

PŪRONGO Ā-TAU  
REANNZ  
ANNUAL  
REPORT

Year ended 30 June 2022

REANNZ

# CONTENTS /

WHO WE ARE	3
OUR VISION AND MISSION	3
BOARD CHAIR'S FOREWORD	4
CHIEF EXECUTIVE'S FOREWORD	5
2022 AT A GLANCE	7
GOVERNANCE	8
OUR PEOPLE	10
PRIORITIES AND MAJOR INITIATIVES, 2021/22	12
THE NETWORK	15
COLLABORATING WITH THE SECTOR	20
OUR PRODUCTS AND SERVICES	26
END OF YEAR REPORTING	29
INDEPENDENT AUDITOR'S REPORT	33
GOVERNANCE STATEMENT	36
STATEMENT OF PERFORMANCE	38
FINANCIAL STATEMENTS	43
NOTES TO THE FINANCIAL STATEMENTS	47
REANNZ MEMBERS AS AT 1 JULY 2022	62

## Image credits

Front and back cover: Image by Umberto on Unsplash - <https://unsplash.com/@dumby>

Page 17: Image by Shane Rounce on Unsplash - <https://unsplash.com/@shanerounce>

Presented to the House of Representatives under Sections 150–157 of the *Crown Entities Act 2004*.

REANNZ is the Research and Education Advanced Network New Zealand.

Level 5, Qual IT House 5/22 The Terrace, Wellington Central, Wellington 6011

[engagement@reannz.co.nz](mailto:engagement@reannz.co.nz)

[www.reannz.co.nz](http://www.reannz.co.nz)



This work is licensed under the Creative Commons Attribution 3.0 New Zealand License. In essence, you are free to copy, distribute and adapt the work, as long as you attribute the work to REANNZ and abide by the other licence terms. To view a copy of this license, visit [www.creativecommons.org/licenses/by/3.0/nz](http://www.creativecommons.org/licenses/by/3.0/nz)

## WHO WE ARE /

We're a Crown-owned membership organisation that operates and supports a specialist high-performance digital network engineered to meet the unique performance demands of Aotearoa's research and education sector.

Our high-performance digital network connects researchers to each other within Aotearoa and across the globe. Through our network, they're able to collaborate and contribute to global science initiatives and ground-breaking studies.

Our members include schools, museums, libraries, Crown Research Institutes, wānanga, universities, polytechnics and Institutes of Technology.

## VISION /

A globally connected and thriving research and education sector.

## MISSION /

Connecting researchers and educators so they can change the world.

## OUR PURPOSE /

CONNECTING RESEARCHERS.  
EVERYWHERE.

We provide New Zealand's National Research and Education Network (NREN). It offers our members the technology and infrastructure to collaborate with and contribute to global science initiatives and ground-breaking studies.

New Zealand's NREN connects to over 120 other NRENs around the world, creating regional partnerships and international communities that promote collaboration.

# BOARD CHAIR'S FOREWORD /

On behalf of the Board, I am pleased to present REANNZ's Annual Report for the year 2021/22. It reflects on a dynamic and fruitful year for REANNZ and demonstrates how the organisation continues to evolve to meet the changing needs of the research, science, innovation and education sector.

With new leadership and a refreshed strategy, the organisation has made significant progress to support REANNZ's ability to act as a key pillar for the eResearch ecosystem. The future of research calls for more flexibility in the connectivity and interoperability of services, and transdisciplinary approaches to collaboration.

REANNZ is already a critical part of New Zealand's eResearch infrastructure, operating a specialist high-performance digital network engineered to meet the unique demands of scientists, researchers, innovators and educators. As Aotearoa's NREN, REANNZ has the responsibility to deliver global NREN services to the research and education community it serves. REANNZ's ambition is to enable the sector to be adaptable, resilient and, most importantly, globally connected.

We have been successful in meeting our key performance measures that secure the delivery of a high-speed data network to support data-intensive research and the provision of global NREN services to foster collaboration, both nationally and internationally. There have also been many opportunities for the organisation to learn and grow in response to the changing environments that we all find ourselves in, as we adapt and return to a near-normal way of working, collaborating and sharing our work with our local and global communities.

The organisation continues to prioritise the Government's commitment to an inclusive, sustainable and productive New Zealand and the role that a modern, future-focused research system has in driving and supporting this.

We also acknowledge the crucial role that the education sector has in building the future talent pipeline for research, science and innovation across Aotearoa. For this reason, REANNZ is focused on enabling a thriving and connected education sector.

We have embarked on the critical journey of embedding Te Tiriti and building our capability to meet our Te Tiriti obligations across the organisation. We will continue to seek opportunities to further understand the needs and work more closely with our community to determine our role in supporting Mātauranga Māori and increasing access to the system for tāngata whenua.

REANNZ's focus is to ensure that it has a sustainable business approach, well-managed costs and develops new approaches to infrastructure and investment that will help create a network



REANNZ Chair Janine Smith, MNZM

that is fit for the future. Progress has continued with the delivery on the National Network Strategic Review initiatives, the majority of which will be completed within the next financial year.

As part of its annual network review, REANNZ identified that the fibre assets it owned were no longer required. To this end the REANNZ result for the year ending 30 June 2022 included an impairment charge of \$4.4M, relating to its network assets, after confirming no future use for REANNZ and there was not an available market for disposal. REANNZ audit was not completed by the statutory deadline of 31 December 2022 as our Auditors were unable to complete the audit within this timeline due to the consequential effects of COVID-19, including an auditor shortage.

Staff, management and the Board continue to be committed to success, and we look forward to another successful year. Our aspiration is that REANNZ continues to build on its strong foundations and extend its reach, turn expertise into impact, and increase global participation to connect and serve Aotearoa's research, science, innovation and education sectors.

My thanks go to my fellow Directors, to management and to all the REANNZ people for their continued enthusiasm and dedication during a year that has challenged us to do more, be creative and think big about what our NREN could look like in the future.

I must also express my gratitude to members for their ongoing support. REANNZ remains committed to supporting their work, which demonstrates New Zealand's world-class researching capabilities and shows how we can collectively change the world for the better of all. We look forward to working alongside you to deliver on your needs and future ambitions for the network.

**Janine Smith MNZM**  
Chair

# CHIEF EXECUTIVE'S FOREWORD /

Kia ora tātou,

Since joining REANNZ in 2021, I have been deeply impressed by both the expertise and passion demonstrated by staff, members and international colleagues.

We're living through exciting times in the research, science, innovation and education sectors – with new technology and approaches changing the way we live, work and play. With our high-performance digital network, REANNZ is in the unique position to help our members collaborate and connect – both here and abroad – so they can push the boundaries of what is possible.

This year we have continued to look outward to our national and international community, reflecting our refreshed strategy (see page 13 for more). We've also benefited from reconnecting with our membership and international colleagues in person as COVID-19 restrictions were lifted. Over the coming year, we'll be continuing to focus on engaging meaningfully across our community and looking at areas for further collaboration.

We've had a deeper dive into possible futures for the sector this year through our response to the Te Ara Paerangi green paper, where we outlined REANNZ's view that research system access for all – supported by strong governance – is key to enabling collaboration. We believe that the future of a modern research system is one that has connectivity at its core, with collaborative projects as the norm. Global research participation needs to be a high priority, with a focus on sharing expertise and knowledge in solving local and global challenges. REANNZ can support our members and the Government to deliver on these ambitions.

Over the year, we've also had discussions on the Future of Research Use Cases (see more at page 24) and, through the National Network Strategic Review programme of work, we were able to reimagine what infrastructure capabilities might be required to support this future. The latter programme is progressing well, and we have been pleased with the level of interest shown by the market as we look to upgrade our network infrastructure. This programme will ensure that REANNZ and the network remain well equipped to support the next generation of research, innovation and education activity.



Amber McEwen, Chief Executive Officer

Our new vision is: 'A globally connected and thriving research and education sector'. This is an aspiration we believe we can achieve by focusing on our strengths and accepting our members' calls for us to do more.

As part of bringing this vision into reality, REANNZ will consistently look for new approaches to fully support the community and bring the value, infrastructure and expertise of the global NREN community to Aotearoa. We will focus on increasing our participation and contribution to the global community. We will leverage our whole-of-sector view to build capability across the sector, reach beyond the boundaries of our core network and build our membership and delivery models to support this.

We feel well placed to start FY23 with a clear plan in place that will ensure we continue to deliver for the national research and education community, and we look forward to working with our partners and members to bring it to life.

Ngā manaakitanga

A handwritten signature in black ink, appearing to be 'Amber McEwen', written over a white background.

**Amber McEwen**  
Chief Executive Officer



We're connectors,  
linked by a powerful  
invisible network.

We connect Kiwi  
researchers with  
each other, and  
with the world.  
And we foster  
innovation by  
connecting ideas  
and expertise.

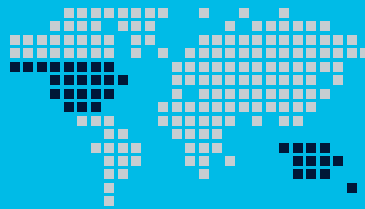


# 2022 AT A GLANCE /



100 Gbps

National bandwidth available



100 Gbps

International network capacity to Australia and the United States



81,624 devices

no. of device connections via eduroam from overseas visitors



0.0078% packet delay variation



0.00000014% packet loss



134.38 Petabytes

Total traffic flows



100% availability

International network availability



99.99% availability

National network availability

# GOVERNANCE /

REANNZ is governed by a Board of Directors, who are appointed by its shareholding Ministers following agreement by Cabinet. REANNZ has seven appointed directors.

The Board appoints the Chief Executive, who is responsible for the day-to-day operations of REANNZ.

## Our Board



### **Janine Smith MNZM, Chair**

Janine was appointed a Director and Chair of REANNZ in November 2018. She has over 20 years' experience as a non-executive director with experience in public listed, private and Crown-owned companies. Janine has held her most recent role as Chair of Asure Quality for the last nine years. Janine also trains and advises boards in governance through her role as Executive Director of The Boardroom Practice Ltd. She is a member of the AUT University Council, an independent member of Fonterra's Governance Development Committee, President of London Business School's Auckland chapter and a director of several private companies. Janine was awarded a Member of the New Zealand Order of Merit in 2015 for services to corporate governance. Her appointment as Chair of the REANNZ board is until 30 June 2024.



### **Ross Peat, Deputy Chair**

Ross is executive director and co-owner of digital health companies HealthSoft Ltd and HealthSoft Australia Ltd, and is Chair of AUT Ventures Ltd. He is a member of Limited Partner Advisory Committee for the Icehouse Ventures Seed III fund (angel and early-stage investment), a director of e-waste recycler Mint Innovation, and a director of the Digital Health Association (DHA) industry body. Ross' appointment to the REANNZ board has been extended until 31 December 2023.



### **David Skinner**

David is Executive Director of Gravelroad Consulting, specialising in infrastructure and public policy risk economics. He has had a management career in telecommunications, electronic banking and defence. Previous positions include Managing Director of Netway, Hypercom, and COO positions in Clear Communications. He has lived and worked previously in the UK, Europe and Australia. He holds a BE from Canterbury University and an MBA from Auckland University and is an associate fellow of the NZIM. David's appointment to the Board is until 30 September 2022.





### **Dr Warren Williams**

Warren has been in the ICT business and tertiary education industry for over 25 years. He is currently the CEO of 20/20 Trust which provides access and connection to digital skills and resources that empower and enable people to realise their aspirations. Warren's governance and leadership experience includes national and regional boards, working with Māori and entrepreneurship groups, tertiary ICT advisory groups, and technology and innovation groups. He is passionate about strategic Māori leadership and succession planning in decision-making forums, especially with rangatahi Māori and wāhine Māori. Warren was appointed to the Board on 15 November 2021, for a three-year term.



### **Liz Gosling, People and Culture Committee Chair**

Liz is the Chief Information Officer at Auckland University of Technology (AUT). She brings three decades of experience in the IT sector in New Zealand, the US, UK and Europe. She was a Director and faculty member of the Council of Australasian University Directors of Information Technology (CAUDIT) Leadership Institute in Australia, and the New Zealand invited representative on the CAUDIT Executive. Liz has chaired the Universities NZ Information and Communications Technology Committee and is a previous Chair of TUANZ. Liz has an MBA (HR Management) and is appointed until 30 June 2025.



### **Professor Jim Metson**

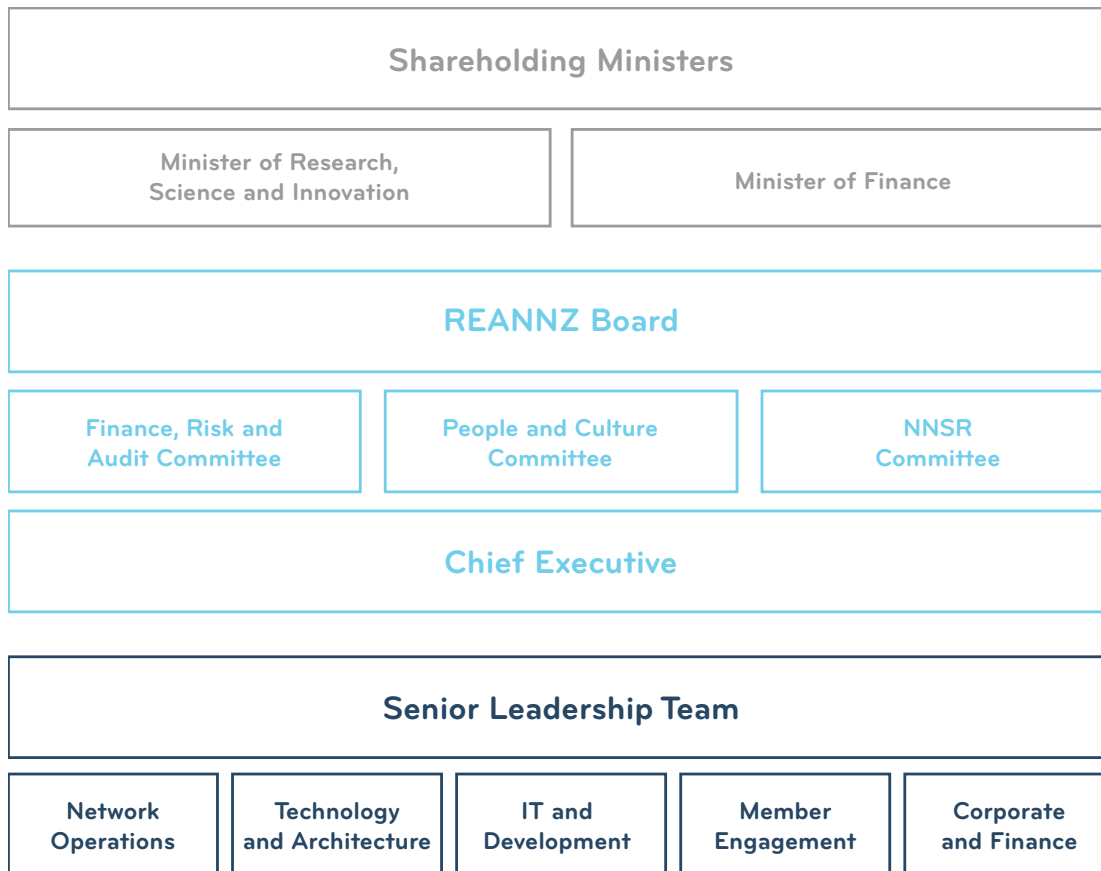
Jim is the Deputy-Vice Chancellor (Research) at the University of Auckland. He is a materials scientist, was a founding member of the MacDiarmid Institute for Materials Science and Nanotechnology, a co-founder of the University of Auckland Research Centre for Surface and Materials Science, and the Light Metals Research Centre. Jim chaired the MoRST Research Infrastructure Advisory Group and represented the New Zealand Government on the Australian National Science Advisor Committee that oversaw the development of the Australian Synchrotron. He served as Chief Science Advisor to MBIE from 2013-2016. Jim is appointed until 30 June 2025.



