

STUDYING SUSTAINABILITY IN AOTEAROA NEW ZEALAND



**THINK
NEW®**



Mō tātou te taiao ko te atawhai, mō tātou te taiao ko te oranga.

It is for us to care for and look after the environment to ensure its wellbeing; in doing so we ensure our own wellbeing and that of future generations.

Kia ora!

I am delighted to support Education New Zealand Manapou ki te Ao's inaugural guide on sustainability studies in New Zealand. I will allow the material that follows to speak for itself in terms of the quality of our educational offering and the conducted research in this field... but let me note that it is substantial.

What I would like to highlight here is something more abstract – but no less important for saying that, at an emotional level, “sustainability” is a value New Zealand and Germany genuinely share. We both care. We both recognise that material comfort alone means little without us feeling we sit within an eco-system which we nurture and protect, which we can be proud of, which we treasure for future generations. So, studying in New Zealand will not simply equip you well academically in this important field of “sustainability” but will reinforce for you the spiritual dimension to this work. That “spiritual” dimension is wisdom we have absorbed from our indigenous community – Māori – over many decades and we are better as a community, as a people, as a country for that.



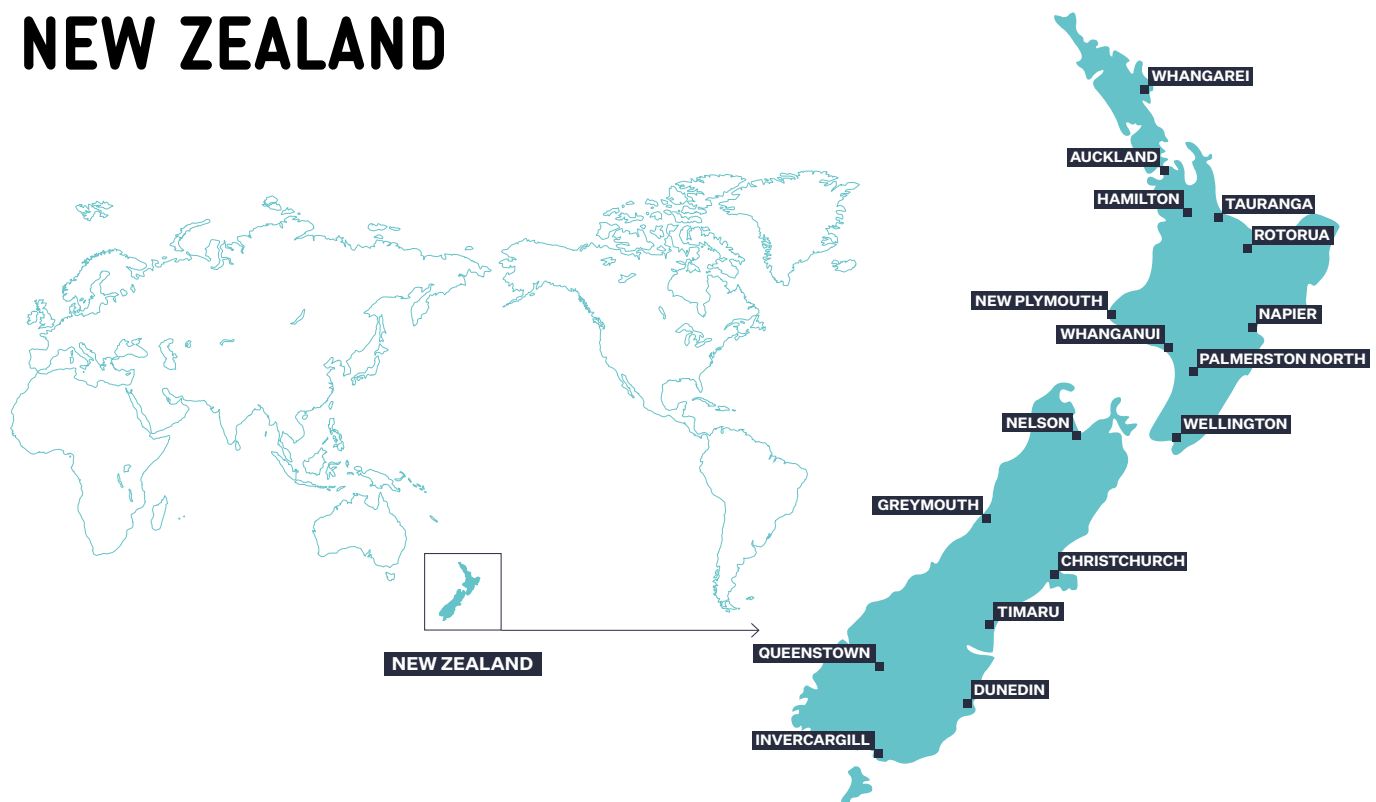
Rupert Holborow

New Zealand Ambassador to Germany

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NAU MAI! WELCOME TO AOTEAROA NEW ZEALAND



The indigenous name of New Zealand is Aotearoa, which means “land of the long white cloud”.

Aotearoa New Zealand is an island country in the southwestern Pacific Ocean, consisting of two main landmasses – the North Island, Te Ika a Māui, and the South Island, Te Waipounamu. Over three-quarters of New Zealand’s population lives in the North Island, with one-third of the total population living in Auckland/Tāmaki Makaurau. The other main cities are Wellington/Te Whanganui-a-Tara, Christchurch/Ōtautahi, Hamilton/Kirikiriāroa, and Dunedin/Ōtepoti.

New Zealand’s capital city is Wellington – labelled “one of the coolest little capitals in the world” by the guidebook Lonely Planet. New Zealand’s coronavirus response has propelled Auckland to the top of the Economist Intelligence Unit (EIU) annual ranking of the world’s most liveable cities for 2021, with Wellington ranked fifth.

With a patchwork history of Māori, European, Pacific Island and Asian influences, New Zealand’s population of five million people is a melting-pot of cultures.

Today, the population of New Zealand is made up of people from a range of backgrounds:

70%
are of
European
descent

16%
are indigenous
Māori

15%
are Asian

8%
are non-Māori
Pacific
Islanders

HISTORY

Māori are the tangata whenua (people of the land), the indigenous people, of Aotearoa New Zealand. The estimated Māori population is approximately 850,500 (16.7%) of the national population.

Te Tiriti o Waitangi (the Treaty of Waitangi), an agreement between the British Crown and Māori, was signed in 1840. This is considered New Zealand's founding document and an important part of the country's history. It plays a major role in the political relationship between iwi (Māori tribes) and the Crown through the New Zealand Government. The Education and Training Act 2020 requires our education system to “honour Te Tiriti o Waitangi and support Māori Crown relationships”.



