

Annual Report 2021



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Acknowledgement of Country

We acknowledge Aboriginal and Torres Strait Islander Peoples as the First Peoples of Australia, whose ancestral lands and waters we work and live.

MobileMuster pays respect to Elders past, present and emerging, and acknowledges the cultural authority of all Aboriginal and Torres Strait Islander Peoples across Australia. We recognise the remarkable contributions of our Aboriginal and Torres Strait Islander partners and stakeholders.

Introduction

AMTA is the peak national body representing Australia's mobile telecommunications industry, including mobile network operators, service providers, handset manufacturers, and network equipment suppliers. Our mission is to promote an environmentally sustainable, socially and economically responsible mobile telecommunications industry in Australia.

AMTA provides a forum for industry members to collaborate on building a responsible industry that is well-positioned to tackle climate change. As part of our strategic plan, we:

- advocate industry leadership in tackling climate change which includes delivery of a carbon neutral product stewardship program
- play an active role in shaping Australia's environmental responsibility for the whole-of-life impact of mobile phones
- deliver accountability and transparency of MobileMuster and ensure that it meets stakeholder expectations, including government, industry members and consumers
- work to achieve the agreed performance indicators under the Federal Government's recycling and waste reduction legislation
- proactively engage in the industry's approach to energy efficiency, reuse, repair, packaging impacts and the circular economy.

MobileMuster is the product stewardship program of the telecommunications industry, managed by AMTA and accredited by the federal government. Australia's major handset manufacturers and network carriers fund this program to provide Australia's free mobile phone recycling program to the highest environmental standard. The program is committed to raising awareness and educating the community on repair, reuse and recycling.

MobileMuster is managed by AMTA on behalf of our members including all the major handset manufacturers – Alcatel, Apple, HMD Global, HTC, Huawei, Google, Motorola, Oppo, Samsung, Vigo Mobile Australia, ZTE, network carriers – Optus, Telstra, TPG Telecom, and accessory manufacturer and distributor – Cellnet Australia.



Foreword

Louise Hyland

CEO Australian Mobile Telecommunications Association



It is hard to imagine our lives without a mobile phone in our hands. Smartphones have transformed how we communicate, work, learn, shop and entertain ourselves. They have become even more essential during the COVID-19 pandemic as our daily lives have moved to venue check-ins, health alerts, working from home, telehealth appointments and online social connections.

Australia has one of the most advanced mobile sectors globally, with continuous innovation and investment in our network infrastructure and high penetration of mobile phone use in the community¹. The industry also understands the:

- environmental footprint of their products and services
- importance of reducing emissions
- impacts of products throughout their lifecycle.

Through the Australian Mobile Telecommunications Association's (AMTA) MobileMuster program, the industry supports Australians in making sustainable choices. We are committed to continually improving our performance by understanding and responding to government expectations and meeting the challenges of developing the circular economy in Australia.

This year, MobileMuster was proud to announce its zero-carbon footprint. The achievement means that when you recycle with MobileMuster, it will now be 100% carbon neutral.

Our commitment to delivering a carbon neutral product stewardship program is fundamental to the leadership role we advocate as an industry to combat climate change.

MobileMuster's carbon neutral status is certified against the requirements of the Climate Active scheme operated by the Australian Government. This certification recognises the program as an industry leader, the first product stewardship program in Australia.

Going carbon neutral is just one of the steps we are taking to reduce our environmental footprint. As the industry continues to invest in the next generation of mobile technology, we see the substantial potential for 5G to mitigate the impacts of climate change. This year AMTA published its *5G Infrastructure Readiness Assessment Report* to encourage and support the reform process for improved mobile connectivity. The report acknowledges that 5G technology will enable the optimisation and reduction of power consumption through smart, wirelessly connected appliances, factories, cities and transportation grids into the future.

The result will be lower costs and a meaningful contribution to global efforts to mitigate climate change... with indications that it could reduce total Greenhouse Gas emissions by as much as 15% by 2030.²

In Australia we are seeing our members reduce their carbon footprint through certification of their business operations, ambitious targets to reduce emissions and investment in renewable energy. This means that customers and the community have the assurance that when they purchase, use and recycle their mobile phones they know that emissions from the products, networks and operations will be minimised.

As part of AMTA's strategic plan we are taking a proactive approach to how the industry engages in achieving greater energy efficiency, reuse, repair and recycling. MobileMuster has a key role to play through educating consumers and creating an environment that supports sustainable repair, reuse and recycling. We will continue to work with members and stakeholders to amplify and build upon our sustainability initiatives.



Spyro Kalos

Head of MobileMuster

There has never been a time when product stewardship has been more relevant than now. This year has seen a continued shift to what people expect from schemes like MobileMuster, something more than just a take back program. The regulatory space continues to evolve seeing a greater focus on a voluntary approach to product stewardship, along with the introduction of export bans to encourage Australia to deal with its own waste.

AMTA and its members have always advocated for a voluntary approach to stewardship and with 23 years under its belt, MobileMuster continues to highlight how industry can work together to deliver real environmental and social outcomes. Consumers now more than ever are looking for brands who provide solid sustainable practices for disposing of unwanted technology, along with sustainable packaging and durable design. In recent times there has been more devices being released with recycled content, greater efficiency in battery life and energy saved from charging.

With all the challenges thrown our way in 2021 MobileMuster has been able to achieve strong results across all its metrics.

Over 106 tonnes of mobiles, their batteries, chargers and accessories was collected through our network.

Many of our collection partners have had to adapt to an everchanging environment and as a voluntary scheme we have been able to also adapt to their needs. MobileMuster has one of the most established collection networks of any scheme with 96% of Australians within 10kms of one of our collection points.

With more of us spending more time at home we wanted to ensure recycling our mobiles was still accessible and easy for all of us. It's at the heart of everything we do. So we created the option for consumers to order a free post back satchel from MobileMuster or they could download a free post back label.

