

### Independent Research Association of New Zealand • www.iranz.org.nz





### ABOUT IRANZ

IRANZ, an association of independent research organisations, was formed to promote communication both among member organisations and to wider interest groups on the valuable science and research being undertaken by our member organisations. We actively pursue common interests, especially issues that affect government-research funding and member access to funding. IRANZ was formalised as a non-profit incorporated society in 2009.

IRANZ provides a variety of valuable services to members, including a presence in Wellington and the opportunity to share common concerns with similar organisations across New Zealand. IRANZ has a Wellington-based Executive Officer who works with the IRANZ Executive to keep members abreast of new developments in Government and its agencies; and to educate policymakers about the contributions of independent research organisations to innovation and economic development in this country. As a representative organisation in the science sector, Government ministries and agencies often seek IRANZ engagement and feedback.

IRANZ member organisations make vital contributions to a broad range of scientific fields, and offer an important complement to university-based and Crown Research Institute research. Our members' organisational size and flexibility often provide an environment that is particularly conducive to innovation and end-user engagement.

For membership enquiries, please email: information@iranz.org.nz

### OUR MEMBERS

### Primary Processing, Food Safety, and the Environment/ Kai me te Taiao



Aqualinc aids world-class water management through scientific and policy research, technology development and deployment, and water management advisory services. Their research contribution is focused on groundwater (the quantity and quality of water stored and flowing beneath the land-surface), irrigation, and strategic water management. Aqualinc is the leading independent provider of irrigation expertise across the policy-to-practice spectrum of the water sector.



#### The Bragato Research Institute

(BRI) drives innovation for the wine industry - from blue sky research through to the application of science in vineyards, wineries, and supply chain. A subsidiary of New Zealand Winegrowers, the national industry body for growers and wineries, their state-of-the-art research winery at the Nelson Marlborough Institute of Technology partners with industry and other research organisations to research, trial technologies, conduct commercial trials, and connect educators and students.



Based in Nelson, **Cawthron Institute** is New Zealand's largest independent science organisation, offering a broad spectrum of services to help protect the environment and support sustainable development of primary industries. Cawthron is a diverse organisation employing more than 275 scientists, laboratory technicians, researchers and specialist staff, with expertise in aquaculture research, marine and freshwater resource management, food safety and quality, algal technologies, biosecurity, and analytical testing.



The International Global Change Institute (IGCI) is a team of climate change and risk assessment experts with projects in over 60 countries, including China, Australia, Africa, the Middle East, and the US. With team members who were part of the 2007 **UNFCCC (United Nations Framework** Convention on Climate Change) Nobel Peace Prize, solid science underpins IGCI's training and climate and risk assessment data products and software. CLIMsystems, the commercial side of IGCI, is a member of the Climate Technology Centre & Network, the operational arm of the UNFCCC Technology Mechanism.

# DigiLab \*

Formed in late 2023 from Verum Group's bioacoustics monitoring team, **Digilab** is an artificial intelligence company focused on bioacoustics and ecology. There is a global need to monitor animal populations and quantify biodiversity. DigiLab is the world's first bioacoustic laboratory working in a similar way to a genetic lab, where an acoustic diversity sample is collected by the user and sent to the laboratory for analysis. This laboratory is currently using New Zealand as a testing ground, with bioacoustic studies of great spotted kiwi/roroa and other native species. They intend to extend the technology to the rest of the world.

# TE TIRA WHAKAMĀTAKI

A Māori environmental not-forprofit with a research focus, **Te Tira Whakamātaki** ('the watchful ones') is the voice for Māori communities concerning environmental and conservation issues, and research and policy-making in the biological security sector.

They aim to keep Māori informed about biosecurity issues, research, and policy in New Zealand, and to include indigenous knowledge in biosecurity research and responses.



LASRA is the leading research and technology provider to the hide, skin, leather and footwear manufacturing sectors in New Zealand and Australia. They engage in research from the farm to the consumer and provide technical support to exporters. LASRA is the major provider of safety footwear testing services in Australasia. LASRA is a registered Private Training Establishment operating courses in leather manufacturing technology.



