



Australian Mobile Telecommunications Association | MobileMuster

Submission to the Department of Environment, Land, Water and Planning (DELWP)

**RESPONSE TO THE VICTORIAN GOVERNMENT'S E-WASTE BAN TO
LANDFILL**

22 January 2018

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, successful and sustainable mobile telecommunications industry in Australia, with members including the mobile Carriage Service Providers (CSPs), handset manufacturers, network equipment suppliers, retail outlets and other suppliers to the industry.

MobileMuster is a successful AMTA program established in 1998. AMTA manages the program on behalf of the members of MobileMuster who fund it voluntarily. MobileMuster members include Microsoft, Samsung, Motorola, HTC, Huawei, ZTE, Alcatel, Oppo, HMD Global, Google, Telstra, Optus, Vodafone and Virgin Mobile.

AMTA and MobileMuster welcome the opportunity to provide comments to the Department of Environment, Land, Water and Planning (DELWP) in relation to the Victorian Government's proposed approach to managing electrical and electronic waste or "e-waste" in Victoria.

Background

MobileMuster is the product stewardship program of the mobile phone industry in Australia, established voluntarily by the handset manufacturers and the mobile network operators to keep mobiles and their accessories out of landfill.

MobileMuster continues to play a leadership role in product stewardship and mobile phone recycling in Australia. The mobile industry is constantly working to reduce the environmental and human health impacts of their products, across their entire lifecycles. This includes improving material and energy efficiency, increasing recyclability and reducing the use of hazardous substances.

The *Product Stewardship Act 2011* came into effect in August 2011. This legislation provides the framework to effectively manage the environmental, health and safety impacts of products, and in particular those impacts associated with the disposal of products.

MobileMuster, which holds voluntary accreditation under the Act since 14 May 2014, was established by the mobile phone industry in 1998 to provide an environmentally sound take-back program that keeps mobiles out of landfill and optimises resource recovery. The accreditation of the program provides certainty to the community and industry that MobileMuster manages a recycling service that is safe and secure, meeting the highest Australian and international environmental standards. Everything collected by the program is recycled and any data left on devices is also destroyed securely as part of the recycling process.

The program also provides social benefits to the community. The recycling service is both free and accessible to all mobile phone users, plus MobileMuster works to raise the awareness of mobile phone recycling through its communications and education activities, including a program targeting schools across Australia.

MobileMuster’s long- term focus continues to be delivering on the Key Performance Indicators (KPIs) under the Product Stewardship Act 2011 as per the program’s voluntary accreditation along with efficiently managing a financially sound program.

Figure 1. Key Performance Indicators FY16| 17

	Target	Actual
Collections		
Mobile Phone Collections (weight – tonnes)	75.0	79.1
Annual Collection Rate, Available Phones (%)	57.5%	68.5%
Annual Collection Rate, Net Imports (%)	8.6%	10.4%
Estimated Number Handsets & Batteries (units – millions)	1.01	1.06
Recycling		
Diversion from Landfill	97%	99.0%
Recycling Rate	>90%	99.0%
Consumer Behaviour		
Personal Storage Rate (% users with 2 or more handsets at home)	37%	34%
Disposal to Landfill Rate	2%	2%
Awareness of Mobile Phone Recycling	>80%	77%
Industry Participation		
Manufacturers	58%	40%
Mobile Network Carriers	91%	86%

The performance of MobileMuster is measured against KPIs that include changes in consumer behaviour, collection and recycling rates, diversion from landfill and industry involvement. Each of these indicators is assured independently by auditors, RSM Bird Australia, ensuring transparency of the program’s performance.

Mobile Muster has four fundamental objectives:

1. **Environmental:** keep mobiles out of landfill; plus optimise resource recovery in a safe, secure and ethical way.
2. **Social:** free recycling service for consumers; promote awareness and education.
3. **Political:** enabling our members to meet their product stewardship requirements and obligations.
4. **Economic:** effective, efficient, equitable and sustainable program for its members.

MobileMuster’s Process

In 2017 MobileMuster continued to increase its collection rate and recycled 79.1 tonnes of mobile phone components. Total collections, since the program started, have reached 1,323 tonnes. This includes approximately 11 million handsets and batteries which have been diverted from landfill.

MobileMuster’s recycling partner [TES](#), is a global leader in electronic waste recycling, who maximise our recovery rates and ensure all the mobile phone components we collect are properly processed in an environmentally responsible manner to the highest standards. TES maintains international best practice certifications; R2 (Responsible Recycling), ISO 9001, 14001, 27001, 28000, OHSAS 18001,

and TAPA. They provide the program with transparency and accountability of the downstream recycling process and data to better understand and evaluate the program.

