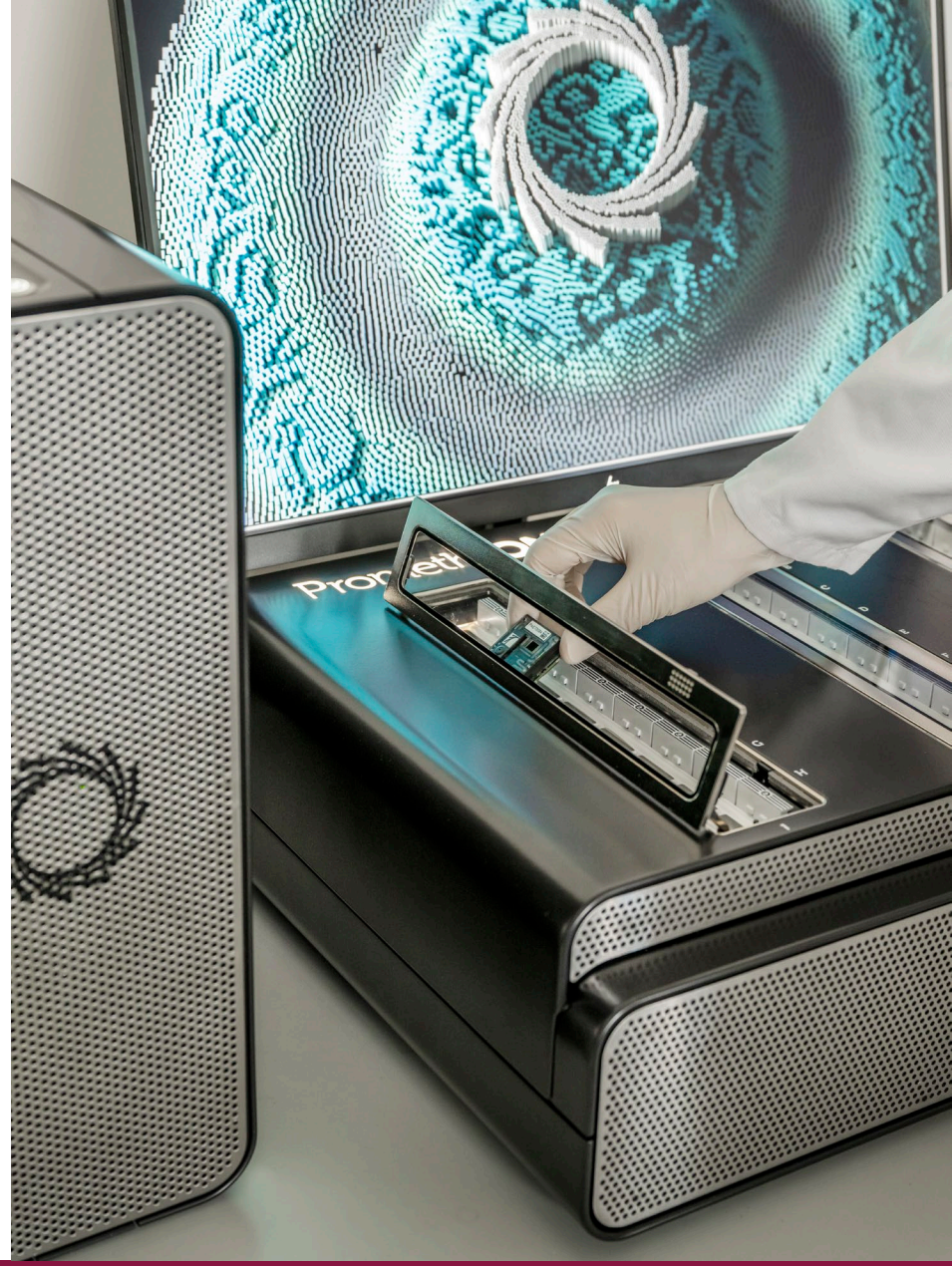
Innovation in Action - Case Studies

World-leading research from grape to glass

BRAGATO RESEARCH INSTITUTE
RANGAHAU KAREPE, WĀINA O AOTEAROA

Grapevine Improvement team

- Grapevine breeding for New Zealand climate
- Molecular Lab commercial services
- Education on complex scientific issues

