



Michigan Recycling Coalition Annual Conference

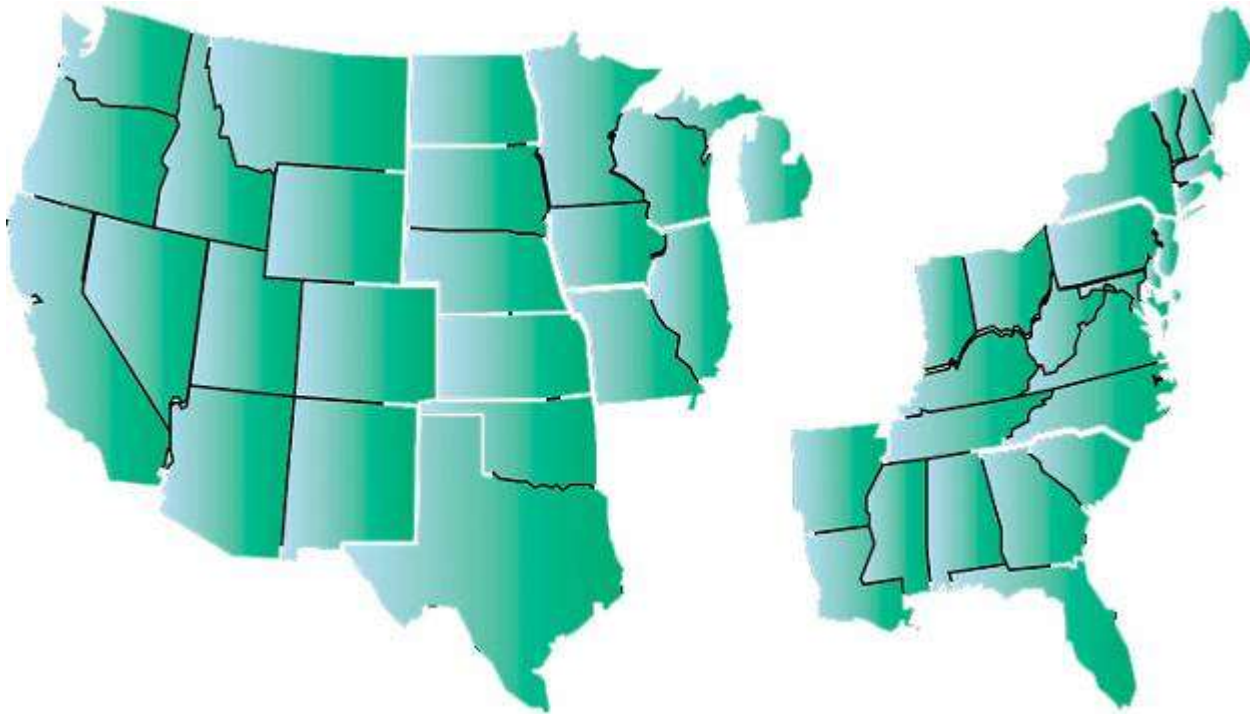


May 7, 2015





Formed in 1988, now part of AISI



WESTERN REGION

Dave Keeling
General Manager
Steel Recycling Institute
P.O. Box 160
Big Bend, WI 53103
262.662.4435
dkeeling@steel.org

NATIONAL

Mark Thimons
Vice President-Sustainability
Steel Recycling Institute
680 Andersen Drive
Pittsburgh, PA 15220
412.337.6476
mthimons@steel.org

EASTERN REGION

Suzette Thomason
General Manager
Steel Recycling Institute
57 Newport Street
Cantonment, FL 32533
850.479.7208
sthomason@steel.org



As goes the industry, so goes SRI



American Iron and Steel Institute

In 2000, SRI merged with AISI

AISI has represented the domestic steel & iron industry since 1855



AISI Lends the Steelers Logo





Steel Plants of North America





Why recycle Steel?

