

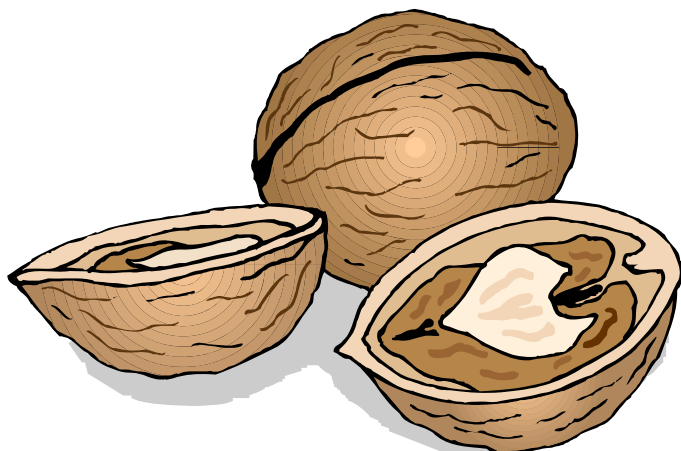


Electronics Recycling in a Nutshell



SIMS GROUP

building the world's leading recycling company . . .



 **SIMS** RECYCLING SOLUTIONS

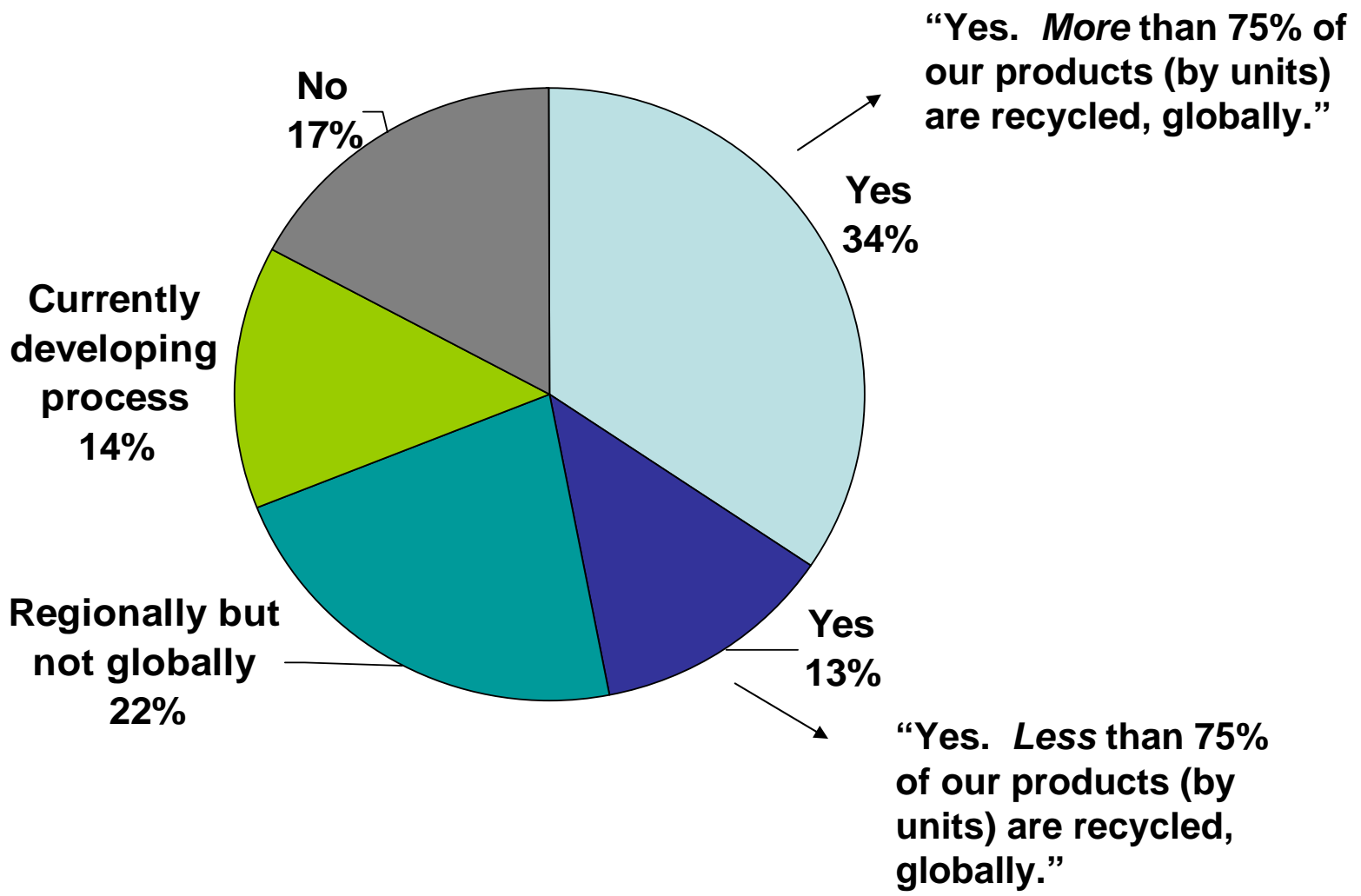
Why Sustainable Electronics?