With strong collections we have seen a reduction in the number of mobiles people are storing at home.³ However, with an estimated 23.5 million mobiles still stored in our homes around the country, we have some work to do in continuing to change our natural behaviour to hold onto them. If they still work we should be thinking about how we encourage reuse so that the full value of the materials that go into making these devices is realised before they are recycled when the device has reached the end of its useful life.

The natural evolution of the program has seen us introduce more tools to help us overcome the barriers to reuse and recycling. We continue to explore ways to engage more Australians to get involved in the circular economy by the simple act of reusing, repairing and recycling their mobiles. Australians understand that these devices are not meant for the bin with continued low rates of product being disposed of in the general waste stream. With high recovery rates of material through our recycling process we want more of us recycling when devices are no longer wanted, storing them means that we are unable to recover the materials that go into making them.

This year we have also been exploring ways to reuse the plastic material we collect and recycle into the production of our collection units. It has been a long process and in the coming year we hope to see the first roll out these new units using 100% recycled content from electronic waste.

We know that consumers are looking for ways to recycle more product than ever before, so MobileMuster is developing a business case to expand the program. Hence in May we launched a trial in selected retailers to collect electronics that are currently not being picked up by any scheme but aligns to our industry.

The coming year will continue some of the challenges of this year but will also bring some new opportunities for the program.

Performance highlights

Throughout the past year's challenges, the program has continued to deliver a dynamic product stewardship program by providing a world-class recycling service and developing new initiatives. Our members and the community have also played a significant role in helping us grow our recycling effort and achieve a **25% increase in annual collections**.

Recycling growth



106,086kgs

recycled

98%

recycling rate

Carbon neutral



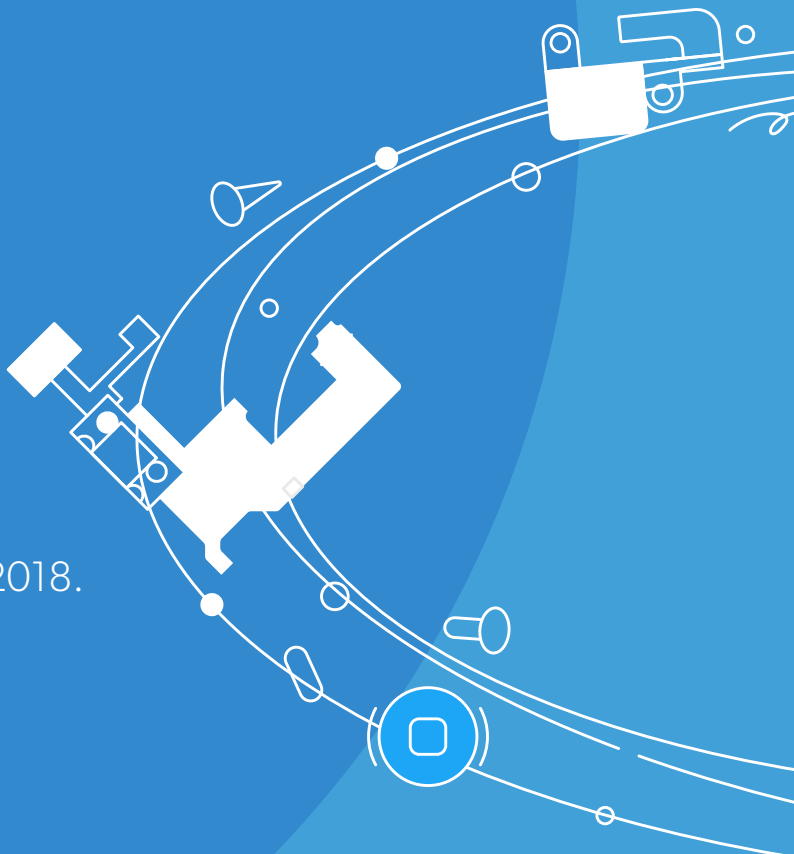
Carbon neutral operations since July 2018.

First product stewardship program in Australia to be carbon neutral.

Accessibility

96%

of Australians are within 10kms of a MobileMuster collection point. We even make it possible for people to recycle from home with our free post back option.