Economics - saves money - substitution cost

Environment - conserves resources

Energy: 5450 BTU saved per lb. Of steel

Saves per ton of steel

Coal - 1,400 lbs

Iron ore - 2,500 lbs

Limestone - 120 lbs

Saves landfill space

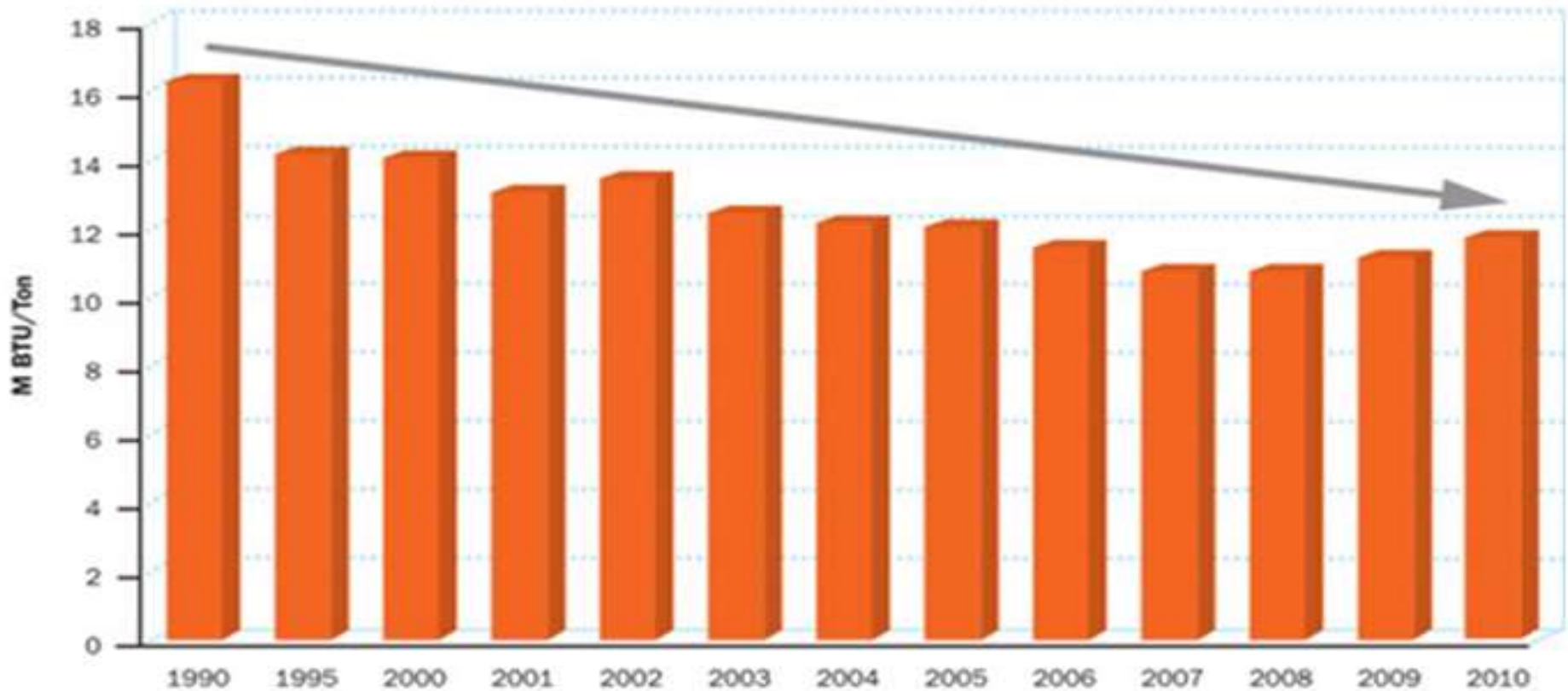
1 cubic yard whole steel cans = 150 lbs

1 cubic yard flattened steel cans = 850 lbs



