



**Annual Report**  
Building a secure  
data-driven future

**2022**

# Annual Report

Building a secure  
data-driven future

2022

Head Office  
AARNet Pty Ltd

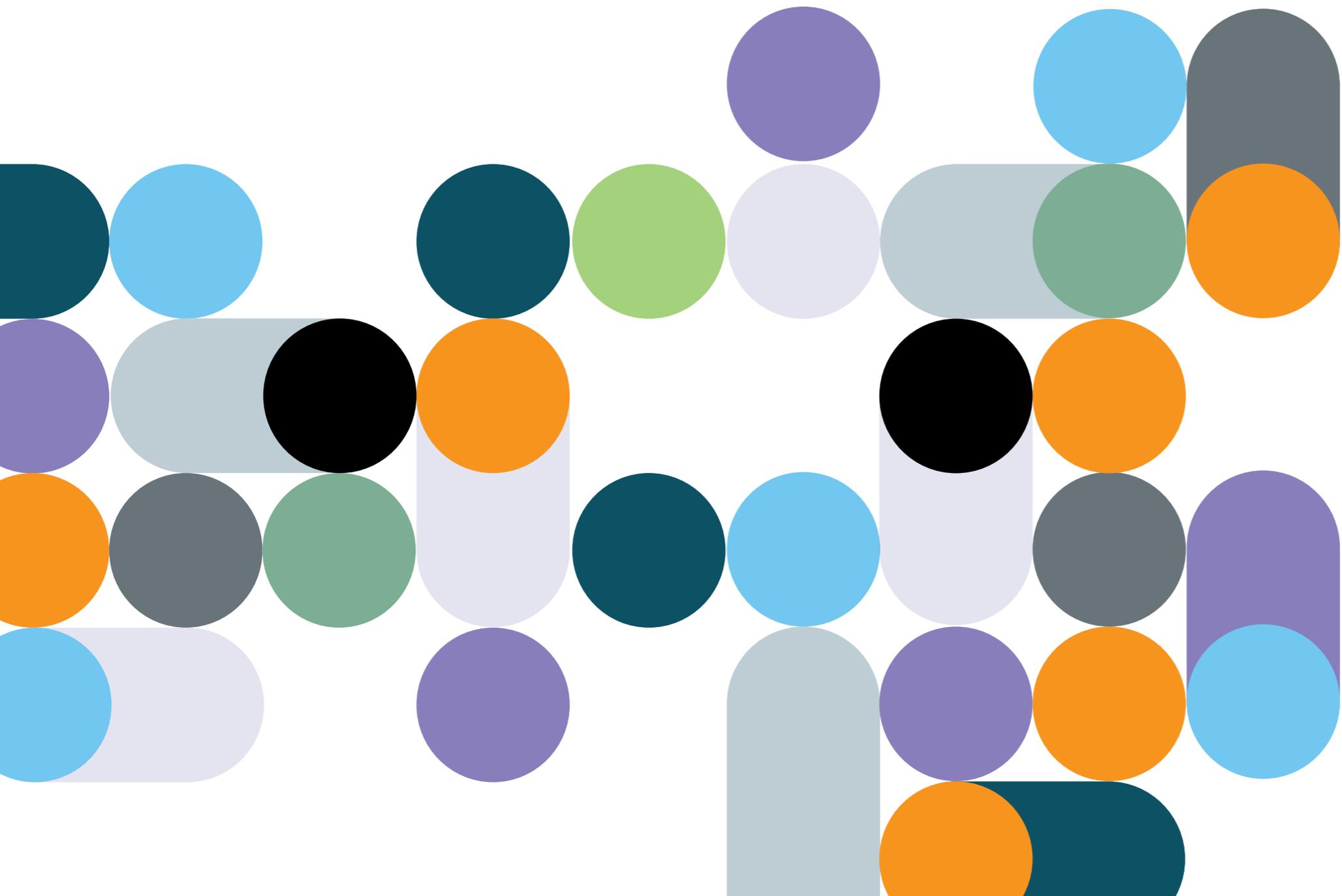
PO Box 5519  
Chatswood NSW 1515

[aarnet.edu.au](http://aarnet.edu.au)  
[enquiries@aarnet.edu.au](mailto:enquiries@aarnet.edu.au)

ABN 54 084 540 518  
© AARNet 2023

AARNet acknowledges the Traditional Custodians of country throughout Australia, and we pay our respects to Elders past and present.





“We have always been and remain future focused, embracing new and emerging technologies and evolving and expanding our services to meet the specialised needs of Australia’s research and education sector.”

— CHRIS HANCOCK AM, CEO AARNET



# Contents

## *About us*

- 6 Who we are and what we do
- 8 National and international network maps
- 12 Message from the Chair
- 14 Message from the CEO
- 17 The year in numbers

## *The year in review*

- 20 Strategic plan and priorities
- 22 Operating and advancing Australia's research and education network
- 28 Growing the research, education and innovation communities
- 32 Developing services to meet the needs of our customers
- 38 Our team
- 42 Corporate governance

## *Spotlight*

- 46 Connecting the first dark matter detector in the Southern Hemisphere
- 48 Staying connected through adversity
- 50 Providing a traditional university experience through technology

## *Financials*

- 52 AARNet Pty Ltd Financial Report and Directors' Report 2022

## Who we are and what we do

For more than **30 years** AARNet has provided reliable telecommunications services, along with an **expanding range** of data, collaboration and cyber security services, all designed to **meet the unique and ever-changing needs** of the research and education sector.

AARNet is a national resource, a national research and education network, run by AARNet Pty Ltd, a not-for-profit company owned by 38 Australian universities and CSIRO.

AARNet's customers include the shareholder universities (listed on page 42) and CSIRO, as well as most of the publicly funded research agencies, such as Australian Nuclear Science and Technology Organisation, Geoscience Australia and Australian Institute of Marine Science, several state government agencies, over a thousand schools, many TAFEs and hospitals, as well as state and federal galleries, libraries, archives and museums.

AARNet infrastructure interconnects over two million users—researchers, faculty, staff and students—at institutions across Australia with each other and research and education institutions worldwide, the public internet, and resources such as scientific instruments, data storage and high-performance computing facilities. We also interconnect content and service providers and organisations that collaborate with the research and education community.

AARNet underpins education across the life-long learning spectrum and research across a diverse range of disciplines in the sciences and humanities, including high energy physics, climate science, genomics, radio astronomy, defence, space and the arts.

For researchers and educators working in today's increasingly globalised data-intensive world, AARNet services remove barriers to discovery and innovation.

### WHAT SETS AARNET APART?

We pride ourselves on being future focused and providing what commercial operators are unequipped or unable to provide: an ultra-high-speed network and over-the-top services that push the boundaries of networking technology whilst delivering cost-effective and sustainable infrastructure for Australia. The research and education community relies on AARNet for outstanding service availability and service quality.

AARNET  
2022

## Our vision

Our vision is of a high bandwidth, globally connected research and education network that connects Australian educators and researchers to those with whom they wish to collaborate anywhere in the world, with ease, speed and convenience that makes the issue of physical separation irrelevant. Unashamedly, we care about enabling outcomes that benefit future generations of Australians.

## Our mission

Our mission is to provide trusted and transformational connectivity and collaboration services to meet the unique needs of research and education.

## Our values

### ONE TEAM

Everyone counts and is accountable. We are committed to teamwork and partnerships – collaboration is at our heart.

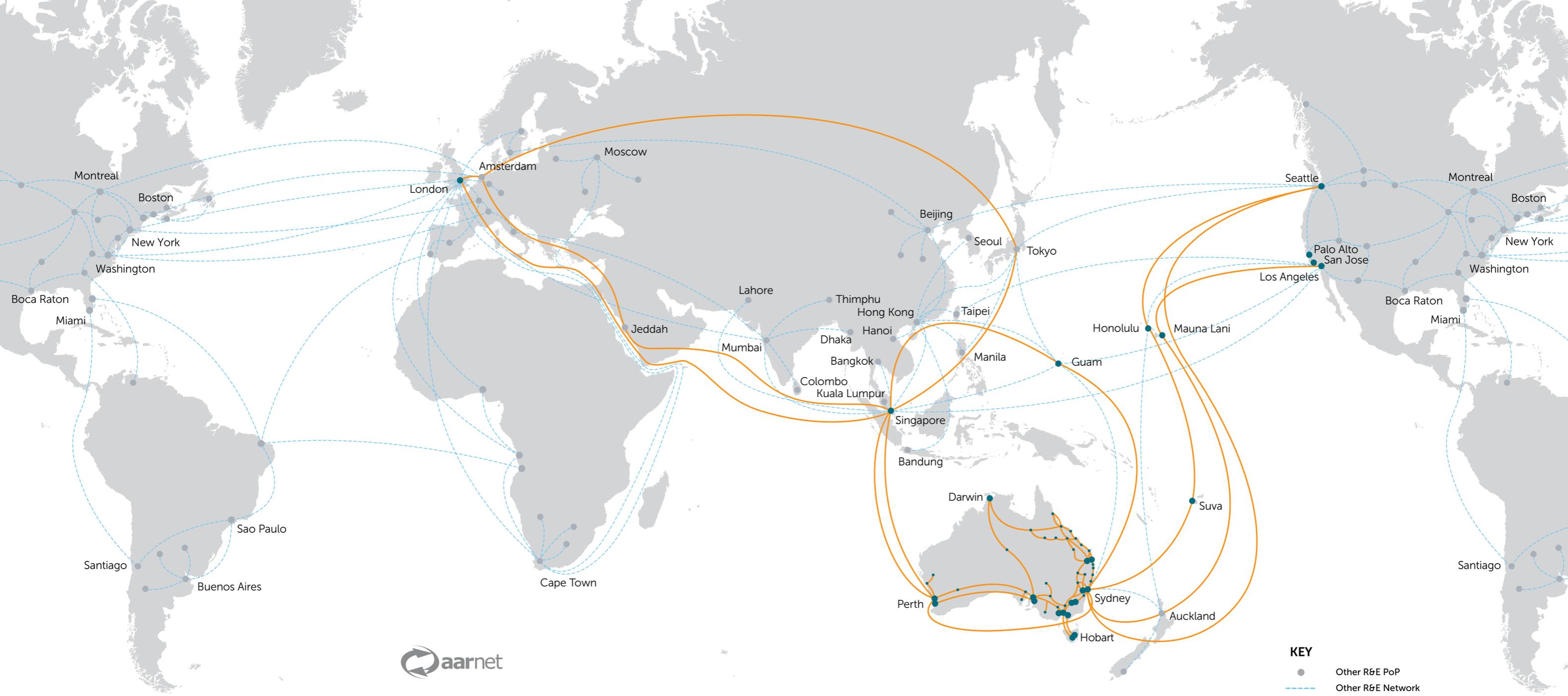
### CREATIVITY

Strive to innovate – it's in our DNA. We embrace creative solutions to problems, seek out diverse perspectives and enjoy what we do.

### TRUST

Communication is open and transparent. We are honest and ethical, and always respect and support each other.



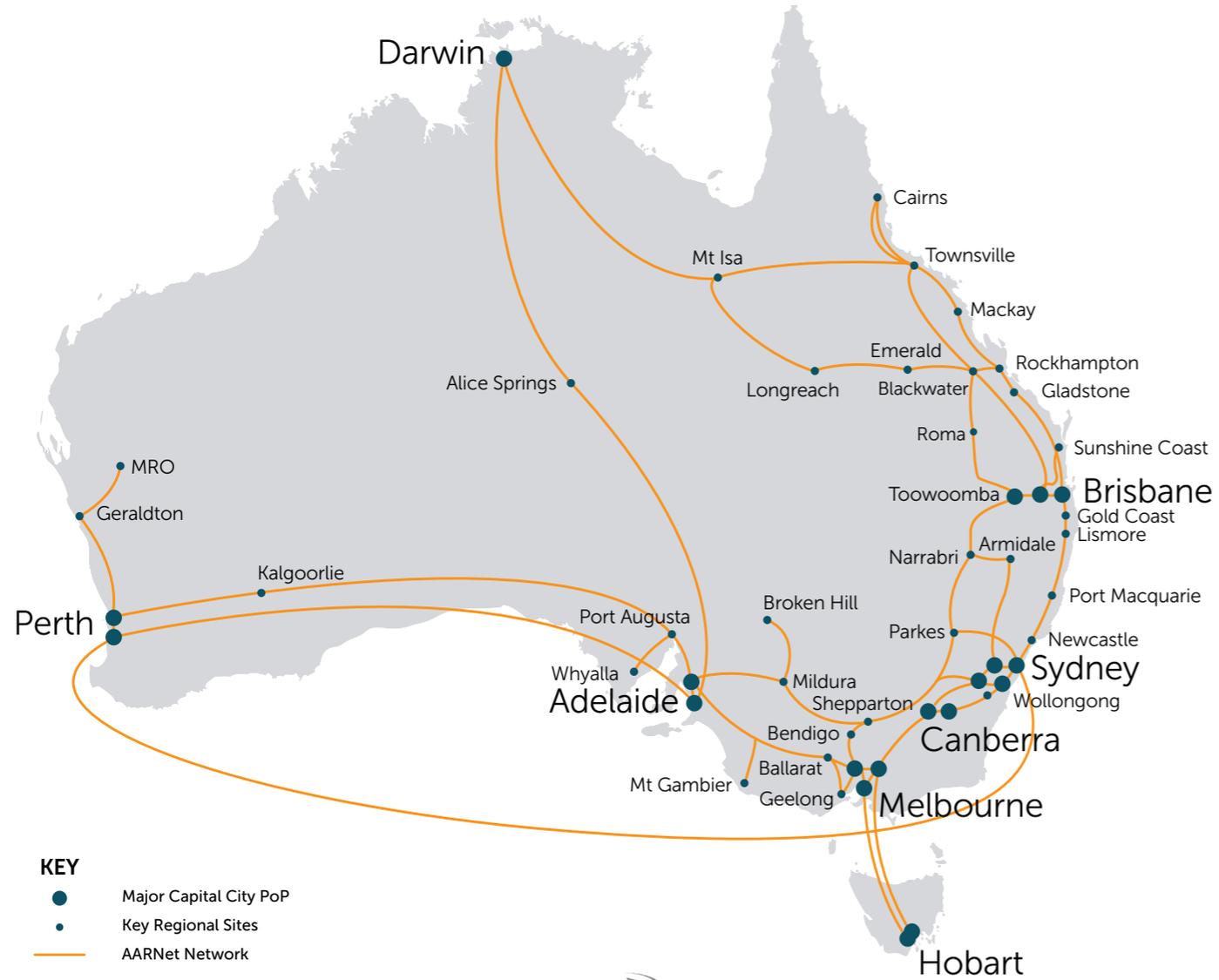


This map is designed to be a conceptual representation of the international R&E network.

- KEY**
- Other R&E PoP
  - - - Other R&E Network
  - AARNET PoP
  - AARNET Network

**AARNET INTERNATIONAL NETWORK**

AARNET NATIONAL NETWORK



KEY

- Major Capital City PoP
- Key Regional Sites
- AARNet Network



This map is designed to be a conceptual representation of the AARNet national network.



# Message from the Chair

I was delighted to join the AARNet Board in 2022 and even more so to be elected as Chair. I wish to thank my predecessor, Emeritus Professor Gerard Sutton AO for his service and leadership over the past decade.

AARNet is an extraordinary organisation that makes an outstanding contribution to the research and education sector in Australia and indeed worldwide.

Much of the data-intensive research undertaken at our world-class universities and research institutions simply could not be done without the network and services that AARNet provides. This is similarly the case for education. Many of the changes that are transforming education are enabled by our network.

AARNet is a leader in technological change and the practical application of technology in research and education and has been since its inception in 1989.

For more than 30 years AARNet's network, the capability that underpins everything we do, has undergone continuous reinvention. We have commenced building the fifth generation of the network, AARNet5, in partnership with our stakeholders, to meet the continuous challenge of staying ahead of the curve when it comes to capacity and reliability. At its core, the aim of the network, and indeed all the services that AARNet offers, is to remove barriers to the advancement of research and education.

One of the greatest risks for the 21st century is cyber security. In 2022 we onboarded our 20th university shareholder to our Security Operations Centre (SOC). With more than half of the university sector in Australia now part of this joint undertaking, the SOC is assisting the uplift of the cyber security posture of Australia's higher education institutions through a shared approach to cyber security.

Across these activities there are two themes that stand out to me most boldly: *collaboration* and *growth*.

AARNET  
2022

One of the greatest strengths of the research and education sector in Australia is the degree to which it works collaboratively to solve some of humanity's greatest problems. Not only within the sector, but with government and industry. AARNet itself is a microcosm of our sector's collaboration, its infrastructure facilitates, underpins and enables the deep collaboration of researchers, educators, technology professionals and cyber security experts.

For AARNet, the growth we are achieving and striving for is not simply about numbers. In the cyber security space, it is about ensuring that we leverage our advanced capabilities to best effect for the sector and casting a wide net to gather intelligence about threats facing the sector to protect all our institutions effectively.

In addition to acknowledging Emeritus Professor Sutton as immediate past Chair, I would like to thank my fellow Board Directors, the AARNet Advisory Committee led by Mr Scott Sorley, and our shareholders and stakeholders for their support during the past year. Finally, I congratulate and thank CEO Chris Hancock AM, as well as the senior management team and all AARNet staff for their contributions towards yet another successful year.

**Professor Emeritus Ian O'Connor AC**  
Chair, AARNet Board

# Message from the CEO

It is with great pleasure that we present to you the AARNet annual report for 2022. This report captures our achievements for the year and outlines progress towards our mission for delivering transformational connectivity, cyber security and collaboration services to the research and education sector.



## AARNET 2022

2022 marked the beginning of a new era for AARNet with the election of Professor Emeritus Ian O'Connor AC as our new Board Chair. He succeeded Professor Emeritus Gerard Sutton AO, who retired after serving as Chair for more than ten years. There is no doubt that we will miss Gerard and his guidance, but we are also thrilled to have Professor O'Connor in this role, with his wealth of experience and focus on growing AARNet in the coming years.

As Australia's national research and education network, we play an important role in supporting our shareholders to achieve excellence in research and education. From our early days of pioneering the internet in Australia in 1989 to today, collaborating with our shareholders has been at the heart of everything we do. We have always been and remain future focused, embracing new and emerging technologies and evolving and expanding our services to meet the specialised needs of the sector as it strives to solve some of the greatest problems of our time.