- According to the Consumer Electronics Association, in 2005, used or unwanted electronics amounted to approximately 2 million tons. Of that about 1.6 million tons were primarily discarded in landfills and only 345,000 to 379,000 tons were recycled.
- The International Association of Electronics Recyclers projects that with current growth and obsolescence rates of various categories of consumer electronics, about 3 billion units will be scrapped in the rest of the decade, about 400 million a year. (International Association of Electronics Recyclers Industry Report, 2006)
- EPA estimates that in 2005, the U.S. generated 2.63 million tons of e-waste, but only 12.5% was collected for recycling.

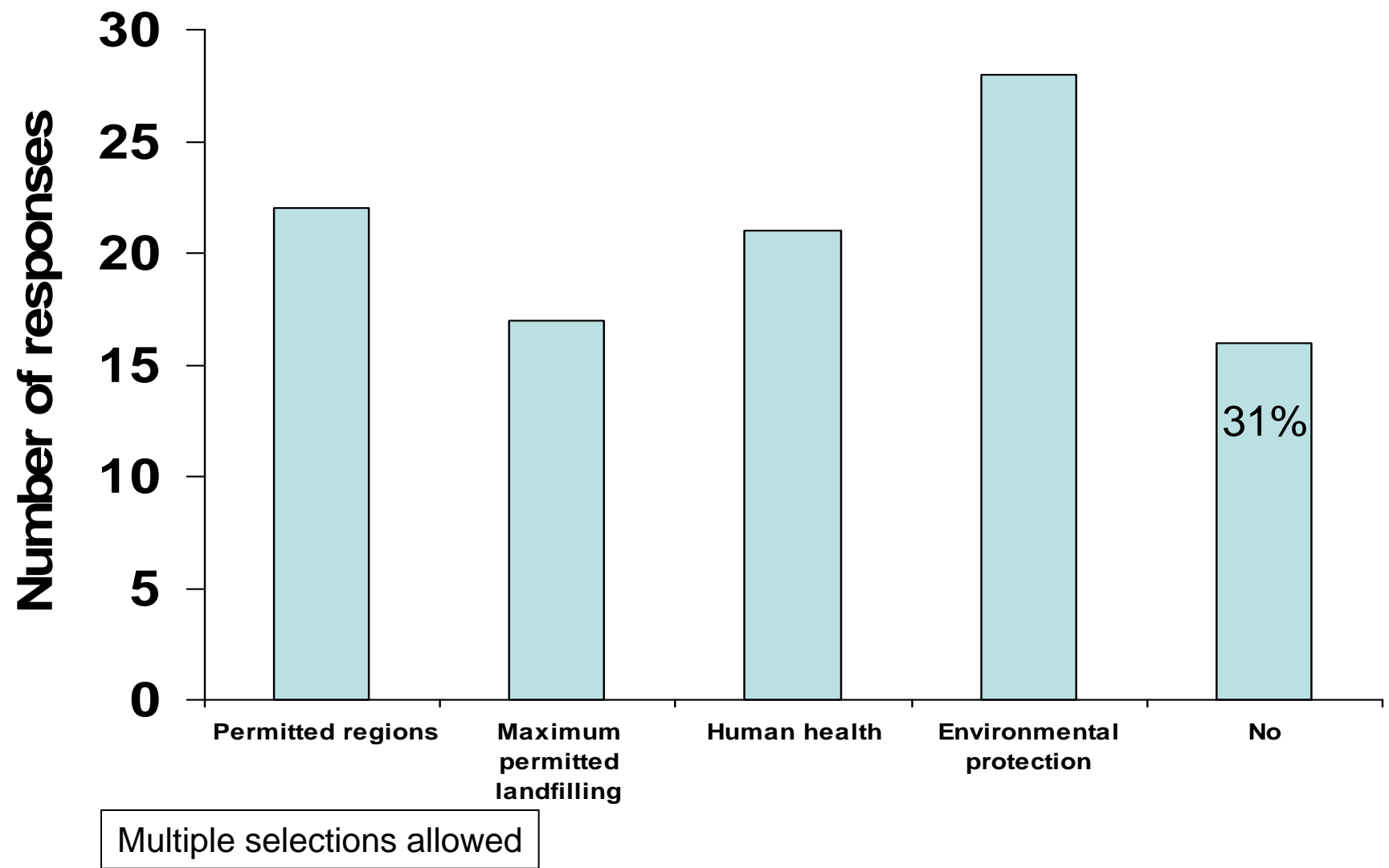
Technology Forecasters, Inc., CEA, and Sims Recycling Solutions collaborated to design and conduct a web survey that included questions about companies' recycling, reuse, and resource saving activities.

