AMTA

Australian Mobile Telecommunications Association

ANNUAL REPORT 2014

1994 – 2014

20

CELEBRATING 20 YEARS

AMTA Contacts

Membership

For information about AMTA or membership inquiries phone (02) 6239 6555 or see the website: www.amta.org.au

MobileMuster

To contact MobileMuster phone 1300 730 070 or email mobilemuster@amta.org.au. For more information about MobileMuster go to www.mobilemuster.com.au

Mobile Carriers Forum

To contact the Mobile Carriers Forum phone (02) 6295 8191 or see the website: www.mcf.amta.org.au

AMTA Members

Carriage Service Providers

Lebara Mobile, Lycamobile, Optus, Telstra, Vodafone Hutchison Australia Pty Ltd

Handset Manufacturers

LG Electronics Australia, HTC (Aust & NZ), Nokia Australia Pty Limited, subsidiary of Microsoft Mobile Oy, Motorola Mobility Australia, Blackberry , Samsung Australia, Sony Mobile, ZTE Australia

Retailers

Mobile Network

Infrastructure Suppliers

Alcatel-Lucent Australia, Ericsson Australia, Huawei Technologies, Nokia Solutions and Networks, Qualcomm International

Support Industries

Brightstar Logistics, Crown Castle International, Evans Planning, KPPR, Paradigm.one, RF Industries, Risk Insure, Urbis Pty Ltd

AMTA Vision

The Australian Mobile Telecommunications Association is the peak national body representing Australia's mobile telecommunications industry.

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 the mobile telecommunications industry and its contribution to the Australian community.

Cover images: (Top middle) Smart phone photo: LG   (Bottom left) 1981 NMT mobile phone set: Halvard Lundgaard

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Chair's Report 2014

Warwick Bray (AMTA, Chair); Minister for Communications, Malcolm Turnbull; Chris Althaus (AMTA, CEO)

By any measure, mobile telecommunications has become central to how we live our lives. In an increasingly mobile world, the economic and social impacts of mobile telecommunications are profound.

2014 was another dynamic year of evolution in the Australian mobile sector. The year was characterised by strong industry investment, intense competition and rapid customer uptake of latest generation mobile devices, applications and services. In particular, 2014 was dominated by extensive investment in 4G networks and very strong take-up of smartphones.

AMTA members are responding to meet unprecedented market demands while AMTA works in partnership with members to support their collective vision and needs.

It is easy to become enthralled with the internal dynamics of the mobile industry, which in many respects is the "poster child" of the broader ICT sector. One only needs to look at market penetration, growth trends and the plethora of new opportunities to see a future full of expectation. However, there are also some tensions as an increasingly convergent market evolves around new entrants thriving on "over-the-top" service provision and firms with a rich history in telecommunications having to develop new business models around carriage, content and partnerships.

In this rapidly evolving market dominated by mobile data applications and services the balance between investment, infrastructure, customer expectations, service delivery and revenues (customers' propensity to pay) remains a central theme for all concerned.

New Government and new Minister

This year, AMTA continued its strong advocacy on behalf of industry to Federal and State governments and related agencies. AMTA takes a bipartisan approach to issues and advocates a policy framework that promotes continued mobile industry investment in latest generation mobile technologies and infrastructure that, in turn, enables productivity and connectivity benefits for Australian consumers, businesses, organisations and governments.

AMTA Board luncheon with (L-R): Chris Althaus; (AMTA); Warwick Bray, (AMTA, Chair); Minister for Communications, Malcolm Turnbull; Håkan Eriksson (AMTA, Deputy Chair); John Demezieres (Motorola Mobility)

AMTA believes that regulatory and policy settings must promote fair and open competition, be consistent, clear and certain and reduce red tape and minimise compliance costs.

In 2014, AMTA engaged with the new Minister for Communications, Malcolm Turnbull, and his office and the Parliamentary Secretary to the Minister for Communications, Paul Fletcher. AMTA also continued its contact with the Federal Opposition via the Shadow Minister for Communications, Jason Clare, and the Shadow Assistant Minister for Communications, Michelle Rowland.

Regulatory reform – AMTA welcomes the Government's agenda

The Abbott government came to power with a clear commitment to deregulation. AMTA is an active participant in the Government's program of deregulation and red-tape reduction. In 2014, AMTA concentrated its efforts on targeted deregulation and regulatory reform in the areas of spectrum policy, network infrastructure deployment and a range of consumer-related requirements.

With the lessons of 15-year licence renewal and the Digital Dividend auction still fresh, AMTA strongly supports fundamental reform of Australia's spectrum allocation and management regulatory framework. AMTA supports a common and consistent approach to planning, allocation and management of all spectrum, including broadcasting spectrum.

AMTA also advocates that a market-based approach to allocating spectrum will provide both efficiency and transparency. Certainty for spectrum licence holders, particularly with regard to licence-renewal processes, is also a critical consideration in industry's ongoing investment planning.

AMTA looks forward to partnering in the Government's spectrum review, which was announced earlier this year by Mr Turnbull. AMTA is also committed to working with members on industry's road map of future spectrum requirements.

In terms of regulatory burden, AMTA considers that there are real opportunities to reform network deployment and planning rules to support more efficient network roll-outs which would

MOBILE MINUTE

Briefing Note: Productivity and Mobile Telecommunications | September 2014

AT A GLANCE

- Productivity growth is critical in underpinning Australia's long-term living standards.
- New research highlights the critical role of mobile telecommunications in driving productivity and improving Australia's poor productivity performance.
- Governments and regulators need to provide policy settings to support mobile telecommunications' role in boosting productivity and lifting living standards.

be timely, given the current phase of extensive deployment activity, to meet demand growth.

Customers – service focus

Behind the economic success of our industry, the innovation and services, there are customers who use mobile telecommunications as a central part in the way they interact with family, friends, work and the community.

Our industry has been working very hard on meeting customers' expectations for services, including coverage and network performance. The Telecommunication Industry Ombudsman (TIO) official complaints figures for 2013-14 noted that consumer complaints to the TIO about mobile telecommunications services fell by 21 per cent in 2013-14 and complaints about mobile coverage fell by 54.6 per cent.

We welcome the continuing downward trend in complaints and our industry is committed to working to achieve ongoing improvements in customer service. It is great to see improved performance by our industry to deliver fewer customer complaints, which serves as motivation to continue to improve in coming years.

Our industry has worked hard to lift its customer service performance as well as investing more than $10 billion on the latest-generation mobile technologies, network infrastructure and spectrum over the past two years in response to strong customer demand and increasing customer expectations.

Productivity

Productivity is pivotal to the national economic performance. AMTA continues to place productivity and mobile telecommunications' role in driving productivity across the economy at the top of our agenda.

In 2014, AMTA released "Mobile Minute" to promote the fundamental importance of productivity to lifting Australia's long-term living standards and to highlight the bottom-line benefits of mobile telecommunications and its profound impact on how Australian businesses operate and compete effectively in the modern marketplace.

The Minister for Communications, Malcolm Turnbull, put this issue into context earlier this year when he said:

> "While the debate about fixed line networks and the NBN dominates political and public discussions about communications in this country, the amazing contribution of mobile wireless to productivity and our standard of living has gone largely under the radar."

One of AMTA's key tasks is to further promote awareness of our industry's role in driving productivity and lifting living standards from "under the radar" to centre stage of the nation's productivity agenda. It's vital that all governments understand the critical importance of the role played by mobile telecommunications in today's economy.

Håkan Eriksson (AMTA, Deputy Chair); Chris Althaus (AMTA, CEO); Warwick Bray (AMTA, Chair)

MobileMuster

AMTA's commitment to product stewardship over the past 16 years through its flagship, not-for-profit recycling program, MobileMuster, was formally recognised earlier this year when the Minister for the Environment, Greg Hunt, announced in July that it had received Federal Government accreditation as Australia's first voluntary product stewardship scheme under the Product Stewardship Act 2011.

We are proud of this official recognition, which was earned through the tireless efforts of AMTA's Members over more than a decade and a half to keep old mobiles out of landfill by adhering to the highest safety and ethical standards for our recycling program.

AMTA – 20 years on

In 2014, AMTA reached an important milestone in its history when the Association marked 20 years since being formally established on September 20, 1994.

The changes over the past two decades have been both exciting and challenging for AMTA members and all those involved with the mobile sector. It has been an extraordinary journey from a luxury good based on limited telephony services to a world dominated by 24/7 connectivity, mobile broadband and high-powered 'smart' devices increasingly being used by the majority of the population.

However, while there has been huge change some things endure. For example, AMTA's inaugural President, Steve Haritos, identified the industry's priority policy list in the first annual report, nominating spectrum policy as the top priority, and two decades later it is still at the top of the industry's list!

It's been my pleasure to have played my part in AMTA's journey so far and I trust the Association will continue to adapt to change and serve its members accordingly. I thank the members of the AMTA Board for their engagement and contribution during this past year. I also acknowledge the professionalism of the AMTA team and thank them on behalf of the membership for their efforts and program results.

CEO Report

Neelie Kroes, the European Commissioner for Digital Agenda, visited Australia earlier this year and met industry representatives at Ericsson's office in Melbourne

"We now have the world's knowledge at our fingertips and the ability to connect with anyone and everyone at will. There is, however, another facet to this mobile revolution and it's reinventing how we live our daily lives by bringing all of our worlds – work, personal and social – previously separate and compartmentalised – together into the one new space.

"We are witnessing the beginning of the end of rigid divisions between 'work' and 'play' and 'work' and 'personal', as we have known them for the last 150 years." **Life on Demand: How technology is transforming daily life (Ipsos & Microsoft, 2014)**

Australia now tops the 34 OECD countries for wireless broadband penetration with 114 subscriptions per 100 people and ranks fourth globally in a survey of 138 nations. Local statistics suggest around 32-plus million mobile subscriptions (voice and data) in operation against a population of 23.5million (135-plus per cent penetration rate).

This level of adoption is translating into unprecedented growth in demand across most facets of the industry. Most particularly, the rise in mobile network traffic is in itself demanding high levels of industry investment in mobile infrastructure to meet customer expectations and enhance the user experience.

Against this background, AMTA continues to work with members, Government and regulators on policy, regulatory and research outcomes that best support the development of the mobile industry.

To this end, in 2014 AMTA continued to pursue implementation of the three policy principles that featured in our approach to the 2013 election campaign.

Productivity

AMTA's number one policy principle called for a policy framework that recognises and promotes continued mobile industry investment in latest generation mobile technologies

Chris Althaus (AMTA CEO) and Minister for the Environment, Greg Hunt, at MobileMuster accreditation announcement in Sydney

and infrastructure that will maximise the productivity and connectivity benefits to Australian consumers, businesses, organisations and governments.

In 2014 more research pointed to the productivity implications of mobile broadband following the AMTA-commissioned study *Mobile Nation* (2013) conducted by Deloitte Access Economics.
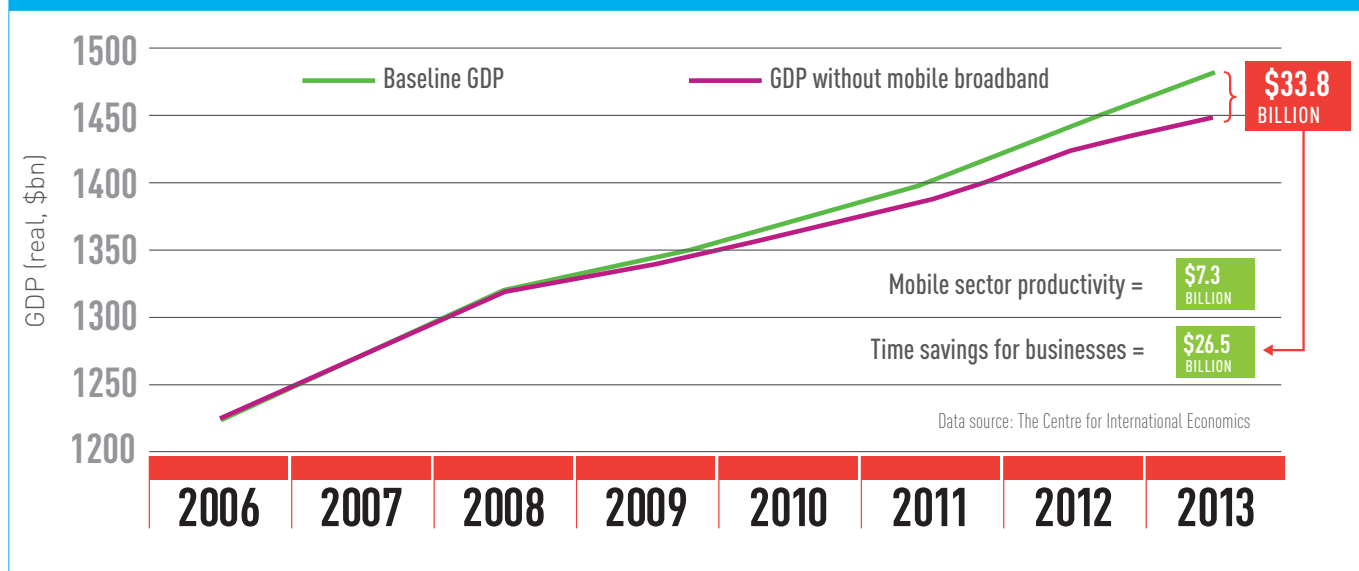
To further promote the productivity impacts, AMTA has targeted policy makers with its *Mobile Minute*, which is a summary of recent research on productivity and its pivotal importance to lifting Australia's living standards in the long term. *Mobile Minute* includes a 2014 analysis commissioned by the Australian Communications and Media Authority (ACMA) and conducted by The Centre for International Economics (CIE), which looks retrospectively at the impacts of mobile broadband on the Australian economy from 2006 – 2013.

Mobile Minute, which was distributed to all MPs and Senators, heads of key departments and government agencies, concludes:

> *"For mobile telecommunications to reach its full potential it requires a supportive and responsive policy framework to ensure that Australia is best placed to gain from the opportunities offered by these latest innovations.*

> *"It's vital that all governments understand the critical importance of the role played by mobile telecommunications in today's economy."*

Figure 1: Economic impacts of mobile broadband – The Australian economy with and without mobile broadband

Baseline GDP — **GDP without mobile broadband**

GDP (real, $bn)

$33.8 BILLION

Mobile sector productivity = $7.3 BILLION

Time savings for businesses = $26.5 BILLION

Data source: The Centre for International Economics

1500 1450 1400 1350 1300 1250 1200

2006 2007 2008 2009 2010 2011 2012 2013

They key findings of the ACMA report were that mobile broadband has increased the growth rate of the Australian economy by 0.28 per cent each year from 2007 to 2013 and mobile broadband has led to an increase in Australia's economic activity of $33.8 billion in 2013.