When consumers drop off old mobile phones for recycling at MobileMuster collection points they are then collected and transported to TES's recycling facilities in Melbourne, Sydney or Brisbane. Here the mobile phones are disassembled into their components. None of the phones are resold and any data left on devices is destroyed through this process. Once disassembled the parts are sorted into the following: batteries, printed circuit boards, handsets, accessories, plastics, metals and packaging. The components are then further processed by TES and downstream recyclers, using state of the art equipment to maximise resource recovery.

The materials recovered in the recycling process are returned to the supply chain and used in the manufacturing of new products. For example the recycled plastic from the mobile phone cases are used to make shipping pallets and the lithium extracted from mobile phone batteries can be reused to make new batteries. The recycling process has a positive impact on the lifecycle of a mobile phone. It reduces the need to extract raw materials from the earth which saves energy, conserves scarce natural resources and protects our environment.

In 2017 the program achieved a recycling rate of 99% and a diversion from landfill rate of 99%. The program's strong results demonstrate the positive effect the program has on reducing the impact of mobile phones on the environment, maximising the materials that can be recovered and promoting the development of a circular economy.

Awareness & Incentives

MobileMuster invests in education and public awareness programs to motivate Australians to recycle and change their behaviour. In fact the industry has invested over \$42 million in almost 20 years in building a robust collection network along with resources to help educate mobile phone users on the benefits of recycling unwanted mobiles along with their accessories.

MobileMuster aims to increase awareness of mobile phone recycling along with the benefits it brings to the community. This way when a phone reaches its end of life the recycling option is not overlooked. Our research shows that currently 77% of Australians are aware of mobile phone recycling, which is high in comparison to other recycling programs.¹

Australians continue to hold on to their old mobiles, many of which are redundant. MobileMuster estimates that Australians are storing 5 million old handsets that are broken or not working.² Our marketing strategy works to increase awareness of how, why and where to recycle, as well as provide incentives for consumers to take action and recycle more.

MobileMuster regularly partners with other organisations such as Able Australia, the Salvos and others to promote and raise awareness of mobile phone recycling while also raising funds for these charities and their programs.

¹ IPSOS, *Consumer insights into mobile phone use and recycling* (February 2017). It was based on a used sample size of 1001 people Australia-wide. Respondents were randomly selected from an online panel and were over the age of 16 with a mobile phone.

² IPSOS, 2017.

In 2017 MobileMuster partnered with OzHarvest for the second year running. OzHarvest is Australia's leading food rescue agency. The campaign tackled two of the fastest growing waste issues in Australia, e-waste and food waste. It not only raised the awareness of MobileMuster, but at the same time provided an added incentive to drive collections over the summer.

Using a multi-media and public relations campaign, MobileMuster promised to deliver the value of a meal to an Australian in need for every mobile recycled during January and February. As a result the program recycled over 60,000 mobiles, and helped OzHarvest deliver 60,000 meals to those in need.

The collection network including local councils and mobile phone retailers reinforced the call to action during the campaign which in turn saw a 17% increase in collections compared to the same period last year.

Collection Network and Partners

Without the efforts of our collection partners, MobileMuster wouldn't be able to provide a robust network of permanent collection sites covering major metropolitan, along with remote and regional communities throughout Australia. The program hosts over 3,500 public drop off points across the country. Along with the public drop off network, MobileMuster has over 2000 organisations such as workplaces, universities and government agencies who promote mobile phone recycling and run their own internal collection drives for their staff and local community. Alternatively, mobile phone users can also pick up a reply paid satchel from AusPost outlets and post back their mobiles and accessories for recycling for free.

The mobile retail network made up of over 1,600 stores continue to be an integral part of the program's collection network with over 30% of collections coming from this channel. Mobile phone retailers and their staff are great advocates for recycling. It is a logical choice for consumers to take back their mobiles for recycling to the store where they purchase new products and services.

Councils provide an important part of our public drop off collection network but also in promoting and educating their residents on the importance of recycling. This year we partnered with 378 councils throughout the country. Local councils increased their collections by 25% on the previous year.

Victorian residents in FY2017 contributed approximately 24% of the overall volume collected around the country. The Victorian collection network includes over 700 public drop off points across the State in the way of retailers and local councils, along with workplaces and a free post back option. Of the 79 Local Councils in Victoria, MobileMuster partners with 58 of them. The partnership includes providing them with collection units and resources to help them collect mobiles and accessories plus promote mobile phone recycling to their residents.