- Web survey sent to approximately 500 companies
- Respondent profiles:
 - 29% OEMs
 - 14% CMs
 - 11% electronics recyclers
 - 5% component manufacturers
 - 5% equipment manufacturers

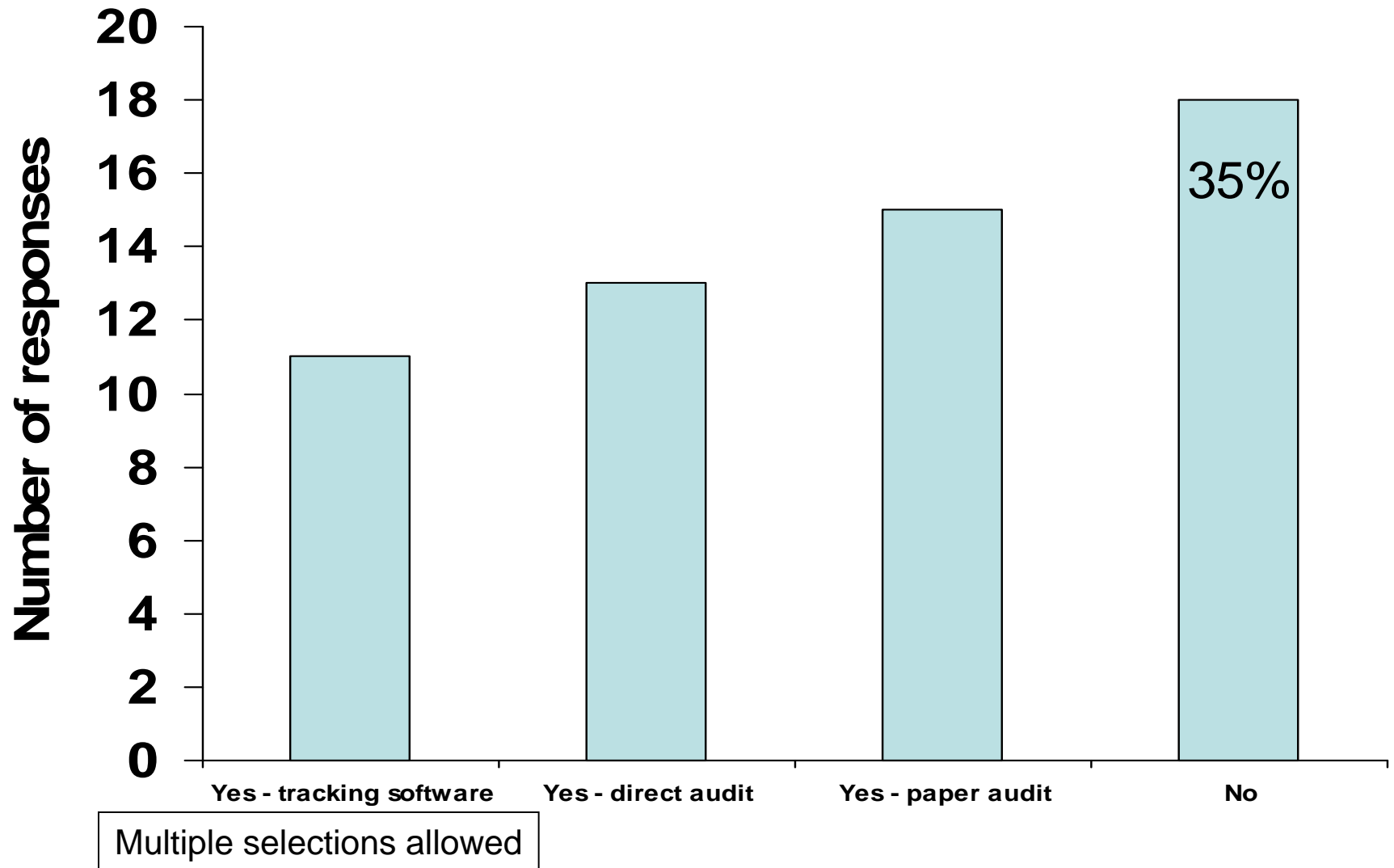
“Does your company have a process for recycling end-of-life electronics?”