Despite the persistence of the pandemic in 2022, we continued to deliver high quality products and services and maintained a strong financial position. Our team worked tirelessly to adapt to the challenges and uncertainties of the changing higher education sector and the challenging business and global environment.

Our operational performance remained robust, with network availability averaging an excellent 99.99% for the year. The triversity inherent in the design of our network enables us to deliver this outstanding level of reliability.

Throughout the year we focused on strategically upgrading capacity, building diversity, and expanding the geographical reach of the AARNet network to connect more campuses, facilities and scientific instruments and to meet the growing needs of our shareholders.

We deployed diverse fibre and new connections in capital cities and regional areas across Australia. Through collaborations with our global NREN partners, we established backup paths to provide more diverse connectivity options between Australia, Asia, Europe and North America. Together with our partners,

we made considerable progress on the collective goal of building a more resilient global research and education network.

The relentless escalation of cyber attacks has focused more attention than ever before on the importance of protecting Australia's education and research institutions and sovereign data. To this end, the uptake of AARNet's cyber security services grew across the board, with over half of the Australian universities now signed up for our Security Operations Centre, and new customers onboarded to our DDoS Protection and Cyber Security for Schools services.

Our collaborations with the sector, industry, government and our global partners on threat intelligence sharing grew stronger. We made multiple contributions to the Australian Cyber Security Centre Cyber Threat Intelligence Sharing program over the course of the year and were officially recognised by the Australian Signals Directorate for our "outstanding contribution".

With staying ahead of the future needs of our shareholders and the cyber security landscape firmly in mind, we are rebuilding our network from the ground up. AARNet5, the next iteration of our network, has cyber security as its foundation. We have developed the initial reference network architecture for AARNet5 and have met the project milestone of going to market to select new equipment, with a view to ramping up to begin implementation in 2023.

AARNet's successful partnership with Zoom continued during 2022 as universities further embedded Zoom Meetings for online learning and expanded their investment to include Zoom Phone, Zoom Rooms and Zoom Events. Zoom Meeting use remained higher than pre-pandemic levels to support the new hybrid working and synchronous learning models.

We focused our support for the research community on assisting with data movement challenges, partnering with researchers to help develop language analytics and digital preservation tools and to provide sustainable infrastructure for digital research.



Following on from the successful trials in 2021, we launched Globus through AARNet, providing Australian researchers with a robust and security-conscious solution for transferring large-scale research data.

Some 15 years ago we developed CloudStor when there were no tools available for sharing large files over the internet. While the benefits it brought to the sector are immeasurable, there are now multiple commercial services available. Even though we have started the process of decommissioning CloudStor, we are immensely proud of its trailblazing success as a service that revolutionised data collaboration for the researcher community across Australia.

Through a partnership with the Australian BioCommons, part of the Bioplatforms Australia National Collaborative Research Infrastructure Strategy (NCRIS) facility, Galaxy Australia, a major web-based processing platform used by thousands of life scientists, moved to AARNet in 2022. The AARNet solution provides a long-term high-performing and reliable hosting environment for Galaxy Australia and demonstrates how we are working with the community to provide digital infrastructure for the unique needs of researchers.

We are also pleased to announce that during the year, we developed a new strategic plan to guide our business for the next five years. The plan is the result of extensive research and input from our Board of Directors, the AARNet Advisory Committee, our team and all our stakeholders across the sector.

Our 2023-2027 strategic plan will see us deliver across 6 major pillars. We will enhance our network and digital infrastructure, develop our partnerships and products, empower and grow our communities, strengthen the cyber security capability and resilience of the research and education sector, ensure AARNet is financially, socially and environmentally responsible and optimise our organisation through our people. With this plan in place, we are poised to capitalise on emerging opportunities and remain a leader in technology for the sector.

In 2022, recognising the importance of responsible business practices for creating long-term value for our shareholders and customers, we formed a Sustainability Steering Committee and Working Group to strengthen our work in this area.

We are very proud of our people and the unwavering commitment they made to deliver for our shareholders during 2022. To support our people and the strong and unique culture that is AARNet, we continued to develop AARNet's market-leading support for diversity with the introduction of Birth Trauma Leave, Women's Wellness Leave, Family Wedding Leave, and Qualification Conferral Leave. In 2023, our focus on developing our policies will continue with further work to support families, gender transition and First Nations Australians.

With Australia experiencing continued natural disasters, changes ahead for the research and education sector, global economic challenges and the ongoing geopolitical instability across the world, these are indeed challenging times. However, as we look towards the future, we remain very optimistic about the opportunities that lie ahead. With the support of our stakeholders and the dedication and expertise of our team, we are confident that we will continue to achieve our goals and make a positive impact for the research and education sector.

We are very grateful for the support and commitment of the AARNet Board, the AARNet Advisory Committee, our shareholders, customers, partners and the highly-dedicated AARNet team who together made the achievements of 2022 possible. I would like to personally thank everyone who contributed to AARNet for their unwavering trust and support and look forward to continuing to work with you all during 2023 to deliver exceptional services for our shareholders and our customers.

**Chris Hancock AM**  
Chief Executive Officer

# The year in numbers



**\$217.59 million**  
Net assets

**\$35.603 million**  
Invested in network and related infrastructure

**99.99%**  
Network availability

**10000000000000000 BIT/S**  
TEN TERABIT PER SECOND NETWORK FOR RESEARCH AND EDUCATION

**144 NEW FIBRE**  
INFRASTRUCTURE PROJECTS COMPLETED



**2.5 million**  
Authentications in Australasia

**6.4 billion**  
Authentications worldwide



**4 BILLION**  
Meeting minutes

**85 MILLION**  
Meeting participants

**15 MILLION**  
Meetings



## 2022: The year in review

Our operational activities are aligned to our strategic plan and priorities. Despite the persistence of the pandemic, our achievements during 2022 included delivering high-performing telecommunications, cyber security and collaboration services, making a positive impact on the communities we serve and maintaining a strong financial position.

Collaborating with our shareholders and customers is fundamental to everything we do. This approach ensures we continue to provide the services and solutions that Australia's research and education sector needs now and into the future.



# Strategic plan

2022 marked the final year of our 2018-2022 Strategic Plan. This plan guided us towards achieving our vision and mission for the past five years. We made significant progress against our priorities, reinforcing the resilience of AARNet infrastructure and building out new capabilities, most notably in cyber security, aligned to the evolving digital needs of our shareholders and customers.

During the year, we conducted extensive research and consulted with our Board of Directors, the AARNet Advisory Committee, our team and all our stakeholders across the sector to develop a new strategic plan to guide our future for the next five years. This new plan will be launched in 2023 and will see AARNet continue to develop new and innovative products and services to accelerate Australia's participation in teaching, learning and research on a global scale.





## Operating and advancing australia's research and education network

Core to AARNet's mission is the operation of an **ultra-fast** high-quality and highly-available national and international telecommunications network to **meet the unique needs** of the research and education sector.

### NETWORK AVAILABILITY

The AARNet network continued to perform at consistently high levels while carrying increasing volumes of traffic for AARNet customers. Despite flood events in northern New South Wales disrupting some services early in the year, the average network availability for 2022 was 99.99%, which was the same as the level achieved in 2021.

This exceptionally high level of reliability is achieved over the vast geographic footprint of our infrastructure through our strategic long-term planning and carefully designed network redundancy. Diversity and triversity in the network design and equipment enables our operations team to deploy alternate paths and minimise the impact of outages on AARNet customers.

### INFRASTRUCTURE, ARCHITECTURE AND OPERATIONS

During 2022 AARNet continued to invest in upgrading capacity, building diversity, and expanding the geographic reach of the AARNet network.

Careful capacity planning to remain ahead of the demand curve, and to accommodate the increasingly data-intensive requirements of research is one of the distinguishing features of a research and education network such as AARNet. The peak demands of the academic year determine the sustained capacity required, and the needs of the most data-intensive research disciplines, such as radio astronomy, climate science and bioinformatics, determine the absolute peak capacity. We continually monitor the network traffic levels on the AARNet backbone links to determine when upgrades are required. This approach enables us to provide a consistently high-quality service for our customers.

### NATIONAL NETWORK

AARNet's Early Warning System (EWS) and Distributed Denial of Service (DDoS) Detection System proved their value. 349 attacks were detected, enabling the AARNet Operations team to notify any affected customers and filter out unwanted traffic to minimise the impact of these attacks on our network and connected institutions.





## AARNET 2022

AARNet's Head of Network and Systems Architecture is a Steering Committee Co-Chair of the Mutually Agreed Norms for Routing Security (MANRS) initiative. MANRS is a global effort, supported by the Internet Society, with the aim of protecting the stability and reliability of the internet. Throughout the year, MANRS shared information with network operators and provided crucial fixes to reduce routing threats, including route hijacking, route leaks, and IP address spoofing.

In 2022 we deployed diverse fibre in Darwin, and expanded our fibre footprint in Brisbane, Gold Coast, Sydney, Perth and Melbourne, closing loops, shortening paths and increasing core count to provide connected institutions with multiple diverse and triverse connectivity options, greater network resiliency and reduced latency.

Customers across the sector and the country, including universities, schools, hospitals, medical and other research institutes, upgraded their connections to meet their growing bandwidth needs. Universities and larger research facilities upgraded to multiple 100Gbps connections to support not only big science research, but also day-to-day business operations.

Projects delivered include the completion of stage one of the southeast Melbourne data centre loop of high core count fibre, connecting major data centre providers and enabling multiple 100Gps services to research and education sites.

Using this and our existing infrastructure, AARNet built diverse fibre paths to RMIT University for the new RMIT AWS Cloud Supercomputing Hub, known as RACE, and for the benefit of the University more broadly. The paths provide increased network resiliency and the ability to upgrade the campus's network connectivity to 100Gbps services and beyond in the future. Combining the latest network technologies from AARNet with the industry-leading high-performance computing capabilities of AWS allows the RACE Hub to scale to 400Gbps, giving scientists the bandwidth headroom they need to conduct transformational research.

We continued to expand our network footprint in regional areas across Australia, with a focus on Victoria and Western Australia in 2022, to connect campuses, facilities and scientific instruments, and to improve access to reliable high-speed telecommunications services for the broader research and education community.

Projects included delivering fibre infrastructure and network services to the new Stawell Underground Physics Laboratory (SUPL), located one kilometre underground in an old gold mine near the town of Stawell in regional Victoria. This new underground facility is the first of its kind in the Southern Hemisphere and will allow researchers to conduct experiments and detect dark matter using some of the world's most sensitive scientific equipment. Read more about this project on page 46.

Our customers value the reliability of the AARNet network, particularly for accessing data centres that are critical for business operations, teaching, learning and research.

To improve the performance and availability of cloud and content provider services for AARNet customers, we increased our capacity to Amazon Web Services in Sydney and Melbourne and established direct peering with Oracle.

We also saw exponential growth in the uptake of our cost-effective, fast and scalable direct-connect services to the hyperscalers and other cloud service providers located in data centres. Our operations team deployed hundreds of virtual private network services for customers in 2022, with speeds up to 100Gbps.

Large K-12 schools continued to order multiple 10Gbps network links over diverse paths in 2022 rather than 1Gbps internet connections. This trend reflects the growing dependency on the high-capacity dedicated links AARNet provides for day-to-day curriculum delivery and operations.

Opposite: Rolling out the network in regional Australia.

## INTERNATIONAL NETWORK

In 2022, we worked closely with our global NREN partners to establish backup paths and increase diversity, as well as optimise routing policies and configurations between international endpoints. The overarching goal of all these initiatives is to build a more resilient global research and education network. The official Asia-Pacific-Europe Ring (AER) Memorandum of Understanding (MoU) signing ceremony was held in Bangladesh in March 2022 at APAN53, the Asia Pacific Advanced Network conference. The AER MoU is an agreement between Asian, Oceanic, Middle Eastern and European research and education networks to co-operate and collaborate on connectivity between global regions to maintain or improve the quality of international research and education networking.

For AER partners, the emphasis in 2022 was on establishing primary and backup paths between regions. This included, for example, collaborations with the AARNet-led CAE-1 consortium for the link between Singapore and London. Recent link activations for the AER, which have added significant diversity and resilience include links between Singapore, Hong Kong and Tokyo; between Tokyo, Amsterdam and London (trans-Siberia); and bi-directional links from the King Abdullah University of Science and Technology (KAUST), Saudi Arabia, London and Singapore. The AER partners are AARNet, GÉANT, JUCC, KAUST, NICT, NII, NORDUnet, SingAREN, SURF, and TEIN\*CC.

AARNet also continued to work closely with its 11 research and education network partners in the Asia Pacific Oceania Network (APONet) to establish backup paths and improve diversity more broadly in the Asia Pacific region.

Other important developments in AARNet's international capacity expansion include the activation of the AARNet, Internet 2 (USA), ARENA-PAC (Japan) and Indiana University (USA) consortium's Guam-Singapore circuit, which complements our Indigo and JGA-South cable systems to establish a diverse ring of connectivity for AARNet from Sydney to Perth, Singapore, Guam and back to Sydney; and the negotiation of a capacity swap for a 100G circuit on the new Southern Cross NEXT cable between Sydney and Los Angeles, to be activated in 2023.

## SCINET SPIRIT OF INNOVATION AWARD

AARNet was one of 17 organisations to receive a SCInet Spirit of Innovation Award for supporting demonstrations involving large-scale international science at the Super

Computing 2022 (SC22) conference, the international conference for high performance computing, networking, storage, and analysis, held in Dallas Texas in November.

AARNet, as an APOnet partner network, provided back-up paths for Japan's National Institute of Information and Communications Technology (NICT) demonstrations. One demonstration was of a full 400Gbps end-to-end data/video transfer across the Pacific, led by the Information-technology Promotion Agency, Japan. Another showcased the impact of uncompressed 8K video processing on edge computing using the Pacific Wave/TransPAC 100Gbps link and other capacity from the APOnet collaboration. The precision of the visual definition possible with this uncompressed 8K video could enable international health care delivery, even surgery, across oceans. This is a world first with this technology.

## GLOBAL NETWORK ADVANCEMENT GROUP (GNA-G)

AARNet is a founding member of the Global Network Advancement Group (GNA-G), a community of network professionals from research and education networking organisations from all over the world. The GNA-G community meets several times a year. Working groups overseen by the GNA-G leadership team focused on various activities, including supporting data-intensive science, developing a GREN map, network automation, connecting offshore students, and routing best practice. The goal of the GNA-G is to work together to better align resources and make the country-to-country interconnections more efficient for global science collaborations and transnational education.

## AARNET5

AARNet5 is a multi-year project to upgrade the AARNet network and associated operational support systems. The initial reference network architecture for AARNet5 was produced in 2022, setting out the intended technical design of the core, distribution and edge components of the network across our national and international sites. One of the key design principles for AARNet5 is sustainability, with the goal of reducing the carbon footprint of our network infrastructure. By the end of the year, we met the project milestone of going market to select new equipment for AARNet5, and implementation is slated to begin in 2023.

Opposite: Data captured by the CSIRO Parkes radio telescope, Murrumbidgee, is transported over the AARNet network to research laboratories and computing facilities across Australia.

AARNET  
2022





## Growing the research, education and innovation communities

AARNet fosters collaboration, knowledge sharing and discovery by **connecting organisations** with a research and education mission across Australia and working closely with them to **provide the infrastructure and services** they need to deliver excellence in research and education.

### RESEARCH PROJECTS AND PARTNERSHIPS

AARNet is one of Australia's national Data and Digital eResearch Platforms (DDeRPs). In 2022, we continued collaborating with other DDeRPs, the Australian Research Data Commons (ARDC), Australian Access Federation (AAF), the National Computational Infrastructure (NCI) and the Pawsey Supercomputing Centre, as well as the Australian Government's National Collaborative Research Infrastructure Strategy (NCRIS) facilities and the wider eResearch community to develop solutions that will address the collective need for sustainable, persistent data tools and services.

Our team worked with research groups on various data management projects, including with the Australian Characterisation Commons at Scale community.

This project is focused on establishing a data commons for microscopy laboratories in Australia. The aim is to ensure that data from these laboratories is easily transferred to cloud and high-performance computing analytical environments.

AARNet also collaborated on various life science projects through the Australian BioCommons. In addition to operating as a core infrastructure provider by hosting the head node of Galaxy Australia, we participated in the ARDC-funded Bring your Own Data project. For this project, AARNet will host reference collections and support laboratory data movement.

Throughout the year, we worked with our shareholders and with industry to explore opportunities for providing connectivity and collaboration services that will help bridge the gap between industry and universities to support research commercialisation priorities.

Our engagement with the international research and education network, eResearch and research data communities, including the Research Data Alliance, also continued throughout the year to ensure that our services are leading edge and that they leverage innovations from the international community.

AARNet is a founding partner in the Global Research Engagement Group (GREG), a global research and education network strategic collaboration to share knowledge and facilitate a co-ordinated and aligned effort in engaging with established and emerging big data research groups. The goal is to ensure that these groups are aware of and can maximise the value of the global research and education network community to enable a frictionless research experience throughout the research and data lifecycle.

**DIGITAL PRESERVATION, GLAMS AND HUMANITIES AND SOCIAL SCIENCES**

Many of Australia's state and national galleries, libraries, archives and museums (GLAMs) are connected to AARNet. With this underlying connectivity in place, we are focused on delivering services 'above the network' to enable the GLAM community to preserve, share and analyse their collections.

During 2022 AARNet continued its involvement in digital preservation and humanities research initiatives.

AARNet is proud to be a partner on the Australian Emulation Network: Accessing Born Digital Cultural Collections LIEF project, led by Professor Melanie Swalwell at Swinburne University. AARNet's infrastructure will underpin this national scale platform that offers a crucial piece of digital preservation capability that will be offered as a shared service for the benefit of academic and GLAM participants. Beyond the project term, all Australian organisations, researchers and members of the public will be able to take advantage of this service. Funded by the Australian Research Council, the large Australian Emulation Network consortium includes Australian universities, GLAM institutions, infrastructure partners AARNet and OpenSLX, and collaborators at Yale University, who have led the North American rollout of Emulation as a Service Infrastructure (EaaSI).

AARNet continued support for the Language Data Commons of Australia (LDA), part of the Humanities and Social Sciences Research Data Commons (HASS RDC), an Australian Research Data Commons (ARDC) initiative with partners and collaborators including major Australian universities plus the digital archive PARADISEC (the Pacific And Regional Archive for Digital Sources in Endangered Cultures) and peak body First Languages Australia.

