

Delivering positive change for a mobileenabled future for all Australians.

Welcome

AMTA is the peak industry body and voice of Australia's mobile telecommunications industry.

Our vision

AMTA's vision is to promote an environmentally, socially and economically responsible, successful and sustainable mobile telecommunications industry in Australia.

AMTA aims to achieve its vision by:

- Effective industry representation and leadership
- Generating consensus on whole-of-industry issues
- Improving the level of trust between the industry, related industries, key stakeholders and the wider community
- Promoting an improved understanding of its contribution to the Australian community



CONTENTS

Welcome	3
Message from the Chair	4
Message from our CEO	6
Our priorities and impact	
Engaging our stakeholders	8
5G Enquiry	
Paving the way for a better-connected future	11
Mobile Muster	12
AMTA/Board Members	15



Message from the Chair

Jane van Beelen

This new Industrial Revolution will harness the power of data analytics, networks and artificial intelligence to drive efficiency, accessibility, productivity and intelligent connectivity.

The mobile sector continues to be at the forefront of technological change with the rise of 5th generation mobile services and, once again, the Australian mobile industry is taking a leading position with local commercial 5G launches throughout 2019.

The expectations of this generational change are farreaching given the anticipation that 5G will support a new era of connectivity central to the 4th Industrial Revolution, with mobile connectivity a key enabler across all sectors – governments, consumers and industries. This new Industrial Revolution will harness the power of data analytics, networks and artificial intelligence to drive efficiency, accessibility, productivity and intelligent connectivity.

In this context, the opportunities to leverage the 4G/5G ecosystem as a key part of how we live and respond to the challenges of our time are boundless. It will impact all sectors of our economy and society. For example, as population growth continues to put pressure on communities around the world, technological solutions will play a critical role in

increasing food production, limiting water wastage and simplifying access to healthcare.

As they look for ways to enable a 4G/5G mobile ecosystem to flourish, the challenges surrounding investment in, and deployment of, mobile infrastructure are top-of-mind for governments around the world - including here in Australia. Put simply, to realise the significant economic and social benefits, policy and regulatory settings must recognise and support mobile generational change. The Australian government understands this and is working with AMTA and members on critical issues such as:

- Spectrum reform that reflects the needs of the market for timely access to the right spectrum in sufficient quantity and under contemporary license conditions
- Network deployment regulation that promotes efficiency in building the mobile networks of the future
- Continuation of the co-regulatory approach that has underpinned three decades of competition and growth in Australia's world-leading mobile sector.

The Government has also decided to examine and better understand 5G through the establishment of a 5G Inquiry which will report to the Parliament in the first half of 2020. AMTA and members are keenly focussed on this, and related policy and regulatory processes that will shape the mobile sector's operating environment and our 5G future.

On behalf of the Board I thank members for their engagement and support, and the AMTA team for their professionalism. I also thank the other Directors for their commitment to serving the industry. In closing, I reflect on the opening words of the Government's press release announcing the 5G Inquiry:

"5G will transform the way we live and work, and provide opportunities for family life, industry and commerce. It will power smart homes and cities and provide new ways to experience entertainment, and at the same time transform transport, logistics and industry".

I absolutely agree – let's be sure to work together to maximise the opportunities.



ACMA RESEARCH* REPORTS

over 34 million mobile services

IN OPERATION AT JUNE 2018, IN AN AUSTRALIAN POPULATION OF JUST OVER 25 MILLION.*

> *Communications Report 2017-18 *ABS ACMA: Australian Communications and Media Authority





THE MOBILE SECTOR IS A SIGNIFICANT COMPONENT OF THE CRITICAL INFRASTRUCTURE THAT FACILITATES OUR ABILITY TO CONNECT, WORK AND TRANSACT.

\$22.9 billion

The total value added to the Australia's GDP by the mobile industry in 2017-18.

116,100

The total number of full-time equivalent jobs supported by the mobile industry.

\$25.2 billion

Revenue generated by the mobile industry in 2017-18.

