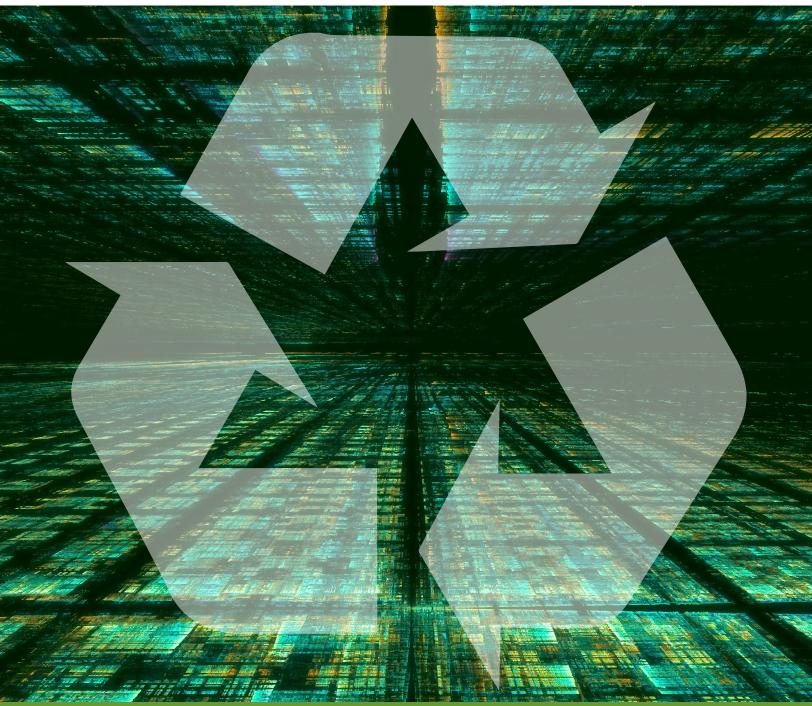


Consumer Technology Association



Sixth Annual Report

April 2017

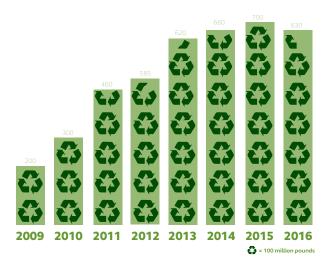


In the consumer technology industry, change is inevitable. Technology and products evolve as rapidly as our innovation – as do the materials required to accommodate these changes. This necessitates a change in thinking with regard to consumer electronics recycling. With this in mind, the Consumer Technology Association's (CTA) TM Sixth Annual Report of the eCycling Leadership Initiative (ELI) examines where our industry has been, is today and its new path forward for sustainability.

When the eCycling Leadership Initiative was first announced in April 2011, CTA set an ambitious stretch goal: Recycle one billion pounds of consumer electronics annually by 2016. At the time, consumer electronics manufacturers had just increased electronics collections from 200 million pounds in 2009 to 300 million pounds in 2010. However, the peak of consumer electronic collections by weight – 700 million pounds – occurred in 2015. The next year, industry recycling total declined to 630 million pounds, missing the billion pound challenge.

But this decrease in annual industry recycling weight should be celebrated, not disparaged. As electronics become smaller, lighter and thinner, fewer materials are required to create them. Lower return rates documented in mature state recycling programs such as Washington and California indicated that the long-predicted declines in e-waste have finally become a reality – welcome evidence of our industry's reduced environmental impact.

Importantly, over the past eight years, manufacturers and retailers across the CT industry have arranged for the **recycling of more than four billion pounds of electronics.** Here's the year by year breakdown:



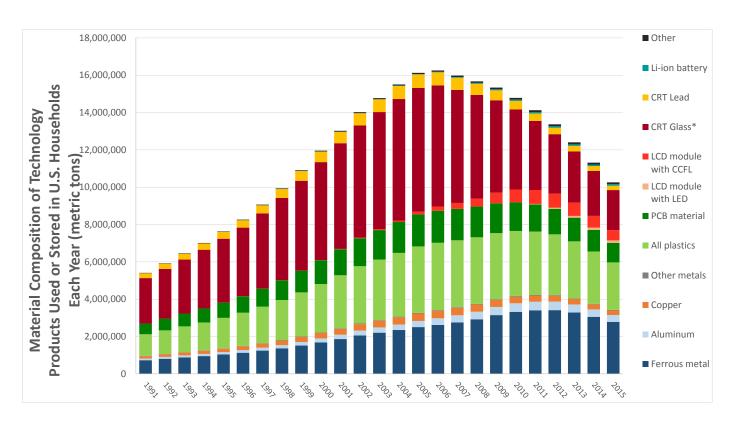
Spearheaded by CTA in 2011, ELI is collaboration among manufacturers, retailers, collectors, recyclers, nongovernmental organizations and governments at all levels to reduce the industry's environmental impact.

