

'Everything your business throws away is something you've paid for – and you also have to pay to have it carted away.'



4

Lifting the lid on waste and recycling

What you throw away is a good indicator of how efficient your business is. If you create lots of waste, then you're not operating as efficiently as you could. Reducing waste and recycling more will save you money.

Waste is lost profit

Everything your business throws away is something you've paid for – and you also have to pay to have it carted away.

But that's just the start of it. What is paid for in waste disposal and landfill represents a small percentage of the total cost of producing waste. The hidden waste costs include:

- lost opportunities to convert waste materials into valuable finished products
- the cost of resources, like energy, that go into the processes that created the waste
- the costs of clean-up, storage and waste treatment before disposal
- employee time spent on unproductive waste-management work.

Did you know?

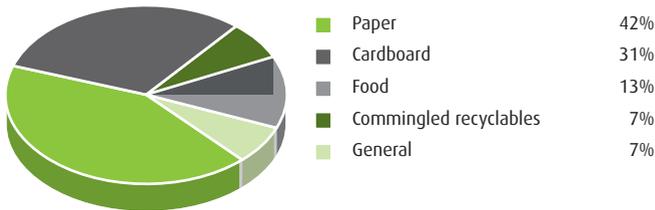
According to MobileMuster, one tonne of mobile phone circuit boards can yield the same amount of precious metals as 110 tonnes of gold ore.³⁶

Where to start: conducting a waste audit

You can't manage what you don't measure. A waste audit will help your business to understand the different types and volumes of waste you generate. An audit involves collecting all waste generated over a week then sorting it to determine composition and quantity. This will enable you to understand the effectiveness of your existing approach to waste minimisation.

The waste audit will also need to identify the key areas across your business where waste is being generated. This can include everything from paper to water, right through to raw materials and packaging. It is essential that you involve your employees in this process – ask them where waste is being generated and how they think this could be reduced.

Office – waste composition



Source: *ecoBiz Queensland*³⁷

According to *ecoBiz Queensland*, one office worker can throw away up to a quarter of a tonne of materials every year. How much is your office throwing away?

³⁶ See www.mobilemuster.com.au

³⁷ *Eco-efficiency for small business*. See www.derm.qld.gov.au

Case study: Reducing waste and saving money

A good way to initiate a review of your waste and recycling practices is to form a waste committee. According to ecoBiz Queensland, one aged care facility in Brisbane achieved significant cost savings when it did the following:

Cardboard

Simply crushing its cardboard boxes enabled the facility to reduce the size of its recycling bins and how frequently they needed to be collected. This immediately saved them hundreds of dollars every month.

General recycling

Prior to the waste audit, the facility had no way of recycling newspapers, milk containers and steel cans. The acquisition of five new recycling wheelie bins led to monthly savings on general waste disposal costs.

Paper recycling

Recycling bins for office paper were placed near all printers, fax machines and photocopiers. This reduced the collections of general waste bins.

Clinical waste

The audit showed that some employees were placing normal waste in the clinical waste bins. Training employees to put standard waste into normal bins saved them money.

Organic waste

The facility was able to take its kitchen and garden waste to a nearby bioenergy facility that captures methane from organic waste and turns it into electricity.

Total saved

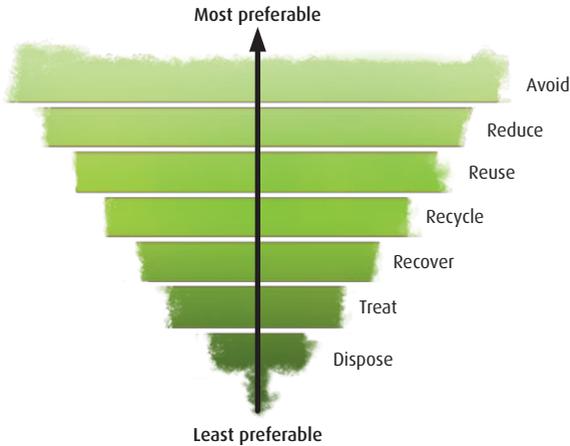
In addition to reducing the amount of waste going to landfill by many tonnes, the facility saved thousands of dollars in reduced waste costs. Helped along by the WasteWise Queensland program and the local recycling business, it was able to achieve a significant result for the environment and its bottom line.

Creating an action plan

After reviewing the tips in this book and listening to advice from your own employees, make up an action list of the measures that will reduce waste in your business.