Regulatory Reform / De-regulation

AMTA's second policy principle identified that regulation must be minimised and red tape reduced to ensure the productivity and connectivity benefits of mobile broadband are realised.

And our third principle extended principle two by being very specific that the Australian Government develop a clearly defined spectrum policy that includes long-term arrangements to meet future spectrum requirements for mobile data and broadband services.

In 2014, the new Government moved to make deregulation a feature of its policy reform agenda. The Prime Minister committed his administration to a target of $1 billion in savings from deregulation per annum for this Parliament (three years).

AMTA, working with Communications Alliance, developed a number of targets for reform including:

- Regulatory reform of spectrum management
- Deregulation of identity checks for purchase of prepaid mobile services
- Regulatory reform of schedule 3 of the Telecommunications Act and the Low Impact Facilities Determination – covering the deployment of mobile network infrastructure

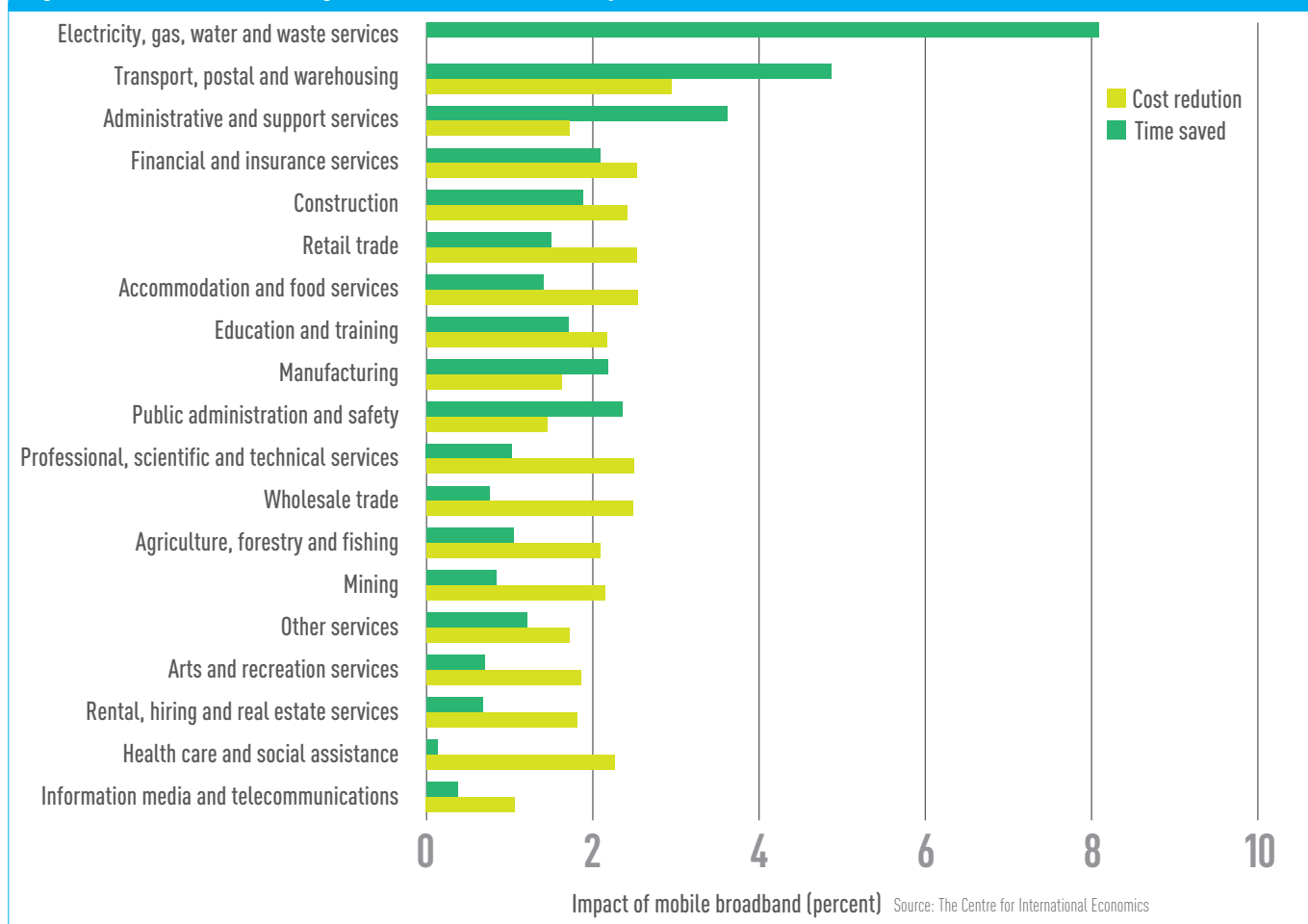- Deregulation of reporting requirements relating to so-called premium SMS services

AMTA has been pleased with the Government's response thus far – although the balance of mobile-related issues are more regulatory reform as opposed to straight forward de-regulation.

AMTA is particularly supportive of the Government's decision to conduct a broadly-based review of Australia's spectrum management framework and policy led by the Department of Communications and welcomed high-level comments from Communications Minister Malcolm Turnbull at the 2014 Radcomms Conference:

"Specifically, the review is examining:

- *How markets that make use of spectrum have developed since the 1992 Radiocommunications Act was introduced*
- *What elements of the regime have served us well, and what have not, and;*
- *What needs to change so that we have an effective and efficient framework for future technologies to flourish.*

Figure 4: Cost and time savings from mobile broadband by sector

Legend: Cost redution (yellow-green) · Time saved (green)

Sectors (top to bottom):
- Electricity, gas, water and waste services
- Transport, postal and warehousing
- Administrative and support services
- Financial and insurance services
- Construction
- Retail trade
- Accommodation and food services
- Education and training
- Manufacturing
- Public administration and safety
- Professional, scientific and technical services
- Wholesale trade
- Agriculture, forestry and fishing
- Mining
- Other services
- Arts and recreation services
- Rental, hiring and real estate services
- Health care and social assistance
- Information media and telecommunications

X-axis: Impact of mobile broadband (percent) — 0, 2, 4, 6, 8, 10

Source: The Centre for International Economics

Businesses that have taken up mobile broadband have saved time and cost and improved the quality of their goods and services. Over 1000 businesses surveyed reported an average time saved of 2.3 per cent from mobile broadband and an average cost saving of 1.4 per cent.

There are more than 200 Australian regulatory instruments in place that deal with spectrum matters.

The economic benefits to the country of having an efficient spectrum management framework are immense. A study commissioned by the ACMA found that in the six years to 2013, mobile broadband alone contributed more than $33 billion to Australia's GDP.

I am outlining today three areas of potential reform that should be considered as part of the spectrum review and related reforms.

The first is to create a clearer and simplified policy framework to ensure transparency and accountability in decision-making.

Most of the industry wants to see a clear division in the way spectrum is planned, allocated and managed. Where decisions have significant public policy implications, these should remain in the hands of the Minister and the parliament. Where there are issues requiring technical, planning and enforcement expertise they should be left with the regulator.

The second proposal I want to explore with industry is moving to a single licensing framework where there is flexibility available on licence parameters. This has the potential to

simplify processes and provide much greater flexibility and choice for users, as well as improve efficiency.

The third proposal relates to television broadcasting.

The spectrum review will now consider whether the sixth channel spectrum will be replanned for alternative non-broadcasting uses, perhaps as the basis for a second digital dividend.

The proposals that I have outlined to you today clearly signal that the government is looking for innovative and substantial reforms to our spectrum management framework.

Given the fundamental role that spectrum will play in the development of an innovative and productive digital and networked economy it is vital that all stakeholders make the most opportunity that the spectrum review presents."

In addition to this important spectrum regulatory reform opportunity, AMTA continues to focus on future spectrum bands to be considered for IMT as part of the World Radio Conference 2015 preparation.

Developing AMTA members' collective and agreed views on specific future bands remains an AMTA priority, given the well documented lead time for spectrum decisions and the direct relevance to industry's investment and infrastructure planning.

Mobile Blackspots program

The Government has said that it will prioritise small communities and major transport routes under its mobile blackspots program. While 6000 black spots have been identified the Government has said that its $100 million program will not be able to address all of these with the Government predicting that the program will result in 250-300 new base stations across Australia. Applications under the program will be able to be made in early 2015 and the Government says it will employ a merits-based approach to decision-making around locations for the new base stations.

AMTA will continue to support the Government's initiative while also drawing attention to the work currently being undertaken by mobile carriers to roll-out 4G networks.

TIO complaints plummet in 2014

Consumer complaints to the Telecommunications Industry Ombudsman (TIO) about mobile telecommunications services fell by 21 per cent in 2013-2014 as reported by the TIO's annual report.

It is great to see improved performance by our industry in the delivery of better coverage and fewer complaints about mobile faults. The TIO also reported that complaints about mobile faults, including coverage, equipment faults, call dropouts and slow data speeds, almost halved from 46,851 to 24,469.

The industry has worked hard to lift its customer service performance as well as investing more than $10 billion on the latest-generation mobile technologies, network infrastructure and spectrum over the past two years in response to strong consumer demand and increasing customer expectations.

The TIO figures also show that complaints about mobile coverage fell by 54.6 per cent to 11,708 in 2013-14 from 25,789 in the previous year. And complaints about mobile roaming issues dropped by 35 per cent to 1253 in 2013-14 from 1926 in 2012-13.

Complaints about excess data usage did, however, increase by 27.2 per cent. It's worth remembering that there is something like 32 million mobile subscriptions in Australia and despite this dwarfing the level of complaints, the industry will stay focused on further reducing TIO complaint levels.

National Security

Global unrest and Australia's engagement as part of multi-national coalitions in a number of conflicts around the world have heightened concerns about the local threat of terrorism.

This year featured much analysis and inquiry within the Parliament on measures to strengthen law enforcement and national security regulatory settings. AMTA provided evidence to several inquiries on the potential impacts of policy proposals. While mobile carriers already have deep and complex relationships with Australia's law enforcement and national security agencies a number of new regulatory proposals have raised concerns.

Notably, the retention of so-called metadata by carriers for up to two years remains an ongoing policy discussion between government and industry. Industry's primary concerns relate to: the efficacy of a data retention policy; new requirements beyond any commercial data retention needs; and cost - who pays for data storage, management and security?

AMTA turns 20

Saturday, 20 September 2014 marked 20 years since AMTA was formally established. This provided us with a chance to consider how our organisation has evolved over the past two decades as we continue to grow to meet the needs of our members now and in the years ahead. We do so while remembering the lessons of the past and the efforts of members and staff since 1994.

Conclusion

As widely acknowledged, the mobile sector continues to expand its contribution and influence. In representing the industry, AMTA continues to enjoy close and productive relationships with members and key stakeholder organisations. My thanks for your engagement with AMTA in 2014. In particular, I note the very constructive engagement with the Department of Communications (formally DBCDE), the ACMA and industry colleagues at Communications Alliance.

In closing, I want to thank the Chair and Board and all AMTA committee members for their engagement, advice and commitment of time to AMTA in 2014. On behalf of the AMTA team, we look forward to continuing the journey with you in 2015. Finally, I acknowledge and thank the AMTA staff for their hard work and professionalism in achieving another year of strong program outcomes.

AMTA Policy Program

Matthew Lobb, Vodafone, (Director, AMTA), and Michelle Phillips, Optus (Chair, AMTA's Policy Committee)

AMTA's Policy Committee identifies policy issues affecting the mobile telecommunications industry and develops strategies to enable the industry to effectively respond to those issues.

The Policy Committee has a broad focus on issues in the area of economics and infrastructure. This includes issues relating to network infrastructure and radiofrequency spectrum, the productivity benefits of mobile technology as well as the impact of convergence on mobile services and devices.

The Committee also maintains a strong commitment in the area of social responsibility. This involves a focus on community engagement, consumer education and awareness, including issues relating to privacy and mobile device security. It also involves engagement with policy makers in relation to issues of law enforcement and national security priorities as well as co-operation and engagement with law enforcement, national security agencies and emergency service organisations.

The Policy Committee aims to influence policy makers in order to achieve policy settings that:

1. Promote public trust and confidence in mobile services, devices and technology
2. Build consumer awareness and deliver robust consumer safeguards
3. Encourage ongoing innovation and continued investment in infrastructure
4. Result in a regulatory and legislative framework that is reasonable, flexible and proportionate.

Deregulation and regulatory reform

In 2014 the Policy Committee has focused its engagement on several policy issues related to the Government's ongoing commitment to deregulation and regulatory reform.

In our initial submission made in late 2013 to Government regarding its deregulation agenda, AMTA nominated the following areas for consideration:

1. Spectrum management, allocation and licensing
2. Prepaid ID checks
3. Network infrastructure deployment
4. Premium SMS Services

Since then, the Government's deregulation agenda has been progressed via 'Repeal Days' as well as specific telecommunications Bills. The Government has also initiated a Spectrum Review process that promises to consider fundamental reforms to the regulatory framework for the management and allocation of spectrum.

The Policy Committee is fully engaged in the Spectrum Review process and we are also continuing to engage with Government regarding both the regulation of prepaid ID checks, network infrastructure deployment and proposed amendments to the International Mobile Roaming Standard.

Prepaid ID Checks

The prepaid sub-committee has put forward proposed amendments to the *Telecommunications (Service Provider – Identity Checks for Prepaid Mobile Carriage Services) Determination 2013* to the Australian Communications and Media Authority (ACMA) and the ACMA commenced formal consultation on proposed amendments in October. The sub-committee is also considering possible alternate approaches to the Determination that would lift the regulatory burden on industry and create more flexibility for service providers while still meeting the needs of law enforcement and national security agencies.

Network Infrastructure Deployment

AMTA recently gave evidence before the House of Representatives Infrastructure and Communications Committee Inquiry into planning and deployment which was well received and we expect some favourable recommendations to be included in the Committee's report.

Prasad Gokhale (AMTA, Director); Scott Zhang (Director, AMTA); John Demezieres (Motorola Mobility)

Renae White (MCF); Lisa Brown (AMTA); Ray McKenzie (MCF)

Our evidence supported our submissions to the Committee and to the Parliamentary Secretary to the Minister for Communications that outline proposed regulatory reforms to Schedule 3 of the *Telecommunications Act 1997* and the *Telecommunications (Low Impact Facilities) Determination 1997*.

In an environment of accelerated network infrastructure roll-out these proposals for reform have the potential to streamline deployment activities for mobile carriers. Industry proposals are balanced with AMTA's long-standing commitment to address community concerns around deployment activities as well as any perceived health and safety issues.

International Mobile Roaming Industry Standard

The *Telecommunications (International Mobile Roaming) Industry Standard 2013* was made on 27 June 2013. The Standard had a staged implementation with obligations taking full effect from September 2014.