### **Sara Brownlie, Finance, Risk & Audit Committee Chair**

Sara is the Managing Director of Fargher Woods Ltd providing Programme Management services, an Independent Director for Catalyst.net Ltd and Independent Member of the Risk and Assurance Committee for Upper Hutt City Council. She is a Fellow Member of CPA Australia and a Chartered Member of the Institute of Directors in New Zealand and the Chartered Accountants Australia and New Zealand. Sara has had an extensive career working in senior management roles in the public sector. Sara is appointed until 30 June 2023.

# Governance and Management Structure



## OUR PEOPLE /

Our people come from all walks of life – combining their technical expertise with a whole-hearted focus on members and their needs. They're united around a single purpose – to make a positive impact on New Zealand through research and education.

### Specialist network operators

We manage an Advanced Network, providing seamless, real-time transfer of critical research data. We are part of an international federation of network operators dedicated to the research and education sector.

### Global connectors

As a partner in the global research and education network, we connect New Zealand to the global research community, providing access and identity services so members can connect and collaborate wherever they are.

### Technical experts for the research and education sector

We provide a range of products and services to support the specialist needs of our members in the research and education community, helping them move data and enabling collaboration.

## Our Mindset

Our people are curious and open to trying new things. They work hard to create solutions that can support the wider community. Regardless of our individual roles in REANNZ, we act as one. Together, we want to create a place where everyone can collaborate and make a difference.

Our core competencies support us to achieve our aspirations for our organisation, our members and the sector:

- › **Lead by example** – being accountable for our actions
- › **Act as one team** – working as one team in partnership with our members and stakeholders
- › **Open to all** – creating a diverse workplace where everyone feels welcome
- › **Be purposeful** – creating impact by doing what we say we will
- › **Be curious** – seeking new and exciting ways to deliver for our community
- › **Aspire to excellence** – aiming high, to be excellent in all that we do.

## Our Teams

REANNZ teams support functions across the technical, corporate and engagement operations to meet the needs of our members and stakeholders:

- › The **systems and development team** are operationally responsible for desktop, server and Cloud software and infrastructure as well as several products including eduroam – our WiFi roaming service – and Tuakiri, which provides trusted and secure federated identity and access management. They oversee the software engineering activity within REANNZ, working closely with the network team in developing solutions that support members.
- › The **technology and architecture team** develop solutions that resolve technical issues and support members' network infrastructure and service needs to facilitate the secure, uninterrupted transfer of research data.
- › The **network operations team** monitor and design the network, working in partnership with members' technology teams to support an end-to-end view of the connectivity solutions in place. REANNZ network engineers are on call and available 24/7 for our members.
- › The **engagement team** works closely with our members' technology teams and researchers to support their use of the network. The team facilitates collaboration and connection at a people level between our members and the wider community. Communications and marketing staff work alongside each function to coordinate communications activities and materials. They also participate in community and stakeholder engagement to surface and share examples of sector collaborations and research outcomes that have been enabled by access to the network.
- › The **corporate and finance team** provides business support for the organisation and is responsible for financial and performance compliance reporting.



# PRIORITIES & MAJOR INITIATIVES 2021-22 /

This financial year REANNZ invested in three significant projects to improve its performance and deliver on its long-term strategic objectives:

- > The National Network Strategic Review
- > REANNZ's new business strategy
- > Member insights and tailored services



## National Network Strategic Review

New Zealand aspires to create high impact research and data. A high-speed, resilient research network is instrumental in realising this ambition. Our network has been the backbone of the research and innovation sector in Aotearoa since 2013. Some of the hardware and commercial agreements are at the end of their lives so we've been looking at what we'll invest in for the future.

We undertook a strategic review of the National Network to ensure that we could continue to meet our members networking and connectivity requirements. This review was enabled by additional funding received from the Ministry of Business, Innovation and Employment with a view to replace aging network infrastructure.

The National Network Strategic Review is a programme of work that will run to mid-2024 and have three distinct phases, designed to futureproof the network for the next 5-7 years:

- **National connectivity** – identify a partner or partners to connect between REANNZ Points of Presence, with a focus on flexibility and ability to scale, particularly in the regions
- **Hardware** – identify a partner or partners for core hardware requirements, with greater transparency around service levels and focus on environmental impact (reducing our energy needs and footprint)
- **Geographical footprint** – understand options to extend our network reach across Aotearoa.

As part of this review, in this financial year we have:

- run a successful procurement process with multiple stakeholders to look at national connectivity requirements and we have identified our preferred supplier. On 7 February 2023, REANNZ signed a Vodafone Wholesale Master Services agreement with Vodafone New Zealand.
- released a request for proposal for hardware, however at this time we are still evaluating responses with a view to undertaking due diligence and shortlisting of respondents. We expect to finalise requirements in May 2023.

## REANNZ's new Business Strategy

The impact of COVID-19 has been far-reaching, with organisations around the globe facing unprecedented disruptions. During the COVID-19 pandemic, REANNZ worked closely with the local community and international counterparts to provide a stable platform for research and collaboration.

However, like most organisations, we've had to embrace our new reality and re-imagine how to operate in it. Over the past year, we've reflected on who we are, how we operate, and what more we can do to support the research and education sector as they pivot their own resources and adapt to a changing funding landscape.

We refreshed our strategic plans to reflect market changes and changing member expectations, and to demonstrate how we will continue to create and deliver value to our stakeholders.

The four key pillars of our strategy are:

- **Supporting Mātauranga Māori:** Play a role in ensuring that tangata whenua have equitable access to the connectivity and infrastructure they need to support Māori research and education, recognising Māori rangatiratanga (self-determination) over data and the kotahitanga (unity) that can be derived from it.
- **Building our global connections:** Continue to develop our knowledge and increase our participation and contribution to the global NREN community. This will ensure that the knowledge and value of the network can be used for the benefit of Aotearoa.
- **Making it easy:** Work in partnership with the research and education sector to develop a consistent user experience, focused on improving interoperability, consistency and co-design.
- **Connecting Aotearoa:** Ensure researchers and educators have access to the infrastructure and connectivity they need to advance their work and deliver outcomes of national and international importance.

## Member Insights and Tailored Services

We know it's critical for REANNZ to understand members' expectations, their changing needs and demands for new products and services if we want to remain relevant. We are committed to offering high-performance service and solutions tailored to the specific needs of our research, education and innovation communities.

We continue to work closely with our members to better understand their requirements so that any new products and innovations meet their needs.

We have started developing a product roadmap which articulates our vision, its alignment to our strategy refresh and how we create value for our members. We intend to engage with our wider community in 2023 to gauge their views on the roadmap and add additional ideas and feature requests.

Their input will be used to inform our internal decision-making, investment and product design cycles.

We are committed to offering high-performance service and solutions tailored to the specific needs of our research, education and innovation communities.

# THE NETWORK /

We provide a National Research and Education Network (NREN) to support the research and education sectors within Aotearoa. NRENs are specialised internet providers set up by countries around the world to help researchers and educators share data as they collaborate on studies and initiatives. These NRENs connect to each other across local networks and subsea cable systems.

The network that REANNZ operates is the backbone of the New Zealand research and education sector. It is a high availability, low latency network designed to move and share data around the country, and across the world, at a scale that isn't consistently possible using a standard network. Capacity alone is not sufficient. Other technical features and dedicated data transfer support make it possible for Kiwi researchers and educators to collaborate on a global scale.

The network connects into high-performance computing tools like the supercomputer at National eScience Infrastructure (NeSI) and provides access to specialist scientific instruments, like the Australian Synchrotron, and on-site storage arrays.

Alongside our specialist network, we support the sector with the products, tools and services they need to collaborate, educate and deliver excellent research.

Seattle  
Portland (Oregon)

Sydney

Hawaiki Capacity

Los Angeles

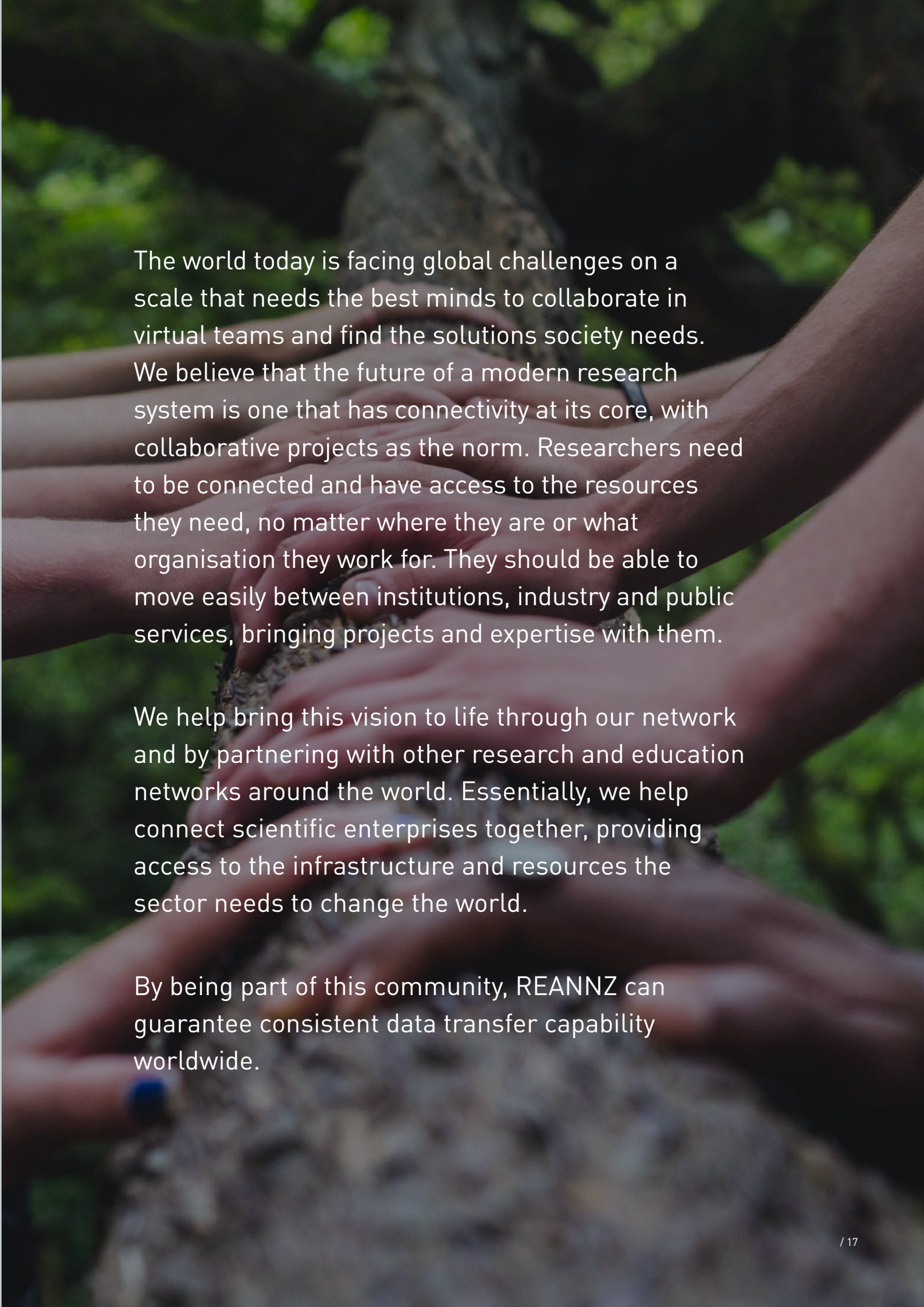
# REANNZ NATIONAL NETWORK MAP

- 100Gbps national backbone network
- 20Gbps and under
- Hawaiki Capacity

These lines are indicative only and do not show precise routes.







The world today is facing global challenges on a scale that needs the best minds to collaborate in virtual teams and find the solutions society needs. We believe that the future of a modern research system is one that has connectivity at its core, with collaborative projects as the norm. Researchers need to be connected and have access to the resources they need, no matter where they are or what organisation they work for. They should be able to move easily between institutions, industry and public services, bringing projects and expertise with them.

We help bring this vision to life through our network and by partnering with other research and education networks around the world. Essentially, we help connect scientific enterprises together, providing access to the infrastructure and resources the sector needs to change the world.

By being part of this community, REANNZ can guarantee consistent data transfer capability worldwide.

# GLOBAL RESEARCH AND EDUCATION



## REANNZ INTERNATIONAL NETWORK

NB lines are indicative only, they do not show precise routes and includes committed services.

# TION COMMUNITY /



# COLLABORATING WITH THE SECTOR /

## Case study

### DELVING DEEP INTO GENOMES

Scientists and researchers have teamed up with REANNZ and NeSI to bring a new device to New Zealand that can unlock the tightly held secrets of naturally occurring organisms, from microbes to hops.