Marcus King (1891–1983), The signing of the Treaty of Waitangi, 6 February 1840 (1938). Ref: G-821-2. Alexander Turnbull Library, Wellington, New Zealand

TE REO MĀORI / THE MĀORI LANGUAGE

While **English** is the predominant language spoken in New Zealand, there are two other official languages. **Māori** (te reo Māori) became an official language in 1987, and in April 2006 New Zealand became the first country to declare Sign Language an official language. Today, one in six New Zealanders identify as Māori and one in five people speak te reo Māori.

Māori history, language, traditions and culture are central to Aotearoa New Zealand's unique identity, shaping the country's relationship with the environment now and into the future.

Kia ora, Nau Mai, Haere mai, Welcome!

Kia ora means

Hello
To live
Be well
Good health
Thank you

A UNIQUE MĀORI VIEW OF CARING FOR THE NATURAL WORLD.

HE TIROHANGA MĀORI Ō TIAKI TAIAO.

Aotearoa New Zealand is a progressive nation of creative people, challenging the status quo, delivering new solutions to problems and turning ideas into reality, while always caring for people, place and planet.

Aotearoa New Zealand's story is grounded in our values. Values that define who we are, what we stand for and what we offer the world.

These important Māori concepts will help to give you a better understanding of how Aotearoa New Zealand strives for a thriving environment:

Tiaki means to care for and protect. A kaitiaki is a person who acts as a guardian or steward. From this, we get the concept of kaitiakitanga (guardianship), which can be applied to respect for, care and protection of the natural world for the benefit of future generations.

Manaaki is about honouring others by showing respect, generosity and care and, in doing so, enhancing our own reputation and standing. This concept can also be applied to our relationship with the natural world – respecting and honouring the environment increases our own honour.

Whānau, meaning family or, as a verb, to give birth, is the root of the concept of whanaungatanga, which is about developing kinship relationships with others, through connections based on shared interests or experiences.



Me hoki whakamuri, ki a anga whakamua

Look to the past in order to forge the future.
We are the guardians of the present and have
a responsibility to protect the environment for
future generations.



The notion of environmental sustainability as it has come to be used and understood globally, including in the United Nations' Sustainable Development Goals, was not developed from an indigenous perspective. While supporting the objectives of environmental sustainability, indigenous people have other ways of considering and caring for the environment. This different view, underpinned by different values, and guided by a different relationship with the natural world, adds to and enhances the global environmental agenda. It provides an alternative to the views and approaches that have failed our planet.

Mātauranga Taiao, the body of Māori environmental knowledge built and passed down through generations, comes from acute place-based observations of the natural world. Aotearoa New Zealand, through a marriage of indigenous knowledge and Western science, is frequently leading the world in unlocking new insights and understanding, to help heal the natural world.

This view of the environment has its roots in Māori ontology. In the Māori creation story, **Papatūānuku**, the Earth Mother, had many children with Ranginui, the Sky Father. As the two remained locked in an embrace, some of their children sought to separate them; finally their son Tāne pushed them apart to let in light. Their children had more children, becoming deities and giving life to all living things including birds, fish, winds and water. They became the ancestors of all living things in the world today.

In the context of this shared ancestry, the relationship of people to the natural world is that of the youngest sibling, showing deference and respect to ancestors and elders, and, like family, having a duty of care and protection for the natural environment.

This duty of care, that transcends generations, to do what we can for those not yet born is reflected in the Māori proverb **“Whatungarongaro te tangata, toitū te whenua”**. (“People come and go, the land endures.”)

Māori calendar system

What maramataka teaches us about the environment



Interview with **Dr Pauline Harris**, Senior Lecturer,
Centre for Science in Society
Pūtaiao ki te Pāpori
Victoria University of Wellington

You are focusing on mātauranga Māori associated with Māori astronomy and traditional Māori calendars: can you explain what it involves and its importance against the background of global issues such as climate change?

Māori astronomical knowledge encompasses a wide range of areas from cosmology, agricultural practices and architecture to fishing and much more. Within astronomical knowledge sits the **maramataka** which is the Māori traditional calendar system based on celestial, environmental and ecological knowledge. In 2009 UNESCO enquired of our research group, “Can Māori traditional calendars inform us on climate change policy?” This enquiry led to the development of projects around the country monitoring environmental and ecological phenomena. These observations go back hundreds of years; however, humans have drastically changed the environment whereby a great number of species have been made extinct or are on the brink of extinction. Waterways are polluted, lands are deforested, and seas are overfished. Within our work and research, we investigate how our environment and ecological systems have changed and inquire as to what is causing these changes, and how can we stop and reverse what we have done. **The maramataka research around the country investigates what a healthy world was like, what is it like now and how we can fix it.**

In one of your [interviews](#) you said: “For Māori, we understand that we are the water and we are the land. This gives us a unique perspective, one that sees the need to heal the earth.” Can you give our readers insight into the unique Māori perspective? Which Māori values particularly guide New Zealand’s way of thinking about sustainability?

Māori have a philosophical framework based on genealogy. Within the old Māori narratives of how the universe formed, we are told of the genealogical steps from the original source to the atua (gods) and progenitors of all living beings.

The genealogies describe all creatures and beings, such as humans and other animals, plants and mountains, rivers, seas, celestial objects and the land as being related. This relatedness connects us together and positions humans within the universe along with all other beings. This position thus gives us a unique perspective of belonging to a larger universal family, one that we need to care for. **This caring means responsibility, respect and love for the world around us.**

What role does the (international) higher education sector play in making our world more sustainable?

The higher education system around the world plays a very important part in the path to sustainability. Our responsibility is to educate our future and current generations. Ensuring that they are taught the knowledge and tools of sustainability means that once they graduate or go into the world, they can carry this knowledge with them and hopefully implement this knowledge into their workplace, their communities and homes. Some graduates may go forth to jobs in councils or governments, schools or community work. Wherever they go, a knowledge of sustainability can be carried with them. Who knows where one conversation can lead? Maybe it can lead to inspiring a generation to create a more sustainable world.

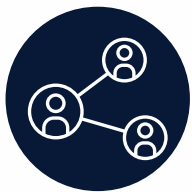
What are New Zealand's opportunities in the field of sustainability?

