

# Submission from the Australian Mobile Telecommunications Association on the

## National Waste Policy: Managing Waste to 2020 - Consultation Paper



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### INTRODUCTION

The Australian Mobile Telecommunications Association (AMTA) is the peak industry body representing Australia's mobile telecommunications industry. Its mission is to promote an environmentally, socially and economically responsible and successful mobile telecommunications industry in Australia.

The Association represents the mobile telecommunications industry on government, regulatory and business committees and roundtables. At the consumer level, AMTA engages in ongoing dialogue with a range of consumer organisations and community groups in order to better understand and address mobile phone technology issues at a customer level.

AMTA member organisations include mobile phone carriers and service providers together with handset manufacturers, retail outlets, network equipment suppliers and specialised consultancy services.

AMTA congratulates the Australian Government and the Environment Protection and Heritage Council in leading the development of a new national waste policy for Australia.

Waste associated with electronic industries is a growing global issue and the mobile phone industry in Australia and overseas is serious about its responsibilities in avoiding and minimising the impact of its operations on the environment, in particular avoiding and reducing waste and increasing recycling.

The industry does this in a number of ways:

In terms of avoiding waste, including hazardous waste handset manufacturers have progressively reduced the amount of materials being used to manufacture handsets and the toxicity of the materials used.

Manufacturers and carriers aim to minimise the use of hazardous substances in their products, in line with the EU Directive for the Restriction of Hazardous Substances.

Manufacturers are now also incorporating recycled plastics and metals in the manufacture of new handsets. Substantial work has also been done by members in reducing the amount of packaging

used, increasing the amount of recycled content in packaging and the recyclability of packaging materials.

On the operational side mobile network service providers are continually reducing their environmental footprints through a raft of initiatives to reduce waste generation and increase recycling as well as water and energy use.

For more details on these please refer to individual company Annual and CSR reports.

## COMMENTS ON SPECIFIC QUESTION IN THE CONSULTATION PAPER

### 7 - NATIONAL APPROACHES TO WASTE MANAGEMENT AND RESOURCE RECOVERY

*5. What waste issues would most benefit from a national approach? What strategies could be considered and how could the need for local solutions be integrated with a national approach?*

AMTA supports a national approach to electronic waste that is supported by state and federal governments.

*6. Are there waste management initiatives in operation overseas that could apply in the Australian context? If so, which ones and why?*

MobileMuster, the mobile phone industry's official recycling program in Australia is a world leader as it is the only mobile phone recycling program in the world where all members of the industry work together to take back mobile phones for recycling.

#### 7.2 - Hazardous Waste

*7. Australia needs to safely manage hazardous waste and waste containing hazardous materials over the long term.*

- Are there any changes to current arrangements that would improve Australia's capability to safely manage hazardous waste, for example in regard to adequate infrastructure or disclosing the contents of goods and substances?*

AMTA manufacturing members produce and market cellular phones and accessories on a global basis and are subject to RoHS regulations in the European Union, China, Korea, and a number of regional jurisdictions. These AMTA member companies have been working to eliminate, where technically feasible, the six restricted materials for a number of years and as global companies, our members manufacture and distribute compliant products.

AMTA supports the international harmonisation of RoHS regulations and considers that any policy recommendations should be harmonized with regional initiatives such as those under discussion in the Trade Facilitation Task Force (TFTF) of the Standards and Conformance Subcommittee of APEC.

Individual AMTA members are already involved in the TTF and AMTA as an organization would be pleased to contribute to discussions and forums on regulatory harmonization with other jurisdictions, industry, NGOs, and other stakeholders regarding environmental policy for electronic products.

AMTA supports greater stakeholder consultation; welcomes further investigations into the exposure issues in particular emissions from landfills and heavy metal emissions; and recognises that further investigations into costs and benefits, policy development and implementation will be required.

AMTA supports the development of an industry guideline that restricts the use of hazardous substances in electronic equipment. This guideline should be consistent with the EU Directive on the Restriction of Hazardous Substances (RoHS).

### **7.3 - Product Stewardship**

#### *8. There are a number of approaches to product stewardship operating in Australia.*

- *What, if any, role is there for a national approach and what would be the costs, benefits, opportunities and focus of such an approach?*
- *What models might work in Australia?*

AMTA and its members are committed to the principles of product stewardship and use these to further manage the environmental impact of design, manufacture, use and disposal of telecommunications products and infrastructure.

AMTA initiated the Mobile Phone Industry Recycling Program (MPIRP) in late 1998 due to concerns for the potential environmental harm caused by dumping mobile telephones and batteries into landfills. The Association and its members have invested heavily in time, effort and finances in the development of this world-leading program designed to recover and recycle mobile phone components.