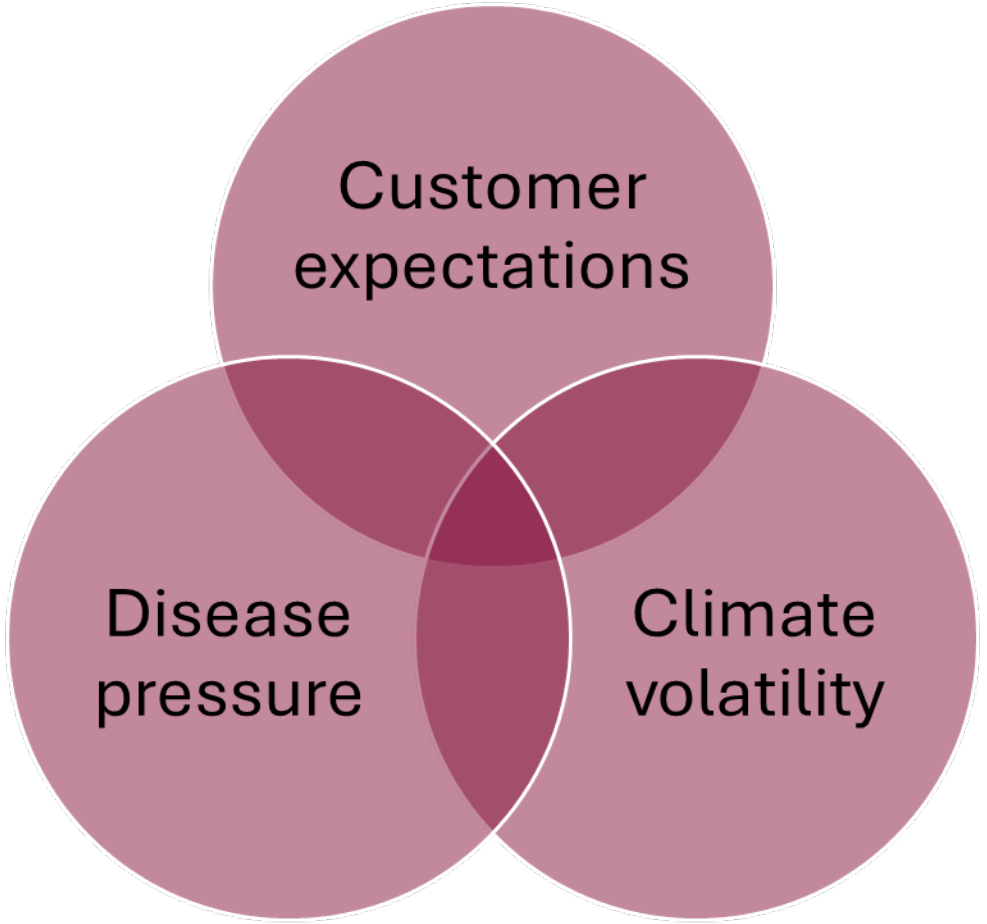


Gene Technology Bill

- The are some significant headwinds for the wine industry

- Proposed changes to the Gene Technology Bill involve complex scientific issues

- One of BRI's roles is to help explain in layman's terms so our members can make informed choices



Gene editing

Non-transgenic strategies for rapid crop improvement

Original vine	This vine is **not** disease resistant	
Gene editing (point mutation)	This vine is **now** disease resistant	
Gene editing (deletion)	This vine is disease resistant	
Cisgenesis	This vine is **highly** disease resistant	← This other vine is **highly** disease resistant, but makes few grapes
Transgenesis	This vine is **krankheitsresistent**	← Diese kartoffel ist sehr **krankheitsresistent**