New Zealand has a unique opportunity to grow as a sustainable nation. **The current government has legislated toward a carbon zero nation by 2050, they have banned single use plastic bags, and tribal groups have influenced changes to oil exploration, pressuring companies out to ensure the health and well-being of our oceans and the animals that reside within.** Government funding agencies are encouraging sustainability-focused research that aims to clean our water ways, and examine how we can more effectively reduce our emissions and capture more carbon. Aotearoa New Zealand has great potential and as a country we are carrying out research that focuses on and develops sustainability practices and technology.

Your outlook for a post-Covid world: how do you think the pandemic has changed or will change New Zealand and people around the world in terms of how they think about the planet and our resources?

Covid-19 has significantly shaken all of humanity and has made many of us look at how we live in the world, how we conduct ourselves, what we value and how we impact the world. In Aotearoa New Zealand the phrase “**And Papatūānuku breathed**”, meaning “**And the Earth Mother breathed**”, refers to how humans stopped their “normal” activity as we went into lockdowns all around the planet. This time was like giving the planet time to rest and recover and let her breathe. Have humans learnt from this? I would have to say I think many have; many have changed their behaviours, and many have reflected on what we really need to live as opposed to what we think we need. But I am unsure if those humans who have reflected will continue to do so, and many may go back to their old norms. It is my hope that humanity has learnt from this time of Covid: to reflect on what is important, to appreciate the beauty of our natural world and to realise how our individual behaviours can contribute significantly to creating a sustainable world.

[Click here to watch the episode...](#)



Kōrerorero: Conversations that matter

Watch the episode on “Sustainability in Aotearoa New Zealand through the lens of Māori values and culture” to hear more from Dr Pauline Harris and other Māori experts.



I am the river, the river is me

**In Aotearoa New Zealand
the Whanganui River
is a legal person.**

E rere kau mai te awa nui nei
Mai i te kāhui maunga ki Tangaroa
Ko au te awa
Ko te awa ko au.

The river flows
From the mountains to the sea
I am the river
The river is me.

On 5 August 2014, Whanganui iwi (Māori people in the Whanganui region, which lies on the west coast of the lower half of the North Island) and the New Zealand Government signed Ruruku Whakatupua, the deed of settlement for the Whanganui River.

The signing of this document was the result of more than a century's effort by Whanganui iwi to protect and provide for their special relationship with the river in the face of a lack of environmental care by the New Zealand Government and landowners. It signalled the government's recognition of the mana (prestige) of the Whanganui River and the intrinsic ties that bind the Whanganui River to the people, and the people to the Whanganui River.

The phrase "Te Awa Tupua" expresses the Māori view of the river as an integrated entity from the mountains to the sea. Te Awa Tupua is a legal person and has all the rights, powers, duties and liabilities of a legal person.

He pūkenga wai, he nohonga tāngata, he nohonga tāngata, he putanga korero.

Where there is a body of water, people settle, and where people settle, histories unfold.

→ ngatangatatiaki.co.nz/our-story

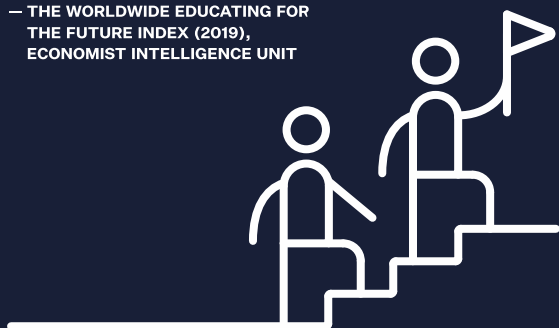
NEW ZEALAND'S EDUCATION SYSTEM

Students in New Zealand are supported to solve problems, process information, work with others, create and innovate. Whichever level you are studying at, New Zealand can give you a high-quality education that will enable you to achieve your goals.

New Zealand has eight state-funded universities that offer higher degree-level education. Our universities rank in the world's top 100 in 65 subjects in the 2020 QS World University Rankings. Programmes are research-led and generally academic rather than vocational.

NEW ZEALAND IS THE #1 ENGLISH-SPEAKING COUNTRY AT PREPARING STUDENTS FOR THE FUTURE.

— THE WORLDWIDE EDUCATING FOR
THE FUTURE INDEX (2019),
ECONOMIST INTELLIGENCE UNIT



ALL NEW ZEALAND UNIVERSITIES ARE RANKED IN THE TOP 3% UNIVERSITIES IN THE WORLD.

— QUACQUARELLI SYMONDS (QS)
WORLD UNIVERSITY RANKINGS 2018



Due to the Covid-19 pandemic universities are offering more programmes by distance, allowing international students to start New Zealand courses online until it is possible to travel to New Zealand to continue learning on campus.

Te Pūkenga, the New Zealand Institute of Skills and Technology, brings together 16 institutes of technology and polytechnics, equivalent to German universities of applied sciences. Focused on delivering “job ready” vocational education that aligns with the needs of industry, regions and iwi (Māori tribes), these institutions offer courses at all levels of study, from foundation certificates to undergraduate degrees, postgraduate programmes and Master's degrees.

New Zealand's indigenous education system is highly innovative, with the establishment of Māori education providers across all levels from Kōhanga Reo (pre-school) to Kura Kaupapa Māori (primary and high schools) and Wānanga (tertiary education institutions). Many other indigenous peoples around the world have sought to learn from and copy these Māori models of education.

QUALIFICATIONS THAT WILL TAKE YOU FURTHER

Highly sought-after qualifications

The qualifications you'll gain in New Zealand are highly regarded and sought-after by employers and other educational institutions around the world.

Gain the skills that will open doors

When you study in New Zealand, you learn beyond your subject. You'll become a confident, critical and creative thinker. These skills are highly prized by employers worldwide.

Global recognition

As a member of the Lisbon Qualification Recognition Convention, New Zealand qualifications are recognised in over 50 countries.

STUDY ONLINE – STUDY WITH NEW ZEALAND



In partnership with FutureLearn, an online social learning platform, Education New Zealand offers a selection of short courses for worldwide learners – with a strong focus on sustainability.

Students can choose courses from New Zealand universities, English language schools, institutes of technology and polytechnics, and EdTech educators, including virtual reality developers and game designers. You'll learn to think about vital ideas like sustainability in fresh and exciting ways, channelling New Zealand's passion for creative and collaborative thinking on short courses such as:

Design Thinking for Sustainable Development
Leading Sustainable Communities and Organisations
Sustainability in the New Zealand Wine Industry
English Language for Sustainability

New Zealand's trailblazing educators will challenge you to think differently about the issues that really matter – and help you gain the skills you need to succeed in a changing world.