AARNet's ongoing membership in the Digital Preservation Coalition, along with our membership and Deputy Chair leadership position in GLAM Peak demonstrates our commitment to supporting Australian and International efforts to preserve digital cultural heritage and to help advance Australia's humanities, arts and social sciences research capability.

**TRAINING**

In 2022 AARNet joined the new Australian Carpentries consortium of 10 organisations led by the ARDC. In partnership with the ARDC, AARNet facilitated two instructor training workshops supporting over 40 participants from the university library sector, the EaaSI project and the Australian Text Analytics Platform (ATAP) to become Carpentries instructors.

AARNet supported humanities and social sciences researchers with training sessions for ATAP and the Sydney Informatics Hub focused on Jupyter Notebooks for linguists (part of the ARDC HASS RDC) and several workshops delivered for FAVER's (the Federation of the Advancement of Victorian eResearch) digital humanities community.

As part of AARNet's dedication to promoting digital humanities careers, the digital research team accepted an intern from the University of Queensland to build on existing technical work and deliver training to a group of linguists for the ATAP program.

**HEALTH AND MEDICAL RESEARCH AND EDUCATION**

By connecting researchers and educators at university campuses, health research organisations, health systems and health precincts across Australia, AARNet underpins and enables life-changing research and innovation in education for the next generation of health researchers and medical practitioners.

A growing number of health education and research facilities are connected to AARNet, including facilities involved in infectious disease vaccine and treatment research across Australia. Eduroam is also deployed in many hospitals and health-related institutions to support mobility between campuses, research facilities and hospitals for students, faculty and researchers.

With the volumes of data used in health research increasing exponentially – primarily due to rapid advances in imaging and genomic sequencing capabilities – the need for secure high-speed network access has become vital for moving data generated in a clinic or laboratory to supercomputing resources for analysis, and on to researchers at institutions across the country.

**K-12 SCHOOLS AND TAFES**

Throughout 2022, Australian schools and TAFEs continued to take advantage of the benefits of AARNet; both new customers accessing powerful research network bandwidth for the first time, as well as schools already connected to AARNet using their access to leverage online content and cloud services for teaching and learning. By the end of 2022 over 600,000 K-12 school students at more than 1,200 schools were connected to AARNet.

With cyber security a growing concern, we worked with many schools during the year to deliver robust network and cyber security solutions and provide advice and support. We hosted scenario-based cyber security tabletop exercises at conferences and state-based workshops, raising awareness of the current threat landscape and the complexities of responding to a cyber breach. These workshops were well attended, and more are planned for 2023.

**AIME MENTORING**

Since 2013, AARNet has supported the work of AIME, the Australian Indigenous Mentoring Experience, through the provision of connectivity and Zoom services. AIME is an educational program that matches Aboriginal and Torres Strait Islander high school students with university student mentors to give the Aboriginal and Torres Strait Islander high school students the skills and confidence to finish high school. AIME also connects students with post-Year 12 opportunities, including further education and employment. Our technologies have been vital in enabling AIME to grow to help tens of thousands of high school students across Australia, and to expand globally to help students in other countries, including India, Africa and the United States.



## Developing services to meet the needs of our customers

Along with our network and other telecommunications services, AARNet's expanding portfolio of data, collaboration and cyber security services continued to be embraced by the research and education sector. We are focused on **developing services and solutions** that leverage the network to enable seamless and secure collaboration, **data flow and mobility** for the sector.

### ZOOM

AARNet's successful partnership with Zoom continued during 2022 as universities further embedded Zoom Meetings for synchronous online learning and expanded their investment to include Zoom Phone, Zoom Rooms and Zoom Events. AARNet accepted the invitation to join Zoom's Global Partner Advisory Council, which enhances our advocacy role for Zoom development on behalf of the sector.

Statistically, the total number of Zoom meetings across the Australian research and education institutions monitored by AARNet fell by 20% in 2022 compared to 2021, reflecting the post-pandemic return to campus strategies of several universities. However, Zoom Meeting use overall remained more than 14 times higher than pre-pandemic levels to support the new hybrid working and synchronous learning models. Universities reported that users preferred Zoom for teaching and external collaboration over other commonly available alternatives.

Most universities with AARNet Zoom licences have now transitioned to Zoom's global cloud, which offers a growing range of features, including improved accessibility for all students via fully automated live transcriptions (in multiple languages) and cloud recordings for learning management systems. All AARNet Zoom customers received the additional benefits of our sector-wide visibility of Zoom usage and trends, our education sector expertise and the support of the AARNet collaborative Zoom community.

### EDUROAM

Eduroam (education roaming) is the secure, world-wide roaming Wi-Fi access service developed for the international research and education community. Eduroam provides students, researchers and staff from participating institutions with secure connectivity at thousands of hotspots across more than 100 countries. With the reopening of international borders and campuses, eduroam usage in Australia grew 185% in 2022, compared to 2021 usage. There were 2.5 million eduroam authentications recorded in Australia and a new record was set with 6.4 billion eduroam authentications

recorded globally in 2022. AARNet continued to work with shareholder universities, customers and local councils throughout 2022 to extend access to eduroam beyond campuses in metropolitan and regional areas.

### DIGITAL RESEARCH INFRASTRUCTURE

We are deeply committed to developing and delivering technologies and services that meet the unique and changing needs of the Australian research community as efficiently and effectively as possible, and with the needs of our shareholders – the Australian universities and CSIRO – as our top priority.

#### Globus

Following on from successful trials during 2021, we launched Globus through AARNet in 2022, providing Australian researchers with a robust and security-conscious solution for transferring large-scale research data. Globus is used by researchers at hundreds of universities and research institutions worldwide for solving complex data movement problems. The AARNet offering is competitively priced, leverages the high-bandwidth and low-latency AARNet national and international network for faster data transfers between unlimited endpoints across the network and includes AARNet support for onboarding, integration and training.

#### Galaxy Australia

Through a partnership with the Australian BioCommons, and following many months of preparation and testing, the head node and associated services for Galaxy Australia moved to AARNet in 2022. The AARNet solution provides a long-term high-performing and reliable hosting environment for Galaxy Australia infrastructure, a major web-based processing platform used by over 25K life scientists for conducting accessible, reproducible and transparent computational biological research. The move also allows Galaxy to leverage AARNet's established operational capabilities such as 24/7 monitoring, as well as scale to meet the growing needs of its researcher users.

#### BinderHub

When the Australian Text Analytics Platform (ATAP), an Australian Research Data Commons (ARDC) co-investment project, was looking for a way to make it easier for researchers to create flexible and shareable code repositories, BinderHub was seen as the best solution but complex to set up. ATAP turned to AARNet for technical help

to set up BinderHub on its platform. Building on this work, AARNet and the ARDC collaborated to deploy BinderHub on the ARDC Nectar Research Cloud and commenced working together on making BinderHub part of the new HASS Community Data Lab, which is due to launch in mid-2023.

#### CloudStor

15 years ago, AARNet developed CloudStor to meet a distinct need in the academic space. Researchers were struggling to efficiently share large files and work with one another over the internet. CloudStor filled a considerable gap in the market by providing cloud-based storage, sharing, and collaboration services.

However, now the market looks quite different. Cloud services abound, with lots of large, commercial vendors providing services in this space. Technology has also progressed. CloudStor's underlying software and platform architecture have reached their end of life. Rebuilding the platform to meet the future needs of the sector would require a very substantial investment from AARNet. We calculated that this investment simply is not financially viable for AARNet alone.

Given that researchers now have access to multiple file sharing products, and the lack of viability of carrying CloudStor into AARNet's future, in October 2022 we made the decision to decommission CloudStor at the end of 2023. However, we will continue to offer CloudStor's FileSender capability as a stand-alone service.

### CYBER SECURITY

Malicious cyber threats to network availability and information security are rapidly increasing in the research and education sector. In response, AARNet is building out a portfolio of integrated security services. We are co-developing services with our customers to detect and help them respond to incidents quickly and keep AARNet and our customers' networks and services up and running.

#### Early Warning System

A growing number of customers are taking advantage of the AARNet Early Warning System (EWS), which monitors nominated key online services for customers 24/7, such as public websites and learning management systems. For 24 customers, the system now provides early notification of issues affecting performance of their nominated services and allows both AARNet operations and customer IT teams to respond quickly to incidents impacting network availability.

#### DDoS Protection

By the end of 2022, 48 customers were onboarded to the AARNet DDoS Protection managed service. The solution helps customers manage Distributed Denial of Service attacks (DDoS) and the risk of business disruption. We have developed a system for the research and education sector that efficiently detects, filters and mitigates attacks well before they reach campus networks. Using AARNet's extensive international and domestic network of border routers, real-time traffic analysis and automated application of firewall filters, mitigation of attacks occurs in seconds, significantly faster than most current commercial offerings. Legitimate traffic remained unaffected in 100% of incidents, following its normal route, without limitation or disruption.

#### Security Operations Centre

By the end of 2022, 20 customers were onboarded to the AARNet Security Operations Centre (SOC). AARNet developed the SOC on behalf of our shareholder universities and CSIRO. The SOC is supporting efforts to uplift the security posture and capability of the higher education and research sector. The AARNet SOC has support in place 24/7 to monitor and protect the networks and information of our customers by identifying and responding to threats and compromises. In 2022, the SOC enhanced the automated alerting of threat intelligence shared with and by our various partners in government, industry and the sector.

To stay ahead of technological developments and maintain our best practice approach, the core SIEM (Security Information and Event Management) platform has been scheduled to be replaced in 2023.

#### Cyber Security for Schools

Uptake of AARNet's Cyber Security for Schools service grew in 2022, with 13 schools signed up to the service by the end of December. This service offers AARNet connected schools a portfolio of integrated network and security services to assist with the identification, mitigation, and response to cyber threats. AARNet partners with select vendors to build out a range of security and enforcement capabilities. Notably, the service offers behavioural analytics and reporting tools that provide the visibility to inform a school's duty of care programs.

AARNET  
2022**Cyber Security Partnerships**

AARNET is a founding member of the Australian Cyber Security Centre (ACSC) Cyber Threat Intelligence Sharing (CTIS) program. We assisted with testing the updated CTIS platform and made multiple intelligence contributions which were critical to CTIS's goal of improving the resilience of Australia's digital economy. We were officially recognised by Australian Signals Directorate for our "outstanding contribution" in 2022.

AARNET is an industry participant in the Cyber Security Cooperative Research Centre (CSCRC). The CSCRC connects participants from industry, government, and leading cyber security research organisations (including six universities and CSIRO's Data61) to develop and potentially commercialise products and services that improve Australia's cyber security posture.

AARNET, Jisc (UK), OmniSOC (USA) and CanSSOC (Canada) signed a memorandum of understanding in 2021 for the co-development of a threat sharing capability. Throughout 2022, AARNET shared threat intelligence information from the group with relevant Australian universities for the protection of the Australian higher education and research sector. AARNET and Jisc have also aligned several security operations and engineering development efforts to share learnings across both organisations.

AARNET is a founding member of the Securing the GREN Working Group, a global research and education network (GREN) initiative established in 2020 to facilitate cyber security collaboration amongst member NRENs for creating capabilities that are unique to the global research and education sector. The collaboration is focused on compliance, sharing and capacity building and the group is working toward developing a GREN standard aligned to MANRS.

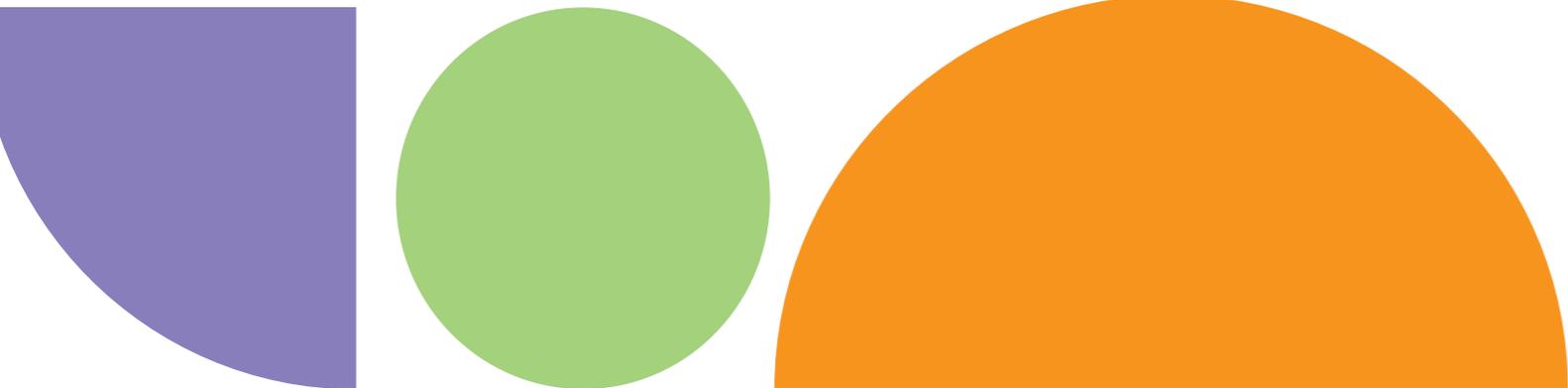
AARNET is a partner with AAF, AUSCERT, CAUDIT and REANNZ in The Australasian Higher Education Cybersecurity Service (AHECS) initiative. The aim of AHECS is to help safeguard the reputation of the Australasian higher education sector through coordinated, complementary cybersecurity-related portfolios of activity. The annual AHECS Summit was held in

November and attracted a sell-out crowd, with a number of representatives and presentations by the AARNET team. The Summit is an exclusive event for cybersecurity professionals within the Australasian higher education and research sector, and offers immense value to participants through presentations, panels, discussions, and the opportunity to connect with peers.

**CUSTOMER SUCCESS**

AARNET's Customer Success team provides advice and technical design and engineering assistance to AARNET customers across the research and education sector. The team is focused on ensuring that the solutions we provide meet the unique needs of our customers and are delivered smoothly. The team also provides ongoing support to ensure our customers are making the most of their AARNET products and services.

Key activities during 2022 included supporting the design and delivery of on-boarding activities for the AARNET SOC; providing advice and support to several Group of Eight universities for deploying diverse connections, cloud connectivity and eduroam; on-boarding schools to the network; conducting direct consulting engagements for eResearch network architecture, IoT networking and cyber security uplift programs; and hosting Zoom Brunch & Learn knowledge sharing sessions with our community.



## Our team

2022 was a year of huge **readjustment** for our workforce as we transitioned to our hybrid working environment and focused on the **opportunities presented** by our newly shaped world.

The AARNet team met these opportunities with enthusiasm and unwavering commitment to excellence and each other, the very qualities that allowed us to successfully weather the previous two years of the pandemic.

### HEADCOUNT AND DIVERSITY

During 2022 our workforce grew by 11% to finish the year with 186 staff members, comprised of 22% female and 78% male. It is pleasing to note that our future leaders slate is comprised of 54% females, which provides for further female representation in management positions in future years. This is positive when compared to the national IT Leadership average of 23% female. Throughout 2022, AARNet facilitated 15 internal promotions, with 33% being female employees, rewarding our top performers with career growth from both a technical and leadership perspective.

### LEADING POLICY PLATFORMS

AARNet continued to develop our market-leading policy position with the introduction of the following paid leave platforms: Birth Trauma Leave; Women's Wellness Leave; Family Wedding Leave; and Qualification Conferral Leave. In 2023, our focus on developing our policies will continue with leave policies to support families, First Nations Australians, and people undergoing gender transition.

### EXCELLENCE IN HR COMPLIANCE

AARNet maintained our strong HR compliance focus in 2022 with a robust industrial position and a bi-annual assessment of such. This solid compliance foundation is critically important to AARNet as we enter 2023, which is expected to be the biggest year of industrial change since the introduction of the Fair Work Act in 2009.

### LEARNING AND DEVELOPMENT

2022 presented the first real opportunity for two years, to start to bring our employees back together in a meaningful way. To this end, we maximised our face-to-face Learning & Development offering, as well as fully utilised our newly developed Learning Management System (LMS). Topics covered throughout 2022 supported AARNet's focus on leadership development, compliance, health and safety, and ESG (Environment, Social and Governance). Topics presented included: Resilience Training – Emerging from Lockdowns; Privacy Compliance; Electrical Safety; First Aid; Security Compliance; Financial Literacy – Living in an Inflationary World; Whistleblower & Modern Slavery; and, Equal Employment Opportunity. In 2023, we will continue to offer both face-to-face and online training, with significant leadership development offerings planned for all employees, and additional targeted offerings for our identified future leaders.

Opposite: The AARNet team came together in person for the first time in 3 years at the AARNeXt Team Summit event held in December 2022.

**R&E COMMUNITY ENGAGEMENT**

Every year AARNet is involved in a broad range of research and education community events: presenting, attending and/or providing sponsorship and network support for conferences, workshops, working groups and forums. In 2022, the AARNet team supported and participated in various national events throughout the year both in-person and online, including, AHECS Cybersecurity Summit, AISA CyberCon, AusCERT Cyber Security Conference, Australian Museum and Galleries Association Conference, Australian Independent Schools NSW ICT Leadership Conference, Australian CIO Summit, CSO Summit, eResearch Australasia Conference, Universities Australia Conference, World Science Festival and others.

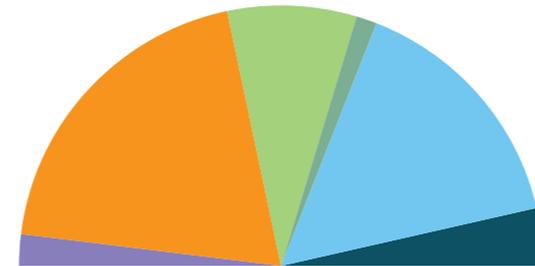
**INTERNATIONAL ENGAGEMENT**

AARNet continued to host and oversee content production for the In The Field website (inthefieldstories.net), a global collaboration for sharing impact stories and promoting the value of research and education networks worldwide. By the end of the year, there were 410 stories published on the site, covering a wide range of topics in the sciences and humanities and featuring 107 networks.