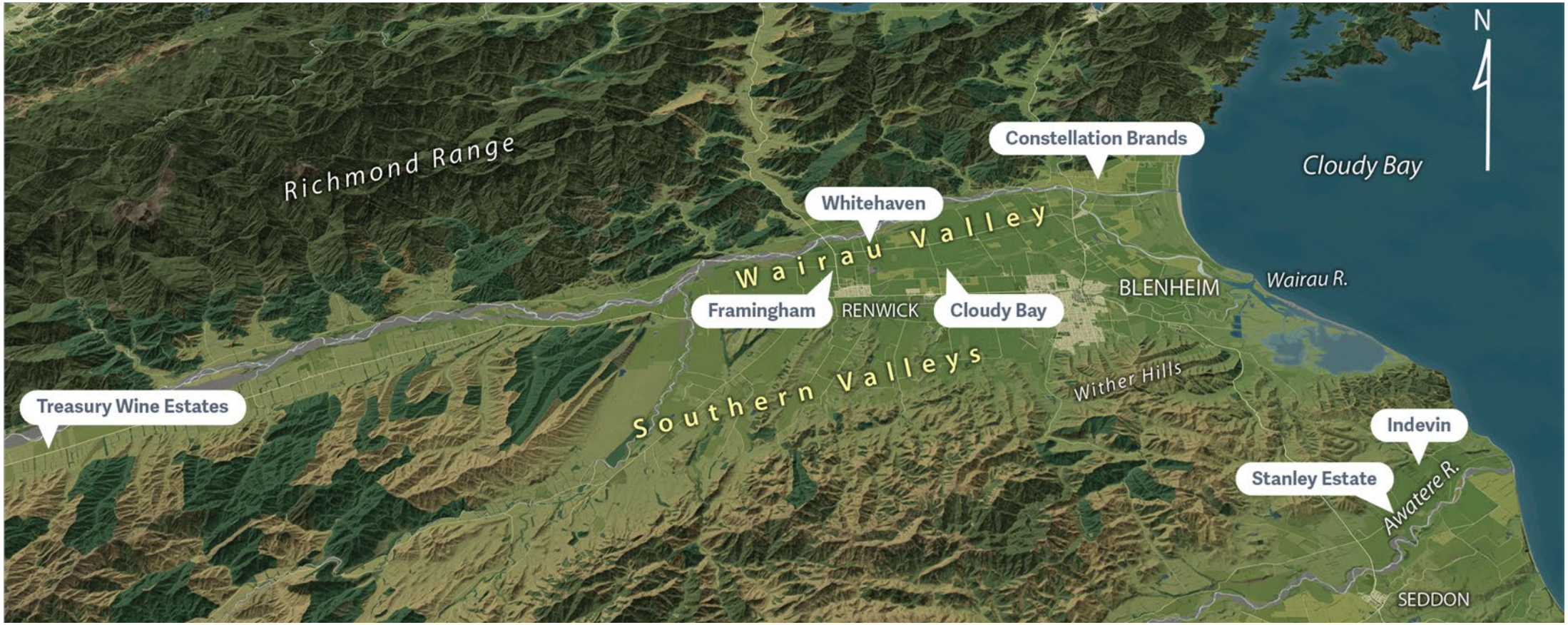
Sauvignon Blanc Programme (SB2.0)

- The vast majority of New Zealand's Sauvignon Blanc vines are the same genetic individual.
- Any new pest, disease or environmental change that affects one Sauvignon Blanc vine in New Zealand could affect every one of them.
- SB2.0 is an accelerated seven-year research programme that will apply modern knowledge to produce and select a huge range of new diversity in Sauvignon Blanc.
- Total investment = $18.7 million (eight years)

Sauvignon Blanc Grapevine Improvement Programme (SB2.0)