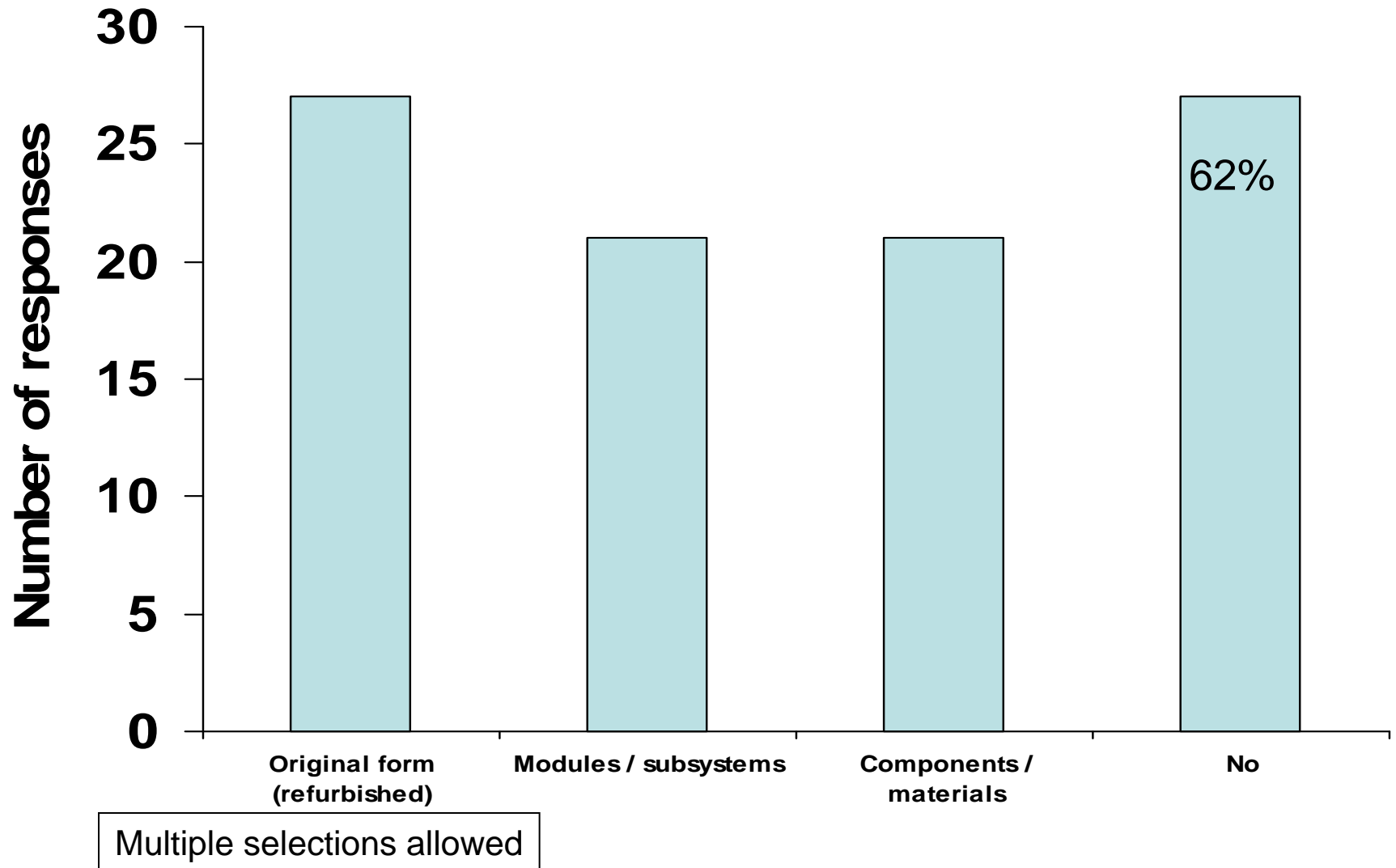
Have you written and enforced standards for the way your products are recycled?