The PromethION genome sequencer offers users high-output, high-throughput sequencing of RNA and DNA. It's being used here in New Zealand as part of a collaboration between Lincoln University, Bragato Research Institute, REANNZ and New Zealand eScience Infrastructure (NeSI).

Two research projects are already set to benefit from the new technology. Associate Professor Chris Winefield at Lincoln University will be using it as part of his research on horticultural species such as grapes and hops. He focuses on molecular and functional genomics approaches to investigate the role of transposons – or “jumping genes” – in crop evolution. These segments of DNA can change location and alter a plant's genetics so mapping the genomes will allow agriculturalists to breed new traits.

Dr Darrell Lizamore of Bragato Research Institute leads the New Zealand Grapevine Improvement programme and he'll be using genome sequencing to characterise beneficial traits from genetic diversity within grapevines. This will help Aotearoa's \$2 billion wine industry become more future-proof. Vintners could use the research to select grape traits that respond to changing needs – such as climate resilience, market opportunities and biosecurity threats.

For his research, Dr Lizamore sees significant benefits: “PromethION will allow us to screen thousands of vines for new genetic traits, massively improving the efficiency of our programme. It will also enable our team to develop expertise with this technology, opening the possibility for new ideas and collaborations.”

Funded by Bragato Research Institute, the PromethION platform is hosted at Lincoln University. It connects directly to REANNZ's research and education network using a dedicated 10G hardware connection to its Point of Presence (PoP). This provides the researchers with access to national connections and the global web of interlinking NRENs. It also allows for uninterrupted access to the computer-processing capability provided by NeSI.

Access to PromethION DNA sequencing is now available to Aotearoa's researchers. The PromethION instrument is unique because it enables higher sequencing throughput than the more familiar MinION and GridION sequencers used by the community.

For more information on the sequencer contact [sequencing@bri.co.nz](mailto:sequencing@bri.co.nz).

The PromethION [genome sequencer] will allow us to screen thousands of vines for new genetic traits, massively improving the efficiency of our programme. It will also enable our team to develop expertise with this technology, opening the possibility for new ideas and collaborations.

– Dr Darrell Lizamore







## Case study

# DIGITAL ACCESSIBILITY IN STUDENT CAPITAL GROWS WITH EDUROAM

Otago Polytechnic has teamed up with REANNZ to expand the reach of free WiFi for its students.

While connectivity was initially limited to its campus, Otago Polytechnic will now be offering its students an opportunity to get online from multiple sites across Dunedin through REANNZ's eduroam services.

For starters, eduroam is being extended to the Forsyth Barr Stadium and the Dunedin Centre. Providing connectivity in these two major venues will have many benefits to Otago Polytechnic learners. The sites are the setting for key milestones in the academic calendar, with the Town Hall hosting graduation ceremonies for both the Polytechnic and Otago University.

The timing of the roll-out couldn't be better with graduation season on the way. As students and their loved ones come together to celebrate their achievements and look forward to future opportunities, the extension of eduroam at these sites will help them to connect, document and share some of the most memorable moments of their academic journey.

Steven Turnbull, Chief Information Officer at Otago Polytechnic says: "Together with the University of Otago, we have been working to expand the coverage of eduroam so North Dunedin is the most accessible education precinct in New Zealand."

The eduroam services are managed by REANNZ in collaboration with GÉANT and the global eduroam community.



## Case study

# GROWING CAPACITY WITH 100GBPS CONNECTIONS

REANNZ members are looking to the future and speeding up their data transfers.

The University of Waikato, Massey University and the National Institute of Water and Atmospheric Research (NIWA) have now enabled 100 gigabit per second (Gbps) connections to REANNZ's high-performance research and education network. They join the University of Otago and University of Auckland in having increased data transfer speeds.

Data sharing is a core principle of open, collaborative science and education. Planning ahead to enable fit-for-purpose networking capabilities supports the current and future needs of researchers, students and staff.

The rise of Cloud computing services and cross-institute collaboration makes this even more important. But transferring large data packets requires dedicated infrastructure. REANNZ provides the expertise to support, build and manage the infrastructure that allows seamless flow of data, here in Aotearoa and on a global scale.

NIWA upgraded its capacity to 100Gbps to future-proof its research. The new connection will increase connectivity to the high-performance computing (HPC) facility supported by the NeSI platform. The connection provides high-speed access to the scaled-up processing power provider through recent Graphic Processing Unit (GPU) upgrades.

The University of Waikato and Massey University looked to consolidate their networking infrastructure to receive the full value and high-performing capability of the REANNZ network. REANNZ engineers gave advice and support to the University of Waikato on their network design. This was part of a programme that covered all areas of networking and security.

The University of Waikato and Massey University now have 100 Gbps connections to the network with separate redundant connections. This provides resilient connectivity to support ongoing service and will enable increased data-transferring capability. Researchers, students and academics across the University will enjoy these benefits.

The University of Otago's main campus in Dunedin has a 100 Gbps connection to support researchers in many disciplines, from data-intensive genomics research to the applied sciences. This connection enables the sharing of huge volumes of data across the world. Otago also has plans to work with REANNZ to optimise data transfer between its other campuses.

The University of Auckland's increased capacity connects its researchers to scientific instruments. Both the University of Otago and the University of Auckland have a dedicated data transfer node (DTN) which allows for seamless data transfer. These data transfer nodes bypass obstructive filters and restrictions that slow transfer speeds.



## Case study

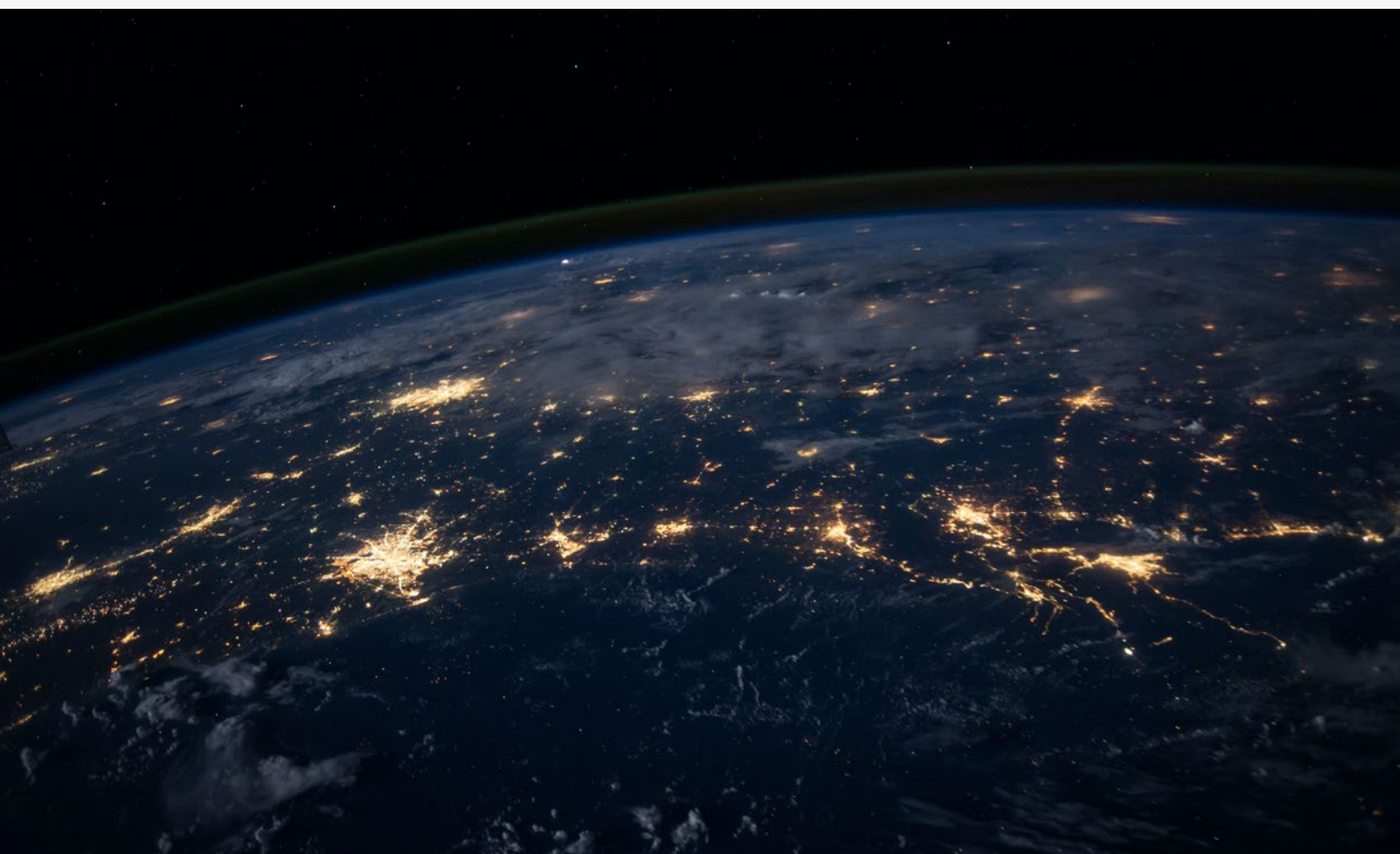
# REIMAGINING THE NEXT DECADE AND BEYOND

As an outcome of a collaborative working group with members from across the research and education community, REANNZ's Future of Research Use Cases paper imagines how data-intensive research may look in the next decade and beyond.

The use cases highlighted the increasing role that complex datasets and analytics will play in research, science and technology in the future. The ability to support edge-computing can also be confidently anticipated.

From connecting and weaving knowledge systems together to support healthy communities to creating a digital volcano, all the use cases shared the theme of great interdisciplinary research – and in some cases transdisciplinary research – that often involved collaboration with international partners. The six use cases cover a wide range of different research collaborations and reflect the broad nature of research undertaken in Aotearoa. One of the future case studies, "Creating A Digital Volcano" is showcased here.

Given the fast pace of technological development, and the skills needed to adopt new technologies, REANNZ's functions are likely to change to reflect the future needs of the sector. It is REANNZ's role to better facilitate access to the capabilities and infrastructure that research and education organisations and researchers will need now, and into the future.





## Case study

# CREATING A DIGITAL VOLCANO

Volcanoes across Aotearoa have been monitored for decades, although it remains difficult to predict when eruptions will occur. To improve the understanding of volcano dynamics, an advanced sensor array has been installed in and around Whakaari/White Island.

This is enhancing the collection of real-time monitoring of seismic, chemical, temperature and acoustic information. Satellite and other imaging data are also being used to track changes in the physical structure of the volcano. All this data is being used to develop a more unified digital version of the volcano.

Being one of the most accessible, active small volcanoes in the Ring of Fire, Whakaari/White Island was an excellent choice to realistically simulate a volcano. Detailed digital predictive models of physical systems have, until recently, focused on man-made objects or systems such as vehicles, buildings and farming systems. A virtual Whakaari/White Island will enable a better assessment and prediction of eruption risks by modelling in much greater detail how the volcano's activity responds to changing physical and chemical conditions.

The research will also improve our understanding of other volcanoes along the Pacific Ring of Fire. It is part of an international collaboration, dubbed the Digital Pacific Ring of Fire Research Programme, which involves Japan, China and the US. Several volcanoes and undersea vents are being modelled to understand whether, and how, activities at one influence the others.

The data volumes are, of course, huge and require distributed Cloud storage and a satellite network. But, as the programme progresses and technology improves, it is anticipated that localised data processing by the sensors will identify the most essential data streams.



# OUR PRODUCTS & SERVICES /

REANNZ provides a range of products and services that meet the specialist needs of our members in the research, science, innovation and education sectors.

These services focus on three key areas:

- › Network and connectivity
- › Federated identity and access management
- › Network protection services

## Network and Connectivity

Our national network spans the country and covers all major centres. The reach of our network also extends to rural, regional, and remote locations to support members wherever they operate.

Our international network provides links to the research and education communities on a global basis (Europe, North America, Latin America, the Caribbean, Africa, Middle East, Central Asia and Asia-Pacific).

## Federated Identity and Access Management

In an increasingly borderless education and research world, REANNZ's research and higher education institutions trust our federated identity management and access management services to securely connect students, researchers, staff and faculty to global resources using a single, secure digital identity. Using their home institution's login credentials, they can connect to more than 2,900 global services, resources and scientific facilities.

REANNZ connects to national identity federations through eduGAIN, an interconnection of national federations.

## Network Protection Services

As the provider of a network that connects New Zealand's researchers, educators and students to the rest of the world, REANNZ has always taken the security and stability of our members' networks seriously.

Threats from distributed Denial-of-Service (DDoS) attacks are increasing in scale, sophistication and frequency. Our foundation level DDoS Protection solution helps our members to manage DDoS attacks and the risk of business disruption. This solution efficiently detects, filters and mitigates volumetric attacks well before they reach our members' network, thereby reducing the potential for disruption, financial loss and reputational damage.

Mutually Agreed Norms for Routing Security (MANRS) is a community-driven initiative, supported by the Internet Society, that provides crucial fixes to reduce the most common routing threats. REANNZ was the first network operator in New Zealand to join MANRS in 2020. MANRS' pragmatic and straightforward framework for implementing best practice routing security reflects and expands upon our own efforts in this area.

# Network and Connectivity



## Our Network

The REANNZ network is uniquely engineered to achieve the levels of quality and performance required by the New Zealand research, education and science community. We offer connection services for different needs based on capacity, resilience and technical design. Our high availability connections are procured, managed and maintained to deliver 24/7.



## Managed Access and Edge (MAE) Solutions

MAE devices connect a member's local network with the REANNZ network, enabling data transfers both nationally and internationally.

REANNZ managed-edge devices are engineered and configured for high performance to meet the specialist needs of the research community when transferring large volumes of data.

REANNZ offers a variation to MAE through the MAE Lite (UFB Bitstream service) and MAE Flex solutions (UFB style connectivity service, flexible options like wireless and 4G wireless and 4G) that are designed for smaller or more remote locations where a direct fibre connection is not available.



## Science DMZ

Science DMZ is designed for high-performance scientific applications and provides a lightweight and high-performing on-ramp to the REANNZ international research and education network. It creates a dedicated path to get data from source to anywhere in the world, without slowing down, while retaining the integrity of the data.



## Data Centre Connect (DC Connect)

DC Connect is a service provided from selected data centres located around Aotearoa. It provides members with high bandwidth, cost-effective connectivity into the REANNZ network.



