

Precious metals or organ donors?

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Find out what happens when you're done with your PC

Waste not, want not

Isn't it always the case? You get your brand new computer home, and it's already out of date. This rapid growth of technology may be a boon to business, but it means old computers are piling up.

IBM processes about 40,000 used machines per week in our centers around the world. This can include several tasks: inspection, repair and data scrubbing, then either complete refurbishment for resale or recycling into raw components.

Electronic products make up the fastest-growing portion of the waste stream. In 2007 alone, more than 63 million computers in the United States were traded in for replacements, or simply thrown out, according to the Environmental Protection Agency. But discarded computers don't just take up space in a landfill. They spread a toxic cocktail of more than 100 chemicals, leaching lead, cadmium, barium and mercury in the soil.

IBM has long focused on recycling our own IT products. Product take back programs began in Europe in 1989. Now IBM offers asset recovery solutions in 57 countries. In fact, between 2002 and 2005, IBM's asset disposition operations have taken in and reused over 1.9 million machines. That means we've processed over 147,000 metric tons of equipment, parts and material and product waste, including:

- Over three times the amount of steel used in the Eiffel Tower.
- Over 22 railroad cars of condensed plastic.
- Enough bales of paper to span the Golden Gate Bridge 23 times.

So what are your options? Rather than stick your desktop in a closet or put your laptop out with the trash, consider these ideas:

Donate it. If it's less than five years old, chances are your computer can be put to good use by someone else. Rather than donate equipment directly to a charity or school, however, it is usually best if you send it to a refurbisher. Try to remember all the accessories, such as power cords, keyboards and mice.

Recycle it. Any equipment that is not working or is more than five years old should be recycled. Some recyclers will charge a fee to accept old computer equipment, especially monitors. But you can find a recycler near you by visiting the [National Center for Electronics Recycling](#) web site.

How it works: Refurbishing computers



1 - Pallets of notebooks, servers, hard drives and more arrive at this IBM refurbishment processing center.



2 - The IBM processing center takes all manufacturer brands of PC technology.



3 - For example, notebooks are tracked with a travel card that lists all operational steps needed.



4 - Each notebook is inspected for cosmetic damage. Missing accessories are added to ensure unit can be functionally tested.



5 - After operational tests, data is scrubbed from the hard drives, removing everything from files to applications to operating systems.



6 - Operating systems are reinstalled to match factory specifications.



7 - Faulty components are replaced with new ones.



8 - If the laptop can't be returned to peak condition, the drive is destroyed with a drill press.



9 - IBM's effort to reduce waste includes packaging. Here, a notebook has arrived at the processing center in non-biodegradable styrofoam.



10 - Instead of the styrofoam, IBM has introduced environmentally friendly packaging that protects the notebook while reducing waste.



11 - Refurbishing a computer saves five to 20 times more energy than recycling over its lifetime. *Computers and the Environment: Understanding and Managing their Impacts*, Eric Williams, United Nations University

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How it works: Recycling computers



1 - At this IBM facility, used notebooks are inspected and tested to determine whether they should be refurbished for resale or recycled.



2 - If the notebook is judged unviable for resale, it is dismantled and categorized for recycling purposes.



3 - This hard drive test unit runs diagnostic tests on over 60 hard drives at the same time.



4 - Recovered hard drives are then cleansed of previously stored data, thus rendering the data virtually irretrievable.



5 - CD and DVD drives are harvested from notebooks and prepped for testing and resale.



6 - Used desktop units are scrubbed, tested and ready for packaging and resale.



7 - Materials are sorted by commodity, separating the metals, corrugated cardboard and soft and hard plastics.

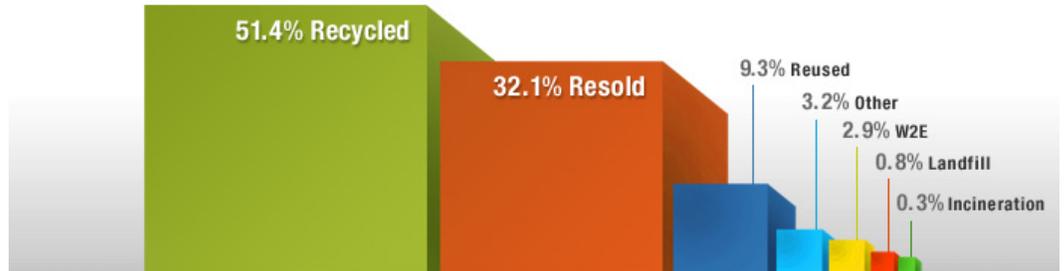


8 - The input conveyor slides chips into a shredder, where contents are sorted and sold for reclamation material.



9 - Even the used, corrugated fiberboard is baled and ready for resell to other manufacturers.

In 2006, IBM's product end-of-life management (PELM) operations worldwide processed 49,083 metric tons of products and product waste. Of the total processed, the PELM operations only sent 0.3% to landfills.



Since 1995, IBM has recovered and processed more than 1.4 billion pounds of product and product waste worldwide.

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