High industry participation

96%

manufacturers

84%

network providers

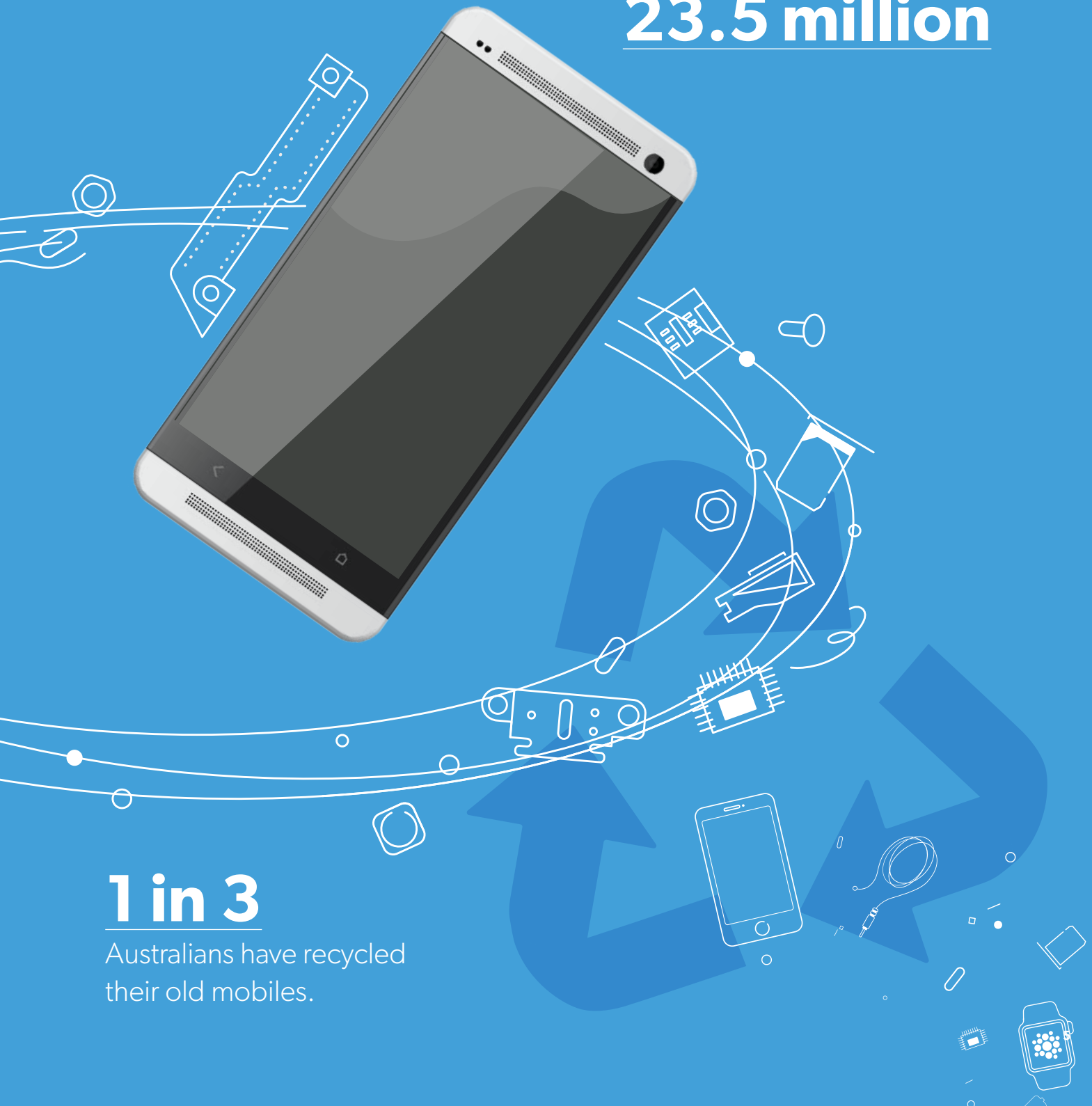
Awareness

Awareness of mobile phone recycling increased to

73%

Resulted in a reduction of phones in storage to

23.5 million



1 in 3

Australians have recycled their old mobiles.

Partnerships

We engage and collaborate with our partners and stakeholders to increase our reach across the country and motivate people to recycle.

Charity partnerships

MobileMuster partners with charities to encourage consumers to recycle their phones and do some good. So far, we have given over **\$1 million** to support local charities.

Landcare Australia

In August 2021, MobileMuster partnered with Landcare Australia to raise funds for planting trees as part of a wetland revegetation and biodiversity project along a strategic stretch of Brown Hill Creek in the City of West Torrens, Adelaide. The 2000 native plants' diversity supported local wildlife species while improving water quality within Brown Hill Creek. A national advertising campaign on regional TV, radio, podcasts and digital platforms promoted the initiative. We also achieved great coverage from media channels resulting in **65 mentions across radio, print and digital**.



The funding from this MobileMuster campaign will help support a riparian restoration project in South Australia in partnership with the City of West Torrens, community groups and the local Indigenous land managers – the Kaurana people.

Landcare Australia CEO Dr Shane Norrish

Zoos

MobileMuster strengthened its partnerships with zoos across Australia this year to raise much-needed funds to support its wildlife conservation projects. We are proud to be the official recycling partner of *They're Calling On You* conservation project to make it easy for their community of individuals, workplaces, schools and community groups to recycle mobiles and accessories. These initiatives have supported Taronga Zoo, Taronga Western Plains Zoo, Adelaide Zoo, Monarto Safari Park, Melbourne Zoo and Werribee Open Range Zoo.

Salvos

MobileMuster continues to support the Salvation Army by donating **\$2 for every kilo of mobiles and accessories** collected across their Australian retail network. The partnership increases the range of goods people can recycle at their local store whilst generating funds for the Salvation Army. The money raised helps support programs to end hunger, homelessness and build stronger families and communities. Since 2010, **over 8.7 tonnes of electronic waste** have been collected and recycled through their store network.



Retail

Making recycling options easy and accessible is key to the success of the MobileMuster program. Our retail partners provide a critical channel for consumers to purchase their latest products, trade-in, repair and recycle their devices that they no longer need.

Top Collectors Retailers Stores

Optus

- 1 **Optus Business Direct**—Belmont, WA
- 2 **Yes Optus**—Stanhope Gardens, NSW
- 3 **Yes Optus**—Woden, ACT

Telstra

- 1 **Telstra**—Geelong, VIC
- 2 **Telstra**—Warnbro, WA
- 3 **Telstra**—Hobart, TAS