*Deloitte Access Economics Mobile Nation 2019-5G The Future



THE 2019 DELOITTE ACCESS ECONOMICS REPORT

MOBILE NATION - THE 5G FUTURE

5G will provide new pathways for businesses to create value, support productivity and even help people join the labour force.

"The productivity benefits of mobile telecommunications will be worth

\$65 billion

to the Australian economy by 2023. Equivalent to 3.1% of GDP."

EQUIVALENT TO \$2500 IN BENEFITS FOR EVERY AUSTRALIAN.



Message from our CEO

Chris Althaus

"So, the stage is set for the start of a new decade and 2020 will be the year of 5G as more and more applications and services reach the market in partnership with our world leading 4G networks."

2019 has been notable. An election year that returned the Government against many predictions, the launch of commercial 5G services in Australia and the telecoms industry structure under the microscope.

As a prelude to the election campaign AMTA worked with Deloitte Access Economics to release 'Mobile Nation - the 5G Future' to highlight to economic and social impacts of the mobile sector and the emerging opportunities enabled by our 4G/5G mobile ecosystem. The analysis points to a mobile generated \$65billion uplift in GDP by 2023 which highlights the significance of mobile to our economy.

Post-election AMTA welcomed a telecommunications industry veteran, Paul Fletcher, as incoming Minister for Communications, Cyber Safety and the Arts. AMTA engaged early and often with the Minister's office and Government throughout the year with much focus on reform agendas for mobile infrastructure - both spectrum and network deployment.

AMTA has supported, in principle, the Minister's recently announced pragmatic approach to amending the Radcomms Act rather than undertaking a wholesale reform of the legislation after the re-drafting process stalled.

In addition, we are continuing to pursue a package of reforms to network deployment regulation to enable an efficient rollout of 5G networks.

AMTA is committed to advocating for regulatory and legislative frameworks that are reasonable, flexible and proportionate as a means of supporting ongoing innovation and investment in mobile infrastructure.

It is also one of AMTA's key purposes to promote public trust and confidence in mobile networks, devices and services.

In 2019 the roll-out of 5G has raised concerns about the health, safety and environmental impacts of 5G technology amongst a minority of people both here and in various jurisdictions around the world. These concerns do not reflect the majority level of confidence generally held by the

broader community. Nor do these views reflect the facts which make up the main body of science that underpins the international and local safety standards that industry must meet.

AMTA has devoted significant effort to explain the science and to reassure people via public awareness and education resources about 5G and the relevant safety standards. AMTA also acknowledges the important and significant role of government agencies in this context.

So, the stage is set for the start of a new decade and 2020 will be the year of 5G as more and more applications and services reach the market in partnership with our world leading 4G networks.

My thanks to the AMTA Board and members for your engagement and commitment to our programs and of course to the outstanding AMTA staff who make it all happen. We all look forward to working with you in 2020.

Our priorities and impact



Some Highlights of 2019



The spectrum agenda has become more active post-election with the ACMA consulting on a range of issues from Spectrum Sharing to specific spectrum band issues to some new thinking on potential future licence types.

AMTA has provided commentary on the option to amend current arrangements under the existing RadComms Act – as opposed to a full re-design of spectrum management under a new Act.



RETAIL STORE SECURITY

In 2019, AMTA led a co-ordinated and successful response for our members to the increased incidence of thefts and assaults occurring at mobile phone retail stores. Our engagement with members and police in VIC, NSW and QLD has facilitated greater collaboration and sharing of criminal intelligence and improved security measures.

AMTA and its members will continue to partner with the National Retail Association Crime Committee and police to ensure retail stores are safe for both customers and staff.



RECYCLING ACCESSIBILITY FOR EVERYONE

MobileMuster now boasts the most extensive collection network of any product stewardship scheme in Australia. Our network of retailers, local councils, workplaces and schools provides a collection point for 96% of the population within 10kms of their home. In addition, MobileMuster now have over 200 mobile phone service and repair centres registered with the program. These partnerships make it easy for people to recycle in their community and helps increase awareness of the program.