The action plan should be designed and implemented in accordance with this waste hierarchy diagram:

Waste hierarchy guide



1. Avoid using goods and resources to maximise your savings.
2. Reduce the amount of goods and resources that you use.
3. Reuse products if you can, or sell your waste to a company that will reuse it in the manufacture of new products.
4. Recycle materials that you can no longer use.
5. Recover the valuable and useable components of what is thrown away (with the assistance of waste management and recycling companies if necessary).
6. Treat materials to ensure the potentially harmful impacts of waste materials is minimised (with the assistance of waste management and recycling companies if necessary).
7. Dispose only as a last option.

Reducing your resource use and saving money can be as simple as replacing bottled water in your office with filtered water or tap water. Using reusable mugs and buying coffee, tea and sugar in bulk can also save money and resources.

Recycling should not be the first option that you go with. It is always best to avoid, reduce and reuse materials before you recycle. If implemented correctly, a waste minimisation strategy based on these principles can realise significant efficiencies and savings for your business.

Recycling rules

There are some simple rules to follow when it comes to recycling in the workplace:

1. Make sure your business is recycling all that it can. Go to www.recyclingnearyou.com.au to find out everything that can be recycled in your local area.
2. Talk to your existing recycling contractor to see if they can provide your business with facilities to recycle more materials. For details on recycling companies in your area, use your Yellow Pages® *Book*, visit yellowpages.com.au online or on your mobile, or ask your local council waste officer for advice on recycling in your local community. Some companies can also help you to organise a recycling audit and service for your business. Such companies include Visy Recycling (1300 368 479 or email customerservice@visy.com.au), SITA Environmental Solutions (131335 or www.sita.com.au) and Veolia Environmental Services (02 8571 0000 or national@veolia.com.au).
3. Educate your employees about what can and cannot be recycled. Talk to them about the benefits of recycling and make it as easy as possible for them to play their part. Also talk to your cleaning service to make sure they are putting your recyclables into the right bin.
4. Don't put recyclables in plastic bags. Plastic bags are a major problem for recycling companies and can prevent the material inside from being recycled.

5. Pyrex ovenproof glass, ceramic mugs and broken wine or drinking glasses should not be put in your recycling bins. Just 15g of ceramics or a small piece of ovenproof glass can stop a whole tonne of normal glass bottles from being recycled.³⁸ The reason why? They melt at a higher temperature and contaminate the glass making process.
6. Take the lids off plastic bottles. The lid is made from a different plastic to the bottle – doing this also ensures there is no liquid left inside the bottle.

Where to go for waste and recycling advice and information

National

The Planet Ark and Sensis Recycling Near You service provides practical information on waste reduction. If you need further advice, contact your local council's waste management officer or the following entities for advice and information.

Recycling Near You (just enter in your postcode): www.RecyclingNearYou.com.au

Australian Government – Department of Sustainability, Environment, Water, Population and the Arts: www.environment.gov.au

Visy Recycling: www.visy.com.au

Australian Capital Territory

Department of the Environment, Climate Change, Energy and Water:
www.environment.act.gov.au

Department of Territory and Municipal Services (waste section): www.tams.act.gov.au

New South Wales

Department of Environment, Climate Change and Water: www.environment.nsw.gov.au

NSW Business Chamber (sustainability toolkits): www.nswbusinesschamber.com.au

Northern Territory

Department of Natural Resources, Environment, The Arts and Sport:
www.nt.gov.au/nreta

38 Planet Ark. See www.planetark.org

7. Sensitive or confidential documents can be shredded prior to recycling. Alternatively there are a number of waste disposal contractors who specialise in confidential document destruction and recycling.
8. If you have computers, furniture and office equipment that your business no longer needs, talk to local community groups and charities to see if they want them. You can also distribute them for nothing via your local Freecycle or Green Collect group. Go to www.freecycle.org or www.greencollect.com.au for further information.

Queensland

Department of Environment (including the ecoBiz small business program):
www.derm.qld.gov.au

Chamber of Commerce and Industry Queensland: www.cciq.com.au

South Australia

Zero Waste SA: www.zerowaste.sa.gov.au

Business SA (go to the sustainable business development unit, in business services): www.business-sa.com

Tasmania

Department of Primary Industries, Parks, Water and Environment:
www.environment.tas.gov.au

Victoria

Grow Me The Money: www.growmethemoney.com.au

Resource Smart: www.resourcesmart.vic.gov.au

Western Australia

Zero Waste WA: www.zerowastewa.com.au

Using the services of an accredited waste auditor can also be a very cost-effective approach to developing a waste plan, especially if you haven't done one before. Business-friendly organisations like Grow Me The Money and Business SA can help here.

9. Finally, it's not enough to put material out for recycling. People and businesses can play their part by buying products that are made from that recycled material. Examples include Dr Harry's Light and Easy Cat Litter, which is made from recycled Yellow Pages® and White Pages® Books or the SAFE and Earthwise toilet tissue. Thousands of tonnes of used office paper goes into making these toilet tissue brands every year.