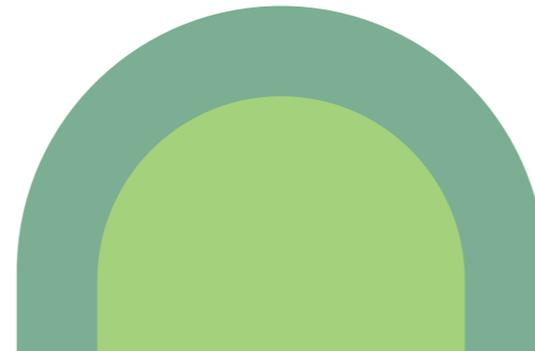
AARNet staff continued to collaborate with their global peers and participated remotely and in person in international projects, working groups, conferences and forums for the benefit of the research and education community. These included Asia Pacific Advanced Network (APAN) meetings, Pacific Telecommunications Council conference, Globus World conference, TNC, Global NREN CEO Forum, GÉANT Marcomms Special Interest Group, Global Researcher Engagement Working Group, GÉANT Research Engagement Development Task Force, GÉANT Education Task Force, Global Network Advancement Group, Securing the GREN Working Group, MANRS, Digital Preservation Society, and others.

AARNET  
2022

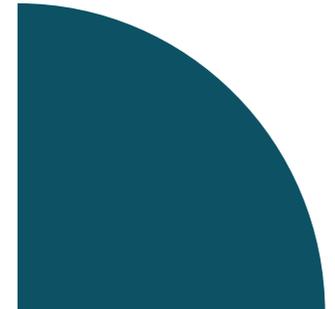
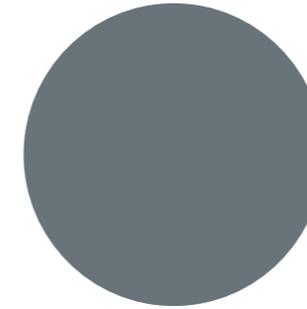
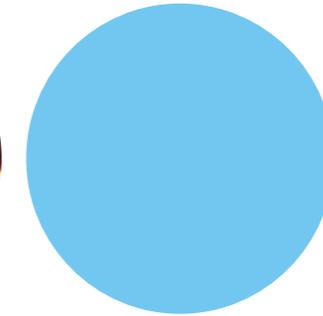
**AARNET STAFF AS AT END OF 2022**



**TOTAL: 186**  
**ACT 7**   **QLD 36**   **VIC 55**  
**NSW 66**   **SA 4**   **WA 18**



**22% FEMALE**  
**78% MALE**



# Corporate governance

AARNET  
2022

## THE ORGANISATION

AARNet Pty Ltd [ACN 084 540 518] is the not-for-profit company that operates the AARNet network, Australia's national research and education network, also known as an NREN.

Shares in AARNet Pty Ltd [AARNet] are held by 38 Australian Universities and the CSIRO as listed on this page.

AARNet is a licensed Australian telecommunications carrier [#61 under the Telecommunications Act 1997 Cth].

The Chief Executive Officer is charged with the efficient and cost-effective operation of the company and reports to the Board of Directors, as listed on the opposite page.

## THE AARNET BOARD OF DIRECTORS

The Board of Directors is responsible for the overall direction and management of AARNet.

For more than 30 years, AARNet and its predecessor have shared and exchanged expertise with shareholders and customers in many ways, supporting national and international collaboration and innovation in networking and associated services for research and education.

AARNet has been effective in making representations to government on policy, legislation, strategy and programs to improve the telecommunications facilities and services available not only to the education and research sector, but to all Australians.

## THE AARNET ADVISORY COMMITTEE

The AARNet Advisory Committee [AAC] represents the interests of the members and is a source of advice on policy and business matters. CSIRO and shareholders in each state elect one representative to the AAC. Members of the AAC are listed on the opposite page.

## LIST OF SHAREHOLDERS

Australian National University  
Commonwealth Scientific and Industrial Research Organisation  
University of Canberra  
Charles Sturt University  
Macquarie University  
Southern Cross University  
The Australian Catholic University  
University of New England  
University of New South Wales  
University of Newcastle  
University of Sydney  
University of Technology, Sydney  
Western Sydney University  
University of Wollongong  
Charles Darwin University  
Bond University  
Central Queensland University  
Griffith University  
James Cook University  
Queensland University of Technology  
University of Queensland  
University of Southern Queensland  
University of the Sunshine Coast  
Flinders University of South Australia  
University of Adelaide  
University of South Australia  
University of Tasmania  
Deakin University  
La Trobe University  
Monash University  
RMIT University  
Swinburne University of Technology  
The University of Melbourne  
Federation University Australia  
Victoria University  
Curtin University  
Edith Cowan University  
Murdoch University  
The University of Western Australia

## BOARD OF DIRECTORS

Emeritus Professor Gerard Sutton AO  
*Chair of the Board and Chair of the Nomination and Remuneration Committee* (retired 25 May 2022)

Emeritus Professor David (Ian) O'Connor AC  
(Appointed Director 25 May 2022)  
*Chair of the Board and Chair of the Nomination and Remuneration Committee*

Dr Christine Burns

Professor Alec Cameron (appointed 30 May 2022)

Mr Robert Fitzpatrick  
*Member of the Audit, Finance and Risk Committee*

Professor Bevil (Barney) Glover AO

Mr Chris Hancock AM  
*Chief Executive Officer*

Professor Brigid Heywood (retired 25 May 2022)

Professor Elanor Huntington (appointed 21 February 2022)

Mr Anthony Molinia (appointed 20 June 2022)

Ms Fiona Rankin (retired 25 May 2022)

Mr John Rohan  
*Deputy Chair of the Board, Chair of the Audit, Finance and Risk Committee and member of the Nomination and Remuneration Committee*

Mr Scott Sorley

Professor Deborah Terry AO

Emeritus Professor Mark Wainwright AM  
*Member of the Audit, Finance and Risk Committee and the Nomination and Remuneration Committee*

## AARNET ADVISORY COMMITTEE

Chair: Mr Scott Sorley – QLD, University of Southern Queensland

Mr Chris Hancock AM – AARNet CEO

Mr Malcolm Caldwell – NT, Charles Darwin University

Mr Adrian Dillon – TAS, University of Tasmania

Mr Vito Forte – WA, Edith Cowan University

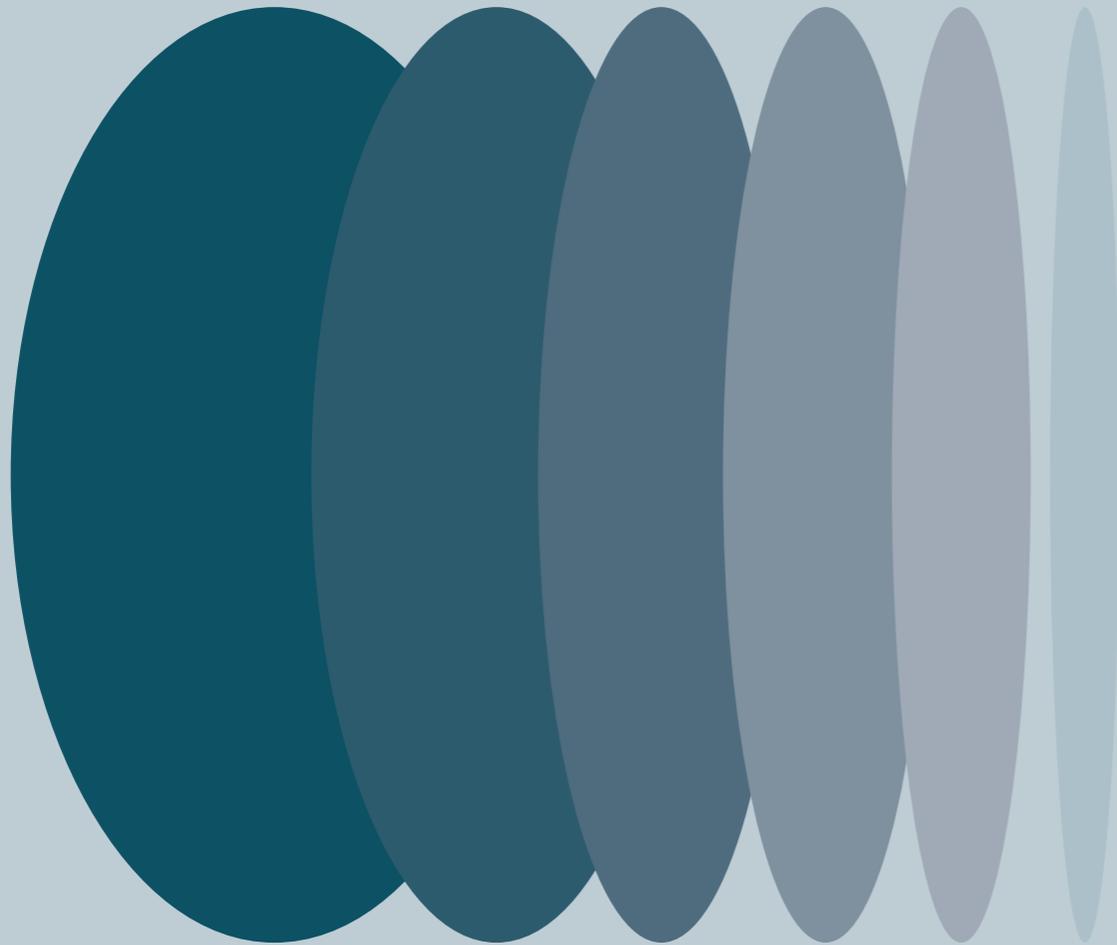
Mr Mark Griffith – NSW, University of New South Wales

Mr Luke Havelberg – SA, Flinders University

Mr Tom Minchin – CSIRO

Mr Craig Warren – VIC, Deakin University  
(appointed February 2022)





## Spotlight

Connecting a new underground dark matter detector, transforming classrooms for hybrid learning, staying connected despite devastating floods, and supporting First Nations research and knowledge. Here's a closer look at some of the interesting projects, partnerships and research enabled by AARNet's powerful network infrastructure and services.

To read more stories, go to  
[aarnet.edu.au/news-events](https://aarnet.edu.au/news-events)



Above: University of Melbourne PhD student Madeleine Zurowski with lead researcher Professor Elisabetta Barberio in the Stawell Underground Physics Lab. Image: Olivia Gumienny.

AARNET  
2022



## Connecting the first dark matter detector in the Southern Hemisphere

**AARNet connects** scientific instruments and research facilities across Australia, extending the **network infrastructure** to new sites, such as the laboratory that is set to be the **epicentre of data matter research**.

In August 2022, the Stawell Underground Physics Laboratory (SUPL), a cutting-edge research facility located near the town of Stawell in regional Victoria, was officially unveiled to the world. The laboratory is situated about 230 kilometres northwest of Melbourne and is built in an old gold mine that has been transformed into a state-of-the-art underground research facility. SUPL is operated by a consortium of universities (University of Melbourne, University of Adelaide, Swinburne University, Australian National University) and Australian Nuclear Science and Technology Organisation (ANSTO).

AARNet built fibre out to the site to provide the underground laboratory with the scalable high-bandwidth network it needs for conducting research in the data-intensive field of underground physics. Network services are built to easily scale to 100Gbps and beyond to support the laboratory's research now and into the future.

Research at SUPL is primarily focused on the search for rare events as a possible signal of dark particles that are difficult to detect above ground. The laboratory is located at a depth of approximately 1,000 metres below the surface, which helps to shield it from cosmic ray background radiation that can interfere with sensitive experiments.

The laboratory is equipped with a range of specialised equipment, including detectors that can detect and measure low-energy particles such as neutrinos and dark matter. These detectors are housed in specially designed shielding

systems that protect them from environmental sources of background radiation.

In the future, SUPL may host a range of research projects, including the study of neutrinos and the decay of radioactive isotopes. These experiments are aimed at understanding the fundamental properties of matter and the universe and have the potential to make important contributions to a range of fields, including particle physics, astrophysics, and cosmology.

One of the key research programs at the SUPL is the SABRE (Sodium Iodide with Active Background Rejection Experiment) experiment, which aims to detect dark matter particles using highly sensitive detectors. The experiment is a collaboration between the University of Melbourne, University of Adelaide, Swinburne University, Australian National University, the Italian National Institute for Nuclear Physics, and the University of Zaragoza in Spain. These institutions all rely on the powerful research and education networks in their respective countries for moving data around, namely AARNet (Australia), GARR (Italy) and RedIRIS (Spain).

With its advanced research network, cutting-edge equipment and expert researchers, as well as the support of the site owner Stawell Gold Mines, the Stawell Underground Physics Laboratory is well-positioned to make significant contributions to the understanding of the fundamental properties of matter and the universe.



## Staying connected through adversity

When **record floods** inundated the city of Lismore in northern NSW, Southern Cross University became a hub for the town, providing **connectivity for recovery efforts** and giving a new life to Trinity Catholic College

In February 2022, Lismore in north-eastern New South Wales endured four days of torrential rain, which caused devastating floods that eclipsed previous records and severely impacted the town.

Southern Cross University (SCU), located in an elevated area of Lismore, volunteered to be the central hub for Lismore residents, businesses, essential services and organisations participating in recovery efforts. To operate as the hub, SCU had to stay online. The University's primary network link went down when the floods hit, and it was almost knocked completely offline when its secondary link was impacted by rolling power outages. However, working in collaboration with AARNet and other infrastructure providers, and with diverse AARNet connectivity options available, SCU was able to maintain active network and internet connections and start setting up an evacuation centre. Lismore residents, Queensland Police, State Emergency Service, Australian Defence Force, banks, medical facilities, and multiple schools relied on the internet connection SCU provided using the AARNet network to get back online.

SCU also offered space to Trinity Catholic College Lismore, one of the largest schools in the region. The flood waters wiped out classrooms, on-site IT infrastructure and network connectivity across Trinity's two campuses. In the days that followed the disaster, with the Learning Management System (LMS) housed on campus systems lost under floodwater and the personal lives of so many students and staff affected, teaching and learning was put on hold until a way to get the school up and running again could be found. SCU came to the rescue, offering Trinity space on its Lismore campus, and a week after the flood peak, Trinity had classrooms set up and classes were back underway.

The AARNet and SCU teams worked closely with the Trinity ICT team to deploy an internet connection as quickly as possible so that the students could start learning again. It was vital for Trinity to have as little downtime as possible during this time, particularly for the older students studying for the Higher School Certificate.

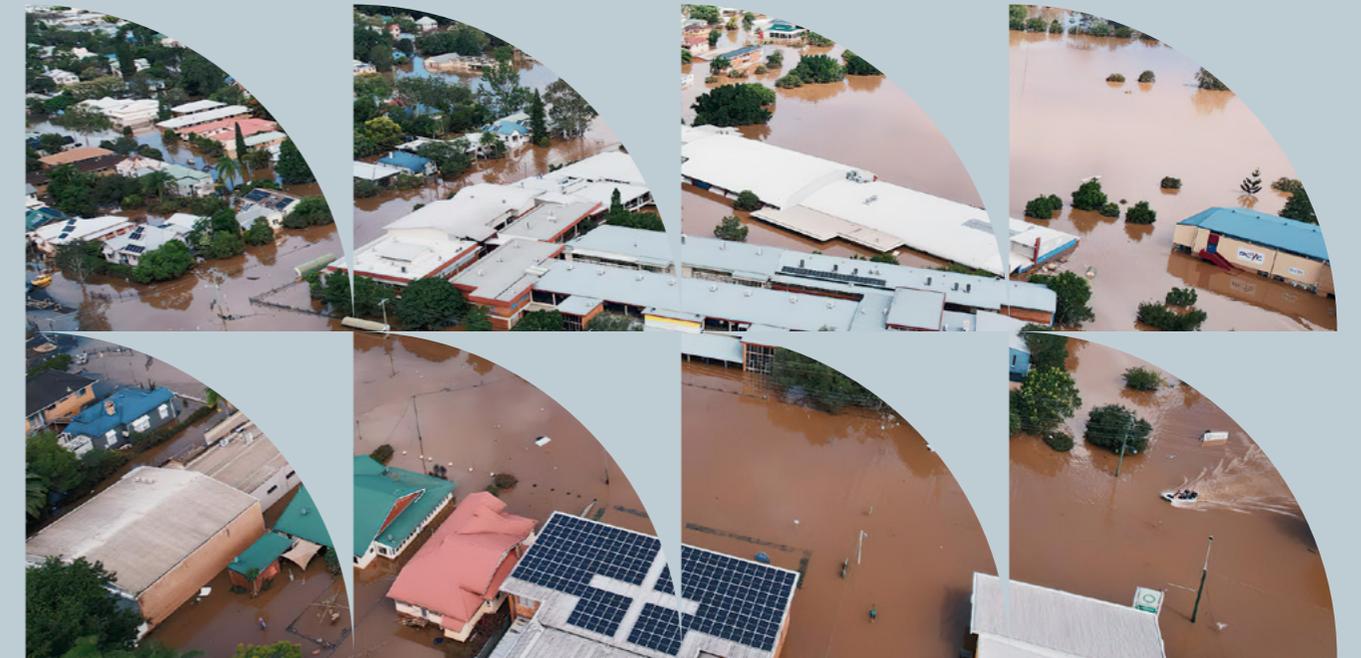
Trinity was given access to the SCU data centre and its ICT team quickly got the LMS and internal IT infrastructure back online using SCU's AARNet network connection. Trinity then brought students onto the campus in a reduced capacity, as the allocated space only allowed about half the school to be at the campus at any one time. Using the online learning systems they had developed a few years earlier due to the COVID-19 pandemic and lockdowns, Trinity was able to implement a rotating schedule, with half the school on site and half the school learning from home.

AARNet later deployed a dedicated 1Gbps network connection for Trinity, giving the College oversight of its own network and independence from SCU infrastructure. To cater for the Trinity's growing connectivity requirements, a 10Gbps AARNet connection is slated for deployment in early 2023.

Relocating the College to a university campus came with challenges and opportunities. As the campus is an open environment without any defined boundaries, it took a lot of planning to make the site work as a school with pick-up areas for parents, bus stops to shuttle students to and from

the campus and facilities for specialist classes. But to counter those challenges, the SCU location has provided Trinity students with invaluable access to university infrastructure and collaboration opportunities with academics, which will allow them to prepare for tertiary education in ways that were unavailable before.

On the SCU campus, from the start of term two in 2023, the entire school will be located at one site for the first time. This is something Trinity has been striving to achieve for a long time, as teachers and students have always had to travel between the school's multiple locations throughout the day. Trinity will remain at the SCU campus until decisions about its ultimate location are finalised.



Above: Floodwaters inundated the Trinity Catholic College campus in Lismore in February 2022. Image: Trinity Catholic College.



AARNET  
2022



## Providing a traditional university experience through technology

Ahead of the curve, the **University of Tasmania** fast tracked the transformation of all its physical classrooms and meeting spaces to accommodate a future where **hybrid learning** is the norm.