While the Policy Committee supports the objectives of the Standard and AMTA members have implemented significant compliance frameworks, we believe that the regulation remains overly prescriptive and burdensome on industry. The Policy

Committee is therefore preparing proposed amendments to the Standard that would enable greater flexibility for Mobile Carriers and Carriage Service Providers, allowing them to better tailor notifications and spend management tools to customer plans in order to avoid customer confusion and inconvenience. Amending the Standard would relieve the regulatory burden on industry while still providing important consumer protections for roaming customers.

Economics and Infrastructure

Mobile technology increasingly underpins Australia's digital economy in a converging market. Rapid technological change and unrelenting growth in data consumption demands continuous technology and network investments despite downward pressure on industry revenues.

The mobile industry plays an enabling role in Australia's economy and contributes to rising productivity. Deloitte Access Economics' *Mobile Nation,* which AMTA commissioned, found:

> *"With the capacity to enable more productivity growth, technology developments in the mobile sector and their diffusion throughout the economy has the potential to reverse Australia's declining productivity performance".*

Håkan Eriksson (AMTA, Deputy Chair)

Similarly, a research report prepared for the ACMA, *The economic impacts of mobile broadband on the Australian economy, from 2006 to 2013,* undertaken by the Centre for International Economics in April 2014 found:

> *"Mobile broadband has wrought substantial change across the Australian economy and has been taken up rapidly by Australian households and businesses. The impacts of mobile broadband are largely productivity impacts."*

And:

> *"Without mobile broadband, this means that Australia's productivity and economic growth would have been lower still and that the Australian economy would have been $33.8billion smaller in 2013. Further, Australian households would have consumed $652 per person less in goods and services than they actually consumed in the absence of mobile broadband."*

AMTA is continuing its partnership with Deloitte Access Economics to produce a series of follow-up case studies to build on the *Mobile Nation* report. The case studies will

highlight the impact of mobile technology in particular industries, including opportunities for productivity, innovation and improving business models.

In 2014, AMTA has actively engaged with Government and regulators to ensure that the enabling role of the mobile industry is recognised and to drive an agenda of policy reform that will review legacy mobile telecommunications legislation with a view to lifting regulatory burdens on industry, cutting red tape and ensuring the productivity benefits of mobile are realised.

Social Responsibility

The Policy Committee maintains a strong commitment to providing good consumer information on social responsibility issues, including consumer concerns regarding mobile device security, affordability, accessibility, cyber-safety and bullying, as well as general health and safety issues.

AMTA also maintains a regular formal engagement with the Australian Communications Consumer Action Network (ACCAN) as well as with other industry organisations. AMTA continues to participate in the Government's Consultative Working Group (CWG) on Cyber-Safety and the ACMA's Consumer Consultative Forum (CCF). AMTA believes that such regular engagement, collaboration and co-operation between industry, government, regulators and consumers can provide the foundation for a socially and economically responsible mobile telecommunications industry in Australia.

Community Engagement, consumer education and awareness

The MobileTips website continues to be the public face of AMTA's social responsibility program. The website contains consumer-friendly tips on topics such as: how to avoid bill shock; international mobile roaming; mobile coverage, apps

Practical tips for
mobile phone users
with disabilities.

Accessible

and parental controls; cyber-safety and cyber-security; how to handle cyber-bullying (for parents and children); health and safety concerns; driving and pedestrian safety tips; as well as links to other AMTA programs, such as MobileMuster and the Lost and Stolen program. MobileTips also provides information for people with accessibility requirements and links to the Global Accessibility Reporting Initiative's (GARI) website that allows consumers to easily search for a mobile phone, tablet or app that meets their accessibility needs.

The MobileTips website and its associated Twitter account has proven to be a useful tool for responding quickly to consumer issues as they arise as well as for relating the latest good news story in relation to mobile technology and the positive impact it can have on people's lives.

Privacy and Mobile Device Security

Privacy and device security issues are growing concerns for consumers and a focus point for industry. In 2014, the AMTA Board formally approved an expansion of AMTA's Lost and Stolen IMEI blocking program. The expanded program will enable blocking for mobile data services. It will also allow mobile carriers to block mobile devices for the following reasons:

- Reported by the customer as lost/stolen
- Fraudulently obtained
- By authorised request from law enforcement or national security agency
- Comply with obligations under the Handling of Life Threatening and Unwelcome Communications Code
- Rogue devices causing network interference.

The Policy Committee believes that the expanded program will provide both better protections for mobile customers as well as assist the mobile industry to combat fraud and the re-sale of stolen smartphones and tablets.

The expanded program builds on a long-running successful industry-led and industry-funded initiative that is the envy of other jurisdictions. The upgrading of the program is timely to stay abreast of technological changes as well as evolving customer behaviour. The program will continue to offer the following community benefits:

- Prevention of theft and assaults related to thefts
- Prevention of fraud
- Prevention of a black market in smartphones and tablets (the program partners with dealers of second-hand goods to provide an access point for them to check if a device is blocked before they sell it to a third-party).

Law Enforcement and Emergency Services

AMTA is committed to strengthening and facilitating the well-founded partnership that exists between law enforcement and national security agencies, emergency service organisations and the mobile industry. AMTA regularly participates in the ACMA's Communications Security and Enforcement Roundtable (CSER) forum.

In 2014 the Policy Committee worked with Communications Alliance to respond to the Government's Review of the National Triple Zero Operator. Industry's submission recommended that the Government give consideration to developing policy objectives to guide future migration to a new national next-generation network that would be capable of delivering a range of next generation emergency communication services.

Rose Read (MobileMuster); Glenn Brown (AMTA); Stephen Lewis (AMTA, Director)

From October 2014, mobile carriers will roll-out enhanced capabilities to automatically provide enhanced mobile phone location based on cell location information to emergency service organisations for Triple Zero (000) calls. This is in compliance with the *Telecommunications (Emergency Call Service) Determination 2009,* which requires as much information about the location of the caller as is available to be transferred with the call to an emergency service organisation. With the majority of calls to Triple Zero originating from mobiles, this is an important new development. The Policy Committee supports further consideration of ways to efficiently provide mobile location information for the purposes of Triple Zero and has suggested that Government include such consideration as part of any development of an overall policy objective for future emergency communications services.

Data Retention and the Telecommunications (Interception and Access) Act 1979 – Review

AMTA gave evidence at the Senate Legal and Constitutional Affairs References Committee hearings on the review of the *Telecommunications (Interception and Access) Act 1979* held in Sydney in late July 2014. Industry evidence focused heavily on the issue of telecommunications data retention and the impact such a requirement would have on the mobile telecommunications industry.

The Senate Committee has since tabled an interim report that states a final report will be made in October 2014. The Government has also announced plans to legislate to mandate data retention requirements before the end of 2014 and the Government's consultation with AMTA and other industry stakeholders is ongoing.

Telecommunications Sector Security Reforms

AMTA worked with Communications Alliance to make a joint submission to the Attorney-General's Department on its consultation on draft guidelines for the telecommunications sector security reforms.

The industry submission firmly pushed back on the suggestion that the proposed reform package should be funded by industry via annual carrier licence charges. Industry also argued for a consistent approach to be applied to both private sector and government critical infrastructure.

The Policy Committee has also recently engaged with the Victorian Government in relation to its legislation around critical infrastructure security, calling for state approaches to be consistent with the national regulatory framework already in place in order to avoid duplication and unnecessary regulatory burden on mobile carriers and carriage service providers.

MobileMuster

KEEPING OLD MOBILES OUT OF LANDFILL

PRODUCT STEWARDSHIP
Australian Government Accredited

Mr Barry Roberts-Thomson, VHA Board Director; Chris Althaus, CEO AMTA; The Hon. Greg Hunt MP Minister for the Environment; Håkan Eriksson, AMTA Deputy Chair/ CEO Ericsson Australia; Hon, Paul Fletcher MP, Parliamentary Secretary to the Minister for Communications and Member for Bradfield

About MobileMuster

MobileMuster is Australia's only not-for-profit, Government accredited mobile recycling program, established and funded by the mobile phone industry since late 1998. The program adopts a product stewardship model based on circular economy principles where we promise to keep old mobiles and accessories out of landfill and recycle them in a safe, secure and ethical way, placing reusable commodities back into the supply stream.

MobileMuster is managed by the Australian Mobile Telecommunications Association (AMTA) on behalf of its members: Microsoft, Samsung, Motorola, HTC, Huawei, ZTE, Force Technology, Telstra, Optus, Vodafone, Virgin Mobile, who fund the program voluntarily.

MobileMuster aims to:

- keep old mobiles out of landfill
- increase awareness of recycling
- optimise resource recovery
- provide a free recycling service to consumers, retailers and workplaces.

The program is committed to improving the **visibility, accessibility, transparency** and **sustainability** of the service.

Recycling Committee - Chris Redfern, Samsung; Brad Kitshcke, Vodafone; Geoff Neville, Optus; Rose Read, AMTA; The Hon. Greg Hunt MP Minister for the Environment; Glenn Brown, AMTA; Steve Jacques, RFI

Salvos Store MobileMuster Collection Unit

MobileMuster e-waste artwork designed by Chris Jordan, from 6,000 old mobile phones at the Sustainable Living Festival, Federation Square, Melbourne, February 2014.

Landcare group tree planting Goolwa, SA,

Key Achievements

In May 2014, MobileMuster was accredited as the first voluntary product stewardship scheme under the Federal Government's Product Stewardship Act 2011. Federal Minister for the Environment, Greg Hunt, announced the accreditation as a 'green tick' for the program, recognising the significant achievements by the mobile phone industry and investment of $36 million in the program.

As part of this accreditation, MobileMuster and its members have committed to increase available collection rates of mobile phones from 50 to 55 per cent and volumes from 87 tonnes to 127 tonnes per year over the next five years as well as increase consumer and industry engagement (see Appendix 1). This is the first product stewardship scheme to be accredited by the Federal Minister for the Environment under the Product Stewardship Act.

In October 2013 we launched Australia's most comprehensive education kit designed to teach students about the lifecycle of mobile phones and the recycling process. The education kit has incorporated a curriculum-linked Teachers Guide, MusterKids Zone, of digital interactive resources and practical workshops.

In February 2014 we created the largest e-waste artwork from mobile phones.

By June 2014 we had given over $2,000 to the Salvos Stores (southern region) over the past 12 months, where MobileMuster gives $2 for every kilogram of mobiles and accessories collected through Salvo's Stores (Southern Region). At the end of 2014 we are supporting the Salvation Army's Christmas Appeal and we will give them $2 for every kilogram of mobiles and accessories recycled between 1 December 2014 and 31 January 2015.

Benefits

The mobile phone industry is committed to delivering real environmental and social benefits to the community through MobileMuster. As a result of our activities since we started the program we have reduced the need to mine 36,295 tonnes of precious metal ore which provides environmental benefits that are the equivalent to keeping 2,400 cars off the road, planting 53,000 trees, preventing 8,781 tonnes of CO_2 greenhouse gas emissions and diverting tonnes of potentially harmful substances from landfill.

Consumer Behaviour	2011/12	2012/13	2013/14	
	Actual	Actual	Est'd	Actual
Personal Storage Rate (% users with 2 or more handsets at home)	*40%*	*37%*	*37%*	*37%*
Disposal to Landfill Rate	*2%*	*3%*	*2%*	*3%*
Awareness of Mobile Phone Recycling	*82%*	*83%*	*>80%*	*80%*

Oxfam Unwrapped Program - Ducks for families living in poverty in Mozambique

MobileMuster has given $4,100 to Salvos Stores (Southern Region) since 2010 and enabled landcare groups across Australia to plant 275,000 trees between 2007 and 2011 through our "Old phones, more trees campaign".

We have also helped families from Laos and Mozambique living in poverty through Oxfam's Unwrapped programs. As part of our "Old phones, more ducks", and "Old phones, more chickens" campaigns in 2009, 20010 and 2011 we gave 3,000 chickens and 2,000 ducks to families in need.

Plus our new teachers guide has been downloaded by more than 2,500 teachers since October 2013, building on MobileMuster's schools program in which 2000 schools and one million students have participated.

State of mobile phone recycling and use in Australia

AMTA monitors the performance of MobileMuster against nine key indicators that measure changes in consumer behaviour, collection and recycling rates, diversion from landfill and industry involvement (see Appendix 2 and refer to MobileMuster's Annual Report 2013-14 http://www.mobilemuster.com.au/news/annual-reports-publications/ for KPI definitions, formulas and independent assurance report).

Consumer behaviour

While community awareness of mobile phone recycling has dropped slightly to 80% due to a change in marketing strategy last year, people's desire to keep their old mobile phones instead of recycling them has remained steady at 37%[1]. As a result the estimated number of handsets in storage at home or work has grown slightly from 23 million to 23.5 million, however, the percentage of people throwing their mobiles into landfill has remained low at 3%.

Over a quarter of mobile phone users expect to keep their phone for two or more years and only 23% expect to keep them less than 12 months. The number of people who sold, traded or donated their previous phone to charity is still around 5% with many selling their phone via e-bay and friends, followed by the various online cash sites.