Vodafone

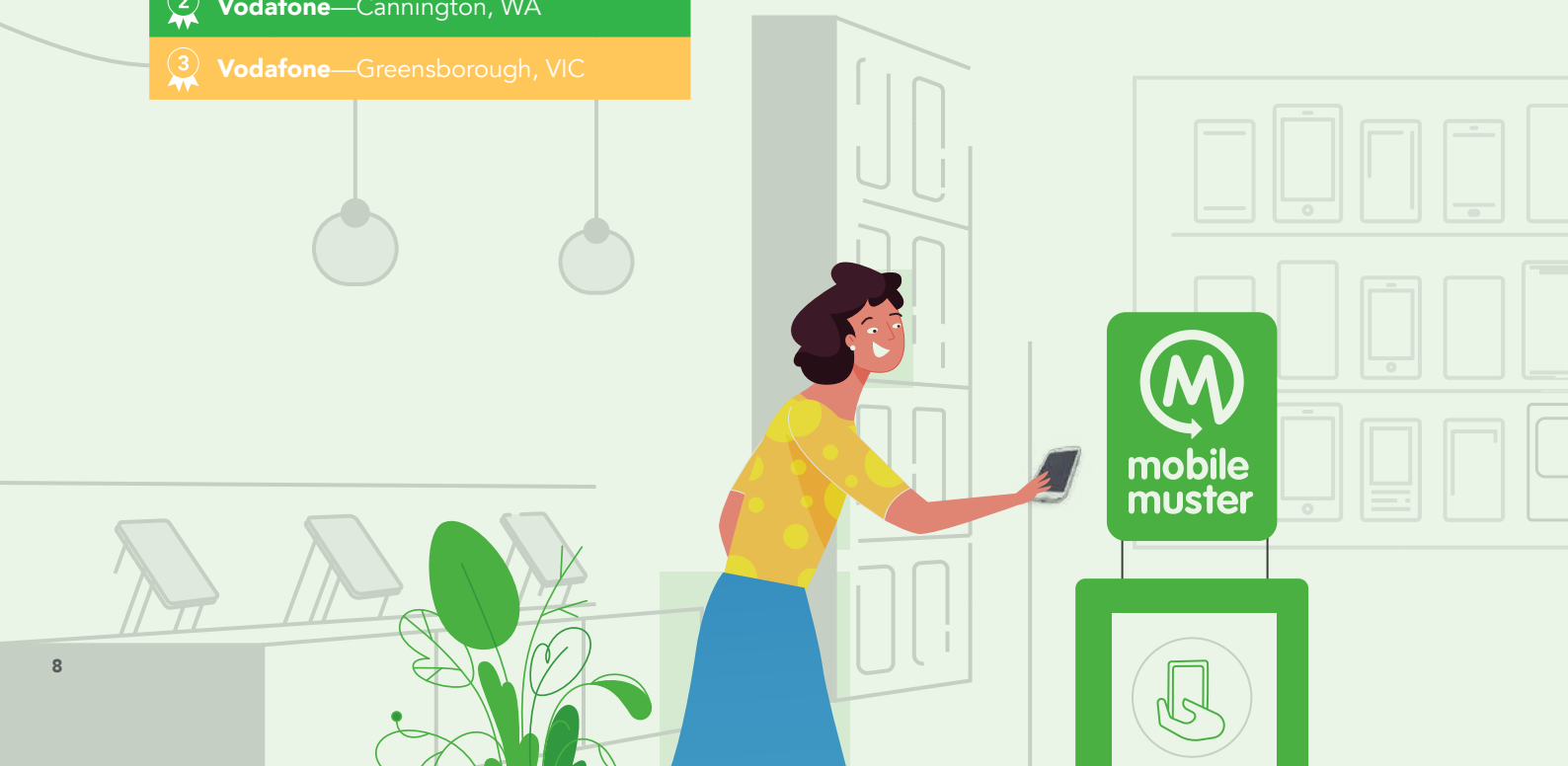
- 1 **Mo's Mobiles**—Endeavour Hills, VIC
- 2 **Vodafone**—Cannington, WA
- 3 **Vodafone**—Greensborough, VIC

JB Hi-Fi

In 2021, MobileMuster welcomed JB Hi-Fi as our newest retail partner. Mobile phone users can now pick up a MobileMuster satchel at their local store and fill it up with mobile phones and accessories for recycling. In making recycling as simple as possible for consumers, the satchel can then be posted back free to us at your local Australia Post retail outlet or red Australia Post box.

Re:Group

This new partnership with Return-It makes recycling your mobile phone as easy as returning eligible bottles and cans for recycling. Consumers can now drop off their mobile phones at participating Return-It depots or use the new ReCollect App to book a free collection of unwanted mobile phones and accessories for recycling in certain areas. Australians have already embraced container refund schemes, with millions of eligible bottles and cans returned and recycled every day. Return-It aims to build on this success and have more consumers recycle their unwanted mobile phones and accessories.





Local council

We work with nearly **400 councils** around Australia through our local government partnerships, reaching **18 million residents**. Councils provide over **1,000 MobileMuster collection sites**, including waste transfer stations, community recycling centres and local libraries. Collectively they recycle tonnes of electronic waste through the program every year and make the program accessible to communities with **96% of the Australian population** living within **10km of one of our collection points**.

Congratulations to the top Local Government Recyclers for 2021

New South Wales – Hornsby Shire Council

Northern Territory – East Arnhem Regional Council

Queensland – Cairns Regional Council

South Australia – City of Charles Sturt

Tasmania – City of Launceston

Victoria – City of Monash

Western Australia – Mindarie Regional Council



CEO Paul Sutton and Mayor Angela Evans, City of Charles Sturt accepted the award from Spyro Kalos, Head of MobileMuster at the Australian Local Government Association (ALGA) National General Assembly in Canberra.



Caption: Hornsby Shire Council's Mayor, Philip Ruddock, and Benn Judkins, Operations Co-ordinator for Waste and Cleansing.

Working with schools

Our education program helps raise awareness with the broader community on how we can reduce the impact of our mobile phones on the environment and the importance of recycling. We offer engagement initiatives, curriculum-based education programs for schools, professional training for teachers and online and in-class learning resources. We adapted our resources for use in remote learning, providing teachers with helpful home-schooling options.

During 2020/2021, we have:

- engaged more than **2,430 teachers**, with our lesson plans reaching over **55,328 students**
- achieved more than **32,000 visitors** to the education pages of our website, where we share learning resources and tools
- celebrated **1050 downloads** of our interactive digital book to help bring Mobile Connections to life in the classroom
- granted scholarships to **240 geography teachers** to complete our Mobile Connections professional development course
- gained positive feedback from our education stakeholders, with **98% of students** increasing their environmental knowledge and **93% of teachers** agreeing that students will take action on mobile phone recycling⁴
- had **100% of teachers** surveyed state they were extremely likely to recommend our education program.

We collected over 14 kilograms of mobile phones, tablets, batteries, chargers and other accessories to send off to MobileMuster to be deconstructed and recycled, helping reduce greenhouse gas emissions, mineral sources and CO₂ emissions.