Case study: Yellow Pages® and White Pages® – Directory Recycling program

In late 2009, Sensis® celebrated the 10th anniversary of its kerb-side recycling program. Yellow Pages® and White Pages® directory recycling rates have improved from 4 per cent in 1999 to 98 per cent recycled or reused in 2010.*

Sensis® manages the national directory recycling program with assistance from Visy Recycling.

The program now allows for old directories to be included with other paper recycling in most areas throughout Australia, for both residential and commercial services.

If your business has a Visy paper and cardboard recycling service, you can include your old directories in this service. If your business doesn't have a recycling service, you can visit www.visy.com.au or call Visy Recycling on 1300 368 479.

Old directories are collected with other recyclables and then they're sorted and recycled by Visy Recycling into a range of recycled cardboard packaging products.

* Results exclude the proportion of respondents who indicated that they had not disposed of, recycled or reused their book.



Recycling collaboration

In order to collect quantities that are attractive to a recycling service, small businesses can join with neighbouring businesses to form a 'recycling alliance'. In addition to reducing waste that goes to landfill, it could also potentially reduce your waste disposal and recycling costs.

In an industrial park, the recycling location could be a space that's supplied by park management. Or it could be that one of the businesses has enough space to act as a central recycling drop-off point for all the businesses around them. With a little bit of innovative thinking, this kind of approach is another way to recycle materials that would otherwise end up in landfill.

We're the best in the world

Australians are currently recycling more than two billion newspapers and magazines every year. With a recycling rate in 2009 of 78 per cent, we're the best newspaper and magazine recyclers in the world. Go to www.pneb.com.au for more information.

Reuse

There's an old saying that one person's junk is someone else's treasure. If you have leftover materials from your operations, you can place them on www.wasteexchange.net.au. This free national online database was established by the Victorian Waste Management Association and EPA Victoria. It enables businesses to list unwanted materials that other companies might find useful. If you're in manufacturing, there may be a raw material you use that another SME might currently be throwing out. Investigating this might lead to significant cost savings in your business.

Electronic and electrical waste

In 2005 an estimated 312,930 tonnes of electronic equipment was disposed of in Australia's landfills.³⁹

Electronic waste, or e-waste, is the term given to redundant or discarded electronic or electrical equipment. This includes computers, mobile phones, televisions, video and DVD players, stereos, fax machines, photocopiers, printers, printer cartridges, batteries and peripheral devices that came with the equipment.

Mobiles: There are two solutions to this. One is to make your mobile phone last as long as possible, or to pass it on to other people. The other is to recycle your mobile via the MobileMuster recycling bins available in Telstra outlets. When you next decide to upgrade your mobile, put up a poster at work to collect other people's old phones. When you go to the shop to get your new phone, take them with you and put them in the recycling bin. Go to www.mobilemuster.com.au for all recycling locations. To arrange a one-off MobileMuster recycling push at your workplace, call 1800 249 113. Don't forget to remove the SIM cards and wipe the data off the phones.

Printer cartridges: It's easy for SMEs to recycle their old cartridges. You can do this through Cartridges 4 Planet Ark www.cartridges.planetark.org or at Cartridge World retail outlets.

Computers: SMEs can make their computers last longer by installing the maximum amount of RAM and using functions such as cloud computing, where applications and services are hosted by other organisations and accessed via the internet, thereby reducing the need for on-site computers and servers. See the IT section (chapter 11) of this book for other tips.

TV sets: A national recycling scheme is being established so keep old TVs stored until a local recycling service is in place.

Batteries: Companies like Cleanaway, SITA, MRI, Sony, Battery World and others all have rechargeable battery recycling services that your business can use.

Lighting: There are a number of recycling options available including temporary bins, prepaid collection boxes and even a Tube Terminator option for in-house crushing of collected lighting waste. Go to www.cmaecocycle.net for further information.

39 *Waste and recycling in Australia*, Hyder Consulting, November 2008.
See www.environment.gov.au

Oil recycling

One litre of oil can contaminate more than one million litres of water. So if your business is using oil in any way, it's vital that you recycle it.

269 million litres of used oil was recycled by Australians in 2008–09.⁴⁰ While this has increased over the past five years, there is still more oil that could be recycled. Used oil, also called 'sump oil', can be recycled into industrial burner oil, mould oil, hydraulic oil, bitumen based products and can be used as an additive in manufactured products.