Collections

With the maturity of the Australian mobile phone market, high adoption of smart phone devices and growing demand for mobiles in developing countries we are seeing a downward trend in imports and an upward trend in exports (see Figure 1).[2] Combined with high storage rates, the amount of phones available for recycling is decreasing over time (taking into consideration people's desire to keep their old mobiles)[3].
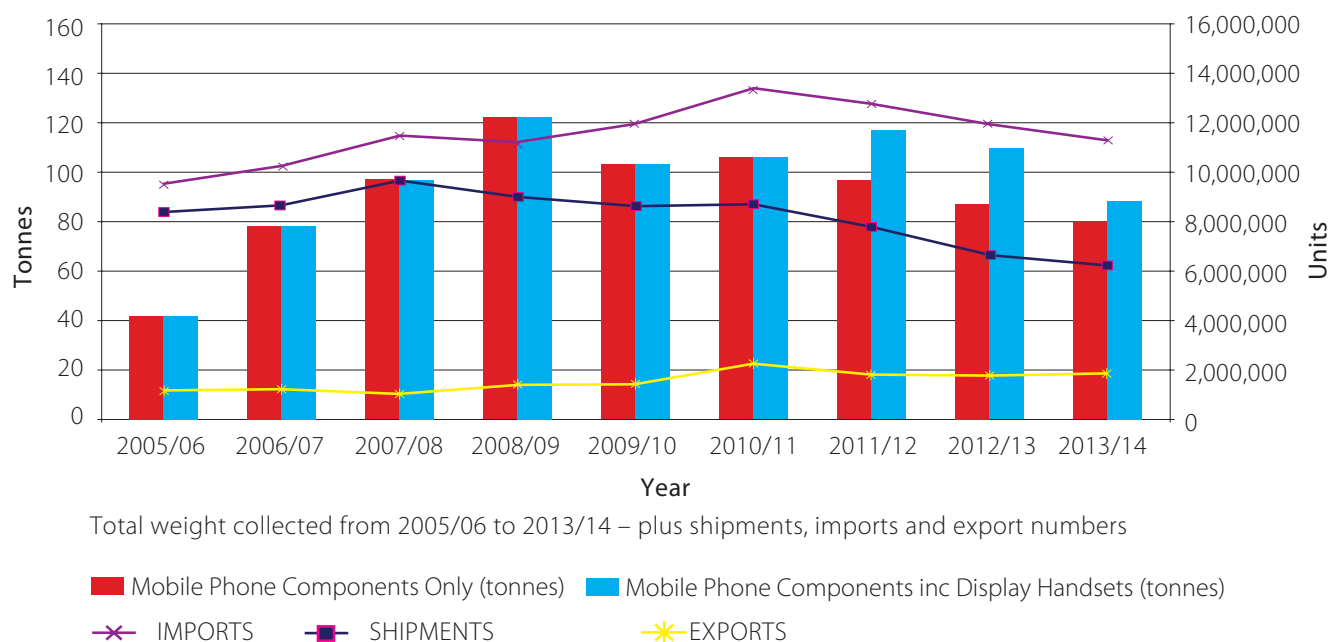
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1   In people that have two or more unused mobiles at home
2   As illustrated in Figure 1
3   Members imports dropped from 8.7M to 6.2M since June 2011, and exports grew from 1.4M in June 2010 to 1.9M in June 2014 (note in June 2011 there was a peak in exports of 2.2M)

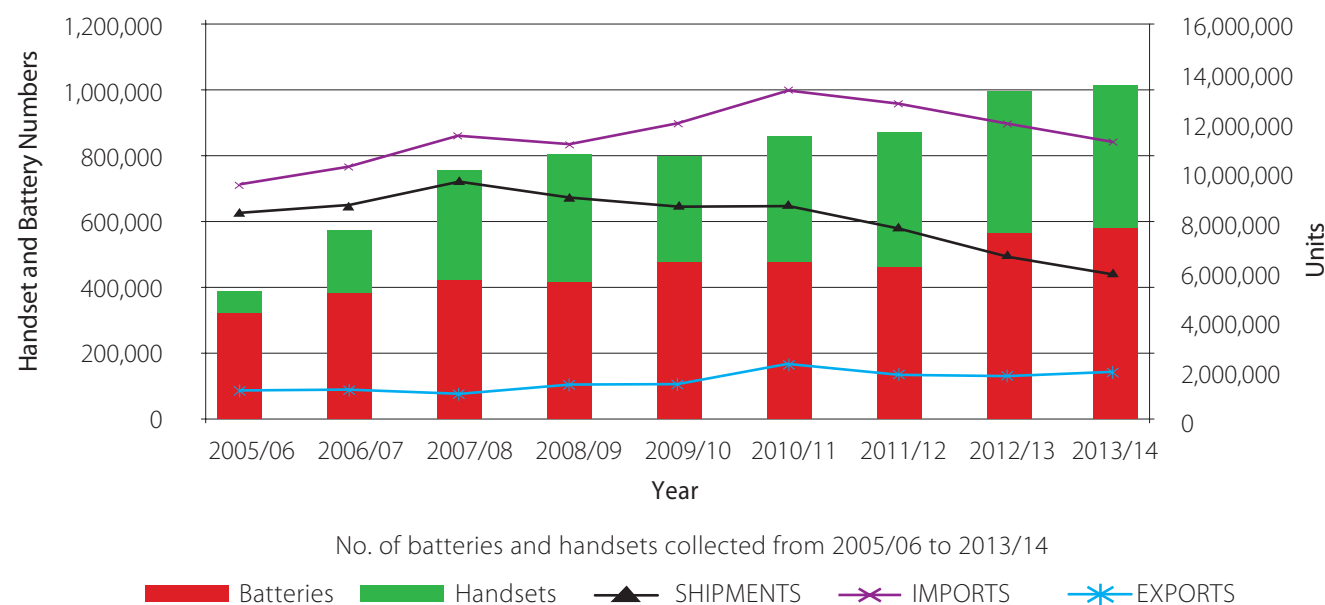| Collections	2011/12	2012/13	2013/14	
	Actual	Actual	Est'd	Actual
Annual Collection Rate, Available Phones (%)	*42.6%*	*53.1%*	*50%*	*45.6%*
Annual Collection Rate, Net imports (%)	*8.5%*	*9%*	*10.0%*	*9.1%*
Mobile Phone Collections (weight - tonnes)	*97*	*87*	*95*	*80*
Member Shipments (units - millions)	7.80	6.67	6.55	6.20
Net Imports (units -millions)	6.67	5.67	5.57	5.15
Net Imports (weight - estimated tonnes)	1,134	964	946	876
Adjusted Exports (units - millions)	1.12	1.00	0.98	1.05
Estimated Available Phones (weight - tonnes)			189	173
Estimated Number Collected Handsets & Batteries (units - millions)	0.85	0.99	1.08	1.00

Figure 1: Total annual collections by weight (tonnes) – all mobile phone components

Total weight collected from 2005/06 to 2013/14 – plus shipments, imports and export numbers

Legend: Mobile Phone Components Only (tonnes); Mobile Phone Components inc Display Handsets (tonnes); IMPORTS; SHIPMENTS; EXPORTS
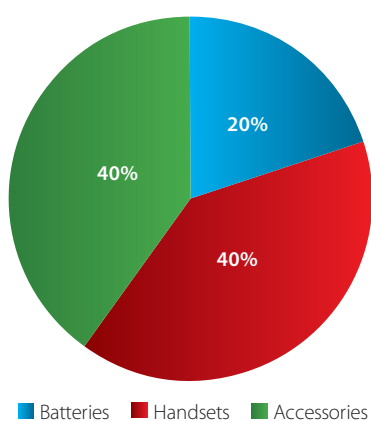
Therefore, although the actual weight of phones collected has dropped from a peak of 97 tonnes in 2011/12 to 80 tonnes for 2013/14 the annual collection rates of available phones has grown from 42.6% to 46.5%. Similarly, the number of handsets and batteries have increased to over 1 million handsets and batteries in 2013-14 (Figure 2) or just over 9% of net handset imports to Australia.

Consumer access to recycling remains extensive and convenient with more than 4,000 public drop off points Australia-wide plus the option to post back for free using either our prepaid recycling satchels available with new phones or from Australia Post outlets or by downloading a mailing label from www.mobilemuster.com.au

Figure 2: Total number of handsets and batteries collected for the past eight years

No. of batteries and handsets collected from 2005/06 to 2013/14

Legend: Batteries | Handsets | SHIPMENTS | IMPORTS | EXPORTS

Mobile Phone Components Collected 2013/14

20%
40%
40%

Batteries | Handsets | Accessories

Battery Types Collected – % by weight 2013/14 – 16.008kg, 575,829

2% 3%
12%
84%

NiCd | NimH | Lithium Ion | Lead
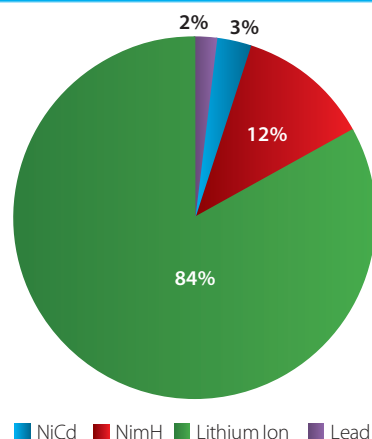
Recycling	2011/12	2012/13	2013/14	
	Actual	Actual	Est'd	Actual
Diversion from Landfill	*97%*	*99%*	*97%*	*98%*
Recycling Rate (estimated material recovered)	*93%*	*96%*	*96%*	*94%*

Australia Post encourages staff at their head office in Bourke St, Melbourne to recycle their old mobiles for World Environment Day, June 2014

Dismantled mobile phone ready for processing

There are also a further 3,000 Mobilemuster units hosted by businesses, government agencies, schools, universities, service centres, manufacturers, distributors and carriers for their staff and students to recycle.

While MobileMuster is the industry's official recycling program in Australia, AMTA was advised by other recycling programs in Australia that they recycled 100kg of mobiles and resold 780 in the past year.

There are also a number of reuse programs operating in Australia including trade in programs by MobileMuster members Telstra and Optus. Any phones that these programs cannot sell for reuse are recycled by Mobilemuster for free.

Nearly 5%[4] or 3.8 tonnes of components MobileMuster recycled in the past year came from recyclers and reuse programs.

The mix of mobile phone components received over the past eight years has changed with more handsets being collected now than ever before. The amount of nickel cadmium batteries has also dropped substantially since 2005/06 with lithium ion batteries now representing 80% of batteries collected.

4   Exact figure, 4.8% which is down from 13.4% in the previous year.

Recycling

MobileMuster has worked closely with its recycling partner TES-AMM Australia on the transparency of downstream processes and accessing data at the point where the material turns from a waste to a resource. Our resource recovery rate[5] and diversion from landfill[6] has remained high at 94% and 98% respectively.

5   The recycling rate or recovery rate as defined in the Australian Standard AS/NZS 5377:2013 (Appendix D3) is the percentage of the total of all output fractions, classified as sent for recycling and other material recovery or other recovery in proportion to the total of the input amount of non treated mobile phone components.

6   Diversion from landfill - measures the proportion of mobile phone components (i.e. handsets, batteries, plastics and accessories) collected by MobileMuster that, once sorted and dismantled by the primary recycler, are sent either to third party specialist recyclers for further processing or manufacturers for re-use, versus being sent to landfill. This indicator does not measure the proportion of mobile phone components recycled/ materials recovered versus any residues sent to landfill by third party specialist recyclers' and manufacturers.

MobileMuster is one of the only mobile phone recycling programs globally that openly reports recovery rates and has them independently audited.

All mobiles, accessories and batteries collected by MobileMuster are sent to our recycler TES-AMM's facilities in Sydney or Melbourne and further processed by its downstream recycling partners so the resources recovered can be placed back into the supply stream.

AMTA Chair Warwick Bray outside Telstra window in Melbourne with display encouraging consumers to recycle
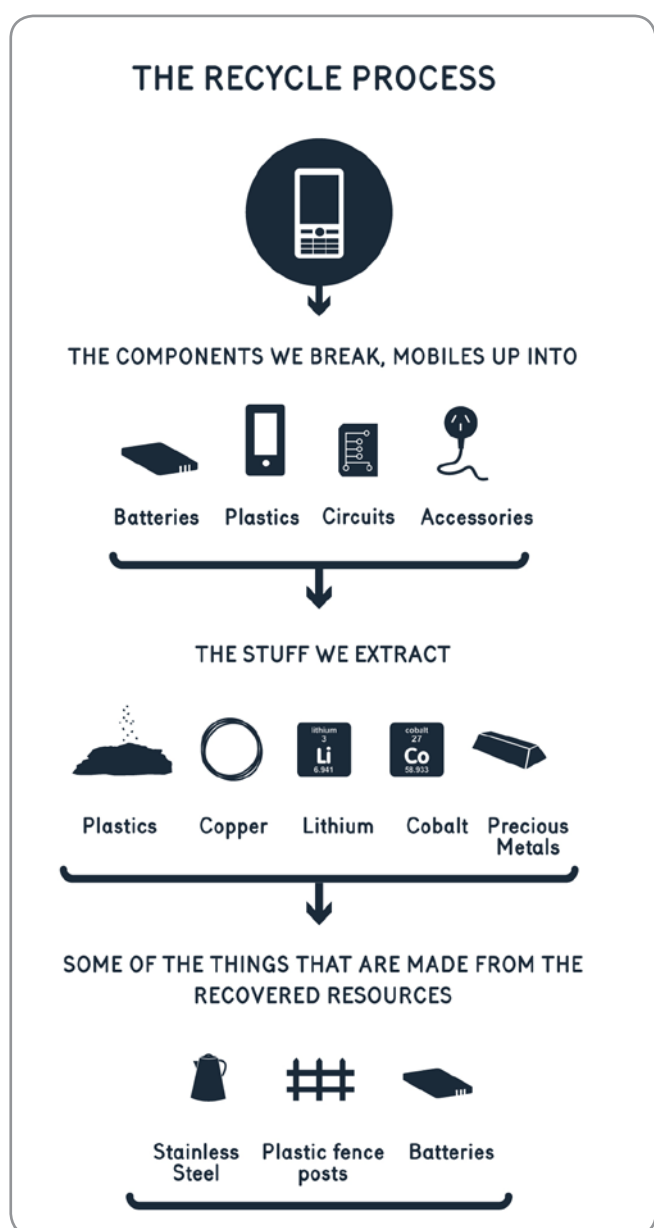
By recycling 80 tonnes of mobile phone components, MobileMuster will have diverted more than 85 kgs of cadmium and 284 kgs of lead from landfill, as well as recovered over 7.23 tonnes of plastic, 75 kgs of precious metals, 1.67 tonnes of aluminium, 12.68 tonnes of steel, 4.5 tonnes of copper and over 705 kgs of cobalt as raw materials to make new products like aluminium cans, batteries or plastic fence posts.

By recovering and reusing these resources:

- around 2,650 fewer tonnes of precious metal ores (gold, silver copper) will need to be mined
- over 640 tonnes of CO2 equivalents in greenhouse gases will be avoided, which is the same as taking over 180 cars permanently off the road or planting 3,900 trees.

Industry participation

Handset manufacturers that participated in the program in 2013-14 were Microsoft (Nokia), Samsung, Motorola, HTC, Huawei and ZTE. Each of these manufacturers voluntarily pays an advance recycling levy of $0.30 per new handset shipped into Australia to fund MobileMuster.

Together they represented 55% of the mobile phone handset market in Australia, down from 56% in the previous year. This drop in market share can be attributed to the growth in non-participating manufacturers such as Apple, Sony Mobile, LG Electronics and Research in Motion.

Australia's three network carriers Telstra, Optus, Vodafone Hutchison Australia and resellers Virgin Mobile continued to be actively involved and support the program, along with battery importer Force Technology.

THE RECYCLE PROCESS

THE COMPONENTS WE BREAK, MOBILES UP INTO

Batteries   Plastics   Circuits   Accessories

THE STUFF WE EXTRACT

Plastics   Copper   Lithium   Cobalt   Precious Metals

SOME OF THE THINGS THAT ARE MADE FROM THE RECOVERED RESOURCES

Stainless Steel   Plastic fence posts   Batteries

Each of the carriers pays $0.12 per handset of their share of new handsets shipped into the country to fund MobileMuster. Battery importer, Force Technology, also contributes $0.10 per new mobile phone battery imported into Australia.

85% of the mobile network service providers participate in the program, slightly down on previous years due to the gradual increase in other providers as a result of the introduction of VOIP.