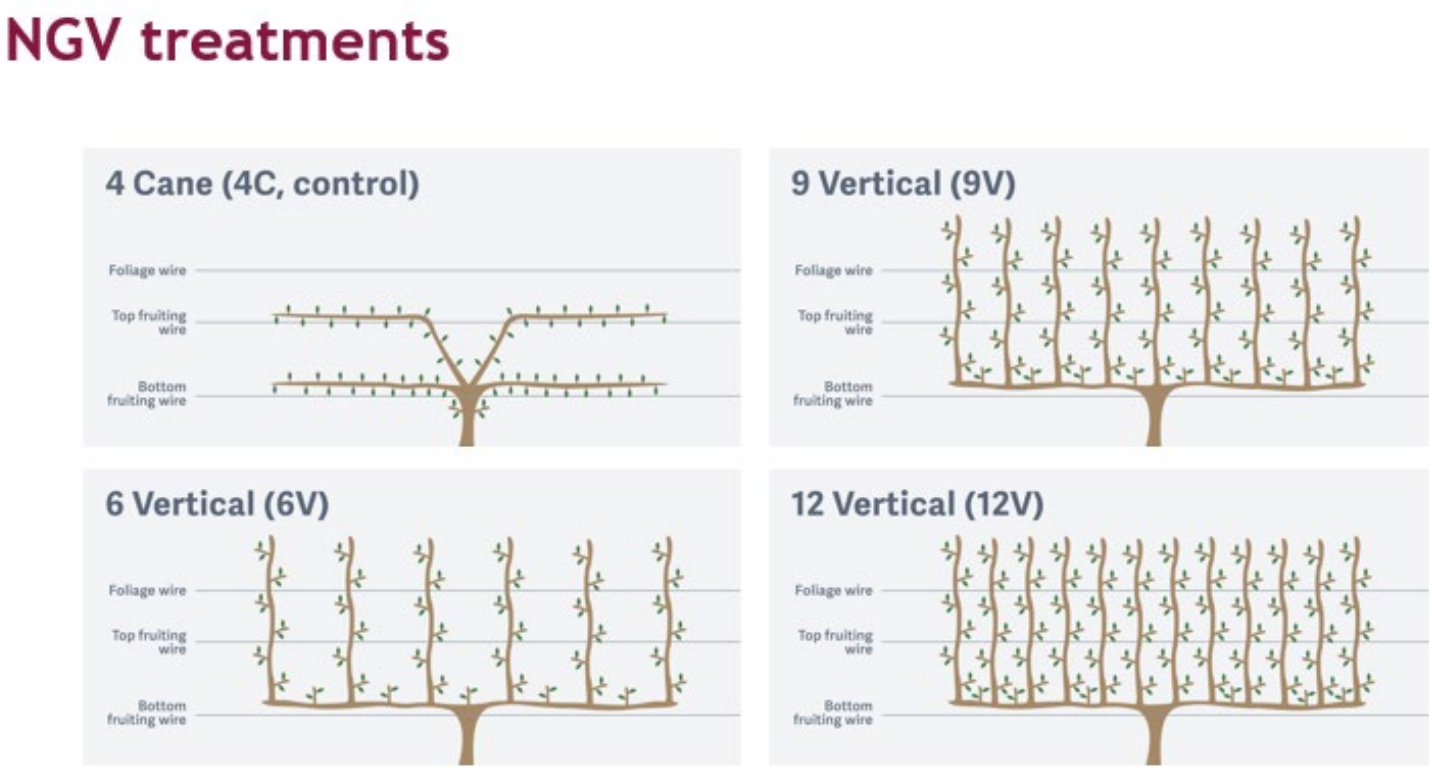
- 12,000 entirely new variants of New Zealand Sauvignon Blanc
- Screened to identify plants that exhibit useful traits for a changing climate
- Establishment of New Zealand Winegrowers' and BRI's first research vineyard
- The industry's largest research project ever

Next Generation Viticulture (NGV)