If you are interested in New Zealand's indigenous language, you can also sign up for an introductory course in te reo Māori. New Zealand has achieved worldwide recognition for its indigenous language revitalisation efforts.

Visit www.futurelearn.com/courses/collections/study-new-zealand to see all the courses offered by New Zealand's education providers.

THE ROLE OF NEW ZEALAND EDUCATION IN DRIVING SUSTAINABLE DEVELOPMENT



Sustainability is a key factor in students' choice of education provider, as an already passionate group of greener graduates go mainstream.

The 2020 global survey "**Students, Sustainability and Education**", conducted by Students Organizing for Sustainability (SOS) International, shows that students want to see their concern about climate change reflected in their education.

In its April 2020 report on the future of international education, The Future Laboratory found that 58% of students surveyed would boycott an educational institution with poor sustainability credentials.

Guided by the principles of kaitiakitanga, New Zealand universities are working together and with other sectors to show leadership in the implementation of the United Nations' Sustainable Development Goals at a national level. With a wealth of knowledge and expertise in a wide range of areas they have been making a difference, from implementing small steps, such as encouraging sustainable habits in staff and students, to topping the global rankings that assess universities against the Sustainable Development Goals.

92% agreed that sustainable development is something that all universities and colleges should actively incorporate and promote.

NEW ZEALAND UNIVERSITIES PERFORM WELL IN GLOBAL IMPACT RANKINGS

The University of Auckland ranks #1 in 2019 and 2020

“The Impact Rankings demonstrate how universities like Auckland can play a key role in thought leadership, in germane research, and in sustainable operations.”

Professor Dawn Freshwater



When the Times Higher Education launched its Impact Rankings in 2019 to assess universities against the 17 United Nations' Sustainable Development Goals across research, outreach and stewardship, New Zealand's University of Auckland came out on top.

Again in 2020, the University of Auckland was first among the 850 institutions from 89 countries that participated, and was ranked in the top 25% for each of the goals with which it engaged. Its top four areas were Goal 14, **Life Below Water** (2nd), Goal 15, **Life on Land** (3rd=), Goal 3, **Good Health and Wellbeing** (4th), and Goal 17, **Partnership for the Goals** (3rd).

Independent of the Sustainable Development Goals, **marine sustainability** and **land protection** had been a particular focus for the University for some time.

“Due to our location and the priorities resulting from our role as a research-led university, these have been areas where we have a natural emphasis. Our physical proximity to the oceans and the land in Aotearoa New Zealand means we often lead the world in unique marine and land-based environmental research projects.

“In these and other areas the University recognises the importance and value of kaitiakitanga and mātauranga Māori in shaping a unique and distinctive approach to sustainability in this country,” said the University of Auckland's Vice-Chancellor, Professor Dawn Freshwater.

In the Impact Rankings for 2021, the University of Auckland maintains a position in the overall top 10 (9th=) despite a 48% increase in participating institutions, to 1,240 universities ranked worldwide. New Zealand universities achieve a total of 64 top 100 positions across the 18 individual tables – an overall ranking and one for each of the 17 Sustainable Development Goals.

SUSTAINABILITY-RELATED STUDY PROGRAMMES IN NEW ZEALAND

1 Massey University

Massey University is distinctive among New Zealand universities in its ability to deliver research-led teaching and research in the cities of Auckland, Palmerston North and Wellington, as well as online.

e: international@massey.ac.nz
w: international.massey.ac.nz

2 Auckland University of Technology

Auckland University of Technology (AUT) is New Zealand's second-largest and fastest-growing university. It reflects the changing world, and emerging environments and industries.

e: international@aut.ac.nz
w: aut.ac.nz

3 The University of Auckland

The University of Auckland is New Zealand's largest university. It is also New Zealand's highest ranked university with many subjects ranked in the top 50 by the QS World University Rankings.

e: int-questions@auckland.ac.nz
w: auckland.ac.nz/international

4 Eastern Institute of Technology (EIT)

EIT delivers applied professional and vocational learning across a wide range of programmes. With strong connections to industry, EIT supports students in gaining essential knowledge and skills for the workplace.

e: international@eit.ac.nz
w: www.international.eit.ac.nz

5 University of Waikato

One of New Zealand's leading research universities, the University of Waikato is made up of seven faculties and schools. It has more than 12,000 students, including around 2,000 international students.

e: international@waikato.ac.nz
w: waikato.ac.nz/international

6 Victoria University of Wellington

Victoria University of Wellington is in New Zealand's vibrant, entrepreneurial capital city. Students benefit from the university's connections to industries, government and research organisations.

e: international@vuw.ac.nz
w: wgtn.ac.nz/international

8 University of Canterbury

The University of Canterbury was founded by scholars from Oxford and Cambridge universities in 1873. It has an international reputation for academic excellence in teaching and research.

e: international@canterbury.ac.nz
w: canterbury.ac.nz

9 Ara Institute of Canterbury

Ara offers internationally recognised qualifications in a wide range of subjects. With over 100 years of teaching experience, Ara provides personalised learning experience to suit students' educational needs and career goals.