## Cloud Connect

REANNZ Cloud Connect enables members to use their existing high-performance network connection to connect directly to the Cloud service provider of their choice and leverage private access which does not go over the internet. This results in greater stability and predictability of the connection without needing to expose the information to the internet.



## eduVPN

eduVPN is an easy-to-deploy VPN solution designed for and by the research and education community. It acts as a private network, sending and receiving data as if a user's device was directly connected. Users benefit from quicker functionality and additional security, from a service that is simple to deploy.



## eduroam (Education Roaming)

eduroam is a secure, global roaming access service developed for the international research and education community. It provides researchers, teachers and students simple, easy and secure connectivity from 25,000+ locations (public hotspots, libraries, galleries, airports) across more than 100 countries.



## eVA (eduroam Visitor Access)

With research teams becoming increasingly collaborative and students being more mobile, there's a higher need to provide visitors with temporary secure access to WiFi. This is a resourcing challenge faced by many institutions. eVA gives members the ability to issue temporary credentials that visitors associated with education or research can use to connect to their eduroam network.

## Federated Identity and Access Management Solutions



### Tuakiri

Tuakiri provides trusted and secure federated identity and access management. It enables students, academics and researchers to get secure and seamless access to their computing networks, collaboration environments and web-based resources.



### eduGAIN

eduGAIN connects identity federations around the world, simplifying access to content, services and resources for the global research and education community. Around 30 million students, researchers and educators worldwide use eduGAIN to access online services.

## Network Protection Services

### Distributed Denial of Service (DDoS)

(DDoS) attacks are increasing in scale, sophistication and frequency. Our DDoS Protection solution helps members manage DDoS attacks and the risk of business disruption.

### Mutually Agreed Norms for Routing Security (MANRS)

MANRS provides a set of best practices based on existing norms for network operators to improve the security of the global Internet routing system.



A group of people, including a man in the foreground with a beard and a woman partially visible on the right, are looking intently at a large digital display. The display shows various data visualizations, including bar charts and line graphs, with a blue and white color scheme. The background is dark with some blurred lights, suggesting an office or meeting room at night.

END OF  
YEAR  
REPORTING /

# GOOD EMPLOYER STATEMENT /

At REANNZ, we are committed to the principles of being a 'good employer'. For us, this means treating people with dignity and respect.

Policies are in place to guide REANNZ in what it means to be a good employer and to ensure we provide equal employment opportunities and support our people.

REANNZ values the uniqueness of everyone, and their contribution to the organisational personality and culture. Being responsive to a diverse range of viewpoints and cultures within the workplace will help the organisation develop a more representative workforce able to respond to our increasingly diverse society.

We meet our obligations under Te Tiriti o Waitangi. To do this, we are working to ensure that we follow the principles of rangatiratanga (self-determination), equity, active protection, options and partnership.

## Capability

As a small organisation, REANNZ is critically dependent on its people. The highly specialised nature of REANNZ's work means that they are highly valued.

REANNZ promotes and supports a flexible working environment that encourages our team to maintain a positive work-life balance. This includes the ability to agree flexible working hours as well as the option to split time between remote working and our office spaces. The nature of our work provides exciting, leading-edge opportunities for personal and professional development.

## Leadership, accountability and culture

REANNZ has a small and dynamic team, with fewer than 30 staff members. The culture is built upon a platinum rule: 'Treat others as they would like to be treated'. We encourage all members of the team to lead by example, supporting others to behave in a way that is consistent with our culture and the values of being fair, open and respectful, being good partners to our members and wider community, and exercising responsible stewardship of the assets, people and skills within REANNZ.

## Recruitment, selection and induction

REANNZ recruits new staff members through a number of channels, some through a recruitment agency and others through industry networks and recommendations. We ensure that recruitment decisions are made based on the basis of merit, irrespective of a person's sex, gender identity, marital status, religious belief, ethical belief, colour, race, ethnic or national origins, disability, age, political opinion, employment status, family status or sexual orientation. We do not hire on the basis they are 'like us' and seek to address conscious and unconscious bias in recruitment. REANNZ provides a safe, accessible and positive work environment to ensure that all employees, including those with disabilities, can do their work effectively and efficiently. An assessment of the working conditions for all new employees with disabilities is carried out as part of the induction process. Disabled employees requiring specialised technical equipment to perform their job will be provided, subject to equipment requirements being reasonable and to the availability of suitable funding. Emergency procedures and building facilities for all staff, including people with disabilities, are made known to employees at induction.



## Employee development, promotion and exit

Being a small and diverse organisation, there is opportunity for continual development and experience across multiple disciplines. External training and development are encouraged and specific budget is set aside for courses and conferences to ensure staff remain current in their field.

## Remuneration, recognition and conditions

We offer equal opportunities for career development, based on performance, potential, skills and knowledge, and leadership prospects. We also commit to support initiatives which support diversity, including equal employment opportunities, recognition of the employment requirements of women, flexibility, and cultural sensitivity and celebration.

There is a commitment to attracting, retaining and motivating high-performing people. REANNZ continues to provide an environment that identifies, encourages and rewards excellence, innovation and high-quality services by using a remuneration structure that is competitive and fair.

## Harassment and bullying prevention

REANNZ's work environment is free from unlawful discrimination, harassment and workplace bullying, and we have a zero-tolerance standpoint. An employee assistance programme is available to all staff to enable them to get confidential support. Open communication between staff and the leadership team is supported and encouraged.

## Safe and healthy environment

Health and safety are taken seriously at REANNZ. Policies and procedures are in place to minimise risks, particularly when handling network equipment or when visiting our point of presence (PoP) locations. Staff wellbeing is high priority and REANNZ supports the processes, work environment and culture that enables the team to be successful, happy and healthy.

## Speaking up

REANNZ encourages employees to speak up if they are involved in, or perceive, wrongdoing. In return, REANNZ deals with issues in a timely and confidential manner. No employee will suffer retaliation for reporting or participating in the investigation of a genuine complaint made in good faith.

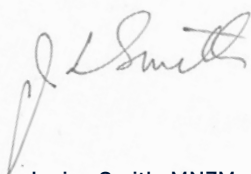
# STATEMENT OF RESPONSIBILITY /

The Board of REANNZ accepts responsibility for the preparation of the annual financial statements and statement of performance, and for the judgements made in them.

The Board is responsible for any end-of-year performance information provided by REANNZ under Section 19A of the Public Finance Act 1989.

The Board and management of REANNZ accept responsibility for establishing and maintaining a system of internal control designed to provide reasonable assurance as to the integrity and reliability of the financial reporting.

In the opinion of the Board, the financial statements and statement of performance fairly reflect the financial position and operations of REANNZ for the year ended 30 June 2022.



Janine Smith, MNZM  
Chair



Sara Brownlie  
Finance, Risk & Audit Committee Chair

16 March 2023  
Signed on behalf of the Board

# INDEPENDENT AUDITOR'S REPORT /

## To the readers of Research and Education Advanced Network New Zealand's financial statements and statement of performance for the year ended 30 June 2022

The Auditor-General is the auditor of Research and Education Advanced Network New Zealand (REANNZ). The Auditor-General has appointed me, Stephen Usher, using the staff and resources of Audit New Zealand, to carry out the audit of the financial statements and the statement of performance, of REANNZ on his behalf.

### Opinion

We have audited:

- the financial statements of REANNZ on pages 43 to 59, that comprise the statement of financial position as at 30 June 2022, the statement of comprehensive revenue and expense, statement of changes in equity and statement of cash flows for the year ended on that date and the notes to the financial statements including a summary of significant accounting policies and other explanatory information; and
- the statement of performance of REANNZ on pages 38 to 42.

In our opinion:

- the financial statements of REANNZ on pages 43 to 59:
  - present fairly, in all material respects:
    - its financial position as at 30 June 2022; and
    - its financial performance and cash flows for the year then ended; and
  - comply with generally accepted accounting practice in New Zealand in accordance with Public Benefit Entity Reporting Standards Reduced Disclosure Regime; and
- the statement of performance on pages 38 to 42:
  - presents fairly, in all material respects, REANNZ's performance for the year ended 30 June 2022, including:
    - for each class of reportable outputs:

- its standards of delivery performance achieved as compared with forecasts included in the statement of performance expectations for the financial year; and
- its actual revenue and output expenses as compared with the forecasts included in the statement of performance expectations for the financial year; and
- complies with generally accepted accounting practice in New Zealand.

### Our audit was completed late

Our audit was completed on 16 March 2023. This is the date at which our opinion is expressed. We acknowledge that our audit was completed later than required by section 156 of the Crown Entities Act 2004, as required by section 450A of the Public Finance Act 1989. This was due to an auditor shortage in New Zealand and the consequential effects of Covid-19, including lockdowns.

The basis for our opinion is explained below. In addition, we outline the responsibilities of the Board and our responsibilities relating to the financial statements and the statement of performance, we comment on other information, and we explain our independence.

### Basis for our opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the Professional and Ethical Standards and the International Standards on Auditing (New Zealand) issued by the New Zealand Auditing and Assurance Standards Board. Our responsibilities under those standards are further described in the Responsibilities of the auditor section of our report.

We have fulfilled our responsibilities in accordance with the Auditor-General's Auditing Standards.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Responsibilities of the Board of REANNZ for the financial statements and the performance information

The Board is responsible on behalf of REANNZ for preparing financial statements and statement of performance that are fairly presented and comply with generally accepted accounting practice in New Zealand. The Board is responsible for such internal control as it determines is necessary to enable it to prepare financial statements and statement of performance that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements and the statement of performance, the Board is responsible on behalf of REANNZ for assessing REANNZ's ability to continue as a going concern. The Board is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless there is an intention to merge or to terminate the activities of REANNZ, or there is no realistic alternative but to do so.

The Board's responsibilities arise from the Crown Entities Act 2004 and the Public Finance Act 1989.

### Responsibilities of the auditor for the audit of the financial statements and the performance information

Our objectives are to obtain reasonable assurance about whether the financial statements and the statement of performance, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit carried out in accordance with the Auditor-General's Auditing Standards will always detect a material misstatement when it exists. Misstatements are differences or omissions of amounts or disclosures and can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of readers, taken on the basis of these financial statements and the statement of performance.

For the budget information reported in the financial statements and the statement of performance, our procedures were limited to checking that the information agreed to REANNZ's statement of performance expectations.

We did not evaluate the security and controls over the electronic publication of the financial statements and the statement of performance.

As part of an audit in accordance with the Auditor-General's Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. Also:

- We identify and assess the risks of material misstatement of the financial statements and the statement of performance, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- We obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of REANNZ's internal control.
- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board.
- We evaluate the appropriateness of the reported statement of performance within REANNZ's framework for reporting its performance.
- We conclude on the appropriateness of the use of the going concern basis of accounting by the Board and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on REANNZ's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements and the statement of performance or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause REANNZ to cease to continue as a going concern.

- We evaluate the overall presentation, structure and content of the financial statements and the statement of performance, including the disclosures, and whether the financial statements and the statement of performance represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Our responsibilities arise from the Public Audit Act 2001.

### Other information

The Board is responsible for the other information. The other information comprises the information included on pages 2 to 31, 36 and 37 but does not include the financial statements and the statement of performance, and our auditor's report thereon.

Our opinion on the financial statements and the statement of performance does not cover the other information and we do not express any form of audit opinion or assurance conclusion thereon.

In connection with our audit of the financial statements and the statement of performance, our responsibility is to read the other information. In doing so, we consider whether the other information is materially inconsistent with the financial statements and the statement of performance, or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on our work, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### Independence

We are independent of REANNZ in accordance with the independence requirements of the Auditor-General's Auditing Standards, which incorporate the independence requirements of Professional and Ethical Standard 1: International Code of Ethics for Assurance Practitioners issued by the New Zealand Auditing and Assurance Standards Board.

Other than in our capacity as auditor, we have no relationship with, or interests, in REANNZ.



Stephen Usher  
Audit New Zealand  
On behalf of the Auditor-General  
Wellington, New Zealand



# GOVERNANCE STATEMENT /

## Organisational form

REANNZ is a not-for-profit Crown-owned company under Schedule 4A of the Public Finance Act 1989. Our shareholders are the Minister of Finance and the Minister of Research, Science and Innovation. At balance date, each shareholder held 908 shares on behalf of the New Zealand public.

REANNZ acts in a manner consistent with the Crown Entities Act 2004. REANNZ is subject to the Official Information Act 1982.

## Role of the Board

REANNZ's Shareholding Ministers appoint a governing Board of Directors. The company's constitution sets the size of the Board at a minimum of two and a maximum of nine directors.

The Board is responsible under the company's constitution to manage, direct and supervise the company's business affairs. In practice, day-to-day management of the company is delegated to the Chief Executive.

The Board establishes the company's strategic and business plans, approves annual budgets and monitors management's performance against established goals. The Board also considers and approves new policies and business initiatives, authorises transactions outside the prescribed delegated authorities of management and appoints the Chief Executive. Procedures are in place at Board, corporate and operational levels to safeguard the company's assets and its wider commercial interests.

A well-established regime of regular reporting is designed to maintain a high standard of internal communication, and to ensure the Board remains appropriately informed of all aspects of the company's business and activities. Board fees are set by the Shareholding Ministers.

## Risk management

The Board is also responsible for ensuring that the company has effective policies in place to manage its risks. The Board decides the level and nature of the risks that are acceptable to the company, taking advisement from the Finance, Risk and Audit Committee. The Chief Executive is delegated responsibility for managing normal business risks. As part of managing its broader risk profile, the Board maintains and regularly reviews a risk register, and approves and reviews all company policies.

## Legislative compliance

The Board acknowledges its responsibility to ensure the organisation complies with all legislation. The Board has delegated responsibility to the Chief Executive for the development and operation of a programme to systematically identify compliance issues and ensure staff are aware of relevant legislative requirements.

## Board composition

There were seven directors for the year ending 30 June 2022. Two directors were appointed to 30 June 2022, but their tenures have been extended by the Shareholders. They are Janine Smith (Board Chair), Ross Peat (Deputy Chair), David Skinner, Dr Warren Williams, Liz Gosling (People and Culture Committee Chair), Professor Jim Metson, and Sara Brownlie (Finance, Risk and Audit Committee Chair).

## Board meetings

The Board generally meets every six weeks. These meetings are supplemented with additional meetings as required for strategic planning purposes and to progress specific decisions. The Board held nine scheduled meetings for the year ended 30 June 2022. In addition, there were out-of-cycle approvals for time sensitive matters.

## Board committees

The Board has formally constituted three committees.