4G/5G

MOBILE CARRIERS FORUM

AMTA is focussing on reducing the regulatory requirements around planning and consultation for network deployment with the aim of improving efficiency, particularly in small cell deployments. This will facilitate expansion of current 4G networks to meet coverage and capacity demands and the ongoing evolution of 5G. Our objective is to work closely with community and Government to develop a flexible and robust framework to enable next generation network infrastructure deployment across Australia, so that the social and economic benefits of 4G/5G can be fully realised.

Engaging our stakeholders

AMTA provided significant input to the World Radiocommunications Conference preparatory process in relation to Australia's position on current and future IMT bands and preferred spectrum arrangements globally and in particular spectrum planning for region 3.

AMTA advocated for the introduction of some flexibility to the Australian position around emission limits in relation to 26 GHz.

Our goal was to align the Australian position with that of the GSA regarding these emission limits. We now await the outcome of WRC-19 which will help inform Australian domestic spectrum planning as global decisions are progressed regarding the identification of spectrum for 5G.

AMTA AND TELSTRA EMF SYMPOSIUM

AMTA partnered with Telstra to present the annual EMF Symposium, held at Telstra's Exhibition St offices in Melbourne on 27 August 2019. The event assembled an audience of industry, regulators, academics and the health agencies for a discussion of EME related issues, the theme being 5G, small cells and recent community and local government activism against small cell and deployment.

Feedback from attendees was very favourable with many noting not only the interesting content presented but the great opportunity for networking amongst the audience members from across a such a wide range of stakeholders.

MOBILE NATION/ACCIEVENT

On 2 October, AMTA partnered with ACCI to hold a lunch event in Sydney, hosted by Allens, that was attended by around 100 members of the business community. The focus for the event was 5G and its impact on productivity. It was a good opportunity to again highlight our Deloitte Access Economics Mobile Nation: the 5G Future report.

Minister Paul Fletcher made an address and joined a panel discussion with Jane van Beelen (Telstra and AMTA Chair), Clare Harding (Chief Transformation Officer-DAE) and Channa Seneviratne (Network & Infrastructure Engineering - Telstra). The Minister notably made some strong statements around the safety of 5G for the community.

ADVOCACY AND ENGAGEMENT

AMTA made nearly 20 submissions to Government and regulators this year, covering topics ranging from the regulation of mobile phone insurance, international mobile roaming, notification protocols for counterdrone measures used by law enforcement and security agencies to spectrum planning.

We also continued our engagement with consumers groups including ACCAN and the AMCA's Consumer Consultative Forum as well as the Office of the eSafety Commissioner.

In response to an increase in criminal activities targeting mobile phone retailers, we engaged with State police in Victoria, NSW and Queensland and we were invited to participate in the state-based Crime Committees of the National Retail Association to maintain an ongoing dialogue with police. This has been very useful in ensuring that there is a good

flow of information between industry and police to prevent further crimes that impact on our members retail operations.

AMTA also has an ongoing engagement with NSW Corrective Services in relation to jamming of mobile services in their facilities. Jamming is operational at Lithgow correctional centre and a trial also commenced this year at the Goulburn Supermax centre after a period of testing.

The Western Sydney Parkland City project being managed by NSW Government approached AMTA this year in relation to their 5G Strategy and we are providing input to the strategy as it continues to be developed.



Jane van Beelen, Minister Paul Fletcher, Chris Althaus at Australian Parliament House

5G inquiry

In September, the House of Representatives Standing Committee on Communications and the Arts announced an inquiry into the deployment, adoption and application of 5G in Australia.

The terms of reference of the inquiry are:

The Committee will:

- Investigate the capability, capacity and deployment of 5G;
- Understand the application of 5G, including use cases for enterprise and government.
- Matters relating to national security are out of scope for this Committee.