e: exchanges@ara.ac.nz
w: ara.ac.nz

10 Lincoln University

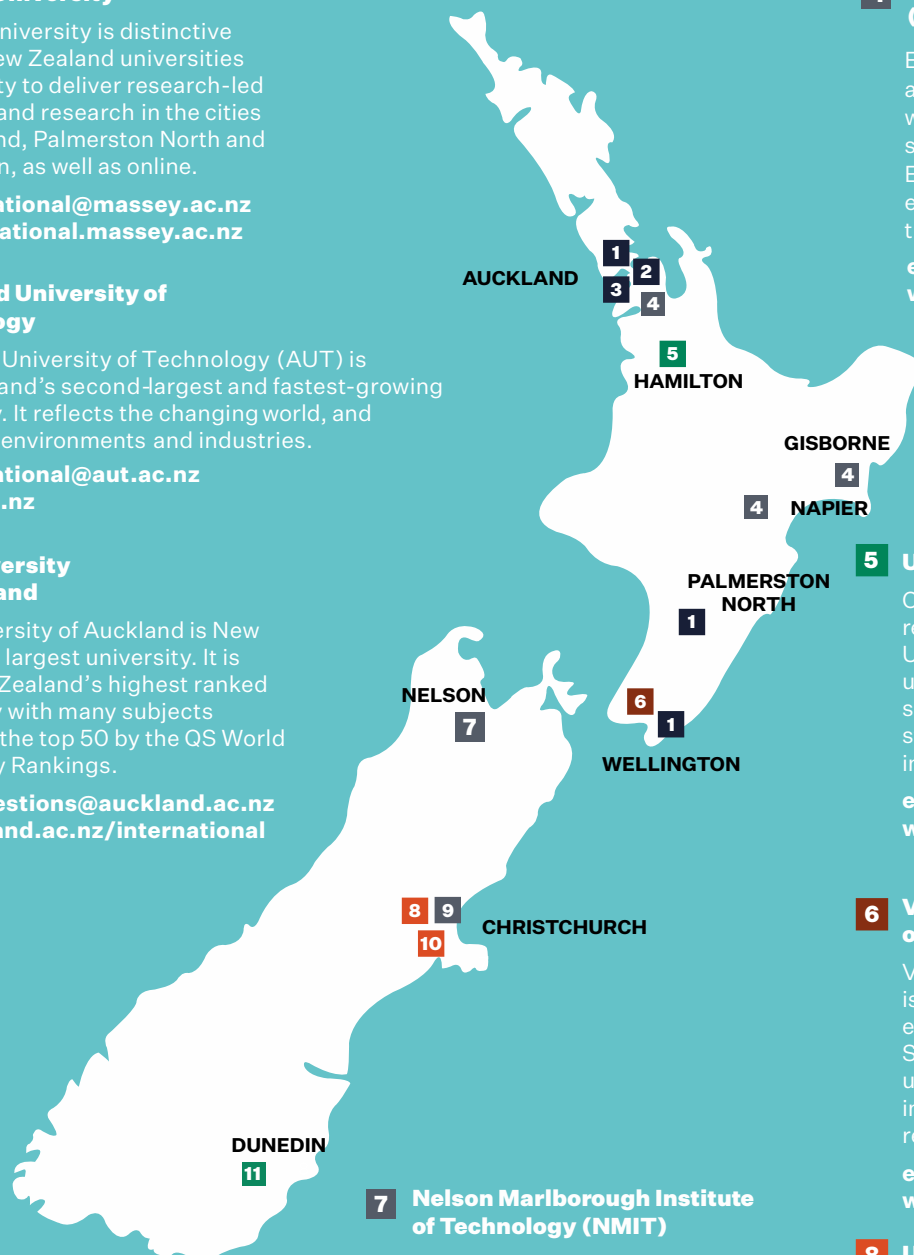
Founded in 1878, Lincoln has made a key contribution to New Zealand and the global economy. Highly connected to industry, it teaches agriculture and life sciences, environment, society and design, and commerce.

e: international@lincoln.ac.nz
w: lincoln.ac.nz

11 University of Otago

The University of Otago is New Zealand's oldest university and is famous for its academic excellence and outstanding student experience. It offers more than 195 undergraduate and postgraduate programmes.

e: university@otago.ac.nz
w: otago.ac.nz



Massey University has a strong record of teaching, research and engagement around sustainability-related matters. For example, a Climate Action Plan has been developed by an advisory group of students, academics and professional/services staff, which includes an ambitious goal for the university to be zero carbon by 2030. You can read about some of the sustainability-related initiatives currently running at Massey University here.

Programmes

Study Abroad

Bachelor of Arts (Environmental Studies)

Bachelor of Resource and Environmental Planning

Bachelor of Science (Ecology and Sustainability)

Master of Arts (Geography)

MBA (Business Sustainability)

Master of Environmental Management

Master of International Development

Master of Management (Sustainability)

Master of Science (Conservation Biology)

Master of Sustainable Development Goals

Doctor of Philosophy

AUCKLAND UNIVERSITY OF TECHNOLOGY



Auckland University of Technology (AUT) is committed to advancing knowledge and understanding of the issues and opportunities around creating a sustainable future for people and the planet and its biological ecosystems. AUT recognises that contributing to the United Nations' Sustainable Development Goals (SDGs) in a meaningful way requires more than a "business as usual" contribution; there is a need for a step change in human behaviour before society can meet these goals. Find out more about AUT's sustainability partnerships and engagement areas at Sustainability at AUT.

Programmes

Courses on sustainability-related topics

Students can do them via:

- Semester or year-long Study Abroad programme (various individual courses)
- Full-degree undergraduate or postgraduate programmes

The University of Auckland is committed to pursuing sustainability via research, teaching and learning, operating practices, partnerships and capacity-building. We ranked #1 in the world in the Times Higher Education University Impact Rankings for two consecutive years in 2019 and 2020. The rankings measure performance towards achieving the United Nations' Sustainable Development Goals (SDGs).

The University was also appointed the official hub for SDG 4, Quality Education by the United Nations Academic Impact. Hosting a hub is a great privilege, and reaffirms our long-standing commitment to ensure inclusive and equitable quality education and lifelong learning opportunities for all.

Programmes

Bachelor of Global Studies

Bachelor of Science

Bachelor of Design

Master of Engineering Studies

Master of Legal Studies

Master of Science

Master of Arts

(Politics and International Relations, Pacific Studies, Development Studies, Sociology)

Master of Public Health or Master of Health Sciences

Master of Commerce

(Global Management and Innovation)

EASTERN INSTITUTE OF TECHNOLOGY



Eastern Institute of Technology (EIT) is committed to implementing the concept of sustainability in relation to protection of the environment, its diversity and life forms, from the impact of its operations and activities, and its role in encouraging staff, students and the wider community to minimise their impact, through their actions, teaching and research. In alignment with EIT's sustainability policy, EIT is working towards improving sustainability and supporting sustainable practices through a number of activities.

Programmes

Bachelor of Viticulture and Wine Science

Bachelor of Veterinary Nursing

Bachelor of Professional Creative Practice (Honours)

Master of Health Science

Master of Logistics and Supply Chain Management

Master of Applied Management

Master of Digital Business

Master of Professional Creative Practice

Waikato has significant expertise in environmental and marine research, with the Environmental Research Institute in Hamilton and the Coastal Marine Research Group in Hamilton and Tauranga. The New Zealand Institute for Business Research is another of our research institutes, and includes the Unit for Responsible and Sustainable Management conducting research into sustainable business.

Programmes

Bachelor of Engineering in Environmental Engineering (Honours)

Bachelor of Environmental Planning

Bachelor of Health in Population Health

Bachelor of Science in Aquaculture

Bachelor of Social Sciences in Social Policy

Master of Engineering in Environmental Engineering

Master of Environment and Society

Master of Environmental Planning

VICTORIA UNIVERSITY OF WELLINGTON



Victoria University of Wellington is committed to being a leader in sustainable practice and undertaking research that helps New Zealand, and the world, develop a sustainable and resilient future. From local disasters (such as earthquakes) to the global challenges that affect us all – climate change, loss of biodiversity, managing invasive species – we have the talent and commitment to make a difference.