- **Finance, Risk and Audit Committee:** There are three Directors on the Finance, Risk and Audit Committee. The Committee has a focus on the integrity of financial reporting, internal controls and compliance of financial statements with appropriate standards and legislation. The Committee recommends the approval of statutory financial statements for approval by the Board. Three meetings were held during the year.
- **People and Culture Committee:** There are three directors on the People and Culture Committee. The Committee provides oversight on the company's People and Culture strategy and policy. This includes remuneration, performance management and employment conditions of the Senior Leadership team as well as health and safety, and other employment matters. A committee member is involved in the recruitment of any senior manager, including the Chief Executive. Four committee meetings were held during the year.
- **National Network Strategic Review Project Oversight Committee:** During the year the National Network Strategic Review Project Oversight Committee was established. There are two Directors on the Committee. The Committee provides support, guidance and oversight of progress in the delivery of the project outcomes. Two committee meetings were held during the year.

All Directors are entitled to attend committee meetings.

## Interest procedures

The REANNZ Board has a documented conflict-of-interest policy that sets out procedures for identifying and addressing potential conflicts of interest. This policy applies to the directors and staff of REANNZ.

The key determination when considering whether an interest might create a conflict is whether it incentivises the director or staff member to act in a way that may not be in the best interests of REANNZ. It must be determined whether a reasonably informed objective observer would perceive from the circumstances that the director or staff member's judgement is likely to be influenced.

A register of director and staff's interests is maintained and updated regularly.

## Auditor

Audit New Zealand, acting on behalf of the Controller and Auditor-General, is the auditor of REANNZ in accordance with Section 32 of the Public Audit Act 2001.

## Registered office

Research and Education Advanced Network  
New Zealand Limited  
Level 5 Qual IT House,  
2 The Terrace,  
Wellington 6011

# STATEMENT OF PERFORMANCE /

For the year ending 30 June 2022

## STRATEGIC INTENTIONS

Our strategic intentions show where we are putting our focus to deliver on our long-term vision and outcomes.

REANNZ's current strategic intentions are:

- › **Advanced Network** – Grow international recognition of REANNZ as a high-quality National Research and Education Network (NREN); and improve the suite of applications and reports that enrich the end-to-end use of the network.
- › **Collaboration** – Improve member and user outcomes and experiences; and increase the number of key partnerships that create value for the REANNZ network.
- › **Business Performance** – Create sustainable funding streams and business performance improvements.

# ADVANCED NETWORK

## Grow international recognition of REANNZ as high-quality NREN

REANNZ was established to serve the complex and unique needs of the local science and research community. We've since developed the critical infrastructure behind New Zealand's NREN, a world-class network that supports our members' data-intensive, globally collaborative research.

Our high-performing network is designed to move and share data locally and globally, and at a scale that isn't consistently possible using a standard network. Our connectivity solutions and dedicated data transfer support make it possible for researchers in education and applied sciences in New Zealand to contribute to data-intensive research fields and international collaboration.

Key features include:

- Scalability – the network meets the changing needs of its users and members.
- Coverage/reach – we work to ensure it's available wherever the researcher is or where the research is undertaken.
- Capacity – headroom is maintained across the network to support high-volume data transfers on demand.
- Resilience – the network is designed to provide and maintain very high levels of service in the face of faults and challenges to normal operations.
- Connection – as New Zealand's designated NREN, REANNZ is an active member of the global community of over 120 national and regional research and education networks. This gives New Zealand researchers access to a worldwide, multi-billion-dollar research and education infrastructure, dedicated to the pursuit of science and research.

## Improve the suite of applications and reports that enrich the end-to-end use of the network

REANNZ provides additional services, applications and reporting that support and enable the effective use of the advanced network. Our applications and reporting provide authentication, identity federation and reporting for networking with global NREN and research partners.

We also provide tools that facilitate collaboration between institutions, specialised services that enhance members' ability to use the network, and products and services that enhance the effectiveness and efficiency of members' activities.

Performance Measure	Result June 2021	Target June 2022	Result June 2022
<b>Member and user satisfaction</b> The proportion of network users that consider the REANNZ network essential or valuable to their work	94%	Greater than 80%	<b>77%</b> <sup>1</sup>
<b>Advanced network bandwidth capacity</b>			
- national backbone capacity	100 Gbps	100 Gbps	<b>100 Gbps</b>
- international network capacity	100 Gbps	60 Gbps	<b>100 Gbps</b> <sup>2</sup>

<sup>1</sup> Using SurveyMonkey, REANNZ undertakes an annual Member Satisfaction survey to measure the degree to which our products and services meet our member's expectations. We ask our members questions about value, collaboration and customer service, with respondent answers being measured using a scale – with 1 being strongly disagree and 5 being strongly agree. Only responses of 4 (satisfied) and 5 (very satisfied) are included in the calculation for member satisfaction. This year we surveyed 137 members, achieving a 26.3% response rate.

<sup>2</sup> We continue to increase international network capacity and connectivity in line with our contractual obligations. 2023/24 will see capacity increase to 120 Gbps.



Performance Measure	Result June 2021	Target June 2022	Result June 2022
<b>Network availability</b>			
The availability of the network to Members	N/A	Network available at least 99.95% of the time	<b>99.99%</b>
<b>Network quality</b>			
Packet Delay Variation <sup>3</sup> (PDV) is the unsteadiness of data streams delivered by the network to applications.	<0.01%	Less than 0.01% of hourly measurements across the core network have over 20ms of packet delay variation	<b>0.0078%</b>
Packet Loss <sup>4</sup> measures the percentage of data packets on the network backbone that were discarded before delivery due to link congestion or data corruption.	0.00001931%	Less than 0.0001%	<b>0.00000014%</b>
<b>Increased use of international access federated services</b>			
Number of device connections made to eduroam by NZ users at other sites in NZ or overseas	107,939	120,000	<b>81,624<sup>5</sup></b>
Number of members using Tuakiri and eduGain	23	25	<b>27</b>

## COLLABORATION

### Improve member and user outcomes and experiences

REANNZ is a member-focused organisation, specialising in meeting the unique needs of its community. To do this effectively, we foster close relationships with our members, tailoring solutions and support for optimal results. Value is delivered not only through the specialist services that support users at individual institutions, but also through the communities of practice fostered by bringing people together across sectors and disciplines to solve research and science challenges.

The COVID-19 pandemic will have an ongoing impact on our members – financially, and in relation to how collaborative research and innovation is undertaken. We'll work closely with members and users to understand and support their changing needs.

<sup>3</sup> Packet Delay Variation is based on the stringent Y.1540 6.2.4 definition – the difference between the 99.9th percentile and the minimum latency sampled over a given test episode.

<sup>4</sup> Packet Loss Minimal packet loss is a key element of network quality. Our packet loss metric is the percentage of data packets on the network backbone links that were discarded before delivery due to link congestion or data corruption. REANNZ focuses on operating a 'packet loss-less' network: we target an average packet loss of at most 0.0001% (1 in 10,000 packets lost), which equates to a delivery rate of 99.9999%.

<sup>5</sup> This target was missed due to the impacts of COVID lockdowns on national and international travel and eduroam usage.

## Increase key partnership arrangements that create value for the REANNZ network

New Zealand is part of a global partnership of NRENs that have the same commitment to high performance. This allows REANNZ users to collaborate with peers worldwide and ensure their connectivity experience is seamless from source to destination.

Through these partnerships with the global NREN community, REANNZ fosters the development of next-generation technology on a global scale and helps bring it to New Zealand. We also contribute to sharing New Zealand's unique research with the global research community.

REANNZ is proud to be the one of the smallest NRENs and have a seat at the table of the international NREN Chief Executives' Forum. We intend to focus on these relationships and continue to grow our reputation internationally. To do this, we will work with international networks and partners to identify opportunities where we can create value for New Zealand.

Computing is essential for research in New Zealand, and institutions now rely on supercomputers, cloud service providers and cloud-based applications to control costs and achieve their strategic objectives. Whether it's connecting universities to their online payroll provider or facilitating scientists' access to cloud computing resources, REANNZ is a critical component of the research and education 'supply chain'.

Performance Measure	Result June 2021	Target June 2022	Result June 2022
<b>Member and user satisfaction</b>			
The proportion of network users that consider the REANNZ network essential or valuable to their work	88%	Greater than 80%	<b>77%</b> <sup>6</sup>
<b>Member satisfaction and engagement</b>			
The proportion of members that consider the REANNZ network enables data-intensive research	88%	Greater than 80%	<b>73%</b> <sup>7</sup>
<b>Better connected members</b>			
Number of Optional Service Agreements signed	N/A	New performance measure	<b>25 Optional Service Agreements &amp; 40 Order Forms signed</b>
<b>Strategic alliances</b>			
Number of Memorandums of Understanding agreed	1	2	<b>Nil</b> <sup>8</sup>
<b>Issue resolution timeliness</b>			
The proportion of members that consider any issues are resolved in a satisfactory and timely manner	91	80	<b>100</b> <sup>9</sup>
<b>Case studies</b>			
Number of case studies developed in conjunction with members and industry participants	4	4	<b>10</b>
<b>Knowledge-sharing sessions</b>			
Number of collaborative meetings/sessions undertaken with members to share and disseminate knowledge and/or provide inputs to problem-solving	9 presentations 4 knowledge-sharing sessions 15 core member (universities/CRI) site visits	4 presentations 8 sessions 16 site visits	<b>13 presentations 22 CRI/university sessions) 22 site visits</b>

<sup>6</sup> Refer footnote 1 Member Satisfaction Survey

<sup>7</sup> Refer footnote 1 Member Satisfaction Survey

<sup>8</sup> While not meeting targets, a MOU was agreed in principle with NeSI; however, this was not progressed given the eResearch Infrastructure Review.

<sup>9</sup> Refer footnote 1 Member Satisfaction Survey

# BUSINESS PERFORMANCE

## Sustainable funding streams and business performance improvements developed and implemented

REANNZ is a dynamic organisation, continually keeping up with technological advancements and members' needs. To do this, we operate a modern, flexible work environment. We also want to develop and maintain high-performing, member-focused teams. This will strengthen the relationship with our members, allowing them to fully utilise the NREN to focus on collaboration and innovation.

A strong financial position enables the provision of high-quality services and products that members and users expect. We must continue to improve the member and user experience and outcomes while increasing financial sustainability and membership fee stability.

Performance Measure	Result June 2021	Target June 2022	Result June 2022
<b>Member and user satisfaction</b>			
The portion of members who believe the REANNZ network successfully fulfils the needs of their organisation	N/A	Greater than 80%	<b>82%</b> <sup>10</sup>
<b>Actual expenditure to budget variance</b>			
Actual expenditure to budget variance <sup>11</sup>	19% underspent	Within 10%	<b>16% underspent</b>

## Output: The advanced research, education and innovation network and related tools

	Actual 2022 \$ 000	Budget 2022 \$ 000
<b>Revenue</b>		
Strategic Science Investment Fund grant	4,500	5,000
Network revenue	6,209	6,216
Other revenue	4,721	3,961
<b>Total Revenue</b>	<b>15,430</b>	<b>15,177</b>
<b>Expenses</b>		
Depreciation and amortisation	1,641	1,647
Network expenses	10,213	12,101
Operating expenses	3,376	4,477
<b>Total Operating Expenses</b>	<b>15,230</b>	<b>18,225</b>
Impairment loss on property, plant and equipment	(4,356)	-
<b>Net (deficit) / surplus</b>	<b>(4,156)</b>	<b>(3,048)</b>
Foreign exchange gains	726	-
<b>Surplus/(deficit)</b>	<b>(3,430)</b>	<b>(3,048)</b>

<sup>10</sup> Refer footnote 1 Member Satisfaction Survey

<sup>11</sup> Refer to the financial statements for a detailed breakdown of the above results along with Note 22 of the financial statements for explanation of major variances against budget.



# FINANCIAL STATEMENTS /

Research and Education Advanced Network New Zealand Limited

## Statement of Comprehensive Revenue and Expense for the year ended 30 June 2022

	Note	Actual 2022 \$ 000	Budget 2022 \$ 000	Actual 2021 \$ 000
<b>Revenue</b>				
Grant revenue	2	4,500	5,000	3,000
Network revenue		6,209	6,216	6,202
Other revenue	2	4,463	3,892	4,306
Interest revenue		258	70	233
<b>Total Revenue</b>		<b>15,430</b>	<b>15,178</b>	<b>13,741</b>
<b>Network Expenses</b>				
Depreciation and amortisation		1,530	1,512	2,160
Employment expenses		1,910	2,837	1,864
Network operating expenses	3	8,303	9,264	8,203
<b>Total Network Expenses</b>		<b>11,743</b>	<b>13,613</b>	<b>12,227</b>
<b>Gross Surplus/(Deficit)</b>		<b>3,687</b>	<b>1,565</b>	<b>1,514</b>
<b>Less:</b>				
<b>Operating Expenses</b>				
Audit		43	38	35
Depreciation and amortisation		111	135	120
Directors fees	4	159	180	146
Employment expenses		1,957	2,032	2,062
Other operating expenses		534	1,082	551
Professional services		199	338	139
Operating leases		416	548	74
Travel expenses		68	260	43
<b>Total Operating Expenses</b>		<b>3,487</b>	<b>4,613</b>	<b>3,170</b>
<b>Other (Losses)</b>				
Impairment loss property, plant & equipment	10	(4,356)	-	-
<b>Total Other (Losses)</b>		<b>(4,356)</b>	<b>-</b>	<b>-</b>
<b>Net (Deficit) / Surplus</b>		<b>(4,156)</b>	<b>(3,048)</b>	<b>(1,656)</b>
<b>Other Comprehensive Revenue and (Expense)</b>				
Foreign currency gains / (losses)	5	726	-	(343)
<b>Other Comprehensive Revenue and (Expense)</b>		<b>726</b>	<b>-</b>	<b>(343)</b>
<b>Total Comprehensive Revenue and Expense</b>		<b>(3,430)</b>	<b>(3,048)</b>	<b>(1,999)</b>

Explanations of major variances against budget are provided in note 22.  
The accompanying notes form part of these financial statements.