During the pandemic, the University of Tasmania (UTAS) had to rethink how to continue classes through lockdowns, and AARNet's Zoom services delivered the virtual solution UTAS required. The pandemic also provided UTAS with a rare opportunity to accelerate the upgrade of outdated classroom and meeting spaces by deploying AARNet's Zoom services across the university to enable synchronous, off-campus engagement with remote students and staff all the time.

Brad Boron, Manager of Unified Communications at UTAS, says expanding the use of AARNet's Zoom services and borrowing concepts and ideas shared in the AARNet Zoom community allowed his team to streamline the refresh of facilities. "The simplicity of our Zoom Room designs allowed us to scale up quickly and easily, updating more of our existing facilities within the same allocated budget and timeframe, but at a lower overall cost," he said.

Boron and his team worked closely with the UTAS academic division to ensure that the facilities were inclusive of both remote and on-campus students. It was imperative that the students joining classes virtually from off campus and those in the on-campus classroom all have an equal opportunity to contribute. Leveraging its connection to the high-speed AARNet network, the University offers a seamless experience for both remote and on-site students through Zoom-enabled classes across its campuses.

A key requirement for UTAS was to be able to provide a traditional university experience regardless of whether students are in the same room or remote, so that teachers could feel comfortable using these spaces to deliver their classes. Zoom features such as session recordings, tracking cameras, wireless presentation, chat, hand up, and giving teachers clear visibility of the online audience through optimised room layouts helped to achieve this. These seemingly minor additions allow teachers to work in the way they are accustomed to while students participating via Zoom can see what is going on in the classroom.

With Zoom now deployed in all the classrooms and meeting rooms, UTAS has cut down the number of room technologies from dozens to a handful. This increased consistency in the rooms across all campuses, coupled with training, has also given teaching staff the confidence to design course content that takes advantage of the available technology.

With hybrid learning here to stay, the Zoom services provided by AARNet are as critical to UTAS now as they were during lockdowns. Students can attend classes remotely and teachers can deliver a high-quality learning experience to all regardless of anyone's physical location.

Opposite: Updated classrooms and meeting spaces on campus.  
Images: University of Tasmania



# AARNet Pty Ltd Financial Report and Directors' Report 2022

for the year ended 31 December 2022  
ABN 54 084 540 518





## DIRECTORS' REPORT

Your Directors present their report on the Company, AARNet Pty Limited ("AARNet"), for the year ended 31 December 2022.

The following persons were Directors of AARNet during the whole of the financial year and up to the date of this report:

### Dr Christine Burns

### Mr Robert Fitzpatrick

Member of the Audit, Finance and Risk Committee

### Professor Bevil (Barney) Glover AO

### Mr Chris Hancock AM

Chief Executive Officer

### Mr John Rohan

Deputy Chair of the Board, Chair of the Audit, Finance and Risk Committee and member of the Nomination and Remuneration Committee

### Mr Scott Sorley

### Professor Deborah Terry AO

### Emeritus Professor Mark Wainwright AM

Member of the Audit, Finance and Risk Committee and the Nomination and Remuneration Committee

**Emeritus Professor Gerard Sutton AO** was a director and Chair of the Board and Chair of the Nomination and Remuneration Committee from the commencement of the financial year until his retirement on 25 May 2022.

**Emeritus Professor David (Ian) O'Connor AC** was appointed as a director on 25 May 2022 and subsequently as Chair of the Board and Chair of the Nomination and Remuneration Committee and remains a director at the date of this report.

**Professor Alexander Cameron** was appointed as a director on 30 May 2022 and remains a director at the date of this report.

**Professor Elanor Huntington** was appointed as a director on 21 February 2022 and remains a director at the date of this report.

**Professor Brigid Heywood** was a director from the commencement of the financial year until her resignation on 25 May 2022.

**Mr Anthony Molinia** was appointed as a director on 20 June 2022 and remains a director at the date of this report.

**Ms Fiona Rankin** was a director from the commencement of the financial year until her retirement on 25 May 2022.

## PRINCIPAL ACTIVITIES

AARNet is a proprietary company in which 38 Australian universities and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) have an equal shareholding.

AARNet is also a not-for-profit company registered as a charity with the Australian Charities and Not-for-Profits Commission (ACNC). Charities exist to pursue a charitable purpose. AARNet's purpose can be summarised as advancing education and research through supporting the education and research activities of its shareholders ("Members"), and others, by providing telecommunications and associated services.

AARNet's principal activity is therefore the provision of internet and advanced telecommunication and network services to its Members and to other relevant organisations. Services are provided in accordance with the AARNet Access Policy in order that Members and other customers may:

- use AARNet's internet and other telecommunications facilities and services to provide educational programs and conduct research activities in an efficient and cost effective manner, and
- collaborate with other parties (nationally and internationally) in furtherance of research and education objectives.

## OTHER ACTIVITIES

In addition, AARNet:

- facilitates the construction of optical fibre infrastructure to extend the AARNet backbone and to connect campuses and other locations to facilitate services for Members and customers;
- provides applications and services which operate across the AARNet network supporting education and research activities;
- secures those applications and services operating across the AARNet network through a Security Operations Centre and additional cyber security-related applications and services;
- monitors Member's equipment and infrastructure on campuses and other premises to identify and alert Members to potential cyber attacks or potential cyber threats allowing the Member to take early action to prevent, close down or mitigate cyber risks;
- participates in the design and deployment of advanced network infrastructure in partnership with network organisations in Australia and internationally, to develop national and global research and education networks; and

- makes representations to all levels of government on policy, legislation and programs to improve the telecommunications facilities and services available to its Members and other costumers.

## DIVIDENDS

AARNet's constitution prohibits the payment of dividends or other distributions to its shareholders. Accordingly, no dividends have been paid, declared or recommended either during the financial year or in the period since that year ended (2021: nil).

## REVIEW OF OPERATIONS

AARNet has a surplus in 2022 of \$622,742 (2021: net deficit of \$1,131,109 after restatement).

### Network Performance

Throughout 2022 AARNet's network continued to perform at consistently high levels while carrying increasing volumes of traffic for Members and other customers. Despite flood events in northern New South Wales disrupting some services early in the year, the average network availability for 2022 was 99.99%, which was the same as the level achieved in 2021.

This exceptionally high level of reliability is achieved over the vast geographic footprint of our infrastructure through our strategic long-term planning and carefully designed network redundancy. Diversity and triversity in network design and equipment enables our operations team to deploy alternate paths and minimise the impact of outages on AARNet customers.

Member telecommunications traffic in 2022 grew 22% higher than 2021 and Non-Member traffic growth was 18%.

### Network Expansion

During 2022 AARNet continued to invest to upgrade the capacity of the AARNet network and to expand the geographic reach of the network's fibre footprint.

Overall spending on communication assets (including network infrastructure and equipment) was \$25,740,947 during the year (2021: \$26,465,793 after restatement) (refer to note 23 of the financial statements).

This investment reflected the continued investment in AARNet's domestic fibre footprint.

## Subscriptions and Telecommunications Revenues

AARNet's Members pay subscription and related fees for connection to the network and carriage of data across the network (to research and education facilities in Australia, international research and education networks, and the general internet). These charges form the largest single component of AARNet's revenues.

During 2022, Members' subscription and related charges were in line with 2021 revenues, despite the growth in Members' traffic discussed above.

	2022	2021	Increase
	\$	\$	
Members: Subscription, Traffic and Access	41,273,232	40,986,055	0.7%
Non-Members: Subscription, Traffic and Access	13,959,269	14,192,814	(1.6%)
Other Services	29,761,061	24,519,362	21.4%
Telecommunications Revenue	84,993,562	79,698,231	6.6%

### Other Services

In the category "Other Services" shown above, AARNet offers a range of other services to Members and other customers. Broadly, these services fall into three categories:

- transmission services providing point-to-point capacity: these enable Members and customers to link together geographically diverse campuses, research centres and remote research instruments; or to provide dedicated high-speed capacity between user facilities and third party data centres; and
- above the network services which directly support the delivery of education and research outcomes (including Zoom, a video conference/meeting service offered in conjunction with Zoom Inc, and Cloudstor, a service which is optimised for the storage and sharing of research data sets).
- Cyber security-related applications and services; predominately the AARNet Security Operations Centre.

Revenue from these other services increased by 21.4% during 2022. The main factor in this increase was growth in revenues from the Security Operations Centre.

Overall, subscriptions and service revenues increased by 6.6% from 2021, as shown in the table above.

## Infrastructure Revenues

Infrastructure establishment fees (income from the provision of new fibre infrastructure) grew by 13.7% in 2022 reflecting the value of infrastructure projects completed and brought into service.

	2022 \$	2021 \$ (Restated)	Increase
Infrastructure Establishment Fees	9,732,838	8,563,206	13.7%
Infrastructure Construction Revenue	3,788,050	1,370,055	176.5%
	13,520,888	9,933,261	36.1%

Revenues from infrastructure construction and allied activities (such as services to relocate infrastructure) were 176.5% higher in 2022 than 2021. This income stream is very reactive to the impact of activity by utility providers, other telecommunications carriers and civil infrastructure projects (such as transport projects) and income can vary significantly from year to year.

AARNet restated its Infrastructure Establishment Fees for 2021 to reflect additional "Significant Financing" Interest Revenue under AASB 15 relating to contributions from customers. Refer to note 31 of the financial statements for more information on the restatement of our 2021 financial results.

## Other Income

In addition to revenues from the provision of telecommunications services and infrastructure, AARNet also gains income from interest and dividends on invested funds. In 2022, this investment income totalled \$5,483,199 (2021: \$6,626,317) (see note 10 to the financial statements). The lower result reflects the global slowdown in the economy and its impact on financial markets.

## Telecommunication Supply Expenses

Telecommunication supply expenses totalled \$32,806,473 in 2022 compared with \$34,589,853 in the 2021 financial result.

The 2021 result includes AARNet's decision last year to accelerate \$4.1m in prepaid expenditure related to a fibre cable owned by a company placed into receivership. Excluding the \$4.1m, telecommunication supply costs have increased year-on-year in line with increases in traffic and capacity on the AARNet network and the rising supply costs for transmission, duct rental and maintenance.

## Employee and Administration Costs

To support the growth of our network and services, AARNet continues to add staff to its infrastructure development and cyber security teams.

## Depreciation and Amortisation Charges

Depreciation and Amortisation charges, inclusive of depreciation on equipment, depreciation on infrastructure and amortisation of Indefeasible Rights to Use (IRUs) totalled \$19,046,864 in 2022 compared to \$19,145,188 in 2021.

## Other Expenses (including Finance Costs)

These costs of \$3,639,176 are higher than 2021 (\$2,539,661 after restatement) mainly due to higher "Significant Financing" expenditure. AARNet restated its Significant Financing Interest Expense for 2021 to reflect additional expense under AASB 15 relating to contributions from customers. Refer to note 31 of the financial statements for more information on the restatement of our 2021 financial results.

## ACCUMULATED SURPLUS AND RESERVES

In 2022, AARNet recorded a net surplus of \$622,742 (2021 restated: net loss of \$1,131,109).

Surpluses earned in prior years, aided by conservative financial management, have enabled AARNet to come through the COVID-19 pandemic and subsequent economic slowdown with a significant holding of cash and investments (net \$75,446,271 at the end of 2022.)

Surpluses earned by AARNet cannot (by virtue of the terms of AARNet's constitution) be distributed to the shareholders.

In the Board's view, and in line with the company's long range plans, it is prudent for AARNet to generate a surplus in order that investments in network capability and services may be funded without calling on Members to contribute further equity into the company.

Investments in network capability and services are expected to continue into future years to:

- finance investments in technology to enhance the delivery of services to Members and other customers;
- supplement Members' subscriptions and other income in future years;
- meet obligations to settle lease liabilities which totalled \$48.8m at year end as shown in note 8(i) to the financial statements; and
- defray part of the significant financial commitments in respect of expenditure and capital commitments which, at year end, were \$60,211,392, refer to note 2(a) to the financial statements.

## NET ASSETS

Net assets at 31 December 2022 were \$217,586,979 (2021 restated: \$216,964,236). The increase represents the net surplus after other comprehensive income for 2022.

## SIGNIFICANT CHANGES IN THE STATE OF AFFAIRS

Except for the matters discussed under the heading "Review of Operations" there were no significant changes in the Company's state of affairs during the financial year ended 31 December 2022.

## MATTERS SUBSEQUENT TO THE END OF THE FINANCIAL YEAR

Except for matters discussed under the heading "Review of Operations" no other matter or circumstance has arisen since 31 December 2022 that has significantly affected or may significantly affect:

- AARNet's operations in future years;
- the results of those operations in future financial years; or
- AARNet's state of affairs in future financial years.

## LIKELY DEVELOPMENTS AND EXPECTED RESULTS OF OPERATIONS

AARNet expects network traffic will continue to grow during 2023. In addition, investment in AARNet's domestic fibre network will continue during 2023.

AARNet also expects to continue receiving contributions from Members and others toward the cost of constructing network infrastructure. Consequently, during 2023 AARNet expects it will need to recognise further 'Significant Financing' non-cash costs as required by AASB15.

AARNet also expects to generate increasing revenues and incur additional costs in relation to the provision of further cyber security services to Members and other customers.

## ENVIRONMENTAL REGULATION

AARNet's operations are not adversely affected by any significant environmental regulation. AARNet believes its greenhouse gas emissions are substantially below the thresholds that are subject to the reporting requirements of either the *Energy Efficiency Operations Act 2006* and the *National Greenhouse and Energy Reporting Act 2007*.

## INSURANCE FOR OFFICERS

During the financial year, AARNet paid a premium of \$82,252 (2021: \$80,385) in respect of liability insurance for the Company's Directors and Officers. The liabilities insured against are costs and expenses that may be incurred in defending civil or criminal proceedings that may be brought against the Directors and Officers in their capacity as Directors and Officers of AARNet, and any other payments arising

from liabilities incurred by the Officers in connection with such proceedings, other than where such liabilities arise out of conduct involving a wilful breach of duty by the Directors or Officers or the improper use by the Directors or Officers of their position or of information to gain advantage for themselves or someone else or to cause detriment to AARNet. It is not possible to apportion the premium between amounts relating to the insurance against legal costs and those relating to other liabilities.

No known liability has arisen under these indemnities to the date of this report.

## AGREEMENT TO INDEMNIFY OFFICERS

Under the terms of its Constitution, AARNet provides indemnity to persons who are, or have been, an officer or auditor of AARNet, but only to the extent permitted by law and to the extent that the officer or auditor is not indemnified by Directors' and Officers' liability insurance maintained by AARNet. The indemnity is against liability incurred by that person as an officer or auditor of AARNet to another person and for costs and expenses incurred by the officer or auditor in defending such proceedings.

Separately, AARNet and each director of AARNet have entered into a Deed of Indemnity under which AARNet indemnifies each director against any liability:

- to a third party (that is, other than to AARNet) unless the liability arises out of conduct involving a lack of good faith; and
- for legal costs incurred in successfully defending civil or criminal proceedings or in connection with proceedings in which relief is granted under the Corporations Act 2001.

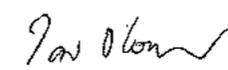
No known liability has arisen under these indemnities as at the date of this report.

## AUDITOR

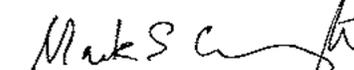
A copy of the Auditor's Independence Declaration as required under s.60-40 of the Australian Charities and Not-for-profits Commission Act 2012 is included on page 6 of this financial report.

PricewaterhouseCoopers continues in office in accordance with section 327 of the Corporations Act 2001.

This report is made in accordance with a resolution of Directors.



Emeritus Professor D I O'Connor AC  
Director  
Sydney  
31<sup>st</sup> March 2023



Emeritus Professor M S Wainwright AM  
Director



### Auditor's Independence Declaration

As lead auditor for the audit of AARNet Pty Ltd for the year ended 31 December 2022, I declare that to the best of my knowledge and belief, there have been no contraventions of any applicable code of professional conduct in relation to the audit.

Scott Walsh  
Partner  
PricewaterhouseCoopers

Sydney  
31 March 2023

PricewaterhouseCoopers, ABN 52 780 433 757  
One International Towers Sydney, Watermans Quay, Barangaroo, GPO BOX 2650, SYDNEY NSW 2001  
T: +61 2 8266 0000, F: +61 2 8266 9999, www.pwc.com.au  
Level 11, 1PSQ, 169 Macquarie Street, Parramatta NSW 2150, PO Box 1155 Parramatta NSW 2124  
T: +61 2 9659 2476, F: +61 2 8266 9999, www.pwc.com.au

Liability limited by a scheme approved under Professional Standards Legislation.

### STATEMENT OF PROFIT AND LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2022

	Notes	2022 \$	2021 \$ (Restated)
Services revenue	9	98,514,450	89,631,492
Other income	10	5,483,199	6,626,317
Grants and contributions received	10	508,032	260,000
<b>Total revenue</b>		<b>104,505,681</b>	<b>96,517,809</b>
Telecommunications supply expenses		(32,806,473)	(34,589,853)
Depreciation, amortisation and impairment - Telecommunications	11	(13,459,125)	(12,007,226)
Employee benefits expense - Telecommunications		(28,408,521)	(24,133,445)
Other administration - Telecommunications		(10,500,409)	(9,883,812)
Infrastructure construction expenses		(4,848,724)	(3,238,562)
Depreciation and amortisation - Infrastructure	11	(5,587,740)	(7,137,962)
Employee benefits expense - Infrastructure		(3,622,704)	(3,200,834)
Other administration - Infrastructure		(998,712)	(917,562)
Other expenses (including finance costs)	11	(3,639,176)	(2,539,661)
<b>Total expenses</b>		<b>(103,871,584)</b>	<b>(97,648,918)</b>
<b>Net (deficit) surplus</b>		<b>634,097</b>	<b>(1,131,109)</b>
<b>Other comprehensive income</b>			
Movement in the fair value of financial assets		(11,355)	-
<b>Total comprehensive (deficit) surplus for the year</b>		<b>622,742</b>	<b>(1,131,109)</b>

The above Statement of profit and loss and other comprehensive income should be read in conjunction with the accompanying notes.