Victoria University of Wellington is home to the renowned **Antarctic Research Centre**, the **New Zealand Climate Change Research Institute** and the **Centre for Biodiscovery**. Students can also further their knowledge on sustainability by joining clubs and societies such as the **Wellington International Leadership Programme**, **Plastic Diet** or **Sustainability on Campus**.

Programmes

Bachelor of Arts (Development Studies)

Bachelor of Architectural Studies (Landscape Architecture)

Bachelor of Building Science (Sustainable Engineering Systems)

Bachelor of Science (Biology / Data Science / Development Studies, etc)

Master of Climate Change Science and Policy

Master of Conservation Biology

Master of Marine Conservation

Master of Development Studies

Master of Landscape Architecture

Master of Science (Biology / Marine Biology / Ecological Restoration / Ecology and Biodiversity)

Master of Data Science

Master of Environmental Science

Master of Environmental Studies

Master of Tourism Management

The Nelson Marlborough region of New Zealand is home to 70% of New Zealand's aquaculture production and 80% of New Zealand's wine grape production. These fast-growing industries are in need of graduates with specialist knowledge in the science of production and savvy business knowledge for exporting the high value products throughout the world, all while maintaining New Zealand's strong track record for sustainability at the heart of all practice. Nelson Marlborough Institute of Technology (NMIT) provides a gateway for Bachelor degree, Study Abroad and postgraduate students to obtain industry-focused qualifications that will provide graduates high employability in the thriving local industry and throughout the world.

Programmes

Bachelor of Aquaculture and Marine Conservation

Postgraduate Diploma in Sustainable Aquaculture

Bachelor of Viticulture and Winemaking

Postgraduate Diploma in Logistics and Supply Chain Management

Postgraduate Diploma in Applied Management (Logistics and Supply Chain Management)

Master of Applied Management (Logistics and Supply Chain Management)

UNIVERSITY OF CANTERBURY



In the 2020–2030 Strategic Vision, University of Canterbury (UC) set clear sustainability goals, including being carbon net neutral by 2030. A sustainability office tracks progress against our objectives.

From the moana to the maunga (oceans to mountains), UC has amazing facilities on the unique South Island of Aotearoa that enable scientists to monitor climate change and be part of the global solution. For more information on sustainability please see [UC Sustainability Office](#), [Community Gardens](#) and [Businesses and Sustainability](#).

Programmes

Antarctic Studies

Business and Sustainability

Environmental Change

Environmental Contamination

Environmental Health

Social and Environmental Sustainability

Environmental Process Engineering

Environmental Science

Sustainable Coasts

Water and Environmental Systems Engineering

Geography

ARA INSTITUTE OF CANTERBURY



Ara Institute's programmes provide a unique combination of theory and practice to ensure that students will have the knowledge and confidence to influence and inspire others and to care for the planet. Ara Institute offers a range of degrees, allowing students to tailor their learning to meet the needs of a variety of career aspirations.

Programmes

Bachelor of Sustainability and Outdoor Education

Bachelor of Applied Management

Bachelor of International Hospitality and Tourism Management

Bachelor of Construction Management

Master of Sustainable Practice

LINCOLN UNIVERSITY



Environmental sustainability underpins all of Lincoln University's pursuits, from courses and research to publications and campus activities.

One of the institution's most crucial overarching goals is to assist the food and fibre industries to care for the land. Due to its achievements in sustainability, Lincoln is the only New Zealand university to gain a rating in the GreenMetric World University Rankings, placing 51st out of 912 universities from 84 countries.

Programmes

Study Abroad (various individual courses)

Graduate Diploma in Business and Sustainability

Bachelor of Environmental Management

Bachelor of Science (major Environmental Science)

Bachelor of Environment and Society

Bachelor of Tourism Management

Masters of Science (Conservation and Ecology)

Master of Disaster Risk and Resilience

Master of Natural Resources Management and Ecological Engineering

Master of Water Resource Management

Boldly sustainable, together. The University of Otago connects student learning, operational practice and research to maximise the impact of our sustainability work. Otago brings its sustainability commitment to life with a Sustainability Strategic Framework, which includes a number of initiatives, such as He Kāinga Toitū, He Kāinga Ora – the Sustainability Neighbourhood at University of Otago. Students now have the choice to come and stay in UniFlats that are specifically set up for them to live more sustainably. It is also set up as a “living lab” with student projects and research projects as well as training and community engagement.

Programmes

Environmental Science Programmes

(Botany, Chemistry, Ecology, Energy, Environmental Management, Environmental Toxicology, Geographic Information Systems)

Energy Science and Technology/Energy Management

Agricultural Innovation Degree

Food Waste Innovation Research

Master of Peace and Conflict Studies

Master of International Development and Planning

Master of Sustainable Business



You don't have to go to New Zealand to get New Zealand expertise. Many of these subjects are also offered online; contact your university of choice to discuss!

STUDENT STORIES

Forging a new path to help save the world's oceans



Alexandra Lischka
German PhD Student

"The old ways of thinking aren't working when it comes to solving some of the biggest problems facing our oceans. I know I need to forge a new path if I want to make a difference."

I'm an adventurous person, and I've travelled widely exploring the world's oceans. There are so many problems facing our marine environment, and I want to help solve them. I chose New Zealand for my PhD studies because I believe the high standard of marine research here will give me the skills to achieve my long-term ambition, which is to help more people understand the importance of the oceans to the healthy functioning of the planet.

I'd like to educate people about the oceans: not just the bad things, like pollution, but the good things, like the amazing diversity of species. I first came to New Zealand because I wanted to consult Dr Kat Bostad, a deep-sea squid biologist, about a species of squid I discovered on a field trip to the Sargasso Sea while I was studying for my Master's degree in Germany. Kat is a world expert on classifying squid, so I packed a bag full of squid samples and flew to New Zealand to consult her.

I spent three months in New Zealand researching my squid, and one of them turned out to be a species that had never been described before. I had such a great experience here that I'm now studying for a PhD at Auckland University of Technology (AUT), with Kat as my primary supervisor. It's wonderful to have strong, confident female role models in science. Kat inspires me and has helped me to become a better scientist.

Find out more about Alexandra's experience in New Zealand: read her story on our blog and watch the [Future Skills video](#).