Research and Education Advanced Network New Zealand Limited

**Statement of Financial Position  
as at 30 June 2022**

	Note	Actual 2022 \$ 000	Budget 2022 \$ 000	Actual 2021 \$ 000
<b>CURRENT ASSETS</b>				
Cash and cash equivalents		5,331	2,421	3,401
Derivative financial instruments	8	419	157	-
Receivables and debtors	6	2,305	2,103	1,991
Investments	7	21,348	18,000	21,061
Prepayments		273	329	281
Prepaid network expenses	9	2,057	1,992	1,928
<b>Total current assets</b>		<b>31,733</b>	<b>25,002</b>	<b>28,662</b>
<b>NON-CURRENT ASSETS</b>				
Derivative financial instruments	8	259	-	61
Prepaid network expenses	9	15,691	15,691	16,486
Property, plant and equipment	10	1,288	7,464	7,119
<b>Total non-current assets</b>		<b>17,238</b>	<b>23,155</b>	<b>23,666</b>
<b>TOTAL ASSETS</b>		<b>48,971</b>	<b>48,157</b>	<b>52,328</b>
<b>CURRENT LIABILITIES</b>				
Accounts payable and accrued expenses	12	1,239	669	943
GST payable		182	106	197
Employee entitlements	13	273	159	214
Revenue in advance	14	2,016	2,124	2,070
Deferred revenue		78	-	78
Provisions	15	-	-	4
Derivative financial instruments	8	-	-	174
Deferred lease incentive		10	20	-
<b>Total current liabilities</b>		<b>3,798</b>	<b>3,078</b>	<b>3,680</b>
<b>NON-CURRENT LIABILITIES</b>				
Deferred revenue		15	3	94
Deferred lease incentive		34	64	-
Provisions	15	-	-	-
<b>Total non-current liabilities</b>		<b>49</b>	<b>67</b>	<b>94</b>
<b>TOTAL LIABILITIES</b>		<b>3,847</b>	<b>3,145</b>	<b>3,774</b>
<b>NET ASSETS</b>		<b>45,124</b>	<b>45,012</b>	<b>48,554</b>
<b>EQUITY</b>				
Share capital		16,001	16,001	16,001
Accumulated surplus		29,123	29,011	32,553
<b>TOTAL EQUITY</b>	<b>16</b>	<b>45,124</b>	<b>45,012</b>	<b>48,554</b>

Explanations of major variances against budget are provided in note 22.  
The accompanying notes form part of these financial statements.

Research and Education Advanced Network New Zealand Limited

**Statement of Cash Flows  
for the year ended 30 June 2022**

	Actual 2022 \$ 000	Budget 2022 \$ 000	Actual 2021 \$ 000
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
<b>Cash was provided from/(applied to)</b>			
Receipts from the Crown	4,500	4,833	3,000
Network Receipts	6,186	6,216	6,469
Receipts from other revenue	4,367	3,900	4,362
Interest received	220	70	297
GST (net)	(163)	168	77
Realised gain/(losses) on foreign currency	(129)	(33)	28
Payments to suppliers and employees	(9,123)	(11,986)	(9,296)
Prepayments for network connectivity	(3,513)	(3,579)	(3,533)
<b>Net cash flow from operating activities</b>	<b>2,345</b>	<b>(411)</b>	<b>1,404</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
<b>Cash was provided from/(applied to)</b>			
Receipts from sale of plant and equipment	-	-	196
Purchase of plant and equipment	(165)	(1,981)	(345)
Term deposit investments (made)/realised	(250)	3,000	(19)
<b>Net cash flow from investing activities</b>	<b>(415)</b>	<b>1,019</b>	<b>(168)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
<b>Cash was provided from/(applied to)</b>			
<b>Net cash flow from financing activities</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Net (decrease)/increase in cash held</b>	<b>1,930</b>	<b>608</b>	<b>1,236</b>
Cash at beginning of year	3,401	1,813	2,165
<b>Cash at end of year</b>	<b>5,331</b>	<b>2,421</b>	<b>3,401</b>
Represented by			
<b>CASH AT BANK</b>	<b>5,331</b>	<b>2,421</b>	<b>3,401</b>

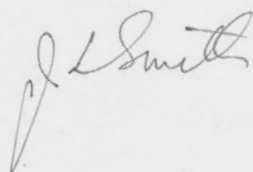
Explanations of major variances against budget are provided in note 22.  
The accompanying notes form part of these financial statements.

Research and Education Advanced Network New Zealand Limited


**Statement of Changes in Equity  
for the year ended 30 June 2022**

	Note	Actual 2022 \$ 000	Budget 2022 \$ 000	Actual 2021 \$ 000
<b>Balance at 1 July</b>		<b>48,554</b>	<b>41,964</b>	<b>50,553</b>
Total Comprehensive Revenue and Expense for the year		(3,430)	(3,048)	(1,999)
<b>Balance at 30 June</b>	16	<b>45,124</b>	<b>45,012</b>	<b>48,554</b>

Signed on behalf of the Board:



Janine Smith, MNZM  
Chair  
16 March 2023



Sara Brownlie  
Finance, Risk & Audit Committee Chair  
16 March 2023

Explanations of major variances against budget are provided in note 22.  
The accompanying notes form part of these financial statements.



# NOTES TO THE FINANCIAL STATEMENTS /

<b>1. Statement of Accounting Policies</b>	<b>48</b>
<b>2. Revenue</b>	<b>49</b>
i. Grant revenue	49
ii. Other revenue	49
<b>3. Network operating expenses</b>	<b>50</b>
<b>4. Directors fees</b>	<b>50</b>
<b>5. Foreign currency gains / (losses)</b>	<b>50</b>
<b>6. Receivables and debtors</b>	<b>50</b>
<b>7. Investments</b>	<b>51</b>
<b>8. Derivative financial instruments</b>	<b>51</b>
<b>9. Prepaid network expenses</b>	<b>51</b>
<b>10. Property, plant and equipment</b>	<b>52</b>
<b>11. Intangible assets</b>	<b>54</b>
<b>12. Accounts payable and accrued expenses</b>	<b>54</b>
<b>13. Employee entitlements</b>	<b>54</b>
<b>14. Revenue in advance</b>	<b>54</b>
<b>15. Provisions</b>	<b>55</b>
<b>16. Equity</b>	<b>55</b>
<b>17. Capital commitments and operating leases</b>	<b>56</b>
i. Capital commitments	56
ii. Operating lease commitments	56
iii. Connectivity and managed service commitments	56
iv. Finance leases	56
<b>18. Contingencies</b>	<b>57</b>
<b>19. Related party transactions</b>	<b>57</b>
<b>20. Events after balance date</b>	<b>58</b>
<b>21. Financial instruments</b>	<b>58</b>
<b>22. Explanation of major variances to budget</b>	<b>58</b>
<b>23. Breach of statutory deadline</b>	<b>59</b>

# 1. Statement of accounting policies

## Reporting Entity

The reporting entity is Research and Education Advanced Network New Zealand Limited ('REANNZ'), a Crown entity as defined by the Crown Entities Act 2004 and a New Zealand incorporated company. As a Crown entity, REANNZ's ultimate parent is the New Zealand Crown.

REANNZ's primary objective is to establish, own and operate a high-speed communications network for the research and education sector. As such, REANNZ's aim is to provide services to the public, rather than make a financial return.

Accordingly, REANNZ has designated itself as a public benefit entity for the purposes of Public Benefit Entity (PBE) accounting standards with reduced disclosures.

The financial statements for REANNZ are for the year ended 30 June 2022 and were approved by the Board on 16 March 2023.

## Basis of Preparation

The financial statements have been prepared on a going-concern basis, and the accounting policies have been applied consistently throughout the year.

## Statement of compliance

The financial statements of REANNZ have been prepared in accordance with the Crown Entities Act 2004, which includes the requirement to comply with generally accepted accounting practice in New Zealand (NZ GAAP).

The financial statements comply with Public Benefit Entity accounting standards.

The financial statements have been prepared in accordance with Tier 2 PBE Accounting Standards with reduced disclosures. REANNZ is eligible to report as a Tier 2 reporting entity on the basis that it does not have public accountability and is not large.

## Presentation currency and rounding

The financial statements are presented in New Zealand dollars (NZD) and all values are rounded to the nearest thousand (\$000).

## SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Accounting policies are selected and applied in a manner that ensures that the resulting financial

information satisfies the concepts of relevance and reliability. REANNZ accounting policies, therefore, are designed to report the substance of the underlying transactions undertaken by the entity.

Significant accounting policies are included in the notes to which they relate. Policies that do not relate to a specific note are outlined below:

### Foreign currency transactions

Transactions in foreign currencies, including those for which forward foreign exchange contracts are held, are translated to New Zealand dollars (the functional currency) at the spot rate on the date of transaction.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the Statement of Comprehensive Revenue and Expense.

### Statement of Cash Flows

The Statement of Cash Flows is prepared exclusive of GST, which is consistent with the method used in the Statement of Comprehensive Revenue and Expense.

Definitions of the terms used in the Statement of Cash Flows are:

"Cash" includes coins and notes, demand deposits and other highly liquid investments readily convertible into cash used by REANNZ as part of its day-to-day cash management.

"Investing activities" are those activities relating to the acquisition and disposal of long-term assets and other investments not included in cash equivalents.

"Financing activities" are those activities relating to changes in equity of REANNZ.

"Operating activities" include all transactions and other events that are not investing or financing activities.

### Goods and Services Tax (GST)

These financial statements have been prepared on a GST exclusive basis except for accounts receivable and accounts payable that are stated inclusive of GST.

The net GST paid to, or received from, Inland Revenue, including the GST relating to investing and financing activities, is classified as an operating cash flow in the Statement of Cash Flows.

Commitments and contingencies are disclosed exclusive of GST.

## Income tax

As a public entity under section CW 38(2) of the Income Tax Act 2007, the company is exempt from income tax. Accordingly, no provision has been made for income tax.

## Budget figures

The budget figures are those that form part of the REANNZ 2021/22 Statement of Performance Expectations dated 30 June 2021 and approved by the Board.

The budget figures have been prepared in accordance with generally accepted accounting practice and are consistent with the accounting policies adopted by REANNZ for the preparation of the financial statements.

## Critical accounting estimates and assumptions

In preparing these financial statements, REANNZ has made estimates and assumptions concerning the future. These estimates and assumptions may differ from subsequent actual results. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The estimates and assumptions that have significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are:

- Useful lives and residual values of property, plant and equipment – refer to note 10.

## 2. Revenue

### Accounting Policy

The specific accounting policies for significant revenue items are explained below:

#### Grant revenue

REANNZ is funded in part by the Crown from the Strategic Science Investment Fund (SSIF). The SSIF grant is provided to partially fund the delivery of specialist services and activities to meet the Government's goals for research and education. REANNZ delivers an agreed work plan and the grant is recognised as revenue when paid because there are no other conditions attached.

Other grants are recognised as revenue when they become receivable unless there is an obligation in substance to return the funds if conditions of the grant are not met. If there is such an obligation, the grants are initially recorded as deferred income in the Statement of Financial Position and recognised as revenue when conditions of the grant are satisfied.

## Network and other revenue

Revenue is measured at the fair value of the consideration received or receivable. All transactions are exchange transactions.

## Interest revenue

Interest revenue is recognised by accruing the interest due for the investment on a time proportion basis.

### i. Grant revenue

	2022 \$ 000	2021 \$ 000
<b>Non-exchange transactions</b>		
Ministry of Business, Innovation & Employment Strategic Science Investment Fund contract	4,500	3,000
<b>Total grant revenue</b>	<b>4,500</b>	<b>3,000</b>

REANNZ and the Ministry of Business, Innovation and Employment ('MBIE') entered into a SSIF Infrastructure Platform Investment contract during the 2018 financial year. The contract is for seven years, expiring on 30 June 2024, and provides REANNZ with total grant revenue of \$39.2M (2021: \$21M). In December 2021, the agreement was varied which increased total operating funding by \$7.5M and provided for additional funding of \$10.7M for capital expenditure.

All conditions relating to the SSIF contract have been met.

### ii. Other revenue

	2022 \$ 000	2021 \$ 000
<b>Exchange transactions</b>		
Managed services	2,627	2,331
Internet	1,229	1,223
Other	448	539
Lease-related expense reimbursement	159	213
<b>Total other revenue</b>	<b>4,463</b>	<b>4,306</b>

### 3. Network operating expenses

	2022 \$ 000	2021 \$ 000
<b>National network</b>		
Fibre circuits & maintenance	2,090	2,054
Other network expenses	1,083	948
PoP accommodation	412	313
Connectivity	21	21
<b>Total national network expenses</b>	<b>3,606</b>	<b>3,336</b>
<b>International network</b>		
International connectivity	4,250	4,337
Fibre Circuits	168	212
Other network expenses	170	186
PoP accommodation	109	132
<b>Total international network expenses</b>	<b>4,697</b>	<b>4,867</b>
<b>Total network operating expenses</b>	<b>8,303</b>	<b>8,203</b>

### 4. Directors fees

	2022 \$ 000	2021 \$ 000
<b>The total value of remuneration paid or payable to each Board member during the year was:</b>		
Janine Smith (Chair)	40	40
Ross Peat (Deputy Chair)	25	25
Sara Brownlie	21	20
Liz Gosling	21	21
Jim Metson	20	20
David Skinner	20	20
Warren Williams*	12	-
<b>Total directors fees</b>	<b>159</b>	<b>146</b>

\* tenure started 15 November 2021

There were no special director fees paid during the year (2021: \$Nil).

There have been no payments made to committee members appointed to the Board who are not directors during the year.

REANNZ provides a deed of indemnity to directors for certain activities undertaken in performance of REANNZ's functions.

REANNZ holds Directors and Officers Liability and Professional Indemnity insurance cover in respect of the liability of Board members and employees.

No Board members received compensation or other benefits in relation to cessation (2021: \$Nil)

### 5. Foreign currency gains/ (losses)

	2022 \$ 000	2021 \$ 000
<b>Realised foreign currency gains / (losses)</b>	(129)	28
<b>Unrealised foreign currency gains / (losses)</b>		
Fair value gains / (losses) on derivatives*	791	(364)
Bank account (USD)	64	(7)
<b>Total foreign currency gains/(losses)</b>	<b>726</b>	<b>(343)</b>

\*includes reversal of unrealised gains and losses on settlement of trades

Realised gains arose from the settlement of forward contracts to purchase USD and payment of supplier payments in foreign currency.

Unrealised losses were made on forward USD contracts held with the New Zealand Debt Management Office (NZDMO) reflecting the net movement in fair value of open contracts for the year. Unrealised gains and losses are reversed on settlement of the trades.