## BALANCE SHEET

	Notes	31 December 2022 \$	31 December 2021 \$ (Restated)
<b>ASSETS</b>			
<b>Current assets</b>			
Cash and cash equivalents	12	16,650,829	15,665,807
Trade and other receivables	14	22,753,557	19,091,048
Financial assets at fair value through profit or loss	17	1,005,250	1,005,670
Financial instruments at amortised cost	18	6,000,000	10,007,041
Accrued income	15	496,098	578,704
Derivative financial instruments		288,655	129,420
<b>Total current assets</b>		<b>47,194,389</b>	<b>46,477,690</b>
<b>Non-current assets</b>			
Financial instruments at amortised cost	19	23,923,472	26,465,477
Financial assets at fair value through profit and loss	20	24,877,100	32,899,844
Financial assets at fair value through other comprehensive income	21	2,989,620	-
Receivables and other assets	22	43,438,511	39,870,561
Property, plant and equipment	23	271,215,203	254,823,464
Intangible Assets	24	571,969	984,570
Derivative financial instruments		36,756	25,382
<b>Total non-current assets</b>		<b>367,052,631</b>	<b>355,069,298</b>
<b>Total assets</b>		<b>414,247,020</b>	<b>401,546,988</b>
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Trade and other payables	3	13,971,217	8,147,867
Income in advance	4	18,461,044	20,601,076
Provisions	6	9,283,853	8,047,032
Lease liabilities	8	2,892,096	3,357,847
Other liabilities		300,949	179,484
Derivative financial instruments		-	55,746
<b>Total current liabilities</b>		<b>44,909,159</b>	<b>40,389,052</b>
<b>Non-current liabilities</b>			
Income in advance	5	104,846,468	97,568,508
Provisions	7	977,315	959,155
Lease liabilities	8	45,927,099	45,666,037
<b>Total non-current liabilities</b>		<b>151,750,882</b>	<b>144,193,700</b>
<b>Total liabilities</b>		<b>196,660,041</b>	<b>184,582,752</b>
<b>Net assets</b>		<b>217,586,979</b>	<b>216,964,236</b>
<b>EQUITY</b>			
Contributed equity	25	39,039	39,039
Reserve (accumulated unrealised gain/loss on investments)	26	(11,355)	-
Retained earnings	26	217,559,295	216,925,197
<b>Capital and reserves attributable to members of AARNet Pty Ltd</b>		<b>217,586,979</b>	<b>216,964,236</b>
<b>Total equity</b>		<b>217,586,979</b>	<b>216,964,236</b>

The above Balance sheet should be read in conjunction with the accompanying notes.

## STATEMENT OF CHANGES IN EQUITY

	31 December 2022 \$	31 December 2021 \$ (Restated)
<b>Total equity at the beginning of the financial year (As originally presented)</b>	<b>216,964,236</b>	<b>218,720,603</b>
Restatement amounts (as presented in Note 31)	-	(625,258)
<b>Total equity at the beginning of the financial year (Restated)</b>	<b>(216,964,236)</b>	<b>(218,095,345)</b>
Net (deficit) surplus for the year	634,097	(1,131,109)
<b>Other comprehensive income</b>		
Changes in financial assets at fair value, net of tax	(11,355)	-
<b>Total equity at the end of the financial year</b>	<b>217,586,979</b>	<b>216,964,236</b>

The above statement of changes in equity should be read in conjunction with the accompanying notes.

## STATEMENT OF CASH FLOWS

	Notes	31 December 2022 \$	31 December 2021 \$ (Restated)
<b>Cash flows from operating activities</b>			
Receipts from members and customers (inclusive of goods and ser-vices tax)		112,269,866	111,557,869
Payments to suppliers and employees (inclusive of goods and services tax)		(86,679,636)	(75,047,050)
Interest received		1,054,161	182,539
Interest payment on leases		(3,101,490)	(3,083,307)
<b>Net cash inflow from operating activities</b>	13	<b>23,542,901</b>	<b>33,610,051</b>
<b>Cash flows from investing activities</b>			
Payments for property, plant and equipment		(30,942,958)	(35,555,978)
Payments for intangible assets		(57,153)	(476,509)
Payments for financial assets at fair value through profit and loss		(2,033,260)	(11,089,397)
Payments for financial instruments at amortised cost		(4,992,482)	(18,426,469)
Proceeds from sale of financial assets at fair value through profit and loss		6,143,212	2,794,685
Proceeds from financial instruments at amortised cost		11,472,261	20,124,435
Dividends received		801,829	587,873
<b>Net cash outflow from investing activities</b>		<b>(19,608,551)</b>	<b>(42,041,360)</b>
<b>Cash flows from financing activities</b>			
Principal elements of lease payments		(2,949,328)	(3,064,531)
<b>Net cash (outflow) from financing activities</b>		<b>(2,949,328)</b>	<b>(3,064,531)</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>985,022</b>	<b>(11,495,840)</b>
Cash and cash equivalents at the beginning of the financial year		15,665,807	27,161,647
<b>Cash and cash equivalents at end of year</b>	12	<b>16,650,829</b>	<b>15,665,807</b>

The above Statement of Cash Flows should be read in conjunction with the accompanying notes.

STATEMENT OF CHANGES IN EQUITY / CASH FLOWS

## NOTES TO THE FINANCIAL STATEMENTS

### 1. BASIS OF PREPARATION

These general purpose financial statements have been prepared in accordance with Australian Accounting Standards and interpretations issued by the Australian Accounting Standards Board and the Australian Charities and Not-for-profits Commission Act 2012. AARNet Pty Ltd is domiciled in Australia and is a not-for-profit entity for the purpose of preparing the financial statements. The registered address of AARNet Pty Ltd is Tower A, Level 7, 799 Pacific Highway, Chatswood, NSW, 2067.

The consolidated financial statements of AARNet Pty Ltd comply with Australian Accounting Standards - Simplified Disclosures as issued by the Australian Accounting Standards Board (AASB).

#### Going concern

The Company has net current assets of \$2,285,230 as at 31 December 2022 (2021 Restated: net current assets of \$6,088,638) and incurred a surplus of \$622,742 for the year ended 31 December 2022 (2021 Restated: deficit of \$1,131,109). Included within current liabilities is income in advance of \$18,461,044 (2021 Restated: \$20,601,076) which is not expected to be cash settled. Accordingly, the directors are of the opinion that the Company will be able to pay its debts as and when they become due and payable and have prepared the financial report on a going concern basis.

#### Historical cost convention

The financial statements have been prepared on a historical cost basis, except for the following: financial assets at fair value through Profit and Loss Statement, financial assets at fair value through other comprehensive income, financial assets and liabilities.

#### Income tax

AARNet is exempt from income tax under Section 50-5 of the Income Tax Assessment Act 1997 and therefore, no provision for income tax is included in these financial statements.

### 2. COMMITMENTS AND CONTINGENCIES

(a) Expenditure and capital commitments

	31 December 2022	31 December 2021
	\$	\$
Within one year	19,858,862	6,762,460
Later than one year but not later than five years	9,528,596	8,018,298
Later than five years	30,823,935	30,852,925
	<b>60,211,392</b>	<b>45,633,683</b>

(b) Contingent Liabilities

AARNet's bankers have issued bank guarantees in favour of the Company's landlords and a third-party contractor with total face value of \$1,057,821 (2021: \$1,037,889)

### 3. CURRENT LIABILITIES – TRADE AND OTHER PAYABLES

	31 December 2022	31 December 2021
	\$	\$
<b>Current liabilities</b>		
Trade payables	10,974,259	5,012,598
Other payables	2,996,958	3,135,269
	<b>13,971,217</b>	<b>8,147,867</b>

Trade payables and accruals are expected to be paid within 30 days.

These amounts represent liabilities for goods and services provided to AARNet prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

#### Accounting Policy

The fair value of financial liabilities is estimated by discounting the future contractual cash flows at the current market interest rate that is available to AARNet for similar financial instruments.

### 4. CURRENT LIABILITIES - INCOME IN ADVANCE

	31 December 2022	31 December 2021
	\$	\$ (Restated)
Infrastructure establishment fees	8,812,317	9,500,229
Other deferred income	803,242	803,242
Infrastructure service fees	7,666,039	7,092,857
Subscriptions	1,179,446	3,204,748
	<b>18,461,044</b>	<b>20,601,076</b>

#### Accounting Policy

The Accounting Policy for Income in Advance is described in note 9.

### 5. NON-CURRENT LIABILITIES - INCOME IN ADVANCE

	31 December 2022	31 December 2021
	\$	\$
Infrastructure establishment fees	103,585,335	95,844,025
Infrastructure projects	778,740	929,997
Other deferred income	482,393	794,486
	<b>104,846,468</b>	<b>97,568,508</b>

#### Accounting Policy

The Accounting Policy for Income in Advance is described in note 9.

### 6. CURRENT LIABILITIES - PROVISIONS

	31 December 2022	31 December 2021
	\$	\$
Employee benefits	9,283,853	8,047,032

#### Accounting Policy

*Wages and salaries and annual leave*

Liabilities for wages and salaries, including non-monetary benefits and leave entitlements expected to be settled within 12 months of the reporting date, are recognised in respect of employees' services up to the reporting date and are measured at the amounts expected to be paid when the liabilities are settled.

### 7. NON-CURRENT LIABILITIES - PROVISIONS

	31 December 2022	31 December 2021
	\$	\$
Employee benefits	586,668	568,508
Make good on leased premises	390,647	390,647
	<b>977,315</b>	<b>959,155</b>

#### Accounting Policy

*Employee benefits*

These are liabilities for long service leave and annual leave not expected to be settled wholly within 12 months after the end of the period in which the employees render the related service. They are therefore recognised in the provision for employee benefits and measured as the present value of expected future payments to be made in respect of services provided by employees up to the end of the reporting period using the projected unit credit method.

Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the end of the reporting period of corporate bonds with terms and currencies that match, as closely as possible, the estimated future cash outflows. Re-measurements as a result of experience adjustments are recognised in the Profit and Loss Statement.

*Make good on leased premises*

Provisions for make good costs on leased premises are recognised when AARNet has a present legal or constructive obligation as a result of past events; it is more likely than not that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated.

## 8. LEASES

This note provides information for leases where AARNet is the lessee.

### i) Amounts recognised in the balance sheet

The balance sheet shows the following amounts relating to leases:

	31 December 2022	31 December 2021
	\$	\$
<b>Right-of-use assets</b>		
Communication assets	59,891,198	63,096,625
	<b>59,891,198</b>	63,096,625
<b>Lease liabilities</b>		
Current	2,892,096	3,357,847
Non-current	45,927,099	45,666,037
	<b>48,819,195</b>	49,023,884

The movement in the right-of-use assets over the year are as follows:

	\$
Opening Right-of-use assets as at 1 January 2022	63,096,625
Depreciation charge of right-of-use assets	(5,950,063)
Additions to right-of-use assets	2,744,639
Right-of-use assets recognised as at 31 December 2022	<b>59,891,198</b>

### ii) Amounts recognised in the Profit and Loss Statement

The Profit and Loss Statement includes the following amounts relating to leases:

	31 December 2022	31 December 2021
	\$	\$
Depreciation charge of right-to-use assets Communication assets	5,950,063	5,371,957
Interest expense (included in Other Costs)	3,101,490	3,083,307
Expense related to short-term leases (included in Other Administration Expenses)	1,025,096	725,036
Expenses related to leases of low-value assets that are not shown above as short-term leases (included in Other Administration Expenses)	7,592	7,389
Expenses related to variable lease payments not included in lease liabilities (included in Other Administrative Expense)	1,086,935	255,918

The total outflow for leases in 2022 was \$8,162,849 (2021: \$7,128,792)

Future lease payments in relation to lease liabilities as at the period end are as follows:

	31 December 2022	31 December 2021
	\$	\$
Within one year	5,865,920	5,513,653
Later than one year but no later than five years	21,510,314	20,474,271
Later than five years	43,879,401	48,072,210
	<b>71,255,635</b>	74,060,134

### (iii) AARNet's leasing activities and how these are accounted for

AARNet leases various offices, data centre space and dark fibre. Rental contracts are typically made for fixed periods of 1 to 20 years, but may have extension options as described in (iv) below.

Contracts may contain both lease and non-lease components. AARNet allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices. However, for leases of real estate for which AARNet is a lessee, it has elected not to separate lease and non-lease components and instead accounts for these as a single lease component.

Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants other than the security interests in the leased assets that are held by the lessor.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- Fixed payments (including in-substance fixed payments), less any lease incentives receivable
- Variable lease payments that are based on an index or a rate, initially measured using the index or rate as at the commencement date
- Amounts expected to be payable by AARNet under residual value guarantees, and
- Payments of penalties for terminating the lease, if the lease term reflects AARNet exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases at AARNet, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

To determine the incremental borrowing rate, AARNet uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk for leases held by AARNet.

AARNet is exposed to potential future increases in lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

Lease payments are allocated between principal and finance cost. The finance cost is charged to Profit and Loss Statement over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Right-of-use assets are measured at cost comprising the following:

- The amount of the initial measurement of lease liability
- Any lease payments made at or before the commencement date less any lease incentives received
- Any initial direct costs, and
- Restoration costs

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in the Profit and Loss Statement. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise of equipment and small items of office furniture.

### (iv) Extension and termination options

Extension and termination options are included in a number of leases. These are used to maximize operational flexibility in terms of managing the assets used in AARNet's operations. The majority of extension and termination options held are exercisable only by AARNet and not by the respective lessor.

## 9. SERVICE REVENUE

	31 December 2022 \$	31 December 2021 \$ (Restated)
<b>Telecommunications</b>		
Subscription, Traffic and Access – Members	41,273,232	40,986,055
Subscription, Traffic and Access – Non-Members	13,959,269	14,192,814
Other Services	29,761,061	24,519,362
	<b>84,993,562</b>	<b>79,698,231</b>
<b>Infrastructure &amp; service agreements</b>		
Infrastructure Establishment Fees	9,732,838	8,563,206
Infrastructure Project Construction	3,788,050	1,370,055
	<b>98,514,450</b>	<b>89,631,492</b>

### (a) Disaggregation of revenue from contracts with customers

AARNet derives service revenue from the transfer of goods and services over time and at a point in time as follows:

	Teleco- Members	Teleco- Non-Member	Teleco- Other Services	Infra Establishment Fees	Infra Project Construction	Total
<b>2022</b>						
At a point in time	-	-	-	-	3,788,050	3,788,050
Over time	41,273,232	13,959,269	29,761,061	9,732,838	-	94,726,400
<b>Total</b>	<b>41,273,232</b>	<b>13,959,269</b>	<b>29,761,061</b>	<b>9,732,838</b>	<b>3,788,050</b>	<b>98,514,450</b>

	Teleco- Members	Teleco- Non-Member	Teleco- Other Services	Infra Establishment Fees	Infra Project Construction	Total
<b>2021</b>						
At a point in time	-	-	-	-	1,370,055	1,370,055
Over time (Restated)	40,986,055	14,192,814	24,519,362	8,563,206	-	88,261,437
<b>Total</b>	<b>40,986,055</b>	<b>14,192,814</b>	<b>24,519,362</b>	<b>8,563,206</b>	<b>1,370,055</b>	<b>89,631,492</b>

### (b) Assets and liabilities related to contracts with customers

AARNet has recognised the following assets and liabilities related to contracts with customers.

	31 December 2022 \$	31 December 2021 \$ (Restated)
<b>Current Liabilities- Income in Advance in relation to:</b>		
Infrastructure Establishment Fees	8,812,317	9,500,229
Other Deferred Income	803,242	803,242
Infrastructure Service Fees	7,666,039	7,092,857
Subscriptions	1,179,446	3,204,748
	<b>31 December 2022 \$</b>	<b>31 December 2021 \$</b>
<b>Non-Current Liabilities- Income in Advance in relation to:</b>		
Infrastructure Establishment Fees	103,585,335	95,844,025
Infrastructure Projects	778,740	929,997
Other Deferred Income	482,393	794,486

#### (i) Significant changes in contract assets and liabilities

Contract liabilities for Infrastructure and service agreements have increased due to an increase in contributions for new projects that have not been completed as at 31 December 2022, despite no change in the timing of satisfied performance obligations; the nature of the goods supplied; nor the terms of payment.

There is no material amounts of revenue recognized for both financial years in relation to performance obligations satisfied in previous periods.

#### (iii) Unsatisfied long-term transmission service contracts

The anticipated timing for revenue recognition of liabilities related to contracts with customers (including Infrastructure establishment fees) is as follows:

	31 December 2022 \$	31 December 2021 \$ (Restated)
Within one year	18,461,044	20,601,076
Later than one year but not later than five years	37,953,671	35,924,023
Later than five years	66,892,797	61,644,485
	<b>123,307,512</b>	<b>118,169,583</b>

## Accounting Policy

Service revenues (derived from contracts with customers) have been accounted for under the accounting standard, *AASB15 Revenue from Contracts with Customers*.

### (i) Telecommunication Services

Telecommunication services consist of a series of performance obligations where revenue is recognised as data services have been delivered in accordance to the contract.

The performance obligation for telecommunication services is coupled with a performance obligation relating to access rights to the AARNet network, for the service agreement performance obligation cannot be executed without an access agreement.

An establishment fee forms part of the transaction price for telecommunication services. The establishment fee is not a consideration for a performance obligation in its own right, for the work to enable a transmission service cannot be separated from the transmission service itself.

### (ii) Other Services

Other services consist of transmission services providing point-to-point capacity, above the network services and security-related products. Revenue is recognised as performance obligations within contracts are delivered.

### (iii) Infrastructure Establishment Fees

Infrastructure establishment fees are contributions from customers to assist in the cost of construction. Revenue is recognised over the course of the contract's performance obligations.

### (iv) Infrastructure Project Construction Revenue

Revenue from the provision of infrastructure where the infrastructure becomes the property of the customer is recognised when the underlying performance obligation is completed.

### (v) Stand alone selling price in the application of AASB15 Revenue from Contracts with Customers

The stand alone selling price in relation to all performance obligations contained within service contracts with customers is judged to be the fair value of those performance obligations if bought on a stand-alone basis.

### (vi) Discounts and Taxes

Amounts disclosed as revenue are net of any discounts or taxes paid.

### (vii) Income in Advance

Amounts received or due and receivable in respect of future subscription periods or for services which have not been delivered are recorded as Income in Advance and appear as a liability (refer notes 4 and 5). Income in Advance is classified as either a current liability or a non-current liability depending on when the relevant subscription expires or the related service is expected to be delivered.

## 10. OTHER INCOME, GRANTS AND CONTRIBUTIONS RECEIVED

In 2022 and 2021 AARNet recorded significant amounts of Other Income, Grants Received and Other Contributions.