In addition to funding the program members actively promote the program to customers and staff, both online and in-store.

Industry Participation	2011/12	2012/13	2013/14	
	Actual	Actual	Est'd	Actual
Manufacturers	61%	56%	56%	55%
Mobile Network Carriers	97%	91%	91%	85%

International Context

Overseas programs

There are numerous mobile phone recycling and reuse programs across the globe, however, benchmarking program performance is challenging given the lack of consistency in reporting standards. However, there are a number of common challenges and trends irrespective of country or culture.

Hoarding of old mobiles is a common challenge with many people keeping their old phones, especially in developed countries, which keep collection rates down (e.g. UK recently reported they estimated more then 90 million unused phones being hoarded). When comparing collection rates most programs are collecting around 10% of imports for recycling, similar to MobileMuster. Figures on the amount of mobile phones that are collected for resale are limited, however, there is substantial growth in this area given the demand for mobile devices in developing countries.

Recycling vs Reuse

Australia over the past five years has seen a steady growth in the buying and selling of second hand phones locally and overseas, through online cash-back, fund-raising programs and trading sites like e-Bay and Gumtree.

The majority of this is being driven by the strong demand for cheap phones in developing countries where most of the second hand mobiles end up. AMTA recognises the value of reusing mobiles phones socially and environmentally, however, given the commercial opportunities from reselling mobile phones it has decided that reuse is more appropriately facilitated by its members and other organisations individually rather than through MobileMuster.

AMTA also recognizes that there are potential risks associated with reuse of mobiles phones in developing countries. Specifically, the lack of properly managed recycling processes, which have resulted in communities and the environment being exposed to harmful toxins, heavy metals and other pollutants.

To ensure that Australia's mobile phone industry is not passing on its e-waste burden to developing countries, it is working with its members who do offer trade in programs (Telstra and Optus) to ensure any phones that cannot be reused are recycled by MobileMuster. Together with their trading partners, they are helping improve recycling processes and, along with manufacturers, championing recycling programs in those countries where they sell products.

AMTA also actively encourages all resellers to comply with the UNEP's Mobile Phone Partnership Initiative Guidelines on the Refurbishment of Used Mobile Phones, Collection of Used Mobile Phones, Awareness Raising-Design Considerations, Transboundary Movement of Collected Mobile Phones and Environmentally sound management of used and end-of-life mobile phones.

Conflict Free Minerals[7] and the Mobile Phone Industry

Working towards Sustainable and Peaceful Supply Chains

The mobile telecommunications industry shares concerns about environmental, social and economic impacts of mining in conflict regions such as the Democratic Republic of Congo (DRC). To address this issue, members of the Australian Mobile Telecommunications Association (AMTA) are actively involved in the global Conflict Free Sourcing Initiative to assist electronics manufacturing companies to source responsibly and reduce the risk of conflict minerals ending up in their products.
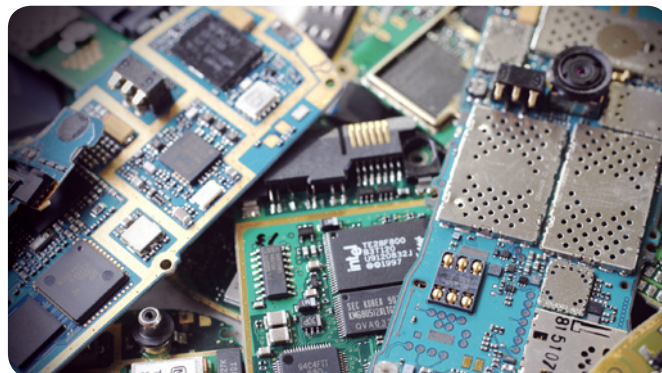
This joint global initiative promotes the responsible procurement of minerals through accountability and traceability of the status of minerals in global supply chains. Through their *Conflict-Free Smelter Program* companies and suppliers can identify which smelters and refiners are "conflict-free" in line with current global standards.

The Electronic Industry Citzenship Coalition and Global e-Sustainability Initiative partnership is working on involving industries other than electronics manufacturers to join the global initiative to use conflict-free supply chains and supporting peaceful developments in the Great Lakes region of Africa.

Recycling Electronics – the new urban mine

Mobiles are a complex array of metals and plastics, of which more than 90% can be recovered. With more than 23.5 million unused mobiles across Australia a new above ground resource saturated with deposits of precious and rare earth metals is being created. When you consider that mobile phones can yield up to 60 times more gold than that sourced from gold ore, the interest in mining these resources is increasing.

Circuit boards

And it's changing the nature of business. Now, managing the complete lifecycle of electronic products – product stewardship – has the potential to add big dollars to the bottom line of our economy. More than $2 billion dollars per year is said to be lost from the Australian economy via a failure to recover the metals from our waste.

In the case of MobileMuster, recycling mobile phone components was a cost to the program in the past. But now we receive a small revenue stream for certain components - circuit boards, electronic accessories and lithium ion batteries. This not only offsets the cost of dismantling and sorting mobiles but enables the program to invest in education and community activities like our Online Education Kit "MusterKids", support for the Salvos and community events, such as the Sustainable Living Festivals in Melbourne and Hobart.

The next challenge for MobileMuster is returning the materials it recovers to mobile phone manufacturers and close the loop on material use. While recycled materials like aluminium and plastics may be used in the manufacture of some mobile phones, there is very little evidence of materials recovered from mobiles being directly used back into mobiles.

There are also many elements that are still not being recovered through the current recycling process, in particular many of the rare earths and conflict minerals like tantalum. However, the recent Dodd Frank Legislation introduced into the USA that requires reporting on use of conflict minerals is increasing the demand for recycled sources of minerals like tantalum.

Creating a true circular economy is on the agenda of many countries and producers as reflected by the recent statements by the European Union and the Wealth from Waste Project in

7   "Conflict minerals" currently include the metals tantalum, tin, tungsten and gold, which are derivatives of the minerals cassiterite, columbite-tantalite and wolframite, respectively. Each of these minerals maybe used in the manufacture of a diversity of electronic equipment including mobile phones. They can be extracted at many different locations around the world including conflict countries such as the Democratic Republic of the Congo and adjoining countries that share an internationally recognized border (i.e. Angola, Burundi, Central Africa Republic, Republic of the Congo, Rwanda, South Sudan, Tanzania, Uganda, Zambia).
Conflict-free minerals are defined as minerals that were extracted and did not directly or indirectly benefit armed groups in the covered countries.

Mobile phone recycling poster created by indigenous children in the Northern Territory as part of joint project between MobileMuster, Telstra and Keep Australia Beautiful NT to improve recycling in remote communities

St Ignatius Students participate in mobile phone recycling workshop

Australia where the focus is moving away from the traditional 'take-make-dispose' model to closed loop systems that return materials back into the production cycle, replacing the need to mine raw materials. This will not only create economic opportunities, but deliver substantial social and environmental benefits.

Muster Kids

This year MobileMuster developed Australia's most comprehensive education kit designed to teach students about the lifecycle of mobile phones and the recycling process. The education kit incorporated a curriculum - linked Teachers Guide, MusterKids Zone, of digital interactive resources and practical workshops.

The education kit was developed in consultation with industry and education representatives, including members of the MobileMuster recycling committee, sustainability educators in the NSW and Victorian Deptartment of Education, and sustainability curriculum experts. The kit needed to provide educators with original, practical, accessible and engaging learning resources and be aligned to the Australian Curriculum.

The kit has three complementary components:

1. Online Teachers Guide
2. MusterKids Zone (link to mobilemuster.com.au/schools)
3. Workshops and talks.

Since the launch of the Teachers Guide and MusterKids Zone in October 2013 the website has received over 13,500 page views[8]. This has included over 2,500 teachers and educators who have downloaded the Teachers Guide. As well as over 490 teachers who have accessed the resources on the Teachers Pages, including individual learning modules. The Teachers Guide has also been distributed to 100 teachers and educators via USB.

The Teachers Guides and Muster Kid Zone resources have also been shared with Cool Australia[9], which in turn has shared MobileMuster's learning resources with its 15,000 registered teachers enabling a broad distribution of our resources. The learning modules have been accessed nearly 6,320 times since they were uploaded to the Cool Australia website.[10] MobileMuster's education kit has been distributed through Planet Ark and was sent to more than 800 teachers and schools participating in their Schools Right Challenge during National Recycling Week in November 2013.

The MobileMuster workshops have had more than 600 students participating in the past year alone at three events: the What's Inside A Phone workshop (Youth Eco Summit, Sydney, Oct 2013); Sustainable Living Festival (Melbourne, Feb 2014); National Science Week (Aug 2014).

This year international e-waste artist, Chris Jordan, came to Australia on behalf of MobileMuster and created Australia's largest artwork made out of e-waste.

8   Figures accessed from Google Analytics as of 17 September 2014
9   www.coolaustralia.org
10   For the period 1st April 2014 to 2 July 2014.

Appendix 1: Targets for 2014-15 to 2018-19

Key Performance Indicators	2014/15	2015/16	2016/17	2017/18	2018/19
	Est'd	Est'd	Est'd	Est'd	Est'd
Collections					
Mobile Phone Collections (weight - tonnes)	100	106	113	120	127
Annual Collection Rate, Available Phones (%)	51%	52%	53%	54%	55%
Annual Collection Rate, Net imports (%)	10.2%	10.4%	10.6%	10.8%	11.0%
Reported Shipments (units - millions)	6.80	7.05	7.40	7.70	8.00
Net Imports (units -millions)	5.78	5.99	6.29	6.55	6.80
Net Imports (weight - estimated tonnes)	983	1,019	1,069	1,113	1,156
Adjusted Exports (units - millions)	1.02	1.06	1.11	1.16	1.20
Estimated Available Phones (weight - tonnes)	197	204	214	223	231
Estimated Number Handsets & Batteries (units - millions)	1.11	1.21	1.30	1.38	1.46
Recycling					
Diversion from Landfill	97%	97%	97%	97%	97%
Recycling Rate (estimated material recovered)	96%	96%	96%	96%	96%
Consumer Behaviour					
Personal Storage Rate (% users with 2 or more handsets at home)	37%	37%	37%	37%	37%
Disposal to Landfill Rate	2%	2%	2%	2%	2%
Awareness of Mobile Phone Recycling	>80%	>80%	>80%	>80%	>80%
Industry Participation					
Manufacturers	56%	56%	56%	56%	56%
Mobile Network Carriers	91%	91%	91%	91%	91%

Appendix 2 – Program performance over past 5 years

Key Performance Indicators

Key Performance Indicators	2013-14 Actual ✓	2012-13 Actual ✓ (includes display handsets)	2011/12 Actual ✓ (13 months Jun 11- Jun 12) (excludes display phones)	2011/12 Actual (excludes display phones)	2010/11 Actual **	2010/11 Actual* (11 mths)	2009/10 Actual ✓
Collections							
Mobile Phone Collections (tonnes)	80 ✓	87 ✓ (110)	123 ✓ (106)	117 (97)	106	100 ✓	103 ✓
Annual Collection Rate, Available Phones	45.6% ✓	53.1% ✓ (66.8%)	49.5% ✓ (42.5%)	51.4% (42.6%)	48%	52.3% ✓	50.6% ✓
Annual Collection Rate, Net imports	9.1% ✓	9% ✓ (11.4%)	9.9% ✓ (8.5%)	10.3% (8.5%)	8.6%	8.9% ✓	7.9% ✓
Estimated Number Handsets & Batteries	1,003,562	996,874	912,274	847,240	797,105	744,816	845,919
Reported Shipments	6.20M	6.67 M	8.55 M	7.80 M	8.70 M	7.95 M	8.66 M
Exports (adjusted)	1.05M	1.00 M	1.23 M	1.12 M	1.45 M	1.34 M	1.41 M
Net Imports (units)	5.15M	5.67 M	7.31 M	6.67 M	7.25 M	6.61 M	7.63 M
Net Imports (estimated tonnes)	876	964	1,243	1,134	1,232	1,123	1,297
Recycling							
Diversion from Landfill	98% ✓	99% ✓	97% ✓	97%	100%	100% ✓	100% ✓
Recycling Rate (estimated material recovered)	94% ✓	96% ✓	93% ✓		>75%	>75%	>75%
Consumer Behaviour							
Personal Storage Rate (% users with 2 or more handsets at home)	37% ✓	37% ✓	40%	40%	40%	40%	38% ✓
Disposal to Landfill Rate	3% ✓	3% ✓	2%	2%	4%	4%	3% ✓
Awareness of Mobile Phone Recycling	80% ✓	83% ✓	82%	82%	84%	84%	79% ✓
Industry Participation							
Manufacturers	55% ✓	56% ✓	62% ✓	61%	64%	63% ✓	72% ✓
Mobile Network Carriers	85% ✓	91% ✓	97% ✓	97%	97%	97% ✓	100% ✓

*As at 30 June 2011

**Full 12 months 1 July 2010 to 30 June 2011

✓ Externally audited

Mobile Carriers Forum

The Mobile Carriers Forum is a specialised AMTA forum that deals specifically with issues related to the deployment and operation of mobile phone networks. Its members include: Telstra, Optus, and Vodafone Australia – the three carriers deploying mobile networks in Australia.

The MCF strives to ensure that industry addresses community expectations about the way mobile telecommunications networks are deployed and balances these expectations with Australia's nearly 32 million mobile phone services. The MCF also strives to create the best regulatory environment for planning, building and operating mobile telecommunications networks.

The MCF seeks to achieve these goals by:

1. Co-ordination in network deployment and operations and co-operation with stakeholders
2. Enhancing communication, education and consultation
3. Liaising with Government and other industry stakeholders
4. Undertaking research and development of best practice in deployment and network operations.

The MCF is also committed to improving community understanding of health and safety issues associated with mobile phone networks and providing a system for carriers to manage Electromagnetic Energy (EME) compliance of mobile phone base stations.

The exponential growth in the uptake of advanced mobile telecommunications services, such as mobile broadband, with users accessing the internet via mobile broadband-enabled laptops, smartphones and tablets, places enormous additional demand on mobile network infrastructure.

To meet this demand, the industry needs to plan continually and evolve its networks, not just in major metropolitan and CBD areas, but also increasingly in regional and rural areas of Australia that, more than ever, are seeking to join the digital revolution. To meet this on-going demand, the carriers are rolling out new and upgraded 3G and 4G services faster than ever. This heightened activity emphasises the need for comprehensive and transparent consultation with affected communities, and strict management of regulatory and EME safety compliance.

Working with Government

Throughout 2014, the MCF has continued to engage with governments at all levels to address issues arising from the deployment of mobile network infrastructure in the community. In particular, the MCF seeks to provide regulatory consistency and certainty in the planning process within and between local and state jurisdictions, in line with the MCF's objectives.