The Manawatu AgriFood (MAF) Digital

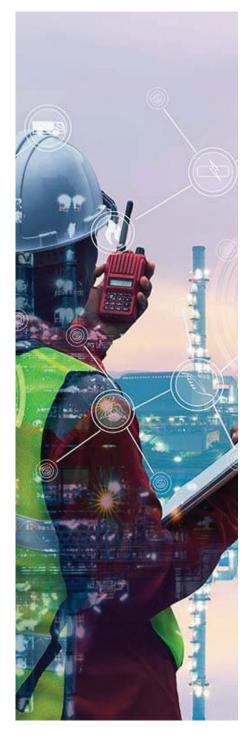
Lab is a solution-focussed research centre developing and applying advanced technology within the primary production, agricultural, and food supply chain. The group unites and leverages diverse capability in precision agriculture, primary production science, horticulture supply chains, sensor technology, robotics, Al and data science. From small businesses to innovators, MAF Digital Lab develops agritech solutions to help their clients gain a competitive advantage in the global agri-business landscape.



Stoneleigh Consulting is a research company focussed on agricultural engineering, precision agriculture, remote sensing, AI, and machine learning applied to high-value crop production systems. They undertake research for MBIE Endeavour and MPI Sustainable Food and Fibre Futures Programmes. Stoneleigh holds a number of commercial contracts in data analysis, algorithm development, AI, and machine learning - oriented towards remote sensing, airborne hyperspectral surveys and laboratory-based hyperspectral analysis.



Lincoln Agritech is an independent, multidisciplinary R&D company owned by Lincoln University.
Lincoln Agritech has capability in: groundwater research to manage water quality and quantity; precision agriculture for sustainable primary production; new materials science; biotechnologies; smart sensor and measurement technologies utilising microwaves, radar, and machine vision; green tech; and IRRICAD - software for designing pressurised irrigation systems.



### Infrastructure, Society, and the Economy/Hanganga me te Whakahaerenga



The Building Research Association of New Zealand (BRANZ) is an independent science-led organisation. They use research, systems knowledge and their broad networks to identify practical solutions that improve New Zealand's building system performance. BRANZ are driven by the knowledge that to thrive as a society, New Zealanders need a built environment that is safe, healthy, and performs well.



**Dragonfly Data Science** is a growing science consultancy offering tailored data science, machine learning, statistical analysis, and reproducible reporting to clients in Aotearoa New Zealand and globally. Recent work includes digital production of the 2021 RSI system performance report, modelling the Antipodean albatross population, large-scale forest management using satellite imagery and machine learning, and monitoring shellfish populations on northern beaches.



Heavy Engineering Research Association (HERA) is a non-profit association driving research and innovation for the heavy engineering and steel industry across Aotearoa. They're focused on helping their members and wider industry look forward and be prepared for the future. Delivering solutions, developing and maintaining a skilled work force, and connecting and inspiring so industry is supported in technical excellence and knowledge transfer, have the right skills for their needs, and are a community engaged and united.



**M.E Research** specialises in ecological economics, focusing on the interface between the economy and the environment, and how these systems interact and influence each other. M.E Research work, which is applied at national, regional, and local government levels, includes ecological economics, natural resources, climate change, hazards/disasters, and regulation. Work includes sector specific studies for central and local government, and industry on development impacts or testing regulation effectiveness.



Motu Economic and Public Policy Research is an independent, public-good focused economic and policy research institute. They help Kiwi decision-makers grapple with complex social and environmental issues. It promotes well-informed debate on public policy issues. Areas of research include climate change, environmental regulation, emissions trading, water quality, housing, productivity, labour and population, infrastructure, and evaluation of national wellbeing.



Since 2004, **Scarlatti**'s team of specialists have used research, evaluation, analytics, and insights to give clarity to the complex and hard-to-measure. Scarlatti specialises in the primary industries and tertiary sector while also working across a broad range of other contexts. For Scarlatti, it's about turning quantitative and qualitative research into action and working closely with clients to enable them to understand their impact, make sense of the numbers, and make decisions with confidence.



WSP Research and Innovation Centre provides a broad range of high quality research, specialist consultancy and laboratory services to improve the design and performance of infrastructure for commercial and government clients. Their researchers work in multidisciplinary teams to address challenges as diverse as transportation safety, road performance, and the resilience of communities and businesses to major natural hazards.