Brianna Franklin, Student Sustainability Council

School challenge

In February 2021, MobileMuster launched a challenge for our school partners to join in and have an opportunity to win participation prizes or top collector awards for the top three schools in each state and territory. It was open to all preschool, primary, special and secondary schools in Australia. We received **155 new school registrations** who signed up to become a collection partner reaching **over 64,945 students**. As part of the challenge, teachers could order free MobileMuster school kits, collection boxes and recycling satchels to make it easy for their community to get involved and start recycling. Teachers also had access to digital and practical learning tools from the MobileMuster education program.

They chose the MobileMuster project, and then they decided what they wanted to do to spread the word to the community. Because it's a real-world problem, the students are a lot more engaged... they have control of their learning and lead what direction we are going to next.

Prue Martin, Teacher Stirling North Primary School



Film competition

Our film competition gives students a platform to investigate mobile phone recycling and encourage the community to recycle through the magic of film. The films allowed students to use their creative flair and environmental knowledge to share their voices with a broader audience. In 2020 we received over **400 entries** to the competition from across Australia. The films represented various styles, from superheroes, comedies and music videos to insightful documentaries and abstract animations. In November 2020, the winning films were promoted during National Recycling Week and reached one million people on social media.

Finalists

Congratulations to the 2020 MobileMuster Film Competition Winners

Khristian and Kael Bacchelli-Khoo

Applecross Primary School Western Australia
– Primary Winner.

Anikan Khandhar

St Aloysius' College New South Wales
– Secondary Winner.

Jasmin Scuteri-Young

Flinders University South Australia
– Tertiary Winner

Ella and Ava Shackleton

Yeppoon State Primary School Queensland
– People's Choice Award Primary Winner

Amelia Neofitou

Frankston High School Victoria
– People's Choice Award Secondary Winner



Jasmin Scuteri-Young, Flinders University South Australia – Tertiary Winner

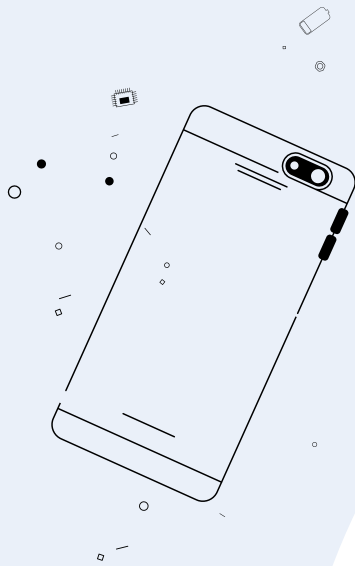


Ella and Ava Shackleton, Yeppoon State Primary School Queensland – People's Choice Award Primary Winner

Community behaviour and attitudes

Independent market research conducted for AMTA highlighted increased awareness this year, with **73% of people aware of mobile phone recycling**⁵. Pleasingly, this awareness has grown in regional areas and amongst younger Australians. We are also seeing a steady rise in the number of people intending to recycle, with **over 51% saying they will recycle their current mobile phone** when they stop using it.

Greater awareness and intention to recycle have resulted in positive recycling behaviour and increased collection volumes for MobileMuster.



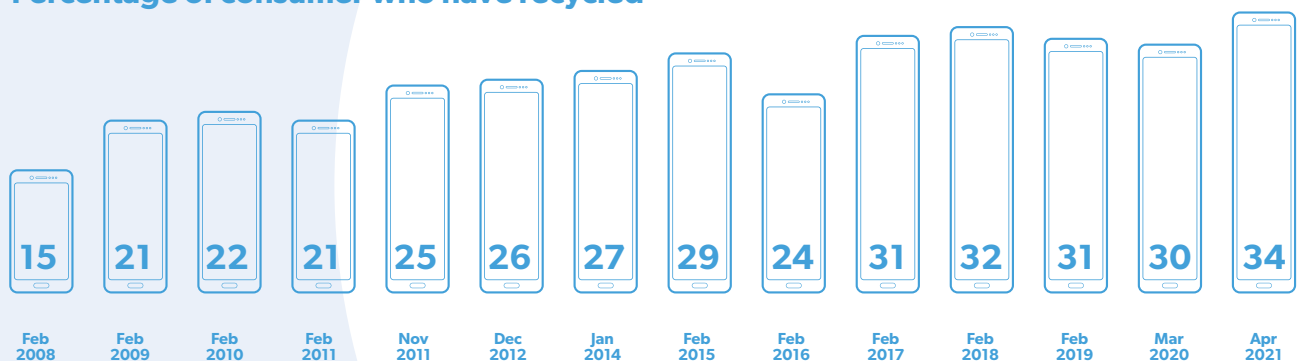
Recycling personalities

We know that most Australians are pretty good at recycling. However, sometimes we need a little help or motivation. MobileMuster has developed four recycling personalities based on our consumer research findings⁶. Each represents a specific type of recycler within the community that displays a variety of traits and motivations that drive their recycling behaviour. The recycling personalities are:

- Zero Waste Recycler
- Do Good Recycler
- Tech Recycler
- Show Me How Recycler.

In 2021 we launched four videos that introduced each of the four recycling personalities and how they can take action. We supported the videos with digital advertising targeting the audience represented in each group. With the right mix of targeted consumer education and recycling initiatives, we can help consumers overcome their barriers and get more Australians to recycle their electronic waste.

Percentage of consumer who have recycled



5 AMTA (2021), Insights into mobile phone use, reuse and recycling.

6 MobileMuster Research Report: Mobile Phone Use, Reuse and Recycling (2020)



Zero waste recycler

Goal:

I recycle with MobileMuster for a better world.

Traits – Committed recyclers:

- Environmentally aware and green consumers.
- Used and repaired their phone until it stopped working.
- Hold strong intentions and positive attitudes towards recycling.

What will motivate these consumers:

Show me the environmental benefit.

What barriers are in their way – Information:

They are motivated but just need to understand the basics – what, where and how.

How can we help:

Find out where to recycle in your local community and calculate the environmental benefits you are contributing towards.