Aiming for sustainability



Heinrich Blass
German Study Abroad alumnus

New Zealand – the country at the end of the world is not only known for its beautiful landscapes, but also for an excellent education system with a sustainable focus. As an architecture student from Jade University in Oldenburg, Germany, I was particularly interested in learning more about sustainable and ecological building, as well as about the culture and the country.

With the support of the organisation "GOzealand!", which helped me enormously in the search, preparation and implementation of my application for my Study Abroad semesters (Trimesters 1 & 2, 2020) in New Zealand, I found a wonderful offer at the Victoria University of Wellington from the study programme "Building Science". This programme offers a wide range of modules on sustainable building in both Bachelor and Master's, from which I chose among others "Sustainable & Regenerative Design", "Sustainable Engineering Systems Design" and "Green Building Assessment". In these courses, I was able to learn a broad approach to sustainable concepts from design to building technology and engineering systems to green building certification, which gave me a wide and deep insight as well as extensive expertise in sustainable building.

All in all, my time in New Zealand and at Victoria University of Wellington was a wonderful and unique experience where I was able to grow and develop not only academically but also personally.

NEW ZEALAND'S LOCATION OFFERS UNIQUE OPPORTUNITIES TO CONDUCT RESEARCH

NEW ZEALAND HAS TWO WORLD-RENOWNED RESEARCH CENTRES WITH A STRONG FOCUS ON ANTARCTIC STUDIES AND RESEARCH.

Gateway Antarctica is the Centre for Antarctic Studies and Research at the University of Canterbury. It aims to enhance understanding of Antarctica in the context of the global environment. The centre is a focal point for Antarctic study, attracting national and international participation in collaborative research, analysis, learning and networking. The centre plays a leading role in national and international Antarctic research projects. This includes areas such as engineering in extreme environments, Antarctica's role in climate change, connections between Antarctica and New Zealand and human influences in and on Antarctica.

The Antarctic Research Centre (ACR) at the Victoria University of Wellington is recognised as a world leader in Antarctic studies. It is a Centre of Research Excellence within the Faculty of Science and is co-located with the School of Geography, Environment and Earth Sciences. It aims to research the field of Antarctic earth sciences with a focus on past climate history and processes and their influence on New Zealand and global climate. The ACR contributes to both undergraduate and postgraduate teaching and research supervision in sedimentology, glaciology, paleoclimatology and Antarctic affairs.

RESEARCH IN AND FOR THE ROSS SEA REGION MARINE PROTECTED AREA, ANTARCTICA

Dr Regina Eisert

Victoria University of Wellington Te Herenga Waka,
with help from James York and Poutama Hetaraka

My name is Regina Eisert. I am an Antarctic researcher and the New Zealand-Germany Science and Innovation Coordinator for the Ministry of Business, Innovation and Employment (MBIE). I left Germany at nineteen to study animal physiology at Lincoln University near Christchurch. I soon found that New Zealand is the gateway to the world's last great wilderness, Antarctica, Te Tiri o Te Moana, Continent of Peace and Science. So for my PhD, I found myself camping in Antarctica to study seals.

Dr Regina Eisert on the ice.
Having evolved in isolation,
Antarctic wildlife has no fear
of humans.



Photo: Ekaterina Ovsyanikova

After working for the Smithsonian Institution in Washington, D.C., I came back to New Zealand in 2013 to set up the Top Predator Antarctic research programme to support the world's largest marine protected area (MPA) in the Ross Sea region. MPAs in the Southern Ocean are managed by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), an international commission that applies an ecosystem-based approach to ensure long-term sustainability of Antarctic fisheries. CCAMLR requires ongoing research and monitoring of its MPAs to assess whether conservation objectives are met, and that is what my research is about.

A key concern for the Ross Sea region MPA was the potential of the fishery for Antarctic toothfish to deprive marine mammals such as Weddell seals, Type-C killer whales and sperm whales of their prey.

By virtue of their position in the food web, top predators can act as “sentinel species” that integrate multiple simultaneous impacts on the ecosystem, such as climate change and fishing.

Māori have used sentinel species for centuries as a means of preserving ecosystem integrity and harvesting marine food resources sustainably.

In a 2008 report, Nigel Scott (Ngāi Tahu) analysed the Antarctic toothfish fishery in the context of tikanga (customary practices) and described how the mauri (life force) of a marine resource is estimated using tohu (indicators). Examples of tohu are abundant populations of marine mammals and seabirds that signal a healthy, productive ecosystem. This approach sums up the CCAMLR principle of “ecosystem-based” management with intuitive simplicity.

In 2019, I had the great privilege of meeting James York and Poutama Hetaraka, who had travelled to Antarctica to carve a gate for Scott Base, New Zealand's Antarctic station. The carving, Te Whakairo, represents our guardianship over this unique and wonderful part of the world. In my discussions with James and Poutama, I told them about our research on whales, and they told me about the vast interconnected web of physical nature and living things, humans included.

The maramataka, the Māori calendar based on the moon and stars, represents a promising framework for analysing the chronobiology of marine animals subject to significant tidal (i.e. lunar) drivers.



James York and Poutama Hetaraka at Scott Base, Antarctica, in front of the completed whakairo (carving) that **symbolises environmental stewardship of the Ross Sea region**. The carving includes the phases of the moon.



Watch this documentary to learn more about the beautiful pare (carved door lintel) created by James and Poutama at Scott Base.

Te Whakairo is a short film by Elanti Media that documents the journey that James York (Ngāi Tahu / Ngāpuhi) and Poutama Hetaraka (Ngātiwai / Ngāi Tahu) took to carve and install a whakairo at New Zealand's Scott Base in Antarctica.



If you are interested to learn more about Māori perspectives on the future of Antarctica, read **Māori view on Antarctica's future** co-written by Māori philosopher Associate Professor Krushil Watene, School of Humanities, Media and Creative Communication, Massey University.

Published in the prestigious *Nature Ecology & Evolution* scientific journal, the article entitled “Transforming Antarctic management and policy with an Indigenous Māori lens” asserts that customary Māori practices and values align with the need for protecting Antarctica's resources and environment.

GREEN HYDROGEN FOR A SUSTAINABLE FUTURE IN AOTEAROA NEW ZEALAND

Professor Sally Brooker, Department of Chemistry
Te Tari Mātauranga Matā, University of Otago



Professor Brooker is committed to cultivating a more diverse and inclusive culture, encouraging, inspiring, educating and training emerging Māori and minority researchers. “Green” hydrogen is low-emissions hydrogen, created sustainably from water using renewable energy (solar, wind, water, geothermal).