A number of AMTA's members also conduct similar take back/recycling programs across the globe.

AMTA will continue to encourage improved environmental outcomes by contributing to the development of effective product stewardship policy and programs, participating in industry education programs and forums, and supporting environmental initiatives from government and other stakeholders.

#### **MOBILEMUSTER - Industry Management of Mobile Phone Recycling in Australia**

AMTA on behalf of its members manages MobileMuster, the official recycling program of the Australian mobile phone industry.

This program is a voluntary take back/product stewardship program that is run on a not for profit basis. Initiated originally in late 1998, as the mobile phone industry recycling program, the program was re-branded and relaunched in December 2005 as MobileMuster.

MobileMuster is governed by a Recycling Agreement between each of the program participants and AMTA. This agreement outlines the contributions of each participant and their responsibilities in managing the program including the establishment of a Member Representative Council, its role in managing the program, reporting to participants and the AMTA Board.

Signatories to the Recycling Agreement include handset manufacturers Nokia, Motorola, Samsung, Sony Ericsson, LG Electronics, i-mate, Sharp, NEC, Panasonic and HTC (from 1 July 2009) representing over 85% of all mobile phones imported into Australia and all Australian mobile phone network service providers, Telstra, Optus, Vodafone, 3 Mobile (Hutchison), Virgin Mobile and AAPT and distributor Force Technology.

Mobile phone handset manufacturers currently not participating in the program are RIM, Apple and ZTE. The AMTA and its members are currently in discussions with these companies and are encouraging them to join the program.

### ***How is it funded?***

MobileMuster is funded by a recycling levy that is paid in advance by program participants. A total of 42 cents is raised per mobile phone unit (i.e. handset including battery and charger) imported into Australia.

30c is paid per unit by the manufacturer of each mobile phone and the balance of 12c is paid by the network service providers. The network service provider contribution is based on an agreed market share outlined in the Recycling Agreement.

The program does not receive any revenue from the sale of materials for recycling. It is managed on a not-for profit basis. None of the mobile phone components are refurbished or sold for further use.

### ***What happens to the mobile phone components collected?***

All components are dismantled, sorted into their material types and recycled to the highest environmental standards. Plastics are recycled locally in Australia and are used to make composite plastic fence posts. Ferrous metals and associated cardboard packaging are also recycled locally.

The circuit boards and batteries are separated and shipped to Korea where they are further processed. In the case of the circuit boards they are currently shipped to Reco Metal who processes them for their precious metals – gold, silver, copper and lead. The three battery types Lithium Ion, Nickel Cadmium and Nickel Metal Hydride are processed by Kobar, which recovers the nickel for stainless steel products and the cadmium and cobalt for battery manufacture.

It is estimated that over 90% of the materials collected by mobilemuster are recovered by its recyclers in Australia and overseas with less than then 7% ending up in landfill.

### ***What is collected by MobileMuster?***

MobileMuster accepts all mobile phone components (i.e. handsets, batteries, chargers and accessories) and accepts all brands.

## **Mobile Phone Collection methods**

Mobile phone components are collected in four ways.

- (1) DROP OFF - A public drop off network of over 3500 outlets Australia wide including all the major mobile phone retailers – Telstra, Optus, Vodafone, 3 Mobile, Crazy Johns, Allphones, Fone Zone and various independent mobile phone retailers; Nokia Care and Motorola Service One centres; participating local councils; Cartridge World and Battery World outlets, ANZ branches in Sydney, Melbourne, Brisbane and Canberra and other selected outlets – details of the nearest drop off point can be found at [www.mobilemuster.com.au](http://www.mobilemuster.com.au) or by calling 1300 730 070.
- (2) RECYCLING SACHEL – Free mobile phone recycling satchels are available from participating Auspost outlets and are being inserted into selected mobile phone packs sold by Samsung, LG Electronics, Simply Mobiles/Green Mobiles and Vodafone.
- (3) REPLY PAID MAILING LABEL – a free reply paid mailing label can be downloaded from the website [www.mobilemuster.com.au](http://www.mobilemuster.com.au)
- (4) KERBSIDE COLLECTIONS - Kerbside collections that include mobile phones are run in selected areas – e.g. Moonee Valley City Council *Renew*, Hunter Resources Recovery *Lifecycle* and Eurobodalla Kerbside Collection. In this instance AMTA pays the recycling operator \$2+gst per kg of mobile phone components and provides financial assistance to the relevant local councils to promote the new service to residents.