On 30 June 2022, REANNZ held ten forward contracts (2021: eight contracts) to purchase a total of US\$6.49M (2021: US\$4.48M). Four contracts will settle during the next financial year. The contracts were entered into to mitigate foreign exchange exposure arising from annual network connectivity payments contractually required to be paid in USD.

### 6. Receivables and debtors

#### Accounting Policy

Accounts receivable are reported at the amount due less an allowance for credit losses. REANNZ applies the simplified credit loss model of recognising lifetime expected credit losses for receivables.

In measuring expected credit losses, receivables have been assessed on an entity-type basis as this determines shared credit risk characteristics.



Receivables are expensed in the Statement of Comprehensive Revenue and Expense when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include the debtor being in liquidation.

<b>Breakdown of receivables and debtors</b>	<b>2022 \$ 000</b>	<b>2021 \$ 000</b>
<b>Exchange transactions</b>		
Trade receivables	2,299	1,977
Less: provision for expected loss	-	(28)
<b>Total receivables</b>	<b>2,299</b>	<b>1,949</b>
Sundry debtors	6	42
<b>Total receivables and debtors</b>	<b>2,305</b>	<b>1,991</b>

Membership fees are due quarterly in advance and service fees are due monthly in advance. Of the total receivables and debtors above, \$2.14M including GST (2021: \$1.80M including GST) relate to membership fees and services to be provided by REANNZ during the coming financial year. These fees are shown as income received in advance until the service period begins, at which time the fees are recognised as revenue in the Statement of Comprehensive Revenue and Expense.

REANNZ holds no collateral as security or other credit enhancements over receivables that are past due or impaired.

## 7. Investments

### Accounting Policy

#### Bank term deposits

Investments in bank term deposits are initially measured at the amount invested.

Interest is subsequently accrued and added to the investment balance. A loss allowance for expected credit losses is recognised if the estimated loss allowance is not trivial.

<b>Breakdown of investments</b>	<b>2022 \$ 000</b>	<b>2021 \$ 000</b>
Term deposits (maturity one year or less)	21,348	21,061
<b>Total investments</b>	<b>21,348</b>	<b>21,061</b>

There is no impairment provision for investments as there is no expectation of credit losses. All term deposits are held with major trading banks with Standard & Poor's AA- rating.

## 8. Derivative financial instruments

### Accounting Policy

REANNZ enters into derivative financial instruments, including forward foreign exchange contracts, as part of its normal operations to manage its exposure to foreign exchange rate risk. REANNZ does not hold or issue derivatives for trading purposes. REANNZ has not adopted hedge accounting.

Derivatives are initially recognised at the fair value on the date a derivative contract is entered into and are subsequently re-measured to their fair value at each balance date with the resulting gain or loss recognised in the Statement of Comprehensive Revenue and Expense.

A forward foreign exchange derivative is classified as current if the contract is due for settlement within 12 months of balance date. Otherwise, the full fair value of forward foreign exchange derivatives is classified as non-current.

Derivative financial instruments are recognised at fair value in the Statement of Financial Position.

On 30 June 2022, the net fair value of derivative financial instrument assets was \$678K (2021: \$113K liability). Of the net asset amount, \$419K relates to USD forward contracts due to be settled within 12 months, with the remaining amount to be settled in FY2024 and beyond.

The fair value of forward foreign exchange contracts has been determined using a discounted cash flows valuation technique based on quoted market prices. The inputs into the valuation model are from independently sourced market parameters such as currency rates. Most market parameters are implied from forward foreign exchange contract prices.

## 9. Prepaid network expenses

Prepaid network expenses relate to core connectivity and network service operations and management. These prepayments will be expensed to the Statement of Comprehensive Revenue and Expense on a straight-line basis over the contract term.

	<b>2022 \$ 000</b>	<b>2021 \$ 000</b>
<b>Balance at beginning of year</b>	18,414	19,166
Prepayment expensed during year	(4,179)	(4,299)
Payments made during the year	3,513	3,547
<b>Total prepaid network expenses</b>	<b>17,748</b>	<b>18,414</b>
<b>Current/non-current split</b>		
Current	2,057	1,928
Non-current	15,691	16,486
<b>Total prepaid network expenses</b>	<b>17,748</b>	<b>18,414</b>

## 10. Property, plant and equipment

### Accounting Policy

Property, plant and equipment consists of six classes, which are measured as follows:

- › Leasehold improvements, at cost less accumulated depreciation and impairment losses.
- › Routers, switches and optical equipment, at cost less accumulated depreciation and impairment losses.
- › Information technology equipment, at cost less accumulated depreciation and impairment losses.
- › Office equipment, at cost less accumulated depreciation and impairment losses.
- › PoP ('Point of Presence') equipment, at cost less accumulated depreciation and impairment losses.
- › Fibre and fibre housing, at cost less accumulated depreciation and impairment losses.

### Additions

The cost of an item of property, plant and equipment is only recognised as an asset when it is probable that future economic benefits or service potential associated with the item will flow to REANNZ and the cost of the item can be measured reliably.

Work in progress is recognised at cost less impairment and is not depreciated.

In most instances, an item of property, plant and equipment is initially recognised at cost. Where an asset is acquired through a non-exchange transaction, the asset will be recorded at fair value at the date of acquisition.

Costs incurred subsequent to initial acquisition are capitalised only when it is probable that future economic benefits or service potential associated with the item will flow to REANNZ and the cost of the item can be measured reliably.

The costs of servicing property, plant and equipment are recognised in the Statement of Comprehensive Revenue and Expense as they are incurred.

### Disposals

Gains and losses on disposals are determined by comparing the proceeds of disposal with the carrying amount of the asset. Gains and losses on disposal are included in the Statement of Comprehensive Revenue and Expense.

### Depreciation

Depreciation on property, plant and equipment (excluding work in progress) is calculated on a straight-line basis,

from the time the asset is in the location and condition necessary for its intended use. This basis allocates the cost or value of the asset, less its residual value, over its estimated useful life.

The depreciation method, estimated useful lives and residual values of property, plant and equipment are reviewed annually to assess appropriateness.

The following estimated useful lives are used in the calculation of depreciation:

Leasehold improvements	6 years
Routers, switches & optical equipment	3-8 years
Information technology equipment	3 years
Office equipment	5 years
PoP equipment	8 years
Fibre and fibre housing	20 years

Leasehold improvements are depreciated based on estimated useful life or the remaining lease term, whichever is shorter.

### Impairment of property, plant and equipment and intangible assets

REANNZ does not hold any cash-generating assets. Assets are considered cash-generating where their primary objective is to generate a commercial return.

### Non-cash generating assets

At each reporting date, assets are reviewed by the directors to determine whether there are any events or changes in circumstances that indicate that carrying amounts may not be recoverable.

An impairment loss is recognised as the amount by which the asset's carrying amount exceeds its estimated recoverable amount.

If the carrying amount of an asset exceeds its recoverable amount, the asset is impaired and the carrying amount is written down to the recoverable amount. The impairment loss is then recognised as an expense in the Statement of Comprehensive Revenue and Expense.

Where an item of property, plant or equipment has been revalued, any impairment loss is recognised against the revaluation reserve for that class of asset. Where this results in a debit balance in the revaluation reserve, the balance is recognised in the Statement of Comprehensive Revenue and Expense.

Any reversal of an impairment loss is recognised in the Statement of Comprehensive Revenue and Expense. Impairment losses can only be reversed to the extent that the carrying amount of the asset matches the carrying amount as calculated under the cost less accumulated depreciation method.

For items of property, plant or equipment that have been re-valued, any reversal of impairment loss is credited back to the revaluation reserve. However, to the extent that an impairment loss for that class of asset was previously recognised in the Statement of Comprehensive Revenue and Expense, a reversal of impairment loss is also recognised in the Statement of Comprehensive Revenue and Expense.

### Impairment

As part of the annual impairment review, the directors recognised an impairment loss of \$608K on the Kumeu to Whenuapai cable. The cable was assessed as fully impaired due to:

- > cessation of the demand or need for services provided by the asset.
- > No alternative use for the asset
- > lack of market interest in purchasing the asset.

The directors also recognised a partial impairment loss of \$3,748K on the Sale and Indefeasible Right of Use Agreement (SIRU) fibre assets. This was due to:

- > cessation or near cessation of demand or need for services provided by the fibre paths
- > no intention to provide investment to bring the unused fibre paths into a useable condition

### Critical accounting estimates and assumptions

Estimating useful lives and residual values of property, plant and equipment:

At each balance date, the useful lives and residual values of property, plant and equipment are reviewed. Assessing the appropriateness of useful life and residual value estimates of property, plant and equipment requires a number of factors to be considered such as the physical condition of the asset, expected period of use of the asset by REANNZ, and expected disposal proceeds from the future sale of the asset.

An incorrect estimate of the useful life or residual value will affect the depreciation expense recognised in the Statement of Comprehensive Income and Expense, and carrying amount of the asset in the Statement of Financial Position. REANNZ minimises the risk of this estimation uncertainty by:

- > physical inspection of assets;
- > asset replacement programmes;
- > review of second-hand market for similar assets

REANNZ has not made significant changes to past assumptions concerning useful lives and residual values.

## Breakdown of property, plant and equipment

Movements for each class of property, plant and equipment are as follows:

	Office equipment \$'000	ICT equipment \$'000	National PoP equipment \$'000	International PoP equipment \$'000	Leasehold improvements \$'000	Network services \$'000	Fibre and fibre housing \$'000	Total \$'000
<b>Cost or valuation</b>								
Balance at 1 July 2020	113	670	11,402	1,120	401	25	8,210	21,941
Balance at 30 June 2021	117	644	11,291	1,231	401	15	8,113	21,812
Additions	18	53	48	-	50	-	-	169
Sales/write-offs		(55)	(35)					(90)
<b>Balance at 30 June 2022</b>	<b>135</b>	<b>642</b>	<b>11,304</b>	<b>1,231</b>	<b>451</b>	<b>15</b>	<b>8,113</b>	<b>21,891</b>
<b>Accumulated depreciation</b>								
Balance at 1 July 2020	103	626	8,475	488	265	25	2,819	12,801
Balance at 30 June 2021	110	590	9,759	693	337	15	3,189	14,693
Depreciation expense	6	36	909	209	68	-	406	1,634
Disposals	-	(51)	(29)	-	-	-	-	(80)
Impairment losses	-	-	-	-	-	-	4,356	4,356
<b>Balance at 30 June 2022</b>	<b>116</b>	<b>575</b>	<b>10,639</b>	<b>902</b>	<b>405</b>	<b>15</b>	<b>7,951</b>	<b>20,603</b>
<b>Carrying amounts</b>								
Balance at 1 July 2020	10	44	2,927	632	136	-	5,391	9,140
Balance at 30 June 2021	7	54	1,532	538	64	-	4,924	7,119
<b>Balance at 30 June 2022</b>	<b>19</b>	<b>67</b>	<b>665</b>	<b>329</b>	<b>46</b>	<b>-</b>	<b>162</b>	<b>1,288</b>

## 11. Intangible assets

### Accounting Policy

Software is a finite life intangible and is recorded at cost less accumulated amortisation and impairment. Amortisation is charged on a straight-line basis over the estimated useful life of the intangible asset.

Costs associated with maintaining computer software are recognised as an expense when incurred.

Staff training costs are recognised as an expense when incurred.

Costs associated with the development and maintenance of the REANNZ website are recognised as an expense when incurred.

The useful life and associated amortisation rates of major classes of intangible assets have been estimated as follows:

Illustration and software licences	3 years	33.3%
------------------------------------	---------	-------

### Impairment of intangible assets

Refer to the policy for impairment of property, plant and equipment in note 10. The same approach applies to the impairment of intangible assets.

Breakdown of intangible assets	Illustration licence \$000	Software \$000	Total \$000
<b>Gross carrying amount</b>			
Balance at 1 July 2020	9	2	11
Balance at 30 June 2021	-	-	-
Additions	-	-	-
Disposals	-	-	-
<b>Balance at 30 June 2022</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Accumulated amortisation</b>			
Balance at 1 July 2020	9	2	11
Balance at 30 June 2021	-	-	-
Amortisation expense	-	-	-
Disposals	-	-	-
Impairment losses	-	-	-
<b>Balance at 30 June 2022</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Carrying amounts</b>			
At 1 July 2020	-	-	-
At 30 June 2021	-	-	-
<b>At 30 June 2022</b>	<b>-</b>	<b>-</b>	<b>-</b>

## 12. Accounts payable and accrued expenses

### Accounting Policy

Short-term payables are recorded at the amount payable.

Breakdown of payables and accrued expenses	2022 \$ 000	2021 \$ 000
<b>Exchange transactions</b>		
Creditors	1,169	892
Accrued expenses	70	51
<b>Total accounts payable and accrued expenses</b>	<b>1,239</b>	<b>943</b>

## 13. Employee entitlements

### Accounting Policy

Employee benefits due to be settled within 12 months after the end of the year in which the employee provides the related service are measured based on the accrued entitlements at current rates of pay. These include salaries and wages accrued up to balance date, annual leave earned but not yet taken at balance date.

A liability and an expense are recognised for bonuses where there is a contractual obligation or where there is a past practice that has created a constructive obligation and a reliable estimate of the obligation can be made.

Breakdown of employee entitlements	2022 \$ 000	2021 \$ 000
Accrued salaries and wages	83	59
Annual leave	190	155
<b>Total employee entitlements</b>	<b>273</b>	<b>214</b>

It is expected that all employee entitlements will be settled within 12 months of balance date.

## 14. Revenue in advance

	2022 \$ 000	2021 \$ 000
<b>Exchange transactions</b>		
Fees received in advance	159	470
Fees invoiced but not yet received	1,857	1,566
Other revenue billed in advance	-	34
<b>Total revenue in advance</b>	<b>2,016</b>	<b>2,070</b>



Revenue in advance includes membership fees billed in advance and fees for services billed in advance. All services billed in advance will be provided by REANNZ in the coming financial year. These fees are shown as revenue received in advance until the service period begins, at which time the fees will be recognised as revenue in the Statement of Comprehensive Revenue and Expense.

## 15. Provisions

### Accounting Policy

#### General

Provisions are recognised for future expenditure of an uncertain amount or timing when:

there is a present obligation (either legal or constructive) as a result of a past event;

it is probable that an outflow of future economic benefits or service potential will be required to settle the obligation; and a reliable estimate of the obligation amount can be made.

Provisions are measured at the present value of the amount expected to be required to settle the obligation.