Based in Alexandra, Xerra Earth Observation Institute is an independent Regional Research Institute focussed on Earth observation (EO) and remote sensing. Xerra's projects tackle complex problems through the application of EO data. Xerra is working closely with its peers, industry, and government to unlock the benefits from satellites passing overhead to monitor our land and sea. Xerra are the developers of Starboard, a maritime domain awareness platform. Starboard is helping governments and organisations tackle critical issues ranging from illegal fishing detection to assessing vessels for Covid-19 and biosecurity risks.







Mackie Research specialises in human systems research and consultancy projects. They have specialist expertise in transport (road safety systems, active transport, schools, user-friendly transport infrastructure and systems, health and transport); human systems and ergonomics (equipment evaluation, workplace systems, urban systems, sport & recreation, biomechanics, high performance sport, technology usability); and evaluations of interventions, programmes and initiatives in the transport, sport & recreation, and health sectors.

Led by Dr Karaitiana Taiuru, **Taiuru** & Associates Ltd is a boutique kaupapa/ mātauranga Māori research and advisory company, with specialist skills in Māori ethics with regards to data, robotics, and AI, and Māori Data Sovereignty (Digital and Genetic) and implementation. They also have expertise with Māori Intellectual Property Rights, cultural safety, Te Tiriti, and governance. With a wide-range of research and government clients, work includes tikanga, mātauranga, and cultural analysis.

Takarangi Research focuses on social science research to support local indigenous communities (tribal marae) and their re-engagement with ancestral resources to improve Māori well-being nationwide. Takarangi is set up under the Te Potiki National Trust. Te Potiki is a not-for-profit trust that has the marae of Aotearoa as its beneficiaries and will respond to individual marae. Te Potiki are connected to Māori Maps, which helps to connect Māori descendants with their marae and ancestral identity.

### Health and medicine/ Hauora me te rongoā



## The Malaghan Institute of Medical Research is

New Zealand's world-class independent biomedical research institute with a focus on breakthrough discoveries in immunology and immunotherapy.

Based in Wellington, cutting-edge research and clinical trials are advancing our understanding of the immune system and its relationship to human health. The Malaghan Institute is a registered charity, with more than 130 researchers and support staff working on research programmes across cancer, allergy and inflammation, and infectious disease.



#### The Medical Research Institute of New Zealand

(MRINZ), based in Wellington, is an independent medical research organisation with over 60 staff. They investigate the causes of important public health problems, and use this knowledge to improve the prevention and treatment of diseases, and to provide a base for specialist training in medical research. MRINZ has research programmes in numerous fields including asthma, cardiothoracic surgery, intensive care, medicinal cannabis, oxygen therapy, and stroke.



Originally focussing on Parkinson's disease, the New Zealand Brain Research Institute has grown to include studies and clinics for other conditions, including Huntington's and multiple sclerosis, and the normal functioning of the brain. The Institute also provides valuable research opportunities for many students and researchers from partner institutions, such as the University of Otago, University of Canterbury, and Te Whatu Ora - Waitaha Canterbury. It also works closely with partner community organisations, such as the Multiple Sclerosis and Parkinson's Society.



The Gillies McIndoe's research team focuses on the treatment of numerous diseases, including vascular birthmarks, fibrotic conditions, and cancer. The team is internationally recognised for their ground-breaking work, which spans in vitro methodologies, molecular biology, proteomics, metabolomics, and drug development through to physiology, clinical trials, and novel organoid models. They aspire to turn scientific discovery into therapies and strategies that help people prevent or manage prevalent diseases.



Mātai, based in Gisborne-Tairāwhiti, is focused on medical imaging using new and advanced software, post-processing, and artificial intelligence. They take a collaborative approach, drawing on a network of leading expertise nationally and internationally. Their research supports kaupapa Māori and their community toward a better understanding of a healthy brain, heart, and body with the goal of improving health and social outcomes for Kiwis of all ages. Areas of research interest include mild Traumatic Brain Injury (mTBI) and cardiovascular disease.

### **FURTHER INFORMATION**

For further information about IRANZ or the IROs please feel free to contact the IRANZ Executive Officer, Dr Rob Whitney, on 027 292 1050 or information@iranz.org.nz.