## **Educating mobile phone users – barrier to recycling**

A key driver to the success of mobile phone recycling (or any recycling) is ensuring mobile phone users are aware that they can recycle, why they should recycle, where to recycle and that recycling is free, simple and accessible.

There is a strong tendency for the majority of mobile phone users to hold on to their mobile phone phones, chargers and accessories – over 80% of mobile phone users keep their previous phones and it is estimated that there are between 14 to 16 million handsets stored at home and work not being used<sup>1</sup>.

This is one of the biggest challenges to the mobile phone industry. As a result the mobile phone industry has invested heavily in raising consumer awareness about mobile phone recycling and promoting the location of collection points. As well as educating consumers why they should not throw their mobiles in the rubbish.

To further encourage people to make the effort and hand in their mobile phones, AMTA has implemented the *Old Phones More Trees* campaign in partnerships with Landcare Australia since 2007 where native trees are planted for mobile phones recycled during the five weeks leading up to World Environment Day.

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<sup>1</sup> IPSOS Market Research, February 2009, independent online survey of 640 mobile phone users aged between 16 and 64 Sydney, Melbourne, Adelaide and Perth.

This incentive together with regular advertising via mass media (TV, Radio, Online, Outdoor) and directly to mobile phones users by network service providers in store, online and through billing has a direct impact on the amount of mobile phones recycled.

Training, incentives and simple rewards are also being used to encourage mobile phone retail staff to promote mobile phone recycling to customers and to send in mobile phones for recycling.

### ***Supporting local councils***

Local councils are recognised by the community as an important source of information and advice on recycling and waste management. The mobile phone industry recognises this role and has invested resources and time in assisting local councils in extending the mobile phone recycling message and service to residents and businesses in their local region. Over 50% of councils now work with MobileMuster to help promote and collect mobile phones for recycling. MobileMuster also runs an annual award program to recognise councils' achievements.

### ***Educating youth***

Mobile phones are very much part of every day life, therefore it is important that the youth of Australia are educated on the proper use and disposal of mobile phones.

In 2006 MobileMuster launched a series of primary and secondary school activities and an educational DVD on recycling mobile phones. Since June 2007 MobileMuster has also implemented a number of school recycling challenges. These challenges include activities to help students learn about what a mobile phone is made of, why it should be recycled and how it is recycled as well as rewards and incentives to collect mobile phones for recycling.

### ***Achievements (as at 31 March 2009)***

Since this voluntary program started in late 1998 over 582 tonnes of handsets, batteries, chargers and accessories have been collected. This includes 4.02 million handsets and batteries.

In 2007/2008 MobileMuster collected 97 tonnes of mobile phone components including 755,200 handsets and batteries, representing a net import collection rate of 5.5% or 18.9% collection rate of discarded phones.

For 2008/09 MobileMuster is aiming to collect 130 tonnes of mobile phone components including 1,000,000 handsets and batteries representing a net import collection rate of nearly 8% and a 24% collection rate of discarded phones.

Since 2005

- Collections have increased by 131% from 42 tonne to 97 tonne.
- Awareness has nearly doubled from 46% to over 80%<sup>2</sup> and
- Disposal of previous mobile phones to landfill has dropped to 2% down from 9%<sup>3</sup>

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<sup>2</sup> IPSOS Market Research, February 2009, independent online survey of 640 mobile phone users aged between 16 and 64 Sydney, Melbourne, Adelaide and Perth.

The real value of MobileMuster also lies in what it has demonstrated with respect to the cost structure of such a program and consumer behaviours. MobileMuster has been universally available, well publicised, free to consumers, has experimented with specifically targeted reward and social responsibility initiatives, has been continuously monitored for consumer attitudes and recognition and has a strong historical database which correlates collection responses with each of these initiatives.

### ***The Way Forward – Challenges***

In November 2008 AMTA submitted to the EPHC Ministerial Council its Industry's Statement of Commitment to Mobile Phone Recycling. This statement outlines MobileMuster's collection targets and strategies through to 2013.

Key factors listed in the document to achieving the proposed targets over the next five years were;

- a significant shift in consumer behaviour away from storing old mobiles to recycling them,
- consumer uptake of free reply paid recycling satchels,;
- improved advocacy by retail staff of mobile phone recycling to customers,
- collection of mobile phones through kerbside services, and
- ongoing industry participation in the program.

### **Voluntary versus regulated product stewardship schemes**

The mobile industry's handset recycling program enjoys 100% participation by carriers and greater than 85% participation by manufacturers. Unlike other industries and sectors the cooperative participation of mobile phone industry members renders the need for regulatory intervention unnecessary.