MobileMuster drop off locator



Environmental calculator



Tech recycler

Goal:

I'll recycle if you pay me.

Traits – Indifferent recyclers:

- Early adopters of technology who like to purchase the latest model.
- Have invested in their phone and see the monetary value in their old phone.

What will motivate these consumers:

Show me the money.

What barriers are in their way – Time:

The longer they wait to do something with their phone the greater it will depreciate in value.

How can we help:

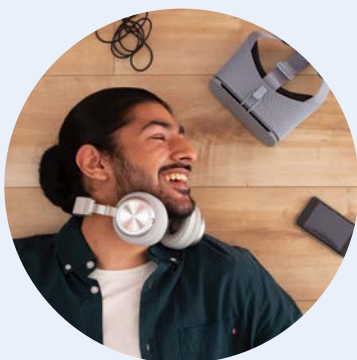
Tips on how to get your phone ready to be reused and sold. Recycle accessories or mobile phones that have no value.



Watch instructional videos



Recycle items that can't be reused or resold



Do good recyclers

Goal:

I recycle whenever I can but need to be motivated.

Traits – Aspirational recyclers:

- Conscientious consumers want to see a personal or social benefit for their effort.
- They reuse in the family. Support charity incentives. Keen to declutter the home.

What will motivate these consumers:

Show me how I can do some good.

What barriers are in their way – Opportunity:

They are waiting for the right opportunity or motivation to act.

How can we help:

Provide participation opportunities and positive reinforcement to recycle such as charity incentives.



Look out for incentive campaigns



MobileMuster drop off locator



Show me how recyclers

Goal:

I need help recycling.

Traits – Disconnected recyclers:

- Concerned about the data on their phone.
- They think they may need their old phones one day.
- Not sure what happens to their phone when it is recycled.

What will motivate these consumers:

Show me the way.

What barriers are in their way – Concern:

They are worried about recycling something that might still be valuable, could be used again and has personal data.

How can we help:

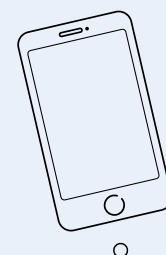
Ask for help to remove data. Learn about the secure MobileMuster recycling process.



Ask tech experts for help



Watch instructional videos



Go For Zero

Australians are holding onto 5 million old phones that are broken and no longer working. In March 2021, we challenged everyone to find their old and broken phones and Go For Zero. The now annual campaign aims to raise awareness of the environmental benefits of recycling and how easy it can be.

To support the campaign, we worked with astrophysicist and Professor at Swinburne University of Technology, Professor Alan Duffy to explain how we can all play our part in the circular economy and how we must keep precious metals in circulation through recycling. Professor Duffy wrote an opinion piece on the importance of the circular economy and appeared on TV and radio to share his support for the campaign.

The visibility of this inaugural campaign was high, with three in ten mobile phone users recognising at least one element of the paid campaign (including digital, radio, retail and outdoor advertising). The campaign was supported with a national PR campaign and amplified by our members and collection partners. Among those who recalled the campaign, **over 50% claimed they told someone about mobile recycling.** As a result of the campaign, the program experienced a noticeable increase in website traffic and collections in March and April 2021.





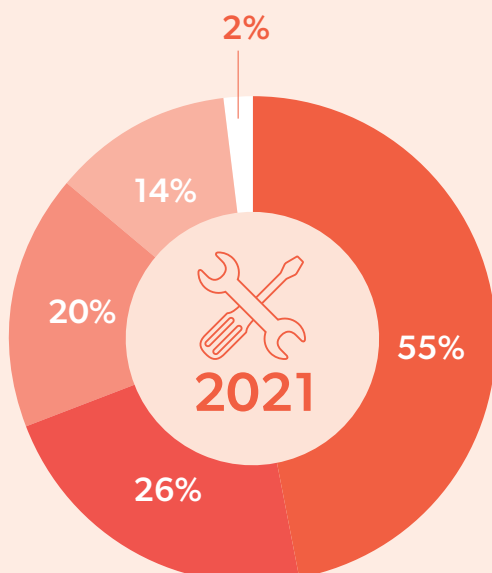
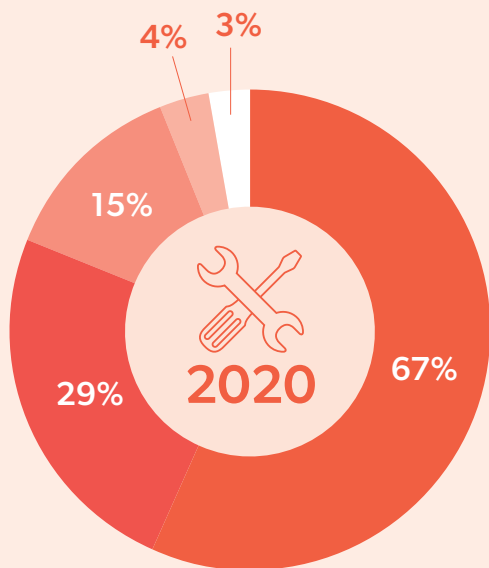
READING

CINEMA

Product longevity

The average length of phone ownership in Australia has been steadily rising and is currently at 2.7 years. By keeping a mobile phone in use as long as possible, we make the most of the materials and energy needed to manufacture them in the first place. This use could be through a single owner or multiple owners throughout the product's life. The mobile phone industry helps Australians extend the life of their mobile phones through durable design, security and software updates, repair services and trade-in programs.

Phone was repaired by...



Repair

Repairing a phone can extend its life and reduce its environmental impact, and Australians have access to safe and reliable repair services across the country. We continue to provide consumers with information about repair services offered by the handset manufacturers, network carriers and authorised service providers.






MobileMuster has undertaken independent market research to better understand consumers' behaviour, motivations for and barriers to repair. The survey was developed based on existing and new questions asked in our annual study conducted by IPSOS. These insights help MobileMuster to look for opportunities to enhance and encourage responsible and sustainable repair in Australia.