In 2014, the MCF provided submissions to government departments in Queensland, New South Wales, Tasmania, Victoria and Western Australia. In general, the MCF has continued to advocate the adoption of state-based planning telecommunications infrastructure codes in state planning policies to mitigate the potential for local government schemes to develop disparate, inefficient procedures that could potentially frustrate mobile network deployments in those regions. The MCF also believes that recognition of mobile network infrastructure in state planning policy is appropriate for what is now an essential infrastructure bringing large social and economic productivity benefits to all Australians.

The MCF has enjoyed particular success for its efforts in Victoria and Western Australia, where there has been evidence of an emerging recognition of the value of mobile networks to the communities in those states.

In Victoria, following submissions to the Victorian government on its proposed new Victorian Planning Framework and the urban planning strategy paper "Plan Melbourne", there is now an objective: "To ensure that modern telecommunications facilities are widely accessible to business, industry and the community". There is also a new strategy specifically aimed at regional telecommunications services: "Strategy 1.2 Facilitate the improvement of regional telecommunications infrastructure". These objectives are also reflected in the Plan Melbourne document, together with a new short-term objective specifically to "Review the Code of Practice for Telecommunications Facilities in Victoria 2004 to ensure it meets the needs of service users and providers". The MCF has since met with the Department of Transport Planning and Local Infrastructure (DTPLI) to detail its proposals for the review of the code. This is a great result after an extended period of correspondence and submissions to the Victorian government over the past several years.

Meanwhile, in Western Australia, the MCF was invited to consult with the WA Department of Planning on a proposed revision of its State Planning Policy (SPP) 5.2 – *Telecommunications Infrastructure,* which it later issued for stakeholder consultation. Responding to key inputs from the MCF over the course of this year, the WA Department of Planning has explicitly acknowledged that EME exposure from mobile base stations is unlikely to cause any adverse health effects and the policy encourages local planning authorities to remove additional setback distances based on health and safety standards ('buffer zones') from their planning schemes. Further, EME and health is no longer an allowable matter which may be considered by local planning authorities in WA when processing development applications. The SPP rightly notes that setting standards to protect the Australian public is a Commonwealth Government responsibility and is outside the authority of local councils.

Beyond EME concerns, the policy also proposes that setbacks for visual or other amenity be limited to the height of the infrastructure in residential areas, and proposes no prescriptive setbacks in other areas. Another key reform in the new policy is that it will prevail over local planning schemes wherever there are contradictory requirements between the two. With a much reduced list of matters to be dealt with by local governments and specific guidelines regarding the siting of mobile infrastructure, the precedence of SPP 5.2 will greatly improve the industry's ability to undertake deployments according to uniform planning requirements across the state.

In all its proposals, the MCF points out the economic and social productivity benefits of modern mobile telecommunications identified in the Deloitte Access Economics report *"Mobile Nation"*, commissioned by AMTA, and also the ACMA's own report, *"The economic impacts of mobile broadband on the Australian economy, from 2006 to 2013"*, prepared for the ACMA by The Centre for International Economics in April this year. These reports show that the benefits flowing to the community from access to advanced mobile telecommunications services make the proposed changes to the codes and planning provisions very important for state government and their constituents.

RF worker safety management tool goes mobile

For many years, the MCF has hosted the key radiofrequency (RF) safety compliance management tool, the RF National Site Archive (RFNSA). It not only provides a database of site safety information which can be shared among the mobile operators to ensure they meet their health and safety regulatory commitments, but is also a key information interface with the public and a tool for managing the many site specific safety processes that are required to ensure the safety of workers around mobile network infrastructure.

In November 2013, the MCF launched a user-friendly version of the RFNSA tool, known as MobileSiteSafety, to streamline access to mobile network information. The tool is available as an app for mobile devices and is optimised for use and display on mobile phones and tablets that contractors and workers can use when accessing rooftop site.

The new app provides users with a simple map-based interface from which they can locate any mobile network infrastructure in their area, and from this determine whether any infrastructure exists at a location they may be required to access to conduct their work (for example, building maintenance on a rooftop where antennas used for a mobile network may be installed).
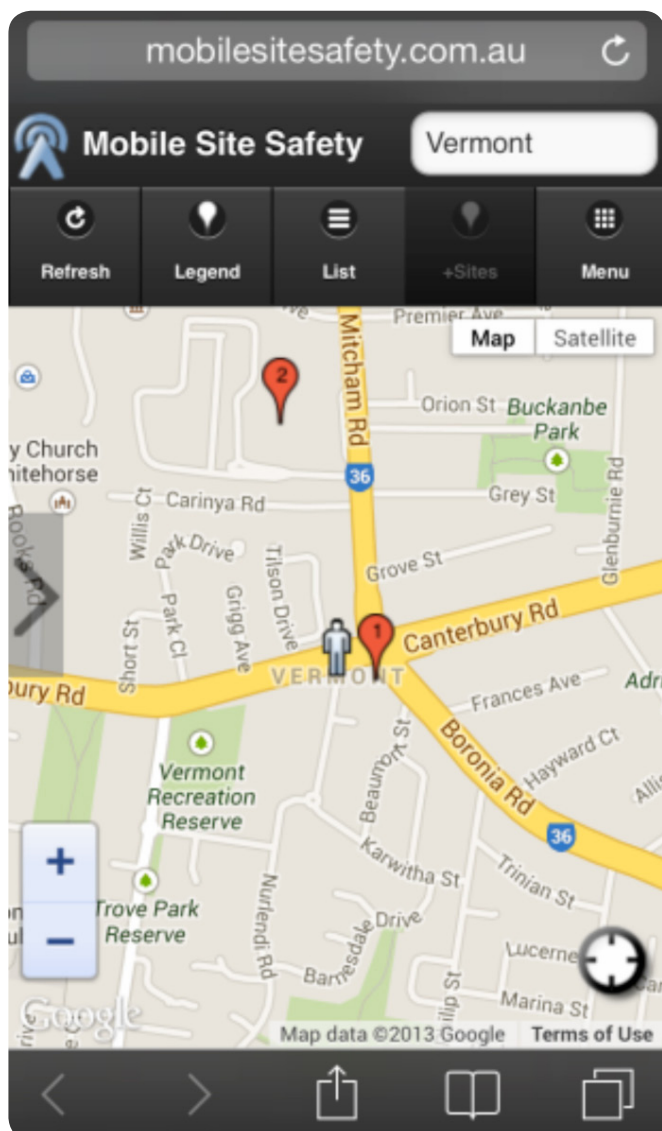
MCF's Mobile Site safety App provides location of nearby base station sites

Site information available from the new app includes:

- Mobile site safe work procedures
- Building owner or building manager contact details
- Carrier contact details
- Site specific information including the Radio Communications Site Management Book
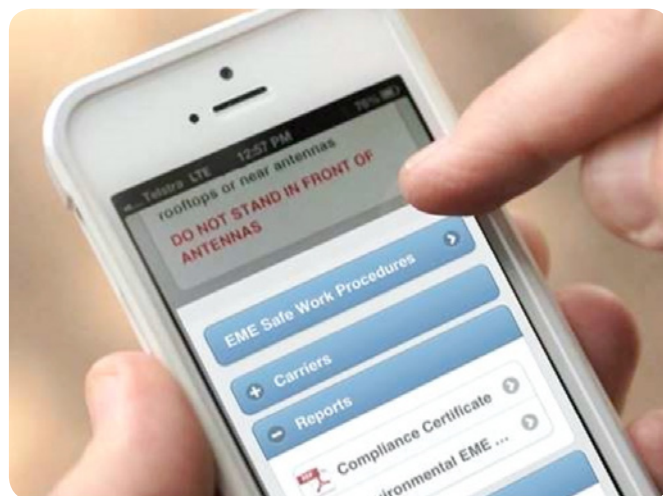
Safe operating procedures for RF safety at mobile network sites, the Mobile Site Safety app is optimised for use on smart phones and tablets

The public and workers can access site RF safety and compliance information for any site using their current location from their smartphone or tablet
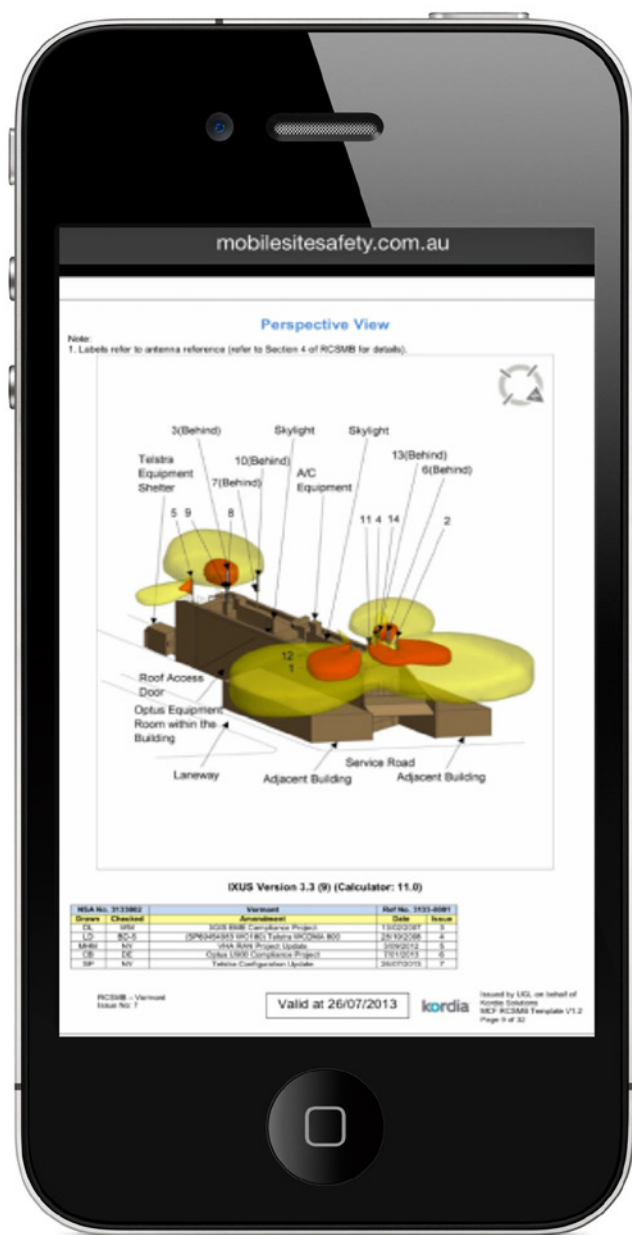
For RF workers in access restricted areas, detailed RF safety information can be provided to ensure safe work practice on site

The Radio Communications Site Management Book (RCSMB) is a site safety management document which details all the RF equipment installed at a site. It is designed to help anyone who is required to work near radio telecommunications equipment installed on a property and to do so safely. It describes areas that should not be accessed (exclusion zones), and provides details of the equipment installed at the site and the operator of the equipment. Due to the complex and sometimes

sensitive information contained in the RCSMB, this document requires login details to be accessed from the new app. The facility manager, building manager or carrier that manages the site will provide a login to access the RCSMB following a site safety briefing to explain the use of the document.

Local Government's role in facilitating essential mobile network infrastructure

An important part of the MCF stakeholder engagement program is ongoing proactive liaison with local government.

Having attended the National General Assembly of the Australian Local Government Association (ALGA) in Canberra in 2013, the MCF went on to continue the valuable interaction with local government elected officials and council staff at the State Conference of the Local Government Association of Queensland (LGAQ). The conference was staged at the large regional centre of Cairns in Far Northern Queensland, which was a fitting setting for the significant announcements made there regarding regional planning in Queensland.

The MCF information booth was kept busy with local government officials and staffers inquiring about improving mobile network coverage in the predominantly regional councils, which were represented at the conference.

The conference included a keynote address from the Queensland Premier Campbell Newman. The focus of his address was the new Queensland Plan 2043, a 30-year plan for the state, which outlines a vision for the 'regionalisation' of the state. The plan sets a three-decades target of having as many Queenslanders living in regional areas as live in the metropolitan centres of Brisbane and South Eastern Queensland. Currently, around 75% of the population resides in the metropolitan areas of Queensland. Estimates suggest this will mean approximately 4 million people residing in regional Queensland within the next 30 years, and for the larger regional centres, such as Cairns, Rockhampton, Mackay and Townsville, an increase in population of around 2.5 times.

Given the already key concerns around infrastructure provision in regional Queensland, including that of mobile networks as evidenced by visitors to the MCF stand, the Plan sets some very significant challenges for regional authorities. For the MCF members, it will be important to track and engage with

MCF Manager, Ray McKenzie (right), speaks with local government representatives from Mudgee about demand for mobile services in regional areas at the Local Government NSW state conference.

Moreover, the local and regional authorities should consider opportunities for accelerating the deployment of mobile networks and associated infrastructure in their areas by considering private and community partnerships with government and industry. These sorts of partnerships are likely to be key to ensuring maximum benefit is obtained from the Federal funding program.

In 2014, the MCF attended the Local Government New South Wales (LGNSW) state conference as it continued its way around all the state and territory local government authority gatherings in Australia. As in Queensland, and indeed all the other states and territories, provision of mobile network infrastructure to regional areas remains a key concern.

As usual, the MCF showcased the RF National Site Archive (RFNSA) and the associated public consultation web-page, which helps industry demonstrate that all relevant stakeholders, including local councils, are informed and consulted about mobile network infrastructure being deployed in the community. The MCF's new Radiofrequency Electromagnetic Energy (RF EME) site safety tools, including the MobileSiteSafety app was also featured.

the implementation of this plan over time to ensure regulatory arrangements and Government policy reflect the need to expedite delivery of advanced mobile telecommunications services to the growing regional centres.

In the meantime, the MCF continues to respond to the ever-increasing number of inquiries reflecting the public's demand for broader and faster mobile network coverage. The Federal Government's Mobile Coverage and Blackspot funding program may go some way to addressing some of these concerns, but state and regional authorities will need to continue to work closely with the MCF and its members to facilitate the provision of mobile network infrastructure in regional and rural Australia as well as the major metropolitan centres.

However, as expected the established trend of a change in the balance of community concerns towards the issue of the availability of network coverage and capacity, and away from health or amenity concerns continued to dominate the questions put before the MCF. Local governments are becoming increasingly aware of the vital nature of mobile network infrastructure in providing advanced mobile telecommunications services and the importance of these services in bringing social and economic productivity benefits to their communities, especially in regional Australia.

Health and Safety

Dr Carl-Magnus Larsson, CEO, Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and Chris Althaus, (AMTA, CEO)

The Health and Safety Committee is an AMTA foundation committee from when the organisation started in 1994. Committees are at the heart of AMTA and its work and Health and Safety's great strength is the commitment and expertise of its members, who give freely of their time and efforts.