However, the industry does support the introduction of national regulations that require companies to demonstrate and report to government the procedures and processes they have in place to ensure the appropriate end of life disposal of the products they import and or sell in Australia.

This level of regulation and compliance should be at the national level.

### **Funding product stewardship schemes**

The industry recognises it has a financial responsibility to contribute to the take back and recycling of its products. Currently the mobile phone industry funds 100% of its take back scheme. No costs are passed on to the consumer or retailer.

The current method of collecting funds from participating members at time of import is a very efficient and cost effective method that can be easily audited by independent parties.

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<sup>3</sup> IPSOS Market Research, February 2009, independent online survey of 640 mobile phone users aged between 16 and 64 Sydney, Melbourne, Adelaide and Perth.

## **Increasing collections – available mechanisms**

Education and promotion of why, where and how to recycle have proven to be very effective methods in increasing collections. These activities need to be maintained at a high level to continue growth in collections and to keep mobile phone recycling top of mind for mobile phone users.

Good access, diversity of collection methods and a free collection service are all vital to ensuring collections increase. Reply paid satchels and mailing labels are now contributing 15% of total collections.

Using existing kerbside collection infrastructure and systems is also starting to boost collections in certain areas as has e-waste drop off days.

AMTA strongly supports the development of a national e-waste scheme that leverages existing kerbside infrastructure and other local collection methods. This scheme should of course require electrical and electronic industries to pay for the collection and recycling of their products (see section 10 for more detail on AMTA's proposed national approach to e-waste).

## **Clear Guidelines for Product Stewardship Schemes**

AMTA supports the current initiative by the Victorian Environment Protection Authority to develop a Framework for Product Stewardship. There is a real need for clear consistent guidelines on determining when a product stewardship scheme is appropriate, if the scheme should be regulated or not and how it can be funded and implemented.

The industry believes guidelines of this type would be a useful addition to the National Waste Policy.

## **Streamlining / Optimising collection and recycling infrastructure**

To minimise the costs of any take back program, the need to find operating efficiencies and optimising the collection and processing infrastructure is critical. Use of existing infrastructure such as kerbside recycling bins and drop off services can prove to be very cost effective as illustrated by the Moonee Valley City Council *Renew* collections and the Hunter Resource Recovery *Lifecycle* collections.

## **8 – WASTE MANAGEMENT AND RESOURCE RECOVERY TRENDS**

### **8.1 - Waste Data**

*10. What fundamental data sets does Australia need to collect to better inform waste management policies, practices, investment, business operations and to assess and manage risk?*

AMTA has worked with KPMG over the past three years in developing Key Performance Indicators that can be independently audited on an annual basis. The first independent audit and assurance of MobileMuster's key performance indicators was completed by KPMG in November 2008 for the program's operation in 2007-08.



For a comprehensive view on mobile phone recycling the Federal Government should insist that other organisations recycling mobile phones outside of MobileMuster report to a similar standard to get a complete picture of the management of mobile phone waste in Australia.

## 8.2 - Waste avoidance and reuse

*11. What, if any, place should there be for approaches that seek to avoid waste through changes in design, production processes and transport?*

Members of AMTA work continually to avoid waste through better design and production processes, including the inclusion of recycled materials in their products and packaging.

## 8.5 – Resource Recovery

There is a lack of publicly available data on the recovery of materials from various e-waste recycling processes. Assistance in investigating and documenting e-waste recycling processes would enable the industry to report in more detail to government and the community on the volumes of resources recovered and reused and the benefits these are providing to the environment from a greenhouse gas, energy use and natural resources perspective.

## 8.6 – Disposal to landfill

*13. Landfill is currently the primary means of waste disposal. What, if any, changes need to be made to manage Australia's waste stream in the long term given current trends in the volume and nature of the waste?*

While mobiles were identified as a priority waste by the State and Federal governments, largely due to the speed of product development and relatively short ownership cycles, industry surveys show that the actual level of disposal of mobiles is relatively low and retention rates are high. Recent independent market research by IPSOS which shows that in February 2009 only 2% of people said they threw out their previous mobile phone. This is down from 9% in March 2005.

MobileMuster also considers that phones disposed to landfill represent one the smallest contributors by weight of the total e-waste stream and estimates that mobile phones contributed about 0.5% of the estimated 397,000 tonnes of e-waste disposed to landfill in 2005<sup>4</sup>, illustrating the breadth of the e-waste challenge.