The initiative's key goals are to:

- Improve consumer awareness of the available collection sites sponsored by the industry
- Increase the number of collection opportunities available to consumers
- Provide transparent metrics on ecycling efforts

The resources the consumer technology industry has dedicated to recycling consumer electronics are considerable. The **cumulative \$1 billion spent since 2009** is more than any other industry has ever spent on consumer recycling in the United States.

Declines in return weights under ELI in 2016 are consistent with recent data published on municipal solid waste generation by U.S. EPA that show that consumer electronic waste generation flattened from 2013 to 2014. The Rochester Institute of Technology's (RIT) Golisano Center for Sustainability, with support from Staples and CTA, took a deeper dive into material usage across the consumer technology industry, as shown in the chart below.



Why has the weight of consumer electronics recycling peaked? Total recycling weights have slowed because the total weight of new consumer electronics began to decline about 15 years ago. During the 2000s, older technologies such as heavy cathode ray tube video displays were displaced in the market by lighter flat-panel displays. Consumer electronics have also become more materially efficient, as product quality and functionality improve.

The mobile device revolution has many consumers using lighter products to perform functions that previously were conducted by heavier devices. Through building smaller and more efficient products, and using safer materials (e.g., displacement of lead and mercury with innocuous materials), the industry's work to create easier ways for consumers to recycle their electronics has led to a smaller environmental footprint for the consumer technology industry.

Designing products to produce less waste, removing the use of materials of concern and reducing the amount of energy required to use consumer electronics are our industry's most consequential environmental achievements of the 21st century.

2016 Results

In 2016, our industry arranged for the recycling of 630 million pounds of consumer electronics at more than 8,000 certified responsible recycling locations across the U.S. CTA applauds the companies below for demonstrating their leadership in the responsible recycling of used consumer electronics.

Initiative Leaders

Companies that recycle more than 125 percent of consumer electronics recycling goals set by CTA for 2016

Initiative Performers

Companies that recycle between 100-125 percent of consumer electronics recycling goals set by CTA for 2016

Initiative Participants

Companies that meet base level recycling requirements set forth by the Initiative for 2016











These recycling collection locations include retail stores, local government sites, charities, processing centers and other recycling drop-off locations sponsored by manufacturers and retailers.

When manufacturers and retailers have the freedom to choose their recyclers, they do so with great care. By the end of 2016, all ecycling reported to CTA by manufacturers and retailers was conducted by third-party certified recyclers. Currently, two accredited certification standards exist: R2 and e-Stewards.

Commodity markets, which have seen some decline in recent years, recovered somewhat in 2016. The lack of sufficient demand for basic materials and reusable components continues to make recycling consumer electronics expensive due to significant costs without the possibility of net revenue.

Challenges and Solutions

Electronics recycling is a national issue that merits a national approach. Currently, there are 25 states with 25 different approaches to recycling electronics. And while experimentation has shed light on the pros and cons of such statutory mandates, this patchwork of regulation is highly complex and burdensome. Ultimately, these compulsory recycling mandates have demonstrated how manufacturers' improved product design is reducing e-waste independent of regulations placed on them in 24 of the 25 states. CTA supports a single national approach to ecycling to make recycling older electronics as easy as purchasing new ones.

Since 2010, CTA has implemented an ambitious consumer outreach program in conjunction with the Initiative that includes:

GreenerGadgets.org to help consumers live green, buy green and recycle responsibly. By simply entering their zip code, consumers can locate their closest recycling locations. Public service announcements about electronics recycling for both radio and television, reaching an estimated 90 million consumers since March 2016.

A strong partnership with Recyclebank to encourage individuals and communities to use and recycle tech devices more sustainably.

A partnership with Young Minds Inspired to create lesson plans for educators to teach students about the importance of ecycling. During the fall 2016 semester, 16,500 schools received the lesson plan, reaching more than two million students and families.

Membership in the Recycling Partnership, joining 19 other industry associations, manufacturers and consumer product groups to improve the nation's curbside recycling efforts. To date, the Partnership has enabled the distribution of 165,000 curbside recycling carts, which are projected to increase material collected by 221,408 tons over the next decade.

As consumer technology companies continue to support recycling-related activities in 2017 and beyond, the Consumer Technology Association will continue its outreach efforts to help consumers recycle their old electronics responsibly.

For more information about sustainability in the technology industry, see the CTA's **2015 Sustainability Report**. And visit **GreenerGadgets.org** for information on how to live green, buy green and recycle responsibly.

Suggestions for how we can improve the eCycling Leadership Initiative are welcome. Send comments to Walter Alcorn, vice president of environmental affairs and industry sustainability, CTA, at walcorn@
CTA.tech. If you are a member of the media interested in these issues, please contact Elliot Grimm, specialist, policy communications, CTA, at egrimm@CTA.tech.