Does your company track or audit where and how your products are recycled?

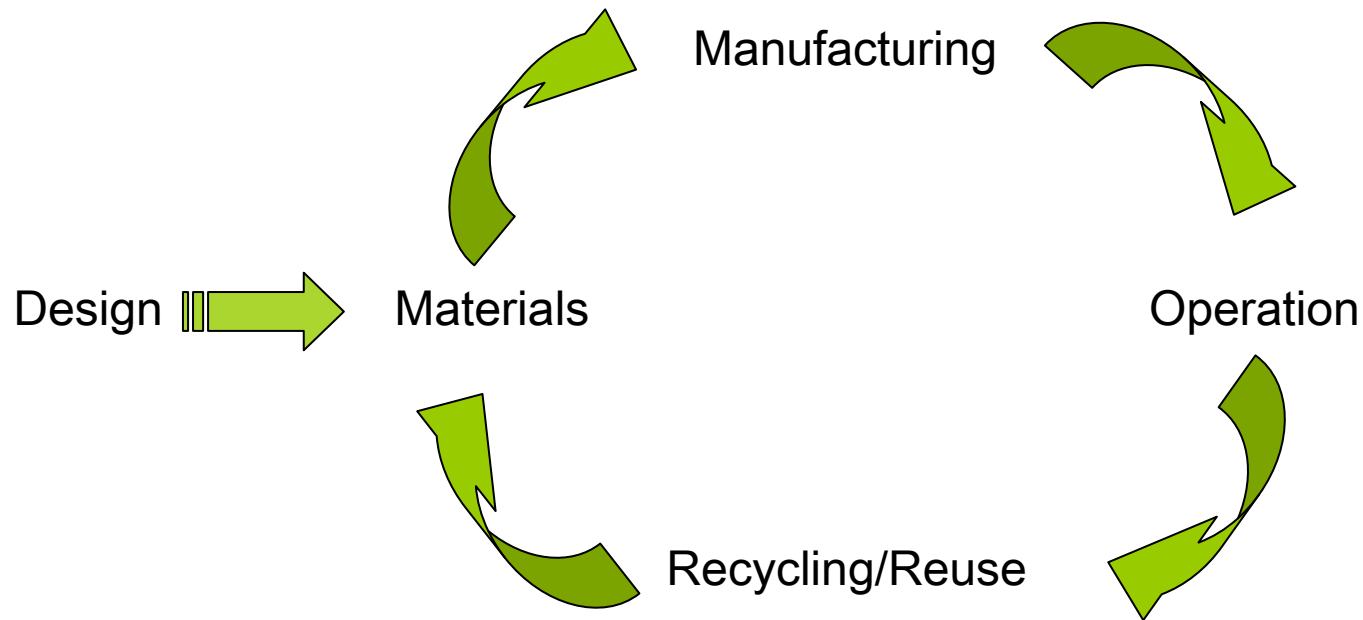


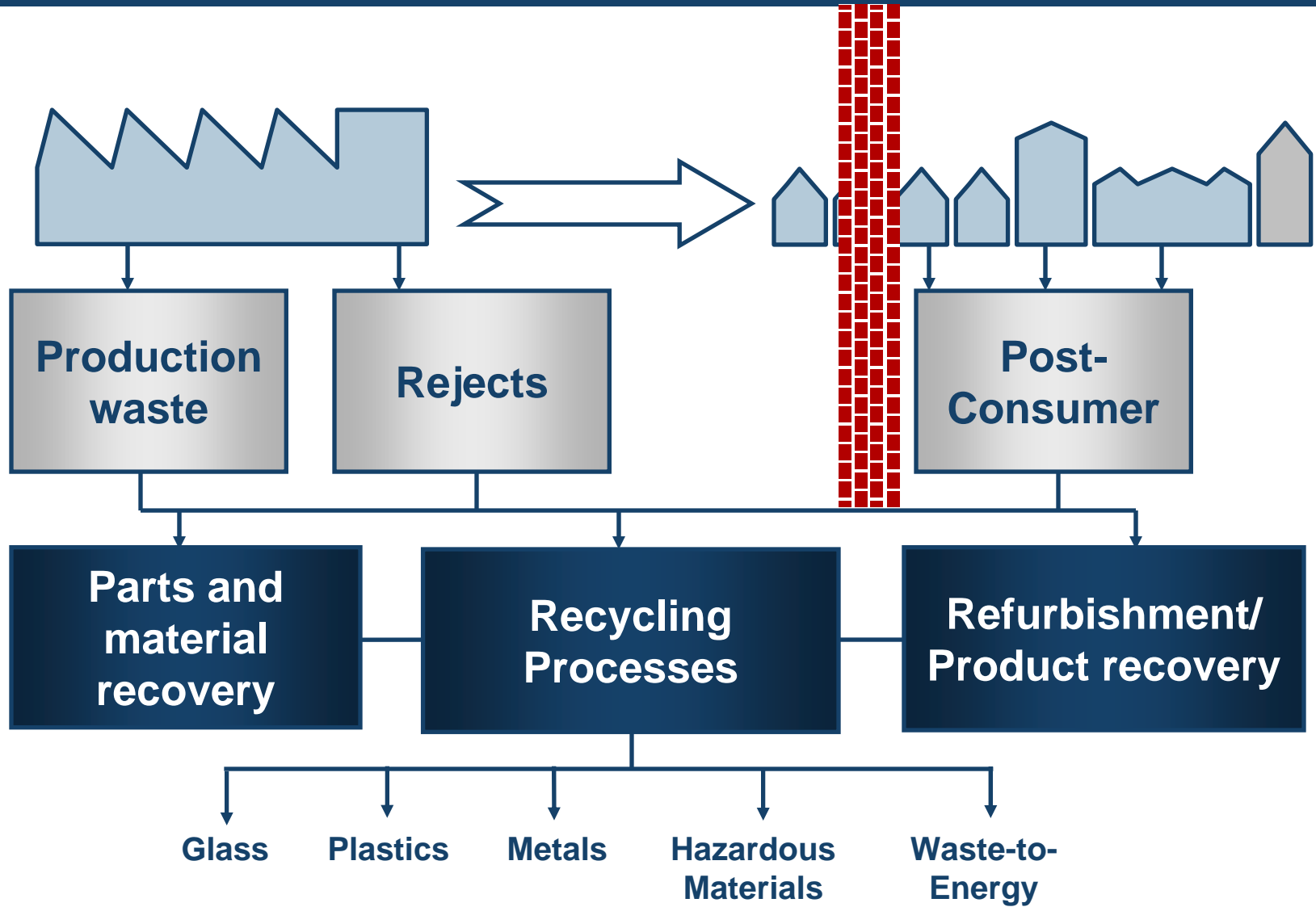
Does your company have a process for reuse of the products you make or use? What form?



- Those who responded for 2007:
 - 23,702 US tons
- Those who responded with cumulative data (4):
 - 765,200 US tons
 - Counting for 3.5 years, 4 years, 15 years, and 20 years

- Sustainable: Of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.
- Sustainable Product Manufacturing:





- Thin film/Thick film
 - Substrates
 - Deposition targets
 - Flake/scrapings
 - Bead blast
- Solder paste, jars, wipes
- Circuit board trim
- Connectors, pins
- Plating wastes
 - Ion resin columns
 - Spent cyanide solutions



- Asset inventory and tracking
- Drive erasure following NIST SP 800-88 Guidelines for Media Overwriting
- Serialized audits
- Diagnostic testing
- Redeployment
- Resale



- Steel
- Aluminum
- Plastic
- Circuit board
- Copper
- Glass
 - Leaded and non

Other items include batteries, toner and ink cartridges, fluorescent bulbs, and mercury switches



Sustainable Recycling?



- Forward thinking, R&D, investment in the future of e-recycling
- No landfilling of electronics or components
- Downstream Accountability
- Extensive EH&S programs
- Fair labor practices
- EMS (ISO 14001, RIOS)
- Asset and Data Security



Breakdown of Consumer Collections

- Overall size of most electronics
- Convenience of collection points
- Lower rates of reuse opportunities
- Lower value
- Lack of incentives





THANK YOU
For your attention and consideration



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