These amounts are a material component of the Profit and Loss Statement recorded by AARNet.

	31 December 2022 \$	31 December 2021 \$
Interest income	3,688,340	3,591,602
Gain on foreign currency transactions	504,445	-
Other income	390,836	112,707
Dividends	673,223	616,788
Gain on financial assets at fair value	-	1,226,499
Gain on foreign currency contracts	226,355	1,078,721
<b>Other Income</b>	<b>5,483,199</b>	<b>6,626,317</b>
<b>Grants and Contributions received</b>	<b>508,032</b>	<b>260,000</b>

### Gain on Foreign Currency Contracts

AARNet hedges a significant proportion of its exposure to foreign currency movements and does not apply hedge accounting. The accounting policy adopted with respect to derivatives and hedging activities is described below. During 2022 movements in the Australian dollar produced a gain (including realised and unrealised gain) on the hedging instruments held during and as at the end of the year of \$226,355 (2021: gain of \$1,078,721).

### Grants and Contributions Received

This item includes amounts received by AARNet by way of grants and contributions where AARNet does not supply a service to the organisations providing the funding, however grants and contributions are recognised only upon completion of all performance obligations and when there are no unfulfilled conditions or other contingencies attaching to the grants.

### Accounting Policy

#### Interest and Dividend Income

Interest income is recognised as it accrues using the effective interest rate method and dividend income is recognised as revenue when the right to receive payment is established.

### Contributed Assets

Contributed assets (including the contribution of funds by government agencies or other persons to facilitate the construction of infrastructure for the AARNet network) are recognised at fair value when title and control of the asset passes or when the conditions to receive or retain funding are met.

### Foreign Currency Contracts

At year end, Foreign Currency Contracts are recognised at fair value. Realised and unrealised gain or losses on such contracts are taken into account each year in the Profit and Loss Statement. AARNet does not apply hedge accounting.

The Accounting Policy for Gain on financial assets at fair value is described in note 16.

## 11. EXPENSES

	31 December 2022 \$	31 December 2021 \$ (Restated)
<b>Depreciation</b>		
Communication assets	15,056,270	15,845,250
Office equipment	3,422,652	2,639,996
Leasehold improvements	365,510	451,638
Software	124,159	130,027
Buildings	3,277	3,277
<b>Total depreciation</b>	<b>23 18,971,868</b>	19,070,188
<b>Amortisation</b>		
Intangible assets	24 74,996	75,000
<b>Total depreciation and amortisation</b>	<b>19,046,865</b>	19,145,188
<b>Other expenses (including finance costs)</b>		
Significant financing expense element in contracts with customers	2,735,163	1,982,420
Loss on financial assets at fair value	904,013	-
Loss on foreign currency transactions	-	557,241
<b>Total other expenses</b>	<b>3,639,176</b>	2,539,661
Superannuation expense	4,138,231	3,481,513

### Accounting Policy

#### Depreciation and Amortisation

The accounting policy for depreciation and amortisation is described in notes 23 and 24 respectively.

## 12. CURRENT ASSETS - CASH AND CASH EQUIVALENTS

	31 December 2022	31 December 2021
	\$	\$
<b>Current assets</b>		
Cash at bank and in hand (AUD)	8,401,299	7,191,602
Cash at bank (USD and EUR)	203,101	366,851
Deposits at call - all denominated in AUD	8,046,429	8,107,354
	<b>16,650,829</b>	<b>15,665,807</b>

### Cash at bank and on hand

Cash at bank and on hand is held at interest rates varying between 0.00% and 2.85% (2021: 0.00% and 0.05%). During the year, cash is transferred to or from term deposits to meet liquidity requirements.

### Deposits at call

Interest bearing deposits at call attracted interest rates between 0.35% and 1.25% (2021: 0.22% and 0.45%).

### Accounting Policy

For the purpose of presentation in the statement of cash flows, cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, bank overdrafts and other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

## 13. RECONCILIATION OF NET (DEFICIT) SURPLUS TO NET CASH INFLOW FROM OPERATING ACTIVITIES

	31 December 2022	31 December 2021
	\$	\$ (Restated)
(Deficit)/ surplus for the year	634,097	(1,131,109)
Depreciation, amortisation and impairment	19,046,865	19,145,188
Dividend income	(673,223)	(616,788)
Net loss (gain) on sale of investments	904,013	(475,825)
Net amortised interest income	77,491	116,081
Decrease/ (increase) in trade receivables	(666,065)	(1,111,195)
Decrease/ (increase) in accrued income	(46,000)	(165,336)
Decrease/ (increase) in prepayments and other debtors	(6,564,394)	5,326,129
Decrease/ (increase) in derivative financial instruments	(226,355)	(1,078,721)
Increase/ (decrease) in trade payables	4,250,942	(1,720,443)
Increase/ (decrease) in other operating liabilities	121,465	29,452
Increase in provisions	1,254,981	1,156,336
Increase/(decrease) in income received in advance	4,983,934	14,090,747
(Increase)/decrease in non-current assets	445,150	-
(Increase)/decrease in financial assets at fair value	-	45,535
<b>Net cash inflow from operating activities</b>	<b>23,542,901</b>	<b>33,610,051</b>

## 14. CURRENT ASSETS - TRADE AND OTHER RECEIVABLES

	31 December 2022	31 December 2021
	\$	\$
Trade receivables	1,931,674	1,391,397
Provision for impairment of receivables	(129,212)	(255,000)
	<b>1,802,462</b>	<b>1,136,397</b>
Prepayments and Other Debtors	20,951,095	17,954,651
	<b>22,753,557</b>	<b>19,091,048</b>

### Trade Receivables

Trade receivables are due for settlement no more than 30 days from the date of recognition.

At 31 December 2022, trade receivables included balances of \$1,928,409 (2021: \$1,022,194) which are past due but not impaired or considered uncollectable. These amounts have been outstanding for more than 90 days. These relate to a number of customers for whom there is no history of default.

### Prepayments and Other Debtors

Payments for goods and services which are to be provided in future years are recognised as prepayments.

Other debtors generally arise from transactions outside the usual operating activities of AARNet. Interest is not normally charged.

### Fair Value

Due to the short-term nature of these receivables, their carrying amount is assumed to approximate their fair value.

### Accounting Policy

Trade receivables are recognised initially the amount of consideration that is unconditional, unless they contain significant financing components when they are recognised at fair value. They are subsequently measured at amortised cost, less provision for impairment.

Collectability of trade receivables is reviewed on an ongoing basis. Debts which are known to be uncollectible are written off. The group applies the simplified approach to providing for expected credit losses prescribed by AASB 9, which permits the use of the lifetime expected loss provision for all trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The amount of the provision is recognised in the Profit and Loss Statement in Administration-Telecommunications expenses.

The carrying value less impairment provision of trade receivables is assumed to approximate fair value due to the short-term nature of the receivables.

## 15. CURRENT ASSETS - ACCRUED INCOME

	31 December 2022	31 December 2021
	\$	\$
<b>Current assets</b>		
Accrued interest receivable	496,098	578,704

## 16. FINANCIAL ASSETS AND INVESTMENTS

AARNet holds financial assets and investments (other than prepayments or trade receivables) including:

- Financial instruments at amortised cost (notes 18 and 19)
- Financial assets at fair value through Profit and Loss Statement (notes 17 and 20)
- Financial assets at fair value through other comprehensive income (note 21)
- Derivative financial instruments (shown on the Balance Sheet)

### Accounting Policy

Purchases and sales of financial assets are recognised on the date on which AARNet commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and AARNet has transferred substantially all the risks and rewards of ownership.

### Initial recognition - measurement

At initial recognition, AARNet measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss (FVPL) or at fair value through other comprehensive income (FVOCI), transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

### Debt instruments

Subsequent measurement of debt instruments depends on AARNet's business model for managing the asset and the cash flow characteristics of the asset. There are three measurement categories into which AARNet classifies its debt instruments:

Amortised cost: AARNet classifies its financial assets as at amortised cost only if both of the following criteria are met:

- the asset is held within a business model whose objective is to collect the contractual cash flows, and
- the contractual terms give rise to cash flows that are solely payments of principal and interest.

Interest income from these financial assets is included in Other Income - Interest using the effective interest rate method. Any increase/(decrease) in financial assets at fair value through profit and loss (FVPL) or at fair value through other comprehensive income (FVOCI) is recognised directly in Profit and Loss Statement and presented in gain/(loss) on financial assets at fair value (note 10 or 11) together with gain/(loss) on sale of investments.

FVOCI: Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the fair value are taken through OCI, except for the recognition of impairment gains or losses, interest income and foreign exchange gains and losses which are recognised in profit or loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and recognised in other gains/(losses). Interest income from these financial assets is included in finance income using the effective interest rate method. Foreign exchange gains and losses are presented in other gains/(losses) and impairment expenses are presented as separate line item in the Profit and Loss Statement.

FVPL: Assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss and presented net within other gains/(losses) in the period in which it arises.

#### Equity instruments

AARNet subsequently measures all equity investments at fair value. Changes in the fair value of financial assets at FVPL are recognised in other gains/(losses) in the Profit and Loss Statement as applicable.

#### Impairment

AARNet assesses on a forward-looking basis the expected credit losses associated with its debt instruments carried at amortised cost and FVOCI. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

#### Derivatives and hedging activities

Derivatives are initially recognised at cost on the date a derivative contract is entered into and are subsequently remeasured to their fair value at each reporting date.

AARNet has entered into forward exchange contracts which are economic hedges for foreign currencies to be traded at a future date but do not satisfy the requirements for hedge accounting. Any changes in fair values are taken to other comprehensive income immediately.

#### Fair value measurements

AARNet measures and recognises the following assets and liabilities at fair value on a recurring basis:

- Financial assets at fair value through other comprehensive income
- Financial assets at fair value through profit and loss; and
- Derivative financial instruments.

AASB 13 Fair Value Measurement requires disclosure of fair value measurements by level of the following fair value measurement hierarchy:

Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2: inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly; and

Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The following table presents the company's assets and liabilities measured and recognised at fair value at 31 December 2022 and 31 December 2021:

31 December 2022	Level 1 \$	Level 2 \$	Level 3 \$	Total \$
<b>Financial assets</b>				
Derivative financial instruments	-	325,411	-	325,411
Equity securities - fair value through profit and loss	9,141,497	-	-	9,141,497
Bonds - fair value through profit and loss	16,740,853	-	-	16,740,853
Bonds - fair value through other comprehensive income	-	2,989,620	-	2,989,620
<b>Total financial assets</b>	<b>25,882,350</b>	<b>3,315,031</b>	<b>-</b>	<b>29,197,381</b>

31 December 2021	Level 1 \$	Level 2 \$	Level 3 \$	Total \$
<b>Financial assets</b>				
Derivative financial instruments	-	154,802	-	154,802
Equity securities - fair value through profit and loss	10,658,952	-	-	10,658,952
Bonds - fair value through profit and loss	23,246,562	-	-	23,246,562
<b>Total financial assets</b>	<b>33,905,514</b>	<b>154,802</b>	<b>-</b>	<b>34,060,316</b>
Derivative financial instruments	-	(55,746)	-	(55,746)
<b>Total financial liabilities</b>	<b>-</b>	<b>(55,746)</b>	<b>-</b>	<b>(55,746)</b>

The fair value of financial instruments traded in active markets (such as financial assets at FVPL or FVOCI) are based on quoted market prices at the end of the reporting period. These instruments are included in level 1.

The fair value of financial instruments that are not traded in an active market (such as derivative financial instruments) are determined using valuation techniques. These valuation techniques maximise the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

## 17. CURRENT ASSETS - FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

	31 December 2022 \$	31 December 2021 \$
Debt securities (fixed and floating rates)	1,005,250	1,005,670

## 18. CURRENT ASSETS - FINANCIAL INSTRUMENTS AT AMORTISED COST

	31 December 2022 \$	31 December 2021 \$
Debt securities (fixed and floating rates)	-	4,000,220
Term deposits	6,000,000	6,006,821
<b>Total</b>	<b>6,000,000</b>	<b>10,007,041</b>

#### Bank guarantee and credit facilities

AARNet has a \$1,500,000 Bank Guarantee Facility provided by the National Australia Bank. AARNet has drawn on this facility to provide bank guarantees in favour of the landlords for leased premises and a third party contractor. AARNet has an unsecured credit card facility of \$300,000.

## 19. NON-CURRENT ASSETS - FINANCIAL INSTRUMENTS AT AMORTISED COST

	31 December 2022 \$	31 December 2021 \$
Debt securities (fixed and floating rates)	23,923,472	26,465,477

## 20. NON-CURRENT ASSETS - FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT AND LOSS

	31 December 2022 \$	31 December 2021 \$
<b>Non-current assets</b>		
Equity securities	9,141,497	10,658,952
Debt securities (fixed and floating rates)	15,735,603	22,240,892
<b>Total</b>	<b>24,877,100</b>	<b>32,899,844</b>

## 21. NON-CURRENT ASSETS - FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	31 December 2022 \$	31 December 2021 \$
Debt securities (fixed and floating rates)	2,989,620	-

## 22. NON-CURRENT ASSETS - RECEIVABLES AND OTHER ASSETS

	31 December 2022 \$	31 December 2021 \$
Prepayments	43,438,511	39,870,561

## 23. NON-CURRENT ASSETS - PROPERTY, PLANT AND EQUIPMENT

	Freehold buildings \$	Leasehold improvements \$	Office equipment \$	Communication assets \$	Software \$	Total \$
<b>At 1 January 2021</b>						
Cost or fair value	81,927	4,253,085	17,811,534	312,074,046	3,390,834	337,611,426
Accumulated depreciation	(9,625)	(1,614,507)	(9,751,884)	(101,476,336)	(1,299,902)	(114,152,254)
<b>Net book amount</b>	<b>72,302</b>	<b>2,638,578</b>	<b>8,059,650</b>	<b>210,597,710</b>	<b>2,090,932</b>	<b>223,459,172</b>
<b>Year ended 31 December 2021</b>						
Opening net book amount	72,302	2,638,578	8,059,650	228,504,480	2,090,933	241,365,943
Additions (Restated)	-	407,854	4,750,050	26,465,793	97,997	31,721,694
Additions Right of Use Assets	-	-	-	2,383,580	-	2,383,580
Amount de-recognised/ re-classified	-	-	-	(1,577,365)	-	(1,577,365)
Depreciation charge	(3,277)	(451,638)	(2,639,996)	(15,845,450)	(130,027)	(19,070,388)
<b>Closing net book amount (Restated)</b>	<b>69,025</b>	<b>2,594,794</b>	<b>10,169,704</b>	<b>239,931,038</b>	<b>2,058,903</b>	<b>254,823,464</b>
<b>At 31 December 2021</b>						
Cost or fair value (Restated)	81,927	4,580,439	22,545,165	382,049,369	3,488,830	412,745,730
Accumulated depreciation	(12,902)	(1,985,645)	(12,375,461)	(142,118,331)	(1,429,927)	(157,922,266)
<b>Net book amount (Restated)</b>	<b>69,025</b>	<b>2,594,794</b>	<b>10,169,704</b>	<b>239,931,038</b>	<b>2,058,903</b>	<b>254,823,464</b>

	Freehold buildings \$	Leasehold improvements \$	Office equipment \$	Communication assets \$	Software \$	Total \$
<b>Year ended 31 December 2022</b>						
Opening net book amount	69,025	2,594,794	10,169,704	239,931,038	2,058,903	254,823,464
Additions	-	-	3,947,215	25,740,947	-	29,688,162
Additions Right of Use Assets	-	2,981,202	-	2,744,639	-	5,725,841
Amount de-recognised/ re-classified	-	-	-	-	(50,396)	(50,396)
Depreciation charge	(3,277)	(365,510)	(3,422,652)	(15,056,270)	(124,159)	(18,971,868)
<b>Closing net book amount</b>	<b>65,748</b>	<b>5,210,486</b>	<b>10,694,267</b>	<b>253,360,354</b>	<b>1,884,348</b>	<b>271,215,203</b>
<b>At 31 December 2022</b>						
Cost or fair value	81,927	7,561,641	26,487,717	410,464,137	3,438,436	448,033,858
Accumulated depreciation	(16,179)	(2,351,155)	(15,793,450)	(157,103,783)	(1,554,088)	(176,818,655)
<b>Net book amount</b>	<b>65,748</b>	<b>5,210,486</b>	<b>10,694,267</b>	<b>253,360,354</b>	<b>1,884,348</b>	<b>271,215,203</b>

### Communication Assets- Finance Leases

AARNet provides other parties with rights to use components of AARNet's fibre and other infrastructure in return for that party providing AARNet with similar rights to use components of its fibre and infrastructure.

### Right-of-use assets

Communication assets include both assets and leased right-of-use assets. See Note 8 for more detail on right-of-use assets.

### Assets in the course of construction

Included in the carrying amounts of the assets shown above are assets that were in the course of construction as at the end of the reporting period. The relevant amounts are as follows:

	31 December 2022 \$	31 December 2021 \$
Communication assets	59,406,663	63,075,427
Office equipment	5,597,881	6,922,955
Leasehold improvements	3,448,462	469,523
Software	1,884,348	1,924,064
<b>Total assets in the course of construction</b>	<b>70,337,354</b>	<b>72,391,969</b>

### Accounting Policy

#### Acquisition

Property, plant and equipment is stated at historical cost less depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to AARNet and the cost of the item can be measured reliably.

#### Fibre and Infrastructure Swaps

AARNet may enter into arrangements granting other parties the right to use AARNet's fibre or infrastructure in return for receiving rights to use fibre or infrastructure owned by the other party ("swaps"). Where such swaps involve significant values of assets, AARNet records an asset disposal in respect of the assets used by the other party at the carrying value of the relevant assets at the time the swap becomes effective. AARNet then recognises an asset of equivalent value, being the right to use the fibre or infrastructure of the other party.

#### Unincorporated Joint Operations

AARNet accounts for interests in unincorporated joint operations by

recognising its share of the assets and liabilities held or owed by the joint operation along with its share of the expenses incurred by the joint operation.

Where the assets held within the joint operation include assets in the course of construction, AARNet's share of those assets is included in the values for assets in the course of construction shown in this note.

### Depreciation

Property, plant and equipment is depreciated using the straight-line method to allocate cost, net of residual value, over each item's estimated useful life, as follows:

Leasehold improvements	10 years
Office equipment	3 years
Leased communication assets	5 - 6 years
Leased office equipment	3 years
Communication assets	2 - 35 years
Software	2 - 3 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period; such adjustments may result in a revised useful life shorter than that shown above.