Aotearoa New Zealand’s indigenous people (Māori) have always understood and prioritised care for Papatūānuku (Earth Mother) and the taiao (natural environment). Now the Government has committed to being carbon zero by 2050.

Game-changing low-emissions technologies like “green” hydrogen will be critical to getting there.

Iwi (Māori tribes) are highly entrepreneurial and quick to get behind new technologies.

Indeed, Sir Tipene O’Regan (Kaumātua, respected elder, of Ngāi Tahu, New Zealand’s principal South Island iwi; and Upoko, head of the rūnanga, council, of Ngāi Tahu’s Awarua people of the southern coast of the South Island) is advocating that it’s a “no brainer” to convert Tiwai Point aluminium smelter, which draws a lot of energy (570 MW, about 13% of New Zealand’s electricity) from Manapōuri hydro power station, to a green hydrogen facility.

Hydrogen can replace fossil fuels to power engines, heat homes and industrial processes, and is used to make fertilisers and other chemicals, or to store excess energy until it is needed.

Aotearoa New Zealand already has a very green electricity supply (mostly hydro). Nevertheless we’re working to enhance this, by accessing untapped wind and solar resources, analysing the potential for pumped hydro, etc.

The next key targets are the emissions of the transport and heating (industrial, commercial and household) sectors. Hydrogen is particularly attractive for heating, as burning hydrogen is efficient and regenerates wai (freshwater), so there is no waste/pollution impact on Papatūānuku (Earth Mother) and the taiao (natural environment).

As a small country of only five million people, here in Aotearoa New Zealand we can be fast on our feet: there is real political commitment to becoming fossil fuel independent; our Covid-19 response has shown we have a science-informed government; and we have low regulatory issues relative to other countries, potentially making Aotearoa New Zealand a great test bed for new technologies.

A cyclic, zero-emission economy avoids wasting resources, which helps protect the taiao (environment). These facts resonate with iwi (Māori tribes), as they are committed to leaving their mokopuna (grandchildren) a healthy Aotearoa.

Joining forces within and outside Aotearoa New Zealand

Dr Paul Jerabek, at the Institute for Hydrogen Technology, Helmholtz Centre hereon (near Hamburg), approached University of Otago chemistry department researcher Professor Sally Brooker to establish a joint German-Aotearoa New Zealand research centre on green hydrogen, in response to a call from the German Federal Ministry of Education and Research (BMBF) to fund bilateral initiatives in the Asia-Pacific Research Area (APRA).

Together with Associate Professor Aaron Marshall (University of Canterbury), Professor Brooker has brought together Aotearoa New Zealand researchers and engineers from universities, Crown Research Institutes (GNS & Scion), the MacDiarmid Institute, Ara Ake, and Callaghan Innovation. The scientists are partnering with iwi and private sector experts in the New Zealand Hydrogen Council, to build a national “Team Green Hydrogen”.

A deep and strong partnership with iwi will grow through Professor Brooker’s existing and ongoing commitment to engage with Aimee Kaio who is of Ngāi Tahu descent, to develop the relationship. Aimee is an employee of Te Rūnanga o Ngāi Tahu, the tribal overarching governing council.

Aimee states: “Further research and insight into green hydrogen is of great importance to our Awarua whānau (family), not only as a sustainable energy source, but also as a significant contributor to building the capability of our people through opportunity: education, employment and enterprise pathways.”

Professor Brooker is committed to cultivating a more diverse and inclusive culture, encouraging, inspiring, educating and training emerging Māori and minority researchers through outreach, engagement and targeted scholarships.

These initiatives should also open economic development opportunities for regional and iwi organisations, as we work towards using our rich renewable electricity resources to realise a green hydrogen economy in Aotearoa New Zealand.



“Our aspiration is to build a strong tribal economy through industries that align with our values of kaitiakitanga (guardianship), tohungatanga (learning and growth), and rangatiratanga (self-determination).”

Glossary

iwi	tribe, people of a certain region
kia ora!	hello, to live, be well, good health, thank you
kaitiakitanga	guardianship
kaumatua	respected elder
mauri	life force, vital essence
mokopuna	grandchildren
mātauranga Māori	indigenous knowledge
nau mai!	welcome!
Ngāi Tahu	largest tribe of the South Island of New Zealand
Papatūānuku	Earth Mother
pare	carved door lintel
rangatiratanga	self-determination
Ranginui	Sky Father
rūnanga	tribal council
taiao	natural environment
tangata whenua	people of the land, local people
te reo Māori	Māori language
te Tiri o Te Moana	Antarctica
te Tiriti o Waitangi	the Treaty of Waitangi
tikanga	customary practices
tohu	indicator
tohungatanga	learning and growth
upoko	literally, “head”, in this case head of the council
wai	fresh water
whakairo	carving
whānau	family
whānau puha	whales; literally, “the family that exhales air”, referring to the very audible breathing of whales that can be heard over long distances

Glossary based on
<https://maoridictionary.co.nz/> and <https://teara.govt.nz/>

FIND OUT MORE ABOUT A NEW ZEALAND EDUCATION

If you are interested in more information about New Zealand and its culture, education system and sustainability programmes please visit:

→ studyinnewzealand.govt.nz

For relevant information in regard to Covid-19 and travel restrictions please visit naumainz.studyinnewzealand.govt.nz or follow us on our social media channels.

SCHOLARSHIP OPPORTUNITIES

A scholarship can help you finance your study and living expenses, build your professional networks and be a valuable addition to your resume. Governments, educational institutions and philanthropists offer scholarships for international students, including Master's and PhD students. For more information please visit:

→ **New Zealand Scholarships – Find a Scholarship to Study in New Zealand**

→ **Scholarships granted by the German Academic Exchange Service / Deutscher Akademischer Austauschdienst (DAAD)**



All DAAD scholarship recipients are treated as domestic students for fee purposes when they choose to study in New Zealand.

NEW ZEALAND RECOGNISED AGENCIES

We also encourage you to get in touch with [Education New Zealand Recognised Agencies](#).

They are experienced with placing students in New Zealand and can assist you with course and visa applications.

Feel free to contact the following Germany-based agencies for information and support:

→ **GOzealand!**

→ **College Contact**

→ **IEC International Education for Global Minds**

→ **Institut Ranke Heinemann**

***Whatungarongaro te tangata, toitū te whenua.
People come and go, the land remains.***

This whakataukī (proverb) speaks to the importance and permanence of the Earth. Although people disappear from sight, the land remains. As humans we rely on the land. We must think long-term and see the big picture to ensure the sustainability of our natural environment.

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