The Recycling Process

MobileMuster partners with TES, a global leader in electronic waste recycling, to maximize our recovery rates and ensure all the mobile phone components we collect are properly processed in an environmentally responsible manner.

Through our recycling process 99% of the materials in a mobile phone are recovered.

We believe our recycling process reduces the impact of mobile phones on the environment, minimises the resources that are thrown away and promotes the development of a circular economy.

Transporting

Everything collected by the program is transported to TES’s recycling facilities in Melbourne, Sydney or Brisbane.

Sorting

At the recycling facility the mobile phones and accessories are disassembled into their components. None of the phones are resold and all of the data left on the devices is destroyed through this process. Once disassembled the parts are sorted into the following: batteries, printed circuit boards, handsets, accessories, plastics, metals and packaging.

Processing

The components are processed separately to maximise resource recovery.

Figure 2 – How components are processed and materials recovered:

Components	Transported to	Further processing	Materials recovered
Batteries	Envirostream Melbourne	Batteries are granulated & sorted into materials	Copper, Aluminum, Cobalt, Nickel, Lithium and Plastics.
Circuit Board	TES Singapore	A hydrometallurgical metals recovery process separates the precious metals	Copper, Silver, Gold, Palladium, Metal Ingots
Metals	Local recyclers	Shredded and baled	Copper, Stainless steel, Aluminum
Plastics	TES Singapore	Shredded and granulated. Combined with spent epoxy powder to make new products	Recycled plastic
Glass	TES Singapore / Veolia	Shredded and sorted	Recycled glass
Accessories	TES Singapore	De-manufactured through shredding and automated separating methods.	Ferrous and Non Ferrous Metals. Plastics.
Packaging	TES Australia	Segregated and treated as commodity	Recycled paper & plastic

Materials Extracted

The materials recovered in the recycling process can be used in the manufacture of new products. For example, the recycled plastic from the mobile phone cases are used to make shipping pallets and the lithium extracted from mobile phone batteries can be reused to make new batteries.

The recycling process reduces the need to extract raw materials from the earth which saves energy, conserves scarce natural resources and protects our environment.

Conclusion

AMTA firmly believes that MobileMuster sets the benchmark for a voluntary scheme under the Product Stewardship Act 2011. The MobileMuster program demonstrates how the mobile industry has implemented, funded and managed a successful recycling program that is free and accessible to consumers. The ongoing commitment to the program by industry members also demonstrates that regulation is not needed in relation to mobile phone recycling and product stewardship in Australia. The Act can also act as a tool to motivate all industries to establish voluntary take back schemes that would otherwise not be considered.

AMTA believes a national approach is a preferred option when it comes managing electronic waste. The intention of a VIC State based wide ban is to provide a framework to improve recycling rates, such an approach should be supported with educational resources that educate residents on how and where to recycle along with investment in the collection network infrastructure to avoid contamination of waste streams, in the case of MobileMuster ensuring only mobile phones along with their batteries, chargers and accessories are collected in our collection bins. Any out of scope product collected in the programs bins that is shipped to MobileMuster becomes a financial burden on the program. This should be a long term investment that reinforces the right behaviour.

Extending the life of mobile phones is an important principle of product stewardship and in developing the circular economy. Our research shows that mobile phone users are holding onto their devices longer and more people are reusing their mobiles than ever before. MobileMuster estimates that 1 in 10 Australians sell or trade in their mobiles and 1 in 6 Australians give their mobiles to family or friends when no longer needed. It is predicted that these figures will rise as the reuse market matures in Australia.

MobileMuster has developed an array of resources available to the DELWP to assist in raising awareness of mobile phone recycling to residents in Victoria. Education programs should include specific details on why, how and where to recycle mobile phones along with their batteries, chargers, and accessories. The use of the resources would acknowledge MobileMuster. We encourage the DELWP to invest in resources that promote existing schemes such as MobileMuster, plus encourage non-participating local councils to engage with MobileMuster to establish collection infrastructure in the local area including libraries, customer admin centres and waste transfer stations.

Research conducted by MobileMuster has highlighted that consumers are more likely to recycle responsibly if they know why and where items can be dropped off, along with visible messaging and branding at collection points. It is important that customers feel comfort in knowing that any item

they drop off will be recycled responsibly, ensuring any data left on devices will be destroyed in the process and items will not be sold off for reuse without their approval. Lack of transparency will affect consumers' motivation and trust to recycle electronics.

For any questions in relation to this submission please contact Spyro Kalos, Manager MobileMuster, AMTA at Spyro.Kalos@amta.org.au or on 02 8920 3555.