Preliminary trials by MobileMuster in partnership with the ACT NoWaste and Thiess at their Material Recycling Facility in the ACT indicated that a reasonable proportion of mobile phones, batteries and chargers put through the facility can be separated out using existing technology.

However, with further development of the technology, these sorting systems could potentially separate out a much higher percentage making automated sorting of mobile phones from kerbside collections a possibility.

## 8.6 – Litter

Whilst mobile phones are not found in the litter stream many AMTA members are signatories to the National Packaging Covenant which requires them to identify and report on initiatives to minimize the amount of packaging going into landfill and litter streams.

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<sup>4</sup> Hyder Consulting, *Waste recycling in Australia*, November 2008, p.68.

## 10. Electronic Waste

### *15. What, if any, changes are needed to provide a national approach to the way e-waste is managed?*

In addition to the comments provided in sections 7.2 and 7.3, AMTA believes MobileMuster has strong research data and operational records which demonstrates that in regard to the management of e-waste,

- Consumer sentiment is strong but behaviours lag sentiment significantly,
- Convenience at the point of disposal is critical,
- Consumers will not discard product which maintains a perceived net worth,
- The most cost effective strategies are to appeal to a sense of social responsibility,
- Operational costs are dwarfed by marketing costs and these are difficult to defray over a small product sector, and
- Significant demand exists for a broader e-waste collection stream rather than a single product recycling stream.

AMTA and its members will continue to support MobileMuster but do not expect the collection rates to exceed 50% of total net imports within the next five years while the scheme continues its current promotion and collection methods.

AMTA believes that consumers recognise that mobiles are a small fraction of their own e-waste stream and without a collection/disposal mechanism for other e-wastes, only the most socially responsible consumers will recycle their mobile phones.

AMTA supports the introduction of a national e-waste scheme. This scheme must be ubiquitous in access, widely promoted, accept all e-wastes, be free to the consumer and represent an assured path to effective recycling.

A single e-waste collection program would fulfil all of the above requirements, but would clearly require limited and constructive regulation at a national level aimed at ensuring maximum industry participation in funding / contributing to the operation of the program including the collection and processing of their products.

Such a program would require nationwide collection facilities such as kerbside or similar, appropriate recycling facilities and a set of controls and audit trails on the recycling and recovery path.

It could be operated at a fraction of the (proportional) cost of the existing MobileMuster program with the advertising and marketing costs shared across a much broader group of companies based on total value of production/imports. The costs of collection and processing for each specific e-waste sector would be shared on a volume basis.

Such a program would be readily supported by AMTA and could be expected to reduce the overall costs to our participating members and deliver the most cost effective method of disposal to all sectors of the electronic industry.

State Governments should support this national e-waste scheme and single e-waste collection program by working with industry to establish state wide collection networks and contributing

resources to educate consumers about electronic waste, why it is an issue, why electronic products shouldn't end up in landfill and how they can take action responsibly.

Similarly, all government agencies (national, state and local) should participate in the scheme by recycling their e-waste including old mobile phones and encouraging their staff to do so as well.

The national e-waste scheme should also incorporate a requirement for all e-waste reuse/recycling organisations to report publicly on the volume, type and materials collected, reused, recycled and exported as well as downstream recycling processes and procedures put in place to ensure compliance with international environmental regulations.

In addition to the proposed national e-waste Scheme, the Federal Government should also investigate regularly all e-waste recycling and reuse organisations to ensure compliance with national and international hazardous waste management legislation.

## **11. Waste, Climate Change and Sustainability**

*16. The Carbon Pollution Reduction Scheme will apply to emissions from landfill. Are there related approaches that would complement the scheme and thus contribute to meeting the emissions targets and the timeframes set in the Australian Government's climate change policy?*

*17. What are the opportunities to reduce water and energy use through the way waste is managed?*

Increased recycling will help reduce water and energy use by replacing the use of raw materials. Preliminary investigations into the reuse of plastics and metals from mobile phones by Energetics on behalf of AMTA suggest that a significant amount of future greenhouse gases can be avoided by recycling and reusing the plastics and metals in mobile phones.

## **12. Waste and the Economy**

*18. In what ways can waste management and resource recovery (including recycling, re-processing, re-manufacturing) industries add further value to the economy and create employment?*

Innovative kerbside collection schemes like Moonee Valley City Council *Renew* and the Hunter Resources Recovery *Lifecycle* are two excellent examples of how recycling can benefit local communities, create jobs and provide opportunities for many people.

MobileMuster has been instrumental in helping a number of local Australian companies involved in collecting and processing e-waste as well as manufacturing new products with recycled content develop their businesses and acquire new business locally and overseas.