AMTA has collaborated closely with members to develop an industry response to the inquiry, including making an industry submission that:

- Outlines the potential benefits of 5G for Australian society and the economy;
- Highlights a few of the many use cases for 5G;
- Addresses community health concerns about 5G and small cells: and
- Outlines how Government can work with industry and across key portfolios, to ensure that policy and regulatory

settings support efficient deployment of networks, including timely spectrum allocation, and that there is broad community support for and understanding of the economic and social benefits of 5G.

AMTA also engaged with other stakeholders, including ARPANSA, the GSMA, the ACMA, ACEBR and several government departments to encourage these agencies to make their own responses to the Inquiry.

The Committee has since received many submissions from members of the public who are concerned about the impact 5G could have on human health and the environment. While the industry submissions addressed these concerns, we are also pleased that the ARPANSA submission unequivocally states:



"ARPANSA's assessment is that 5G is safe."

AMTA's industry submission stated that 5G networks will transform the way Australians live and work and we must ensure that the enabling effects of this next generation technology are fully realised and shared across the whole community.

It is in Australia's national interest that the transition to 5G is fast-tracked so that the economic, productivity and social benefits can be realised sooner.

This will require a co-ordinated policy approach from all levels of Government, working with industry and across key portfolios, to ensure that policy and regulatory settings support efficient network deployment, including timely spectrum allocation and that there is broad community support for and understanding of the economic and social benefits of 5G.

We therefore called for Government to play a greater role in leading a strategy to work with all levels of government and industry to promote a pathway to 5G including building awareness around the potential benefits of 5G within the public sector itself as well as across industries and enterprise.

AMTA is continuing to work closely with members and stakeholders as the Committee holds public hearings in capital cities and we expect to provide testimony at one of the hearings.

Paving the way for a better-connected future

The investment and contribution made by the mobile industry in Australia is significant, amounting to billions of dollars in purchasing and renewing spectrum licences, as well as deployment of network infrastructure to support the full range of products and services.

This investment, combined with the economic and social benefit that it contributes to Australia's economy, makes it imperative that the legislative frameworks underpinning the management and allocation of radiocommunications spectrum – as well as infrastructure deployment – must be both predictable and flexible for operators. AMTA is therefore actively participating in and pursuing a reform agenda around two streams of Government reform processes – the legislative and regulatory framework governing deployment of network infrastructure, and the proposed reform of the *Radiocommunications Act 1992*.



REGULATORY REFORM - TEMPORARY FACILITIES

The MCF has engaged with Department of Communications and the Arts over the last several years to prosecute a package of reforms to facilitate the deployment of mobile telecommunications infrastructure which brings significant social and economic benefits to the communities and businesses it services.

As part of these reforms, in 2019 the MCF welcomed the passage of new legislation permitting the deployment of temporary towers and associated equipment to provide mobile phone and data facilities at public events such as concerts and sporting events; during peak times in regional

locations for cultural festivals or during holiday seasons; and to provide continuity of service during times of scheduled or emergency maintenance on network facilities.

This important amendment allows carriers to provide essential mobile services to customers in places and situations for which it would otherwise be uneconomic to develop permanent facilities, or undertake onerous planning and associated conditions for temporary facilities, but which are nonetheless in significant demand for relatively short periods of time.

UPDATE OF THE MOBILE BASE STATION DEPLOYMENT CODE

To ensure that communities and businesses continue to enjoy the benefits such as temporary and other forms of mobile infrastructure bring while allowing communities to be notified and consulted on deployments happening in their areas, the MCF has worked with the Communications Alliance and other stakeholders to update the Communications Alliance Industry Code C:564 for Mobile Base Station Deployment. This Code describes mandatory procedures that Carriers must follow in notifying and consulting with affected communities when deploying mobile network infrastructure

utilising abbreviated planning provisions permitted under the legislation.