Approximately **38% of Australians have repaired a mobile phone**. Repair has stabilised in the last couple of years, and our market research insights predict that repair will continue to grow amongst younger Australians. Most repaired their mobile phone because they liked it, or it was only a minor issue. The majority of repairs took place on mobile phones between one and three years old.

Our research also told us that more consumers are taking back their mobile phones to a network provider or retailer, potentially where they purchased the device. Handset manufacturers increasingly allow consumers to select their service centres or even use apps to diagnose potential issues.

MobileMuster will continue to build upon its role by:

- promoting awareness of members repair services and value proposition
- educating consumers on their repair options
- encouraging repair stores to partner with MobileMuster
- recycling waste produced through repair services

-  **An independent repair shop**
-  **A mobile phone manufacturer**
-  **A network provider**
-  **A retailer**
-  **Somewhere else**

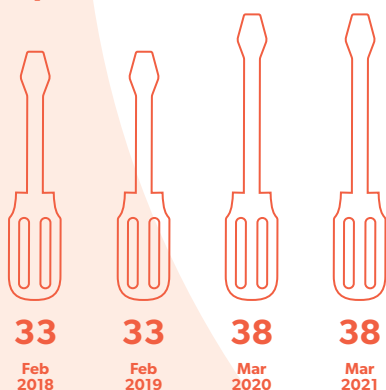
Reuse

There are several options for consumers to recognise the value of their device through reuse and extending the life of their mobile phones. Options include trading in, selling, passing down to a family member, or purchasing refurbished or second-hand devices.

MobileMuster's members provide trade-in programs for consumers looking to upgrade their mobile phone. We provide online tools so consumers can determine if their device is eligible based on the mobile phone's model and working condition. And we provide information for consumers on trade-in programs and how to prepare their mobile phone for reuse. This process includes making sure they safely back up, transfer and reset their mobile phone, and remove all locks, passwords and online account information.

MobileMuster is the recycling partner of several commercial and charitable reuse programs in Australia. These programs include Boomerang Buyback, Mazuma Mobile, Mobile Monster, Moorup and Phone Cycle.

Trend for having phone repaired over time



Policy developments

The Productivity Commission investigated consumers' ability to repair faulty goods and access repair services at a competitive price this year. AMTA's submission to the inquiry acknowledged that the mobile phone repair market is competitive and well supported by industry members in Australia. We believe Australian consumers can easily access repair services for mobile devices via an established mobile phone repair industry that includes manufacturers, retailers and independent repairers.

AMTA also provided insights on how consumers use, reuse, repair and recycle their mobile phones within Australia.

The consumer's right to repair is similarly well protected under the Australian Consumer Law (ACL). This robust regulatory framework additionally ensures consumer protection for replacement or refund if a mobile phone fails to meet a consumer guarantee. In 2020/2021, AMTA, through MobileMuster, has continued to educate consumers on the importance of repair and the value of extending a mobile's life through repair and reuse.

Approximately

38%

of Australians have repaired a mobile phone

Repair has stabilised in the last couple of years and our market research insights predict that repair will continue to grow amongst younger Australians. Most repaired their phone because they liked it or it was only a minor issue. Most phone repairs took place on phones between 1 and 3 years old. The research also showed that more consumers are taking back their phone to a network provider or retailer, potentially where they purchased the device. Handset manufacturers also provide the option for consumers to go directly to their own service centres or even use apps to assist with diagnosing potential issues.

Recycling and innovation

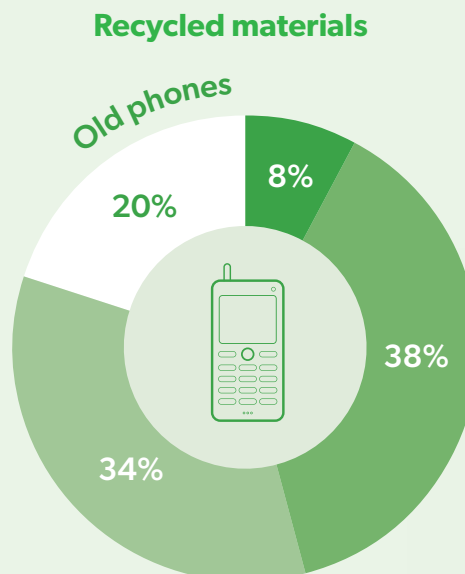
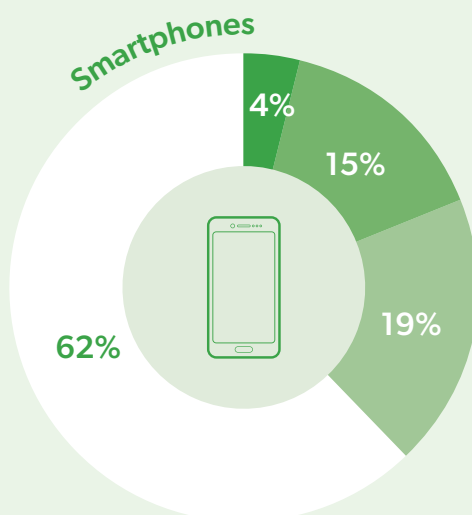
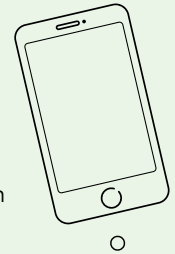
There is a clear need to ensure valuable resources that have gone into making our mobile technology are recovered and reused to manufacture new products. We can do this by recycling electronic waste and avoiding products from ending up in landfill. Our partnership with world-class recyclers is achieving high recovery rates and we are all committed to innovation in the recycling process.

As part of our transparency, we audit our recyclers for compliance with environmental, health and safety regulations and require the use of best practices.

Materials

A mobile phone is made up of various materials, with glass, plastic and metal as the most common materials. Newer devices are generally more compact in design and use fewer metals and precious materials.