The Committee this year continued its work to show an industry that takes its responsibilities seriously to fully comply with independent safety standards for radiofrequency electromagnetic energy emissions (RF EME) emitted from mobile phones and base stations.

Coverage

A continuing strong trend was the dominance of publication of stories on mobile telecommunications coverage issues in the media compared to publication of issues related to EME health and safety.

Mobile network expansion is providing critical infrastructure pathways connecting customers to latest generation mobile telecommunications services, such as mobile broadband. The

massive increase in mobile connectivity and exponential growth in network traffic is predicted to increase 10-fold by 2020.

Industry is working hard to meet such unprecedented demand by investing more than $10 billion on the latest-generation mobile technologies, network infrastructure and spectrum over the past two years in response to strong consumer demand and increasing customer expectations.

Despite the public pendulum swinging to focus on coverage-related issues, the Health and Safety Committee remains firmly committed to its task of ensuring that the community has access to independent expert information on EME health and safety issues.

AMTA relies on the advice of independent scientific experts, such as the World Health Organization (WHO), to give consumers accurate information to assist them in making informed choices about mobile technology and health. The mobile phone industry takes all questions about the safety of mobile phones seriously and has a strong commitment to supporting ongoing scientific research on health and safety issues.

AMTA this year updated its Health and Safety website to make it more accessible to the public to find accurate science-based information from independent experts to assist them make informed choices about their use of mobile technology and health.
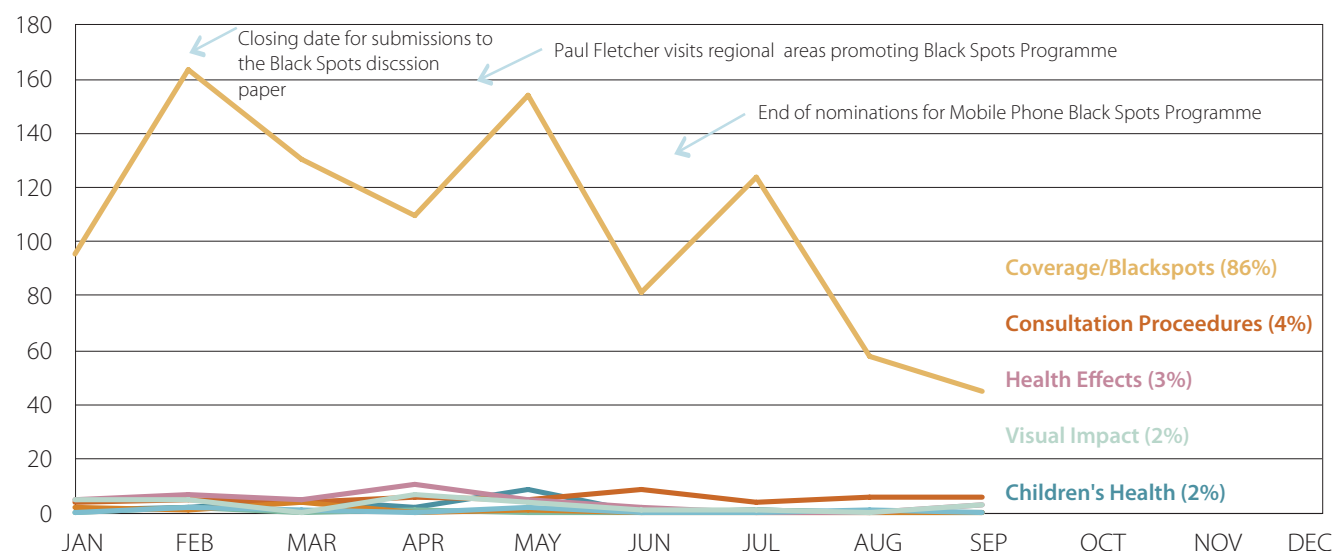
Cumulative

AMTA outlined to *Science and Wireless* how network capacity upgrades to meet consumer demand had resulted in an increase in EME levels from radio signals from base stations.

However, despite small average rises from low EME base levels, emissions remain well below strict scientific safety standards that are set by Government regulators and network carriers are required to comply with safety standards.

An annual audit of the industry database, which is open to the public, was released by AMTA at the annual *Science & Wireless* seminar in Melbourne late last year, and found the average level of EME or radio wave emissions has risen from 0.62 per cent to 0.9 per cent of the safety limit.

Base station media issues 2014 to September

Closing date for submissions to the Black Spots discssion paper

Paul Fletcher visits regional areas promoting Black Spots Programme

End of nominations for Mobile Phone Black Spots Programme

Coverage/Blackspots (86%)

Consultation Proceedures (4%)

Health Effects (3%)

Visual Impact (2%)

Children's Health (2%)

NOTES: This is a count of the number of mentions of an issue in the Australian media reported in AMTA's daily media report and may not include all mentions of the issue.

Predicted EME levels at base stations operating at maximum power

Year	No of Sites With EME Reports	Average EME average of all levels	Sites <1%	Sites1-5%	Sites >5%
Nov 13	13539	0.9%	9992 (74%)	3202 (23.5%)	345 (2.5%)
Nov 12	13048	0.7%	10444 (80%)	2430 (18.6%)	174 (1.4%)
Nov 11	12040	0.62%	10024 (83%)	1908 (16%)	108 (1%)

Source: Radio Frequency National Site Archive (RFNSA)

The number of base stations with maximum predicted levels of more than five per cent of the safety standard limit was 345 – 2.5 per cent of the 14,000 base stations in Australia – and this had increased from 174 in 2012 and 108 in 2011.

Michael Bangay Consulting presented *Science and Wireless* with results of an audit of actual EME levels from base stations.

This contrasts to the industry audit outlined above, which uses official ARPANSA methodology to predict base station emission levels when operating at maximum power However, in practice base stations do not operate at maximum power because they are designed to operate at the lowest possible power to maintain a quality call.

The audit of actual base station RF EME found the predicted EME levels were on average seven times greater than actual measured levels and ARPANSA's EME prediction report used by industry provides a conservative estimate of EME levels around base stations. Michael Bangay also found locations where the dominant source of most EME was FM radio and TV and not mobile phone base stations.

Mobile carriers make publicly available maximum predicted radiation (EME) levels around base stations, which assume sites are operating at full power and capacity, and they also provide site compliance certificates to verify sites meet safety standards. These can be found at: www.rfnsa.com.au

Ralph Craven, Chairman of the Australian National Committee to the International Electrotechnical Commission (IEC), presents Mike Wood, Chair of AMTA's Health and Safety Committee, with an award for his technical contribution to measurement of human exposure to electromagnetic fields

Standards

International safety agencies are undertaking a review of EME safety standards as part of their regular official review to consider the latest scientific research. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) is expected to finalise its review late next year.

AMTA supports regular official reviews of safety standards to maintain robust standards with large safety margins based on the latest scientific research to protect the public from EME or radio waves emitted by base stations and mobile phones.

The Health and Safety Committee noted the findings of the Expert Panel of ARPANSA in March this year:

"On the basis of an examination of the scientific literature in this area from January 2000 to August 2012, the Expert Panel concluded that the science behind the ARPANSA RF Exposure Standard remains sound and that the exposure limits in the Standard continue to provide a high degree of protection against the known health effects of RF electromagnetic fields."

The mobile telecommunications industry will fully meet all its obligations to operate within independent science-based safety standards. The Federal Government regulator, the Australian Communications and Media Authority (ACMA) requires all mobile phone network carriers to comply with safety standards and conducts independent audits of base stations.

Driving

AMTA's driving sub-committee (a part of Health and Safety) spent this year promoting a clearer understanding of national driving laws and giving drivers practical information on how they could comply with the law through AMTA's website: www.keepyoureyesontheroad.org.au

A uniform national approach to drivers' use of mobile phones in approved cradles was threatened this year in Queensland because police were booking drivers for using their mobiles when placed in cradles. The Australian Road Rules provide for drivers being able to touch a handset for the purposes of making or receiving a phone call if it is placed in an approved cradle attached to the windscreen or dashboard.

AMTA contacted the relevant Queensland Minister's office and was able to assist in sorting out the confusion over the misinterpretation over the law in that State. The Minister's office and senior Department of Transport officials undertook to clarify the law in Queensland to ensure that drivers could use cradles for making and receiving calls.

AMTA was in contact with key regulators and traffic authorities to co-operate on safe driving approaches during the year. These included: VicRoads, the South Australian Minister for Road Safety, and Transport for New South Wales.

AMTA attended the launch of the National Road Safety Partnership Program (NRSPP) in Melbourne in May. The Partnership, an initiative of the National Transport Commission (NTC), is a business network to promote employee road safety.

Major employers such as Coca-Cola Amatil, BHP Billiton, Telstra, Shell and Origin Energy have signed up to the program. The program shares best practice road safety programs across businesses, which are responsible for buying almost half of new vehicles sold in Australia each year.

KEEPYOUREYESONTHEROAD.ORG.AU

AMTA arranged with the NRSPP for our website, *Keep Your Eyes on the Road,* to be used by the network's "knowledge centre" as a resource to promote safer use of mobiles in vehicles.

Finally, AMTA's safe driving website received international recognition from one of the world's leading research institutes on driving distractions, the Virginia Tech Transportation Institute (VTTI). The VTTI website says:

*"VTTI does not just impact transportation policies in the U.S.; the Institute also makes a measurable impact globally. VTTI's research is featured predominantly on **Keep Your Eyes on the Road**, the Australian mobile phone industry's new initiative to reduce driver risks from cell phone use and to provide safe driving tips. In fact, the name of the initiative comes directly from conclusions made by VTTI researchers."*

Lost and Stolen

The Lost & Stolen program, which started more than a decade ago to address a growing national problem of mobile phone theft, this year recorded a fall of nearly 10 per cent in net blocking in the 12 months to June 30, 2014, of mobiles reported lost or stolen.

There are more than 10 million sales of mobile devices in Australia each year and a drop of 9.8 per cent in net blocking this year marks the continuation of a strong downward trend over the past 11 years since the program started in 2003.

The mobile telecommunications industry's Lost & Stolen program blocks handsets reported lost or stolen from accessing all mobile networks in Australia. In the first full year of the program's operation in 2003-04 there were 170,000 net blocks. For the corresponding period 2013-14, there have been 123,213 blocks – a 27.5 per cent fall.

The figures provide strong evidence that thieves are getting the clear message that stealing mobiles is a waste of time because they would be blocked and made inoperable in Australia.

The program is run by the Australian Mobile Telecommunications Association (AMTA) on behalf of its members – Telstra, Optus and Vodafone. When a customer reports a mobile lost or stolen to their phone company it is blocked using the handset's unique 15-digit electronic serial number, known as the International Mobile Equipment Identity (IMEI) number.

Handsets are blocked across all networks in Australia and cannot be used to make or receive calls or text messages. This prevents misuse of the handset and protects the owner from illegal call costs.

The 27.5 per cent fall has been achieved during 11 years in which there has been a 92 per cent increase in the number of mobile phone services in operation.
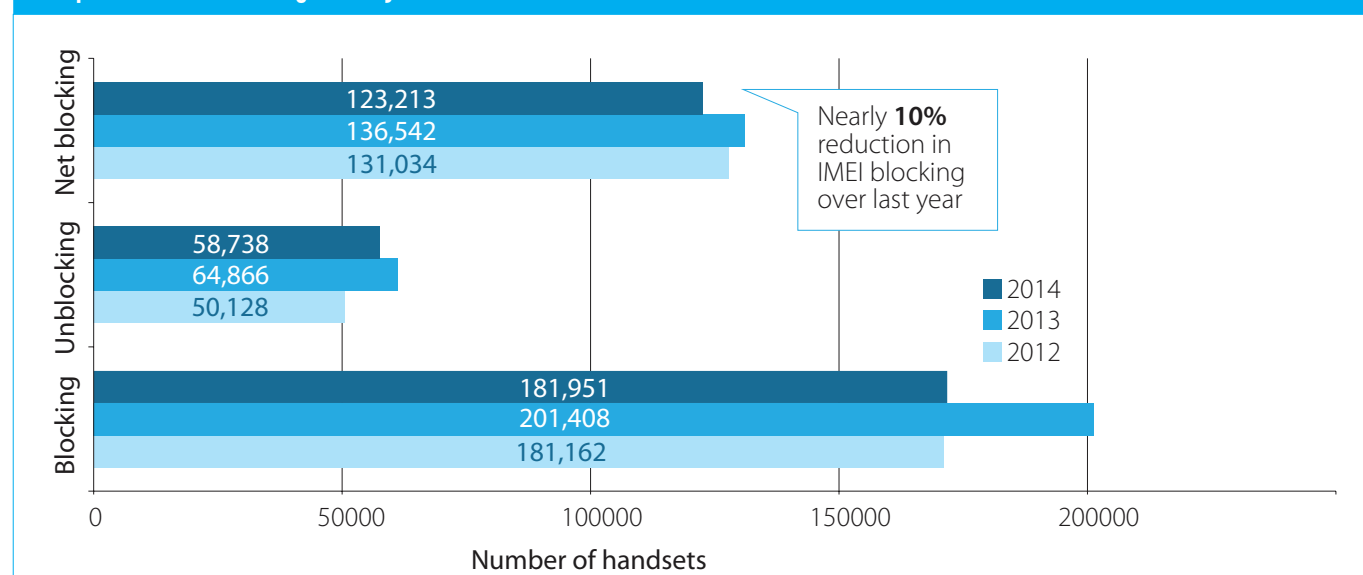
Mobile services in operation have increased by an average of 1.4 million a year over the past 11 years, rising from 16.2 million subscribers in Australia in 2004 (mobile penetration rate of 81 per cent) to 31.1 million mobile services in operation in 2014 (penetration rate of 132 per cent).

The very strong rise in mobile phone use during this period makes the 27.5 per cent fall in blocking all the more remarkable. It might have been expected there would have been a spike in reported thefts recently with the rapid uptake of high-value smartphones, however, this has not been the case.

The success of the AMTA program has attracted interest from other nations, including the United States, which are setting up similar programs to discourage thieves.