Next Generation Viticulture

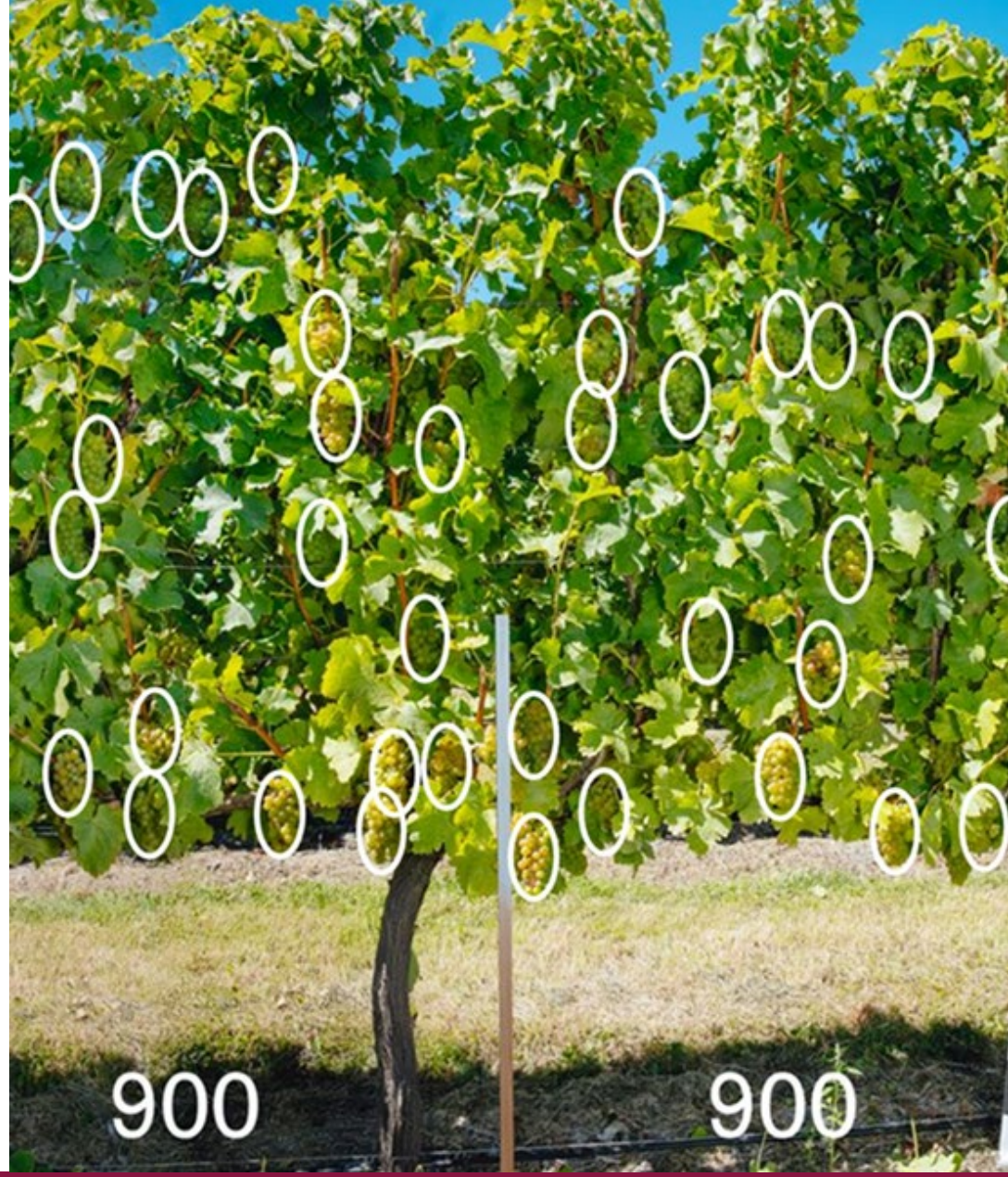
- Trialing efficient new canopy systems
- NGV aims improve profitability, advance sustainability, while enhancing wine quality
- Working on commercial vineyards with industry partners



Next Generation Viticulture

Lift vineyard profitability by:

- Reducing vineyard management costs
- Reducing variability in yields and improving yield predictability
- Improving grape and wine quality
- Offering sustainability benefits



Pilot study results

Vertical cordons showed high potential

1. Improved canopy density
2. Balanced vine vigour
3. Wider fruit distribution
4. Early canopy development
   - light interception
5. Yield
6. Wine quality

NGV field days

UV light in vineyards to reduce fungicide dependence

UV light in vineyards to reduce fungicide dependence

- Broad-spectrum fungicide use is on the rise
- This poses serious risks to biodiversity in vineyards
- Fungicides lose their efficacy and risk being phased out in the near future, or the pathogens developing resistance.
- In regions such as Marlborough, where powdery mildew is endemic, growers constantly struggle to keep their vineyards free of the disease.
- Led by BRI's Viticulture team, in partnership with A Lighter Touch and Agri Automation.

UV light in vineyards to reduce fungicide dependence

- Led by BRI's Viticulture team, in partnership with A Lighter Touch, Agri Automation, and Whitehaven.

New Zealand Wine
Altogether Unique.

A LIGHTER TOUCH®

AGRI AUTOMATION
Grow Smarter

WHITEHAVEN
WINES OF MARLBOROUGH
NEW ZEALAND

UV-C workshops

Summary

- Industry members inform strategy
- We co-design and co-innovate
- Communication and education are key for impact