Changes in design and materials used have seen an increase in the average weight of smartphones, with the most significant design change being in the construction of screens now using ceramic glass. The average weight of a mobile phone recycled through the program has increased to **155 grams**. Older mobile phones used to be lighter and made predominately from plastic. However, smartphones use more metal and glass.



- Metals
- Plastics
- Printed Circuit Board
- Glass/LCD





Plastics innovation

As a program committed to innovative solutions, we are proud to be at the forefront of developing strategies to improve the use of plastic waste from electronics in Australia. MobileMuster has been working to circularise the journey of plastics through remanufacturing the old mobile phone casings and accessories to create new products. This year we have worked with local manufacturers to use the plastic to make our own collection units and awards. It is an excellent example of the circular economy in action, and we are looking forward to rolling the new units out across our network later this year. We believe our leadership in this area provides valuable inspiration for the circular recycling of plastic waste in Australia.

We look forward to working with our members to develop new end markets for these recycled materials.

Battery recycling

In March 2021, our recycling partner TES opened its new battery recycling facility in Singapore. It has the capacity to handle **14 tonnes of Lithium-ion batteries** or the equivalent of **280,000 smartphones** each day. The facility uses a combination of mechanical equipment and hydrometallurgical processes to break down the batteries and recover precious metals such as nickel, lithium and cobalt. Additional innovations of this facility are the power from rooftop solar panels and not releasing secondary contaminants into the atmosphere.

The battery recycling recovery rate **exceeds 90%** through the new technology and yields a purity level of **almost 99%**. This success means that the recycled metals are commercially ready for the production of new batteries.

E-waste trial

In May 2021, MobileMuster announced a three-month take-back trial to get Australians to recycle more electronic waste, including modems, routers, landline phones, smart home technology, wearables and gaming devices.

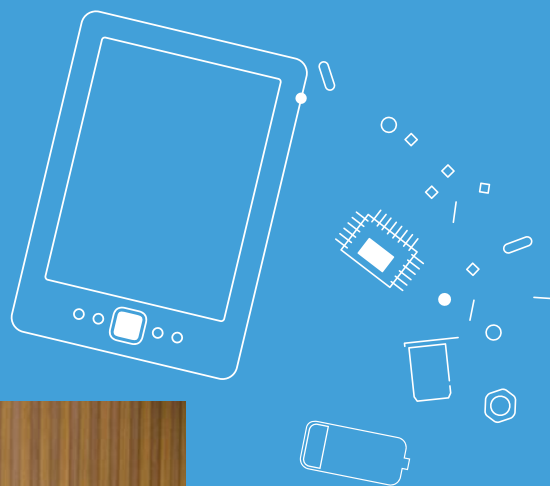
MobileMuster undertook independent market research to support the trial to gain insights into what consumers are doing with these products. The results estimated the number of electronic products in Australian homes not currently used, sitting at **38 million**.

MobileMuster's retail partners Optus, Telstra and Vodafone participated in the trial using their extensive store network as collection points. MobileMuster also provided a free post back option so that consumers could recycle from home using a free mailing label. We can recover **over 95% of the materials** in these devices through our recycling process. The trial will look at recovery and participation rates, customer satisfaction and delivery of environmental benefits.

The trial is being supported by the Federal Government's *National Product Stewardship Investment Fund* to develop a business case to expand the scope of MobileMuster's product capability. If successful, MobileMuster will use this business case as the foundation for a permanent model to expand MobileMuster with new brand owner members and ensure more products are collected and recycled responsibly.

Research indicated that consumers are storing over
38 million
electrical devices

During the trial over
5 tonnes
of product was collected and recycled



Trevor Evans, Assistant Minister for Waste Reduction and Environmental Management, launching the trial with Spyro Kalos, Head of MobileMuster.



Accreditation

MobileMuster is accredited under the Australian Government's *Recycling and Waste Reduction Act 2020*, whose objectives are to:

- reduce the impact on human and environmental health of products, waste from products and waste material, including by reducing the amount of greenhouse gases emitted, energy and resources used and water consumed in connection with products, waste from products and waste material.
- realise the community and economic benefits of taking responsibility for products, waste from products and waste material.
- develop a circular economy that maximises the continued use of products and waste material over their life cycle and accounts for their environmental impacts.

Accreditation enables industry-led programs like MobileMuster to demonstrate to businesses and consumers that the program meets the Australian Government standard on best practice with the product stewardship framework. It provides confidence that MobileMuster uses a framework that effectively addresses a product's environmental, health, and safety impacts across its full life cycle, from manufacture to disposal. The accreditation also supports accountability and transparency of the program to all of its stakeholders.

Our performance against our voluntary accreditation key performance indicators for the financial year 2020/2021 is detailed below.

Results

Performance indicator	Target	Result
Collections		
Mobile phone collections (weight – tonnes)	85	106
Annual collection rate (available phones)	58%	55%
Diversion from landfill	>95%	99%
Recycling rate (material recovery)	>90%	98%
Consumer behaviour		
Disposal rate to landfill	2%	4%
Accessibility	>80%	96%
Industry participation		
Manufacturers	>80%	96%
Carriers	>80%	84%



MobileMuster is proud to support the Mount Sandy Conservation Australia project as part of our carbon-neutral certification. The project supports one of the last pockets of bush and wetlands between Coorong National Park and Lake Albert in South Australia. It brings together Indigenous and non-Indigenous Australians by promoting land conservation methods that Traditional Custodians, the Ngarrindjeri people, have employed. The project not only has significant climate benefits, but it will also deliver revegetation of the area to support local birds, animals and plants to flourish.

MobileMuster is the Government
accredited product stewardship
program of the mobile phone industry.

**An initiative of the Australian Mobile
Telecommunications Association (AMTA)**

Level 5
50 Berry Street
North Sydney NSW 2060

Phone 02 8920 3555
mobilemuster@amta.org.au
contact@amta.org.au

Doing good for tomorrow.



Australian
Government
Accredited
Product
Stewardship
Scheme