#### Onerous contracts

A provision for onerous contracts is recognised when the expected benefits or service potential to or from a contract is lower than the unavoidable cost of meeting the contract obligations.

The provision is measured at the present value of the lower of the expected cost of terminating the contract and the net expected cost of continuing the contract.

	2022 \$000	2021 \$000
<b>Breakdown of provisions</b>		
<b>Current</b>		
Onerous contract	-	4
Total Current	-	4
<b>Non-current</b>		
Onerous contract	-	-
Total Non-current	-	-
<b>Total Provisions</b>	<b>-</b>	<b>4</b>

#### Onerous contracts provision

The onerous contract was a non-cancellable lease for office space at 22 The Terrace, Wellington.

In 2021 the office space at 22 The Terrace, Wellington was determined by management to be an unacceptable risk to staff due to its low seismic rating. As a result, alternative office space was found at Plimmer Towers until the remedial work was completed in December 2021.

The property owners reimbursed alternate premises lease costs until the remedial work was completed.

The balance as at 1 July 21 represented the difference between lease payments for 22 The Terrace and the reimbursed amount to the end of the alternate premises to March 2022.

The remedial work was completed in December 2021 so staff returned to 22 The Terrace. The provision raised in FY2022 related to the onerous lease provision for Level 13, Plimmer Towers to cover the period from December 21 to March 22. This represented the rent remaining on the Plimmer Towers lease (December 21 to March 22).

	Onerous Lease		Restructuring	
	2022 \$000	2021 \$000	2022 \$000	2021 \$000
Balance 1 July	4	371	-	89
Provision added	39	-	-	113
Amount used	(43)	(367)	-	(202)
Movement in the year	(4)	(367)	-	(89)
<b>Balance as at 30 June</b>	<b>-</b>	<b>4</b>	<b>-</b>	<b>-</b>

## 16. Equity

### Capital management

REANNZ's capital is its equity, which comprises accumulated funds and contributed capital. Equity is measured as the difference between total assets and total liabilities.

REANNZ is subject to the financial management and accountability provisions of the Crown Entities Act 2004, which impose restrictions in relation to borrowings, acquisition of securities, issuing guarantees and indemnities and the use of derivatives.

REANNZ manages its equity as a by-product of prudently managing revenues, expenses, assets, liabilities, investments, and general financial dealings to ensure REANNZ effectively achieves its objectives and purpose, whilst remaining a going concern.

### Contributed capital

At 30 June 2022, share capital comprised 1,816 ordinary shares (2021: 1,816). All issued shares are fully paid and have no par value.

	2022 \$000	2021 \$000
<b>Breakdown of equity</b>		
<b>Contributed capital</b>		
Balance at 1 July	16,001	16,001
Capital contribution	-	-
Repayment of capital	-	-
Balance at 30 June	16,001	16,001

### Accumulated surplus/(deficit)

Balance at 1 July	32,553	34,552
Surplus/(deficit) for the year	(3,430)	(1,999)
Balance at 30 June	29,123	32,553
<b>Total equity</b>	<b>45,124</b>	<b>48,554</b>

## 17. Capital commitments and operating leases

### i. Capital commitments

There were no capital commitments at balance date.

### ii. Operating lease commitments

#### Accounting Policy

An operating lease is a lease that does not transfer substantially all the risks and rewards incidental to ownership of an asset to the lessee. Lease payments under an operating lease are recognised as an expense on a straight-line basis over the lease term.

Lease incentives received are recognised in the Statement of Comprehensive Income and Expense as a reduction of rental expense over the lease term.

Where the leased items are not in use, the operating lease payments will be treated as a prepayment in the Statement of Financial Position. Once the items begin to be used in deriving revenue, these prepayments are released to the Statement of Comprehensive Revenue and Expense on a straight-line basis over the period of the remaining operating lease term.

Operating leases relate to the following activities:

- Office premises: 22 The Terrace, Wellington, 24 Balfour Road, Parnell, Auckland and the University of Canterbury; and
- Network PoP accommodation and associated support facilities.

The future aggregate minimum lease payments payable under non-cancellable operating leases are as follows:

	2022 \$000	2021 \$000
Less than one year	644	624
Between one and two years	324	186
Between two and five years	763	329
Later than five years	-	26
<b>Total operating lease commitments</b>	<b>1,731</b>	<b>1,165</b>

There are no restrictions placed on REANNZ by any of its leasing arrangements.

### iii. Connectivity and managed service commitments

Connectivity and managed service commitments relate to:

- Payments to suppliers for national and international connectivity services, and
- Payments to suppliers for service management of the national network.

	2022 \$000	2021 \$000
Less than one year	4,195	4,317
Between one and two years	3,549	3,578
Between two and five years	7,967	9,080
Later than five years	36,392	38,666
<b>Total connectivity and managed service commitments</b>	<b>52,103</b>	<b>55,641</b>

In June 2014, REANNZ entered into a 25-year lease of managed capacity with Hawaiki Submarine Cable Limited Partnership. The first condition of the lease was met on 31 March 2016, at which point the contract became non-cancellable.

The cable was ready for service in August 2018 at which point the first annual connectivity fee was paid. REANNZ will incur annual connectivity charges over the 25-year lease term. These costs are reflected above and form the whole amount of the later than five years total.

The contract required four milestone payments in USD. The milestone payments were converted into NZD at the spot rate on payment date. The total amount of the four milestone payments (including taxes) was NZ\$19.34M. \*Straight-line amortisation of the initial fee spread over the lease term commenced in August 2018 when the cable was ready for service. The annual expense is \$774K.

Annual payments in advance associated with the Hawaiki contract are recognised evenly over the prepaid period. Prepayments of \$3.51M were made during the year.

### iv. Finance leases

#### Accounting Policy

A finance lease is a lease that transfers to the lessee substantially all the risks and rewards incidental to ownership of an asset, whether or not title is eventually transferred.

At the commencement of the lease term, prepaid finance leases where REANNZ is the lessee are recognised as an asset in the Statement of Financial Position at the fair value of the leased item.

The amount recognised as an asset is depreciated over its useful life. If there is no reasonable certainty as to whether REANNZ will obtain ownership at the end of the lease term, the asset is fully depreciated over the shorter of the lease term and its useful life.

Indefeasible Rights of Use (IRUs) have been granted to REANNZ over specific fibre pairs and have been accounted for as finance leases as the risks and rewards of ownership have transferred to REANNZ. The net carrying amount of the leased assets is \$69K (2021: \$1.35M). In 2021/22 an impairment loss of \$1.17M was recognised on the fibre assets which are idle.

The finance lease term is for the expected economic life of the asset and has been prepaid. As such, there are no future finance lease payments payable.

REANNZ does not hold an option to purchase the asset at the end of the lease term. The finance lease term for the majority of assets is 20 years, ending June 2042.

## 18. Contingencies

There were no contingent assets or liabilities at balance date for which disclosure is required (2021: \$Nil).

## 19. Related party transactions

REANNZ is a wholly owned entity of the Crown.

Related party disclosures have not been made for transactions with related parties that are within a normal supplier or client/recipient relationship with terms and conditions no more or less favourable than those that it is reasonable to expect REANNZ would have adopted in dealing with the party at arm's length in the same circumstances.

Further, transactions with other government agencies (for example, government departments and Crown entities) are not disclosed as related party transactions when they are on normal terms and conditions consistent with the normal operating arrangements between government agencies.

### Key management personnel compensation

The compensation of directors, Board Advisor, the Chief Executive and senior management (the Senior Leadership Team), being the key management personnel of REANNZ, is set out as follows.

	2022 \$000	2021 \$000
<b>Directors</b>		
Remuneration	159	146
Full-time equivalent	0.87	0.73
<b>Board Advisor</b>		
Remuneration	-	15
Full time equivalent	-	0.07
<b>Senior Leadership Team</b>		
Remuneration	1,385	1,250
Full-time equivalents	7.46	6.38
<b>Total key management personnel remuneration</b>	<b>1,544</b>	<b>1,411</b>
<b>Total full-time equivalent personnel</b>	<b>8.25</b>	<b>7.18</b>

The full-time equivalent for Board members has been determined based on the frequency and length of Board and committee meetings, estimated time for Board members to prepare for meetings, attendance at external stakeholder meetings and advice provided to the Senior Leadership Team.

The Board had six directors for the full year and one director from 15 November 2021 to 30 June 2022.

An analysis of director remuneration is provided in note 4.

### Chief Executive's remuneration

Neil Fenemor was Acting Chief Executive from 01 July 2021 to 13 September 2021. Amber McEwen was Chief Executive from 14 September 2021 to 30 June 2022.

Total remuneration for the Chief Executive role for the year was \$313,857 consisting of

- Salary: \$293,365
- Benefits: \$20,492

Benefits include KiwiSaver, professional development, car park allowance and Koru club membership.

The Chief Executive's remuneration package does not include any long-term incentives. Short-term incentives (STI) are set at up to 10% (2021:15%) of base salary plus 3% Kiwisaver employer contribution. Incentive payments are discretionary and are granted at the sole discretion of the Board and are based on both individual and company performance measures. The Board identified the performance criteria used to determine the Chief Executive's STI payment in October 2022 and no expense has been recognised in the financial year ending 30 June 2022.

## Employee remuneration

Remuneration and other benefits of \$100,000 per annum or more paid or payable to employees in their capacity as employees were:

	2022 Employees	2021 Employees
\$100,000 - \$109,999	1	2
\$110,000 - \$119,999	2	1
\$120,000 - \$129,999	1	4
\$130,000 - \$139,999	2	2
\$140,000 - \$149,999	4	1
\$150,000 - \$159,999	1	1
\$160,000 - \$169,999	1	2
\$170,000 - \$179,999	1	1
\$180,000 - \$189,999	2	1
\$190,000 - \$199,999	1	1
\$200,000 - \$209,999	-	-
\$210,000 - \$219,999	1	-
\$220,000 - \$229,999	-	-
\$250,000 - \$259,999	1	-
\$340,000 - \$349,999	-	1

During the year ended 30 June 2022, REANNZ paid nil compensation or other benefits to employees in relation to cessation (2021: \$186K).

## 20. Events after balance date

There were no significant events after balance date.

## 21. Financial instruments

### Financial instrument categories

The carrying amount of financial asset and liability categories are as follows:

	2022 \$000	2021 \$000
<b>Mandatorily measured at fair value through surplus or deficit</b>		
Derivative financial instrument liabilities	-	174
Derivative financial instrument assets	678	61
<b>Financial liabilities measured at amortised cost</b>		
Accounts payable and accrued expenses (excluding income in advance, taxes payable and grants received subject to conditions)	1,239	943
Finance leases	1,241	1,353
<b>Total financial liabilities measured at amortised cost</b>	<b>2,480</b>	<b>2,296</b>
<b>Financial assets measured at amortised cost</b>		
Cash and cash equivalents	5,331	3,401
Debtors and other receivables	2,305	1,991
Investments – term deposits	21,348	21,061
<b>Total financial assets measured at amortised cost</b>	<b>28,984</b>	<b>26,453</b>

## 22. Explanation of major variances to budget

### Statement of Comprehensive Revenue and Expense

#### Revenue

Total revenue exceeded budget by \$252K. The deferral of \$500K in grant funding from the Crown was offset by lower expenditure for the National Network Strategic Review. Managed services, interest and other revenue exceeded budget.

#### Expenditure

Cash reserves were higher than budgeted throughout the year with network, operational and capital expenditure all lower than anticipated.



### Network expenses

Total network expenses were \$1.87M lower than budget.

International network expenses were \$335K underspent. A key driver was a stronger NZD against the USD than budgeted.

National network expenses were \$607K under budget, resulting from reduced spend on third party services, primarily due to delays in shipping new equipment, timing differences between planned and actual expenditure, and unutilised provisions.

Network personnel costs were underspent by \$926K, with three technical roles being vacant for the full year, also contributing to a lower recruitment spend than budgeted.

### Operating expenses

Overall operating expenses were under budget for the year by \$1.13M.

Other operating expenses were \$570K under spent, due to lower ICT costs, general office cost savings resulting from the extended lockdowns in Auckland and Wellington, deferral of some marketing and communications initiatives.

Use of external consultants and other professional services were minimised due to deferment or using internal resource, contributing to a \$115K underspend.

Operating Lease costs were \$132K underspent, primarily due to the rent-free period for the Wellington premises.

Travel costs were \$192k under budget due to the ongoing Alert Level 2 and travel restrictions arising from the COVID-19 pandemic, international travel only resumed in June 2022.

### Foreign currency gains/(losses)

There were net foreign currency gains of \$726K for the year.

Net realised losses of \$129K arose from the difference in exchange rates on invoice and payment date of foreign currency denominated supplier invoices, and the settlement of forward contracts to buy USD.

Unrealised exchange gains of \$855K resulted mostly from the fair value movement on unsettled forward foreign exchange contracts to purchase USD and gains on a USD denominated bank account.

### Impairment

An unbudgeted impairment loss of \$4,356K was recognised for the year. An impairment loss of \$608K was recognised on the Kumeu to Whenuapai cable asset and a partial impairment loss of \$3,748K was recognised on the SIRU fibre assets.

## Statement of financial position

Actual expenditure for the year was lower than budget for both capital and operating expenditure impacting cash, investments and property, plant and equipment.

Accounts Payable was over budget due to the later than expected payment of \$838K to a third party supplier.

## Statement of Cash Flows

### Operating cash flows

Net cash flow from operating activities exceeded budget by \$2.76M.

Payments to suppliers and employees were underspent by \$2.80M for the reasons outlined above.

Receipts from the Crown were \$500K under budget due to the deferral until FY2023 of additional funding for the National Network Strategic Review.

### Investing cash flows

Purchase of plant and equipment was \$1.9M under budget largely due to significant shipping delays on international purchases.

With savings in operating and capital expenditure, the expected utilisation of \$3M in cash reserves invested in short term deposits was not required.

## 23. Breach of statutory deadline

REANNZ was required by section 450A(1)(n) of the Public Finance Act 1989 to comply with section 156(3)(b) of the Crown Entities Act 2004. This section requires the Auditor-General to provide an audit report to REANNZ by 31 December 2022. This timeframe was not met because Audit New Zealand was unable to complete the audit within this timeline due to the consequential effects of COVID-19, including an auditor shortage.







# REANNZ MEMBERS AS AT 1 JULY 2022 /

## Universities



## Crown Research Institutes



## Institutes of Technology, Polytechnics and Wānanga



## Research and Education







REANNZ