The updated code focussed in particular on new types of small network infrastructure (such as 'small cells') and new methods of notifying and consulting such as the use of email, webpages and social media. Various references to legislation and supporting documents were also updated to ensure the Code remained up to date with other regulatory changes. The new code is available at https://www.commsalliance.com.au/Documents/all/codes/c564



"AMTA has worked with the government to convey industry's needs and preferences both in terms of changes to how current mobile spectrum is managed and importantly, what new bands should be brought to market."

SPECTRUM REFORM

Over the last 5-6 years the Government has undertaken a re-write of the Radiocommunications Act - aiming to develop a new Act to support a contemporary spectrum management framework more suited to the dynamics of the current and future markets. This has been a complex and difficult project. Soon after the 2019 election the incoming Communications Minister, Paul Fletcher assessed the Spectrum Review project and took the decision to leverage all the analysis that had gone into the Review and re-focus the project to amend the current Act as opposed to completing drafting a new Act. This decision should hasten this important reform.

AMTA has recommended that the following key policy positions should inform the drafting process:

- The licensing framework needs to be flexible as well as provide sufficient certainty to encourage continued investment.
- Flexibility means streamlining processes, technology neutral, multi-purpose use.
- Certainty means licence tenure of at least 20 years; with renewal pathway certain and explicit in the legislation.
- Allocations need to be efficient and marketbased, with secondary trading encouraged.

- Property rights of licence holders need to be enforced to be meaningful and for licences to hold value in the market.
- Sharing, while desirable for efficiency, should never be imposed on licence holders, as this would infringe property rights.

While the Spectrum Review is focussed on the spectrum management and planning framework the other critical aspect of the Government's spectrum responsibility is to ensure the market has timely access to the spectrum it needs in line with market dynamics - such as the spectrum needed to support 5G.

AMTA has worked with the government to convey industry's needs and preferences both in terms of changes to how current mobile spectrum is managed and importantly, what new bands should be brought to market. In the latter case two pioneer 5G bands have been addressed with 3.6GHz auctioned in 2019 and the 26GHz band scheduled for auction in early 2021.

Mobile Muster

The mobile telecommunications industry takes a leadership role towards product stewardship through the MobileMuster program. In 2019 the program was accredited for a further five years by the federal government. The accreditation, under the Product Stewardship Act 2011, provides a framework for industry to voluntarily share responsibility for the sustainable management of products.

AMTA manages MobileMuster on behalf of its members. Members of the program include all the major handset manufacturers Alcatel, Apple, HMD Global (Nokia), HTC, Huawei, Google, Microsoft, Motorola, Oppo, Samsung, Vivo Mobile, ZTE and network operators Optus, Telstra and Vodafone

Mobile phone waste is a growing problem around the world. There is an ever-increasing number of mobile phones reaching the end of their life which contain valuable and reusable materials. As we transition to a circular system there will be a greater focus on mobile phones being repaired, reused and recycled.

MobileMuster plays an important role in this transition. The program has four fundamental objectives:

Environmental:

Keeping mobiles out of landfill and optimising resource recovery

Social:

Creating awareness and educating the community on mobile phone recycling

Policy:

Enabling our members to deliver a sound product stewardship scheme

Economic:

Delivering an effective, efficient, equitable and sustainable program for its members.

OUR PERFORMANCE

High community awareness

70% wareness of mo

awareness of mobile phone recycling

Expansive geographic footprint

96% of Australians living within 10km of a

collection point

More than recycling
1.5 million

Australians educated on data management

Strong industry ingagement

92% manufacturer and

84%
network provider
participation

Mobile Muster

IN 2018/19 THE PROGRAM RECYCLED

- 84.1 tonnes of mobile phone components
- Including 1.13 million handsets and batteries
- And 31 tonnes of accessories

ACHIEVED

- 98% diversion from landfill
- Greater than 95% recycling rate

HEI PED THE ENVIRONMENT BY

- Avoiding future greenhouse gas emissions
- Saving energy
- Conserving natural resources
- Preventing potentially hazardous materials from entering the environment.