Go to www.oilrecycling.gov.au/safety-tips.html for tips on how to safely recycle your oil. For information about the national oil recycling program visit www.oilrecycling.gov.au; to find out your nearest oil recycling location, go to www.recyclingnearyou.com.au or talk to your local council recycling officer.

Plastic recycling

There is much confusion about which types of plastic can or can't be recycled. The numbers and arrows on the bottom of plastic bottles and on other plastic products are not recycling symbols; they identify the type of plastic the product is made from. However these symbols can be used to help determine whether that plastic can be put in your recycling bin. To find out which types of plastic can be recycled in your area, go to www.recyclingnearyou.com.au or contact your recycling contractor.

How does recycling help the environment?

Recycling doesn't just save resources. It also saves water, saves energy and reduces greenhouse emissions.

40 Department of the Environment, Water, Heritage and the Arts annual report 2008–09 – volume two. See www.environment.gov.au

Recycling one can or bottle at a time, you'd be forgiven for thinking that recycling doesn't add up to much. But when you consider how many businesses and households are now recycling, it all adds up. In a big way.

In 2006, the Australian Council of Recyclers estimated that commodities recycling helped to reduce Australia's CO₂ equivalent emissions by 8.8 million tonnes. It also saved 202 terajoules (TJ) of energy and 92 gigalitres (92 billion litres) of water. They also estimated that the equivalent of 3 million trees, 365,000 tonnes of sand, 4 million tonnes of iron ore and 1.6 million tonnes of bauxite were saved through Australia's commodity recycling activities.

How does recycling and waste management help the economy?

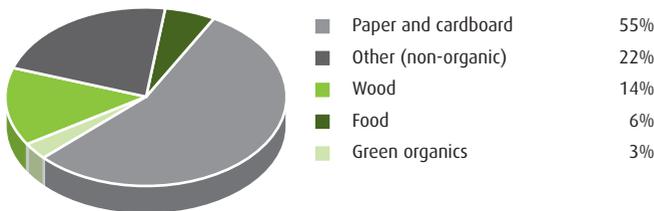
In 2006, the recycling industry directly employed 10,900 people and indirectly employed 27,700. Figures from the Australian Council of Recyclers also show that the industry contributed \$11.5 billion to the economy.⁴¹ When it comes to waste, more than 14,000 Australians were employed in 1092 public and private businesses.

In 2002–3, the Australian Bureau of Statistics estimated that waste management, excluding resource recovery, had an industry value of \$1.3 billion. Showing how much the clout of small business adds up, 74 per cent of these waste businesses were small enterprises employing up to four people.⁴²

How much do we waste?

In 2006–07, Australia generated 14.4 million tonnes of commercial and industrial waste. Of this, 6.4 million tonnes (44.5 per cent) was dumped in landfill and eight million tonnes was recycled (55.5 per cent).

Estimated breakdown of the commercial and industrial waste stream



Source: Hyder Consulting 2008

41 *Australian Recycling Values – A Net Benefits Assessment*, July 2008, Australian Council of Recyclers and Hyder Consulting

42 *Waste Management Services Australia*, ABS Report no. 86980. 2002–3

In 2006–7, Australia managed to recycle 8.5 million tonnes (54.5 per cent) of construction and demolition waste. But 7.1 million tonnes (45.5 per cent) still went to landfill. When it came to municipal waste, 4.6 million tonnes was recycled, while 7.3 million tonnes ended up in landfill.

From a waste-efficiency point of view, Australia is not doing as well as it could. In a single year we dumped an estimated 20.8 million tonnes of waste in landfill. That represents a major inefficiency in our usage of resources.

This situation is worsening. Between 2002–3 and 2006–7, Australia generated 52 per cent more commercial and industrial waste. If this trend continues, by 2020 Australia will generate 33.2 million tonnes of commercial and industrial waste every year.⁴³

Every kilogram of that 33.2 million tonnes will represent a hit on the bottom line of Australia's businesses. Implementing a waste policy in your business will help to reduce this.

Case study: Rosedale Leather – composting initiative

With 120 employees processing 7000 hides a week, Rosedale Leather generated a lot of waste when they tanned hides to be used as leather car seats.

After implementing changes to make its tanning process more environmentally responsible, Rosedale Leather worked in partnership with EPA Victoria to see how they could convert what was previously described as prescribed industrial waste into a safe composting material.

The three individual waste products from Rosedale Leather are now composted with local green waste and meet all applicable Australian standards.

In addition to helping the environment, it's also helped the bottom line. By diverting its waste to compost instead of landfill, Rosedale Leather saved \$140,000 in 2009.⁴⁴



43 *A National Waste Policy: Managing Waste to 2020*, Department of the Environment, Water, Heritage and Arts, 2009

44 See www.cedaily.com.au