### Impairment of Assets

Assets that are subject to depreciation or amortisation are reviewed for indicators of impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. As a not-for-profit entity, value in use is calculated on the basis of the depreciated replacement cost, which represents the current replacement cost of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.

For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating units). The company has only one cash generating unit.

### Gains and Losses

Gains and losses on disposals are determined by comparing proceeds with carrying amount. These are included in the Profit and Loss Statement.

## 24. NON-CURRENT ASSETS - INTANGIBLE ASSETS

	Security	Storage	Indefeasible Rights to Use traffic path	Total
	\$	\$	\$	\$
<b>At 1 January 2021</b>				
Opening net book amount	-	-	508,061	508,061
Additions	156,755	394,754	-	551,509
Amortisation charge	-	-	(75,000)	(75,000)
<b>Net book amount</b>	<b>156,755</b>	<b>394,754</b>	<b>433,061</b>	<b>984,570</b>
<b>At 31 December 2021</b>				
Cost	156,755	394,754	8,707,978	9,259,487
Accumulated amortisation	-	-	(8,274,917)	(8,274,917)
<b>Net book amount</b>	<b>156,755</b>	<b>394,754</b>	<b>433,061</b>	<b>984,570</b>

	Security	Storage	Indefeasible Rights to Use traffic path	Total
	\$	\$	\$	\$
<b>Year ended</b>				
<b>31 December 2022</b>				
Opening net book amount	156,755	394,754	433,061	984,570
Additions	57,149	-	-	57,149
Amount de-recognised/ reclassified	-	(394,754)	-	(394,754)
Amortisation charge	-	-	(74,996)	(74,996)
<b>Closing net book amount</b>	<b>213,904</b>	<b>-</b>	<b>358,065</b>	<b>571,969</b>
<b>At 31 December 2022</b>				
Cost	213,904	-	8,707,978	8,921,882
Accumulated amortisation	-	-	(8,349,913)	(8,349,913)
<b>Net book amount</b>	<b>213,904</b>	<b>-</b>	<b>358,065</b>	<b>571,969</b>

AARNet's intangible assets are indefeasible rights to use (IRU) capacity on traffic paths across communication infrastructure owned by other parties.

### Intangible assets in the course of construction

	31 December 2022	31 December 2021
	\$	\$
Security	213,904	156,755
Storage	-	394,754
<b>Total intangible assets in the course of construction</b>	<b>213,904</b>	<b>551,509</b>

### Accounting Policy

The value of each IRU is amortised from the date each right become available for service and will continue to be amortised over the term of the right, which varies from 10 to 28 years. The longest remaining amortisation period is approximately 20 years.

## 25. CONTRIBUTED EQUITY

	31 December 2022	31 December 2021	31 December 2022	31 December 2021
	Shares	Shares	\$	\$
Ordinary shares				
Fully paid ordinary shares	78	78	39,039	39,039
<b>Movements in ordinary share capital</b>				
Date	Details	Number of shares	\$	
1 January 2021	Opening balance	78	39,039	
31 December 2021	Balance	78	39,039	
31 December 2022	Balance	78	39,039	

AARNet's shareholders are 38 Australian Universities and the Commonwealth Scientific and Industrial Research Organisation (CSIRO). Each shareholder holds two ordinary shares.

Holders of ordinary shares are entitled to one vote per share on resolutions put before the members. Holders of ordinary shares are not entitled to dividends and have no right to receive any distribution during a winding up

## 26. RETAINED EARNINGS AND RESERVE

### Retained earnings

Movements in retained earnings were as follows:

	31 December 2022	31 December 2021
	\$	\$(Restated)
Balance 1 January (Restated)	216,925,198	218,056,306
(Deficit) surplus for the year	634,097	(1,131,109)
<b>Balance 31 December</b>	<b>217,559,295</b>	<b>216,925,197</b>

## 27. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Company's accounting policies.

Often, this involves estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

### (i) Useful life of intangible assets

The Directors have assumed in the ordinary course of business that AARNet's customers will continue to use AARNet's services into the foreseeable future. The useful economic lives assigned for intangible assets are based on the contractual terms agreed for each Indefeasible Right to Use.

### (ii) Useful life of assets

AARNet is the owner of a significant amount of assets and infrastructure. Estimates are made as to the useful life of these assets which can affect both the amount of depreciation and amortisation expense during the year and the amount of revenue recognised in relation to Establishment Fees.

### (iii) Lease term

In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

For leases, the following factors are normally the most relevant:

If there are significant penalties to terminate (or not extend), AARNet is typically reasonably certain to extend (or not terminate).

If any leasehold improvements are expected to have a significant remaining value, AARNet is typically reasonably certain to extend (or not terminate).

Otherwise, AARNet considers other factors including historical lease durations and the costs and business disruption required to replace the leased asset.

The lease term is reassessed if an option is actually exercised (or not exercised) or AARNet becomes obliged to exercise (or not exercise) it. The assessment of reasonable certainty is only revised if a significant event or a significant change in circumstances occurs, which affects this assessment, and that is within the control of the lessee.

#### (iv) Significant financing component

AARNet has recognised that receiving contributions from Members and others toward the construction cost of AARNet owned network infrastructure and provision of services in the future includes significant financing expense element. There are judgements in determining the relevant interest rate and when financing component being considered as significant.

Similarly, AARNet has recognised that providing prepayments to suppliers ahead of services being provided in the future includes a significant financing element. There are judgements in determining the relevant interest rate.

#### (v) Identification of performance obligations in customer contracts and allocation of consideration

The company has entered into contracts which contain lease and non lease components. The non lease components require the company to deliver multiple performance obligations. Management has estimated the stand alone selling price of each component with reference to observable prices for similar arrangements. The standalone selling price is used to allocate contractual consideration to each of the components.

#### (vi) Estimation of duration in customer contracts

The company has some contracts that do not have a fixed duration, but rather these contracts automatically renew unless one party notifies the other. In the case of these contracts, the estimated duration of the contract is aligned to the useful life of the underlying asset required to complete the contract performance obligations. This estimated duration is then referenced in determining significant financing and revenue recognition.

#### (vii) Identification of whether a contract contains a lease

The company has entered into buy side and sell side capacity contracts for telecommunications bandwidth. The company makes an assessment as to whether the arrangement contains a lease including analysis as to whether an identified specific asset is subject to the contractual arrangement.

#### (viii) Impairment assessment including whether there are impairment indicators

The company considers whether there are indicators of impairment for property, plant and equipment and intangible assets with reference to the fair value of each cash generating unit relative to its carrying value. Relevant factors considered by the company include movement of key cost inputs over time.

#### (ix) Classification of financial instruments

The company has applied judgement in determining the classification of financial assets including assessment of the business model for each of its portfolios of financial assets and consideration as to whether contractual cash flows represent solely payments of principal and interest.

#### (x) Classification of joint arrangements

The agreement in relation to the Indigo Central consortia is classified as a joint operation and the company is one of the joint operators because there is only one combination of the voting combinations that can approve relevant activities and that combination requires the company's voting rights. Indigo West and JGA South are not considered joint arrangements because either a third party has control or there are different combinations of operators that can approve relevant activities.

## 28. DIRECTORS

The Directors of AARNet Pty Ltd during the financial year were:

#### Chairman - non-executive

Emeritus Professor Gerard Sutton AO\*(resigned 25 May 2022)  
Emeritus Professor David (Ian) O'Connor AC\*  
(appointed 25 May 2022)

#### Executive Directors

Mr Chris Hancock AM, CEO

#### Non-executive Directors

Dr Christine Burns  
Professor Alexander Cameron (appointed 30 May 2022)  
Mr Robert Fitzpatrick\*  
Professor Bevil (Barney) Glover AO  
Professor Elanor Huntington (appointed 21 February 2022)  
Professor Brigid Heywood (resigned 25 May 2022)  
Mr Anthony Molinia (appointed 20 June 2022)  
Ms Fiona Rankin (resigned 25 May 2022)  
Mr Scott Sorley  
Mr John Rohan\*  
Professor Deborah Terry AO  
Emeritus Professor Mark Wainwright AM\*

\*Denotes independent director

## 29. KEY MANAGEMENT PERSONNEL DISCLOSURES

*Key management personnel compensation*

The key management personnel are those who had authority and responsibility for planning, directing and controlling the activities of AARNet, directly or indirectly, during the year. The remuneration for key management personnel including directors is as follows:

	31 December 2022	31 December 2021
	\$	\$
Short-term and long-term employee benefits	4,176,547	3,240,069
Post-employment benefits	464,946	384,207
	<b>4,641,493</b>	<b>3,624,276</b>

#### Transactions with key management personnel

Director Ms F Rankin is a member of the Council of Australian University Directors of Information Technology (CAUDIT) to which AARNet provides payroll bureau services. AARNet receives no consideration for this service.

Other directors represent, act for, or hold offices at certain AARNet shareholders and customers. AARNet provides services to these shareholders on arm's length terms.

## 30. REMUNERATION OF AUDITORS

#### PricewaterhouseCoopers

Audit and other assurance services

	2022	2021
	\$	\$
<b>Audit and other assurance services</b>		
Audit and review of financial statements	351,280	357,740
<b>Total remuneration for audit and other assurance services</b>	<b>351,280</b>	<b>357,740</b>
<b>Taxation services</b>		
Taxation services	23,000	150,000
<b>Other services</b>		
Accounting advice for Triversity	25,000	55,000
<b>Total remuneration of PricewaterhouseCoopers</b>	<b>399,280</b>	<b>562,740</b>

### 31. OTHER SIGNIFICANT ACCOUNTING POLICIES

#### New, revised or amending Accounting Standards and Interpretations adopted and other changes to comparative information

AARNet has applied the following standard for the first time for their annual reporting period commencing 1 January 2022:

- *AASB 1060 General Purpose Financial Statements - Simplified Disclosures for For-Profit and Not-for-Profit Tier 2 Entities.*

AARNet adopted AASB 1060 General Purpose Financial Statements - Simplified Disclosures for For-Profit and Not-for-Profit Tier 2 Entities in the current year. Other than the change in disclosure requirements, the adoption of AASB 1060 has no significant impact on the financial statements because AARNet previously complied with Australian Accounting Standards - Reduced Disclosure Requirements in preparing its financial statements.

In preparation of the financial statements for the year ended 31 December 2022, the comparative period information has been restated for the following changes.

- *Interest expense capitalised:* The company previously expensed interest expense on account of significant financing components identified in its contracts with customers in accordance with AASB 15 Revenue from Customers with Contracts. The company has restated its accounting treatment to capitalise such interest expenses as a borrowing cost where the upfront contribution by customers are used for the construction of the related network assets. The interest expense is considered as a directly attributable cost of construction of the related network assets where the construction takes more than 12 months to complete. As a result, interest expense of \$1,260,102 prior to 2021 and \$1,318,863 in 2021 have been restated and capitalised to the cost of related property, plant and equipment.
- *Significant financing component in revenue contracts:* The company had previously not identified significant financing components in certain revenue contracts with customers. The interest expense, income in advance and revenue balances have now been adjusted to recognise the impact of significant financing component comprised in the upfront contributions by customers to the company.
- *Departed customers & terminated services:* In review of the income in advance balances, the Company identified balances pertaining to certain customers who have terminated their revenue contracts or services within their contracts. The Company does not have any obligation to refund any portion of the upfront customer contributions on such termination. Accordingly, the income in advance balances pertaining to such terminated contracts, or terminated services within contracts, have been recognised as revenue in the period of such termination.

The impact of the above on the Balance Sheet, Profit and Loss Statement, Statement of Changes in Equity is as follows:

Balance sheet (extract)	31 December 2021 as originally presented	Significant Financing Capitalised interest expense	Significant Financing interest expense	Significant Financing impact on revenue	Departed Customers	Terminated Services	21 December 2021 (Restated)
<b>Non-current Assets</b>							
Property, Plant and Equipment	252,244,500	2,578,964					254,823,464
<b>Current Liabilities</b>							
Income in Advance	19,227,166		16,443,862	(10,374,977)	(860,204)	(3,834,771)	20,601,076
<b>Equity</b>							
Retained Earnings	215,720,143	2,578,964	(16,443,862)	10,374,977	860,204	3,834,771	216,925,197
<b>Profit and Loss Statement (extract)</b>	<b>31 December 2021 as originally presented</b>	<b>Significant Financing Capitalised interest expense</b>	<b>Significant Financing interest expense</b>	<b>Significant Financing impact on revenue</b>	<b>Departed Customers</b>	<b>Terminated Services</b>	<b>21 December 2021 (Restated)</b>
Service Revenue	87,236,093			1,337,986	89,881	967,531	89,631,492
Other Expenses	(1,974,575)	1,318,863	(1,883,949)				(2,539,661)
<b>Net (deficit) surplus</b>	<b>(2,961,421)</b>	<b>1,318,863</b>	<b>(1,883,949)</b>	<b>1,337,986</b>	<b>89,881</b>	<b>3,834,771</b>	<b>(1,131,109)</b>
<b>Balance Sheet (extract)</b>	<b>1 January 2021 as originally presented</b>	<b>Significant Financing Capitalised interest expense</b>	<b>Significant Financing interest expense</b>	<b>Significant Financing impact on revenue</b>	<b>Departed Customers</b>	<b>Terminated Services</b>	<b>1 January 2021 (Restated)</b>
<b>Non-current Assets</b>							
Property, Plant and Equipment	241,365,943	1,260,102					242,626,045
<b>Current Liabilities</b>							
Income in Advance	20,417,043		14,559,913	(9,036,991)	(770,323)	(2,867,240)	22,302,402
<b>Equity</b>							
Retained Earnings	218,681,564	1,260,102	(14,559,913)	9,036,991	770,323	2,867,240	218,056,306
<b>Statement of Changes in Equity (Extract)</b>	<b>31 December 2021 as originally presented</b>	<b>Significant Financing Capitalised interest expense</b>	<b>Significant Financing interest expense</b>	<b>Significant Financing impact on revenue</b>	<b>Departed Customers</b>	<b>Terminated Services</b>	<b>31 December 2021 (Restated)</b>
<b>Net (deficit) surplus for the year</b>	<b>(2,961,421)</b>	<b>1,318,863</b>	<b>(1,883,949)</b>	<b>1,337,986</b>	<b>89,881</b>	<b>967,531</b>	<b>(1,131,109)</b>
<b>Total</b>	<b>(2,961,421)</b>	<b>1,318,863</b>	<b>(1,883,949)</b>	<b>1,337,986</b>	<b>89,881</b>	<b>967,531</b>	<b>(1,131,109)</b>

### Foreign currency translation

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. 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 Profit and Loss Statement.

### Revenue recognition

The accounting policies for the group's revenue from contracts with customers are explained in Note 9.

### Leases

The accounting policies for the group's leases are explained in Note 8.

### Goods and Services Tax (GST)

Revenues, expenses and assets are recognised net of the amount of associated GST, unless the GST incurred is not recoverable from the Australian Taxation Office (ATO). In this case it is recognised as part of the cost of acquisition of the asset or as part of the expense.

Receivables and payables (except accrued expenses) are stated with the amount of GST included.

The net amount of GST recoverable from, or payable to, the ATO is included as a current asset or liability in the Balance Sheet.

Cash flows are included in the Statement of Cash Flows on a gross basis. The GST component of cash flows arising from investing and financing activities which are recoverable from, or payable to, the ATO are classified as operating cash flows.

### Investments and other financial assets

The accounting policies for the group's revenue from investments and other financial assets are explained in Note 10.

### New Accounting Standards and Interpretations not yet mandatory or early adopted

AARNet has not early adopted any standards that have been issued but are not yet effective.

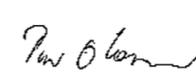
## DIRECTORS' DECLARATION

---

In the Directors' opinion:

- (a) the financial statements and notes set out on pages 7 to 30 are in accordance with the Australian Charities and Not-for-profits Commission Act 2012, including:
  - (i) complying with Accounting Standards and other mandatory professional reporting requirements, and
  - (ii) giving a true and fair view of the entity's financial position as at 31 December 2022 and of its performance for the year ended on that date, and
- (b) there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with a resolution of Directors.

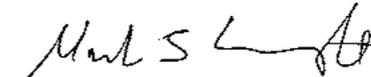


Emeritus Professor D I O'Connor AC

Director

Sydney

31<sup>st</sup> March 2023



Emeritus Professor M S Wainwright AM

Director

## Independent auditor's report

---

### Our opinion

In our opinion:

The accompanying financial report of AARNet Pty Ltd (the Company) is in accordance with Division 60 of the *Australian Charities and Not-for-profits Commission (ACNC) Act 2012*, including:

- (a) giving a true and fair view of the Company's financial position as at 31 December 2022 and of its financial performance for the year then ended
- (b) complying with Australian Accounting Standards - Simplified Disclosures and Division 60 of the *Australian Charities and Not-for-profits Commission Regulation 2013*.

### What we have audited

The financial report comprises:

- the balance sheet as at 31 December 2022
- the statement of changes in equity for the year then ended
- the statement of cash flows for the year then ended
- the statement of profit or loss and other comprehensive income for the year then ended
- the notes to the financial statements, which include significant accounting policies and other explanatory information
- the directors' declaration.

### Basis for opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial report* section of our report.

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

### Independence

We are independent of the Company in accordance with the ethical requirements of the Accounting Professional & Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

### Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report for the year ended 31 December 2022, but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, 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.

### Responsibilities of the directors for the financial report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards - Simplified Disclosures and the *Australian Charities and Not-for-profits Commission (ACNC) Act 2012* and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Company to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

## Auditor's responsibilities for the audit of the financial report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is 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 conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: [http://www.auasb.gov.au/auditors\\_responsibilities/ar4.pdf](http://www.auasb.gov.au/auditors_responsibilities/ar4.pdf). This description forms part of our auditor's report.



PricewaterhouseCoopers



Scott Walsh  
Partner

Sydney  
31 March 2023

PricewaterhouseCoopers, ABN 52 780 433 757  
One International Towers Sydney, Watermans Quay, Barangaroo, GPO BOX 2650, SYDNEY NSW 2001  
T: +61 2 8266 0000, F: +61 2 8266 9999  
Level 11, 1PSQ, 169 Macquarie Street, Parramatta NSW 2150, PO Box 1155 Parramatta NSW 2124  
T: +61 2 9659 2476, F: +61 2 8266 9999

Liability limited by a scheme approved under Professional Standards Legislation.



AARNET.EDU.AU