

The 6 Steps of Recycling

AMTA's recycler **MRI (Aust) Pty Ltd** in Melbourne dismantles, sorts, stores and processes the mobile phone handsets, batteries, chargers and accessories collected by MobileMuster.

Step 1

Dismantle and sort into the following components - batteries (NiCad, NiMetHyd, Lithium Ion), printed circuit boards, handsets, chargers/accessories, plastics and paper/cardboard packaging.

Step 2

Batteries are stored and then shipped to approved recyclers in OECD countries.

Currently all mobile phone batteries are shipped to **Kobar Ltd** in South Korea where they are processed for Nickel - used in the production of stainless steel, Cadmium - used in new batteries, Cobalt - used in new batteries and Copper. In the past they have been shipped to **Societe Nouvelle D’Affinage Des Métaux** (SNAM) in France for processing.

Step 3

Circuit boards are stored and then shipped to **Reco Metal** in South Korea where they are processed and then sent to **Korea Zinc** which recovers the precious metals including gold, silver, copper and lead.

Step 4

Handset casings are sent to local plastics manufacturer **Australian Composite Technology** which shreds and uses the plastic to produce composite plastic fence posts and pallets.

Step 5

Accessories are processed locally by various recyclers who shred and then separate the plastics from the ferrous and non ferrous metals for reuse. Some plastics from this process can end up in landfill as they are not pure enough for recycling.

Step 6

Packaging is separated into plastic and paper. All paper packaging is sent to local paper recyclers for processing. Not all plastic packaging can be recycled and inevitably has to be disposed of into landfill.

This recycling process is highly efficient, has high productivity and provides a complete breakdown of chemical compounds. It is suitable for all phones and batteries, including the newer Lithium Ion and Nickel-Metal Hydride types. The process is also successful in preventing the reformation of environmentally damaging compounds such as dioxins and furans in the exhaust gas stream.