To find more about Lost & Stolen see www.lost.amta.org.au

Comparison IMEI Blocking Activity

Net blocking
- 123,213
- 136,542
- 131,034

Nearly **10%** reduction in IMEI blocking over last year

Unblocking
- 58,738
- 64,866
- 50,128

- 2014
- 2013
- 2012

Blocking
- 181,951
- 201,408
- 181,162

Number of handsets

AMTA Board and Staff

Chair: Warwick Bray – Telstra
Director since: 17 March 2011

Deputy Chair: Håkan Eriksson – Ericsson Australia
Director since: 15 March 2012

Matthew Lobb – Vodafone Hutchison Australia
Director since: 15 Sept 2011

Stephen Lewis – Nokia Australia Pty Limited,
subsidiary of Microsoft Mobile Oy
Director since: 12 September 2012

Stephen McFeeley – Nokia Solutions and Networks
Director since: 14 June 2012

Sean O'Halloran – Alcatel-Lucent
Director since: 15 March 2012

Danny Adamopoulos – Motorola Mobility Australia
Director since: 2 May 2013

Scott Zhang – ZTE Australia
Director since: 24 June 2014

Prasad Gokhale – Samsung Australia
Director since: 20 March 2014

Clare Gill – Optus
Director since: 7 November 2013

Past Directors

Sarah Pyke
Director since: 12 September 2012
Resigned: 7 November 2013

Tyler McGee
Director since: 11 July 2013
Resigned: February 2014

Finance & Audit Committee

Matthew Lobb (Chair)
Håkan Eriksson
Clare Gill

Remuneration & Appointments Committee

Warwick Bray (Chair)
Sean O'Halloran

AMTA Staff

Chief Executive Officer Chris Althaus
Manager, Business Development Glenn Brown
Manager, Policy Lisa Brown
Manager, Communications Randal Markey
Manager, Office Renae White

MobileMuster

Manager, Recycling Rose Read
Manager, Channel Operations Spyro Kolofotias
Office/Program Co-ordinator Julia Diamond
Education & Communications Officer Larissa Shashkoff

Mobile Carriers Forum

Program Manager Ray McKenzie
Manager, Office / Executive Assistant Renae White

AMTA Board

Back row (L-R): Prasad Gokhale (Samsung); Scott Zhang (ZTE); John Demezieres (Motorola Mobility, alternate); Michelle Phillips (Optus, alternate); Matthew Lobb (VHA); Stephen Lewis (Nokia). Front row (L-R):Deputy Chair, Håkan Eriksson (Ericsson); Chair, Warwick Bray (Telstra); Chris Althaus (AMTA)
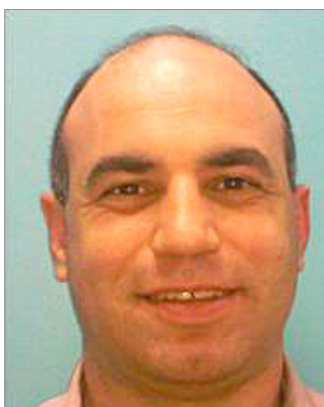
Danny Adamopoulos (Motorola)

Stephen McFeeley (Nokia Solutions and Networks)

Sean O'Halloran (Alcatel-Lucent)

Clare Gill (Optus)

History of AMTA
over 20 years

AMTA
Australian Mobile
Telecommunications
Association

The Australian Mobile Telecommunications Association (AMTA) was incorporated on 20 September, 1994, through the amalgamation of the Cellular Retailers Association of Australia and the Cellular Dealers Association of Australia.

Saturday, 20 September 2014 marks 20 years since AMTA was formally established. This provides us with a chance to consider how our organisation has evolved over the past two decades as we continue to grow to meet the needs of our members now and in the years ahead. We do so while remembering the lessons of the past and the efforts of members and staff since 1994.

In the first annual report, AMTA President Steve Haritos, Audiovox Pacific Ltd, set the tone for our industry's strong emphasis on consensus and finding common ground among members:

"The diversity of issues addressed and activities undertaken by the Association reflects the dynamic nature of the industry. The strength of the Association lies in its broad membership which allows for a range of views to be considered by members in addressing issues of common interest".

Mr Haritos nominated the major issues of the day. It comes as no surprise that two decades later spectrum is still top of industry's priority list:

- Spectrum policy
- Parallel imports/grey marketing
- Taxation
- Type approvals process

He said the nature of the industry required a high level of contact and co-operation with government officials, which provided a "two-way flow of information and views between industry and Government and contributes in a positive manner towards the growth of the industry".

In 1994, Australia had the fourth-highest mobile penetration per capita in the world and it was growing faster than the top three ranked nations with an estimated 2.25 million mobile subscribers in Australia.

Committees

In 1995-96, AMTA took another key step on its path to the organisation that we know today. It moved from "plenary sessions" to increased work groups, or committees, to handle a range of issues, including environmental matters and security concerns.

Committees remain at the heart of AMTA's work today. The CEO's Report in 2004 said committees were AMTA's engine room and provided members with the mechanism "to ensure industry contributes to and shapes public policy debates by presenting an unified voice".

AMTA appointed its first full-time Executive Director in 1996-97 and he reported that Electromagnetic Energy (EME) health issues had taken up an "enormous" amount of the secretariat's time and effort and "as more and more mobile phones are hooked up it will occupy even more time over the months and years to come".

In 2011, the then AMTA Chair, Henry Calvert (Optus) summed up "new era" challenges from an increasingly complex environment shaped by convergence, productivity and connectivity. However, he said it was important to maintain a necessary emphasis on "mature" issues, such as health and safety.

Research and agenda setting

AMTA has commissioned research over the years to give governments and regulators new insights into the growing role and importance of mobile telecommunications and provide an evidenced-based policy approach to inform decision-making.

AMTA commissioned the Allen Consulting Group in 2004 to undertake a report to "better understand the economic significance of the mobile telecommunications industry in Australia". It said the mobile penetration rate had grown from 64 per cent in 2001-02 to 72 per cent in 2002.

"Although it may seem unlikely, a penetration rate above 100 per cent is possible and has been achieved in a number of countries," said the 2004 report. The latest report in the research series *Mobile Nation*, which was released in early 2013, said the penetration rate was about 135 per cent!

AMTA Chair, Warwick Bray, said at the launch of *Mobile Nation*:

"There can be no doubt that our customers, who are at the centre of our industry, are enjoying and demanding at unprecedented levels the full range of opportunities from the intersection of mobile technology and the internet – arguably two of the most influential technologies of our generation.

This pervasive technology is deeply embedded in all our lives. Behind the growing importance of mobile as an enabler of national

productivity and efficiency, people are using mobiles for a broad range of social activities outside business, including wider connection with people of similar interest, deeper connections (keeping in touch with family and friends), entertainment (music, photography and videos) and management of personal affairs."

Community engagement

AMTA has introduced programs over the years to be socially responsible and in touch with community needs and expectations by offering practical solutions to consumers. MobileMuster, AMTA's recycling program, was launched in 1999 as the industry's official product stewardship program.

As it evolved from a national battery recycling program it became what was believed to be the only industry-wide program for electronic waste offering free recycling for all mobile phone brands in the world.

Similarly, the Lost & Stolen program was launched in 2003 to address a growing national problem of mobile phone theft. Through the use of anti-theft technology, the industry was able to send a strong signal to thieves that stolen mobiles would be made inoperable.

In the decade since the program started there was a 21 per cent fall in blocking activity against a backdrop of mobile services increasing from 16 million to 30 million.

AMTA Chair Warwick Bray, CEO Chris Althaus and the Minister for Communications, Malcolm Turnbull in 2013.

Louise Sexton, past AMTA Chair; Minister for Broadband, Communications and the Digital Economy, Senator Stephen Conroy; Henry Calvert, Chair, AMTA, 2010.
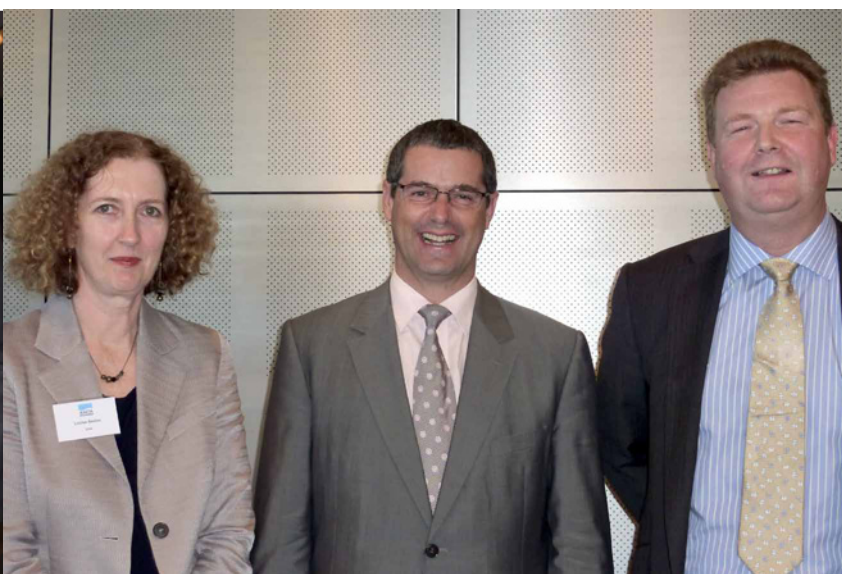
AMTA milestones

- AMTA launched in February 1994

- AMTA incorporated in ACT on 20 September 1994

- The forerunner of AMTA committee system established in 1996

- As at 1 June 1996, Australia had a cellular penetration rate of 19 per cent making it the fourth highest behind Sweden (25 per cent) followed by Norway and Finland

- AMTA's first full-time Executive Director appointed in 1997

- Expansion of AMTA's committees in 1997 with the introduction of the Health and Safety Committee

- AMTA moves into new premises with its own offices and staff of an administration assistant and part-time project/policy officer working on EME issues

- The establishment of the Lost and Stolen Mobile Phones Register in 1998

- 1999-2000 marked the introduction of "fledgling mass-market mobile data" with the launch of Wireless Application Protocol

- AMTA Directors on 24 November 1999 give the green light for the Battery Recycling Program to go national

- In 2000 AMTA established the Mobile Carriers Forum (MCF)

- Mobile Number Portability was launched on 25 September 2001. AMTA was represented on the working committee throughout the complex development process

- In 2002, David Thodey (Telstra) and Kevin Russell (Hutchison) joined the AMTA Board

- AMTA hosts a forum in Canberra on 12 February 2002 with Law Enforcement Agencies on how to tackle the growing problem of mobile phone theft

- In September 2003, the Minister for Communications, Senator Richard Alston, launches a world first digital handset blocking program at Parliament House, Canberra

- AMTA President Lynda O'Grady said AMTA's Committees were the "engine room" of the organisation

- AMTA commissioned report finds that Industry Gross Product for mobile phone industry was $6.1 billion in 2004-05, up from $5.3 billion in previous year

- AMTA's revamped recycling scheme was renamed "MobileMuster" in 2005

- AMTA hosted the Mobile Telecommunications Showcase at Parliament House on 14 June 2006

- AMTA, as part of an Australian Research Council Linkage Grant, commissioned a study that found the majority of Australians believe mobile phones had helped balance family and working lives

Brian Scarsbrick (CEO Landcare) and Holly Kramer (AMTA, Chair) plant the first of 75,000 trees to be planted under the "Old Phones, New Trees" campaign in 2007.

AMTA President Keir Preedy (Optus); Senator Richard Alston, the Minister for Communications, Information Technology and the Arts; Graham Chalker, AMTA CEO, at the National Press Club lunch May 2003.

- 23 February 2007 marked 21 years since the first mobile phone was introduced in Australia with the then Minister for Communications, Michal Duffy, making the first official call

- In 2007 AMTA released an Access Economics report that found the mobile telecommunications industry "punches above its weight" because of its ability to drive productivity gains throughout the Australian economy

- AMTA leads industry campaign for digital dividend (700MHz) spectrum targeting 126MHz outcome

- In 2008 Government announces licence renewal for 15-year spectrum licences and the replan of the 2500MHz band for mobile industry use

- AMTA Chair Louise Sexton in 2009 said the mobile telecommunications industry had met the uncertainty and challenges thrown up by the Global Financial Crisis to post a robust performance under trying conditions

- In 2010, AMTA President Henry Calvert called for a sense of urgency in the policy process with a spectrum roadmap to assist critical investment decisions

- In 2010, AMTA commissioned research by Network Strategies that estimated gross productivity benefits for mobile broadband in Australia from 2013 to 2020 were around $143 billion provided industry could access sufficient spectrum in appropriate bands

- In June 2010, the Government announced that a digital dividend of 126 MHz of 700 MHz band spectrum, comprised of UHF television channels 52 to 69, will be realised. Creating this digital dividend is possible following the move to digital-only television broadcasting under the digital television switchover program, which was completed in December 2013.

- AMTA responded to the International Agency for Research on Cancer (IARC) which classified radio waves emitted from wireless devices as "possibly carcinogenic to humans"

- In 2012, AMTA led industry's response to two Private Members Bill introduced into Federal Parliament that would have undermined the industry's ability to develop networks

- 2013 marked the 10th anniversary of the Lost & Stolen program. There was a 21 per cent fall in handset blocks since 2003-04 against the backdrop of a very strong mobile phone uptake from 16.2 million subscribers in 2004 to 30.2 million in 2013

- AMTA Chair Warwick Bray launches *Mobile Nation*, which highlighted the economic enabling capacity of mobile services, particularly mobile broadband, at Parliament House Canberra on 7 February 2013, with former Communications Minister, Stephen Conroy

- April 2013 Government holds Digital Dividend auction

- AMTA Deputy Chair, Hakan Eriksson, represented AMTA at the 25 July 2014 announcement of MobileMuster as Australia's first Federal Government accredited voluntary product stewardship scheme. The Minister for Environment, Greg Hunt, made the announcement in Sydney.

Dr Ken Joyner (Samsung) and Kelly Parkinson (kppr) at the AMTA/MCF stand at the Bioelectromagnetics Society (BEMS) conference, which was held in Australia for the first time in Brisbane in June 2012.

AMTA HISTORY

Year	Chair	CEO
1994-1995	Steve Haritos, Audiovox Pacific Ltd	
1995-1996	Steve Haritos, Audiovox Pacific Ltd	
1996-1997	Steve Haritos, Audivox Pacific Ltd	Peter Russell
1997-1998	Brian Cox, Ericsson Australia Pty Ltd	Peter Russell
1998-1999	Graeme Holm, Vodafone	Peter Russell
1999-2000	David Watson, Cable and Wireless Optus Limited	Peter Russell
2000-2001	Keir Preedy, Optus	Peter Russell/R Monaghan
2001-2002	Keir Preedy, Optus	Ross Monaghan
2002-2003	Keir Preedy, Optus	Graham Chalker
2003-2004	Lynda O'Grady, Telstra Corporation	Graham Chalker
2004-2005	Keir Preedy, Singel Optus	Graham Chalker
2005-2006	Holly Kramer, Telstra Corporation	G Chalker / Chris Althaus
2006-2007	Holly Kramer, Telstra Corporation	Chris Althaus
2007-2008	Louise Sexton, Hutchison Telecoms	Chris Althaus
2008-2009	Louise Sexton, VHA Pty Ltd	Chris Althaus
2009-2010	Henry Calvert, Optus	Chris Althaus
2010-2011	Henry Calvert, Optus	Chris Althaus
2011-2012	Warwick Bray, Telstra	Chris Althaus
2012-2013	Warwick Bray, Telstra	Chris Althaus