Consumer Technology Association

• Represents more than 2,200 companies in the U.S. consumer electronics industry
• Membership includes component suppliers, device manufacturers, retailers, distributors and service providers
• Owner and producer of CES
• Technology innovation and highly competitive markets drive rapid product evolution
Evolution of Video Display Technologies and Materials

1940’s – 2000’s
CRTs
Leaded Glass

1990’s – 2010’s
Plasma TVs
Lead, Arsenic*

2000’s – 2014
CCFL LCD TVs
Mercury

2010’s – Present
LED LCD TVs
All metals below TCLP levels

*For plasma displays see: http://www.ncbi.nlm.nih.gov/pubmed/25976487
The U.S. EPA Waste Management Hierarchy

- Consumer electronics are now a declining portion of the municipal waste stream
- Source reduction (SR) opportunity for consumer electronics: lighter, smaller devices
- Government policy should encourage SR, and avoid pushing resources down the WMH
Industry Materials Management History

• Materials in consumer electronics is the research focus of Phase I of the RIT Golisano Institute for Sustainability

• Major materials management issues:
  – On recycling, our industry has been the guinea pig for state-level extended producer responsibility policy
  – Currently spending about $125 million/year on recycling
  – Reuse markets for mobile devices has exploded
  – Landfilling/disposal of consumer electronics has decreased

• Less visibility for changes in product material amounts and types of materials used
• Economic and technological forces driving material changes