Celebrating 21 years

This year MobileMuster celebrated 21 years of mobile phone recycling in Australia. Mobile Phone Industry's Recycling Program, as it was known when it was established in 1998, was founded by AMTA members Telstra, Nokia and Motorola, who were the dominant players in the market at that time. The main driver was to keep the mobile phone batteries, which were then made from nickel cadmium, out of landfill.

As mobile phone ownership became more prevalent there was increased pressure on industry to take responsibility for recycling. AMTA partnered with Planet Ark in 2001 to help build the program under the name Phones for Planet Ark. Over the next few years the collection network grew significantly to include mobile phone retailers and the addition of the Australia Post partnership which provided free recycling satchels to consumers.

AMTA relaunched the program in 2005 under the MobileMuster brand as it is known today with a focus to improve visibility and consumer awareness. In 2014, MobileMuster became the first voluntary product stewardship scheme in Australia to be accredited by the federal government under the Product Stewardship Act 2011.

Today, the program continues to provide an environmentally sound solution of disposing of unwanted mobiles, along with helping consumers manage their old devices effectively so they can make an informed choice when it comes to letting them go.

Our impact... since the beginning

- We have grown with new members
- And engaged with more partnerswith more than 7500 collection points around Australia
- 1500 tonnes of mobile phone components have been collected and recycled, including over 14 million handsets and batteries.
- Delivering tangible community and environmental benefits
- Provided a free recycling program and reduced mobile phones in landfill.
- We've reduced CO2 emissions and conserved raw materials.
- Given over a million dollars to social causes to motivate and reward people to recycle.
- Ensured 96% of Australians are within 10kms of a MobileMuster collection point.

3



AMTA's members include all the Australian mobile network operators, as well as mobile service providers, mobile network infrastructure and equipment vendors, mobile device manufacturers, retailers and other suppliers and service providers to the mobile industry.

AMTA MEMBERS

Carriage Service Providers

Amaysim Operations Limited

Pivotel Mobile Pty Limited

Singtel-Optus Pty Ltd

Telstra Corporation Limited

Vodafone Hutchison Australia Pty Limited

Handset Manufacturers

Motorola Mobility Australia Pty Ltd Samsung Electronics Australia Pty Limited

ZTE (Australia) Pty Ltd

Infrastructure Suppliers

Ericsson Australia Pty Ltd Nokia Networks Pty Ltd

Oualcomm Int'l Inc

Retailers

Mobile Monster

Mobile Network

Support Industries

Acquirecomm Pty Ltd

Asurion Australia

Aurecon Australasia Pty Ltd

Axicom Pty Ltd

Brightstar Logistics Pty Ltd

Paradigm One Pty Ltd

RF Industries Pty Ltd

Risk insure Pty Ltd

Victorian Rail Track

DIRECTORS

Jane van Beelen, Telstra Corporation Ltd (AMTA Chair)

Emilio Romeo, Ericsson Australia Pty Ltd

Anthony Flannery, Vodafone Hutchison Australia Pty Ltd

Danny Adamopoulos, Motorola Mobility Australia Pty Ltd

Zoltan Losteiner, Nokia networks Pty Ltd

Daniel Zhao, ZTE (Australia) Pty Ltd

Marc Dunn, Samsung Electronics Australia Pty Ltd

Luke van Hooft, Singtel-Optus Pty Ltd

Graeme Barclay, Axicom Pty Ltd

RETIRED DIRECTORS

Sean O'Halloran, Axicom Pty Ltd

AMTA CEO

Chris Althaus

AMTA STAFF

Glenn Brown, Finance & Business Development Manager

Lisa Brown, Public Policy Manager

Ray McKenzie, MCF Manager

Spyro Kalos, MobileMuster Manager

Larissa Shashkof, Campaigns & Education, MobileMuster

Suzie Franks, Office Manager



Australian Mobile Telecommunications Association

Level 8, 71 Walker St North Sydney NSW 2060

PO Box 103 Deakin West ACT 2600

(02) 8920 3555 contact@amta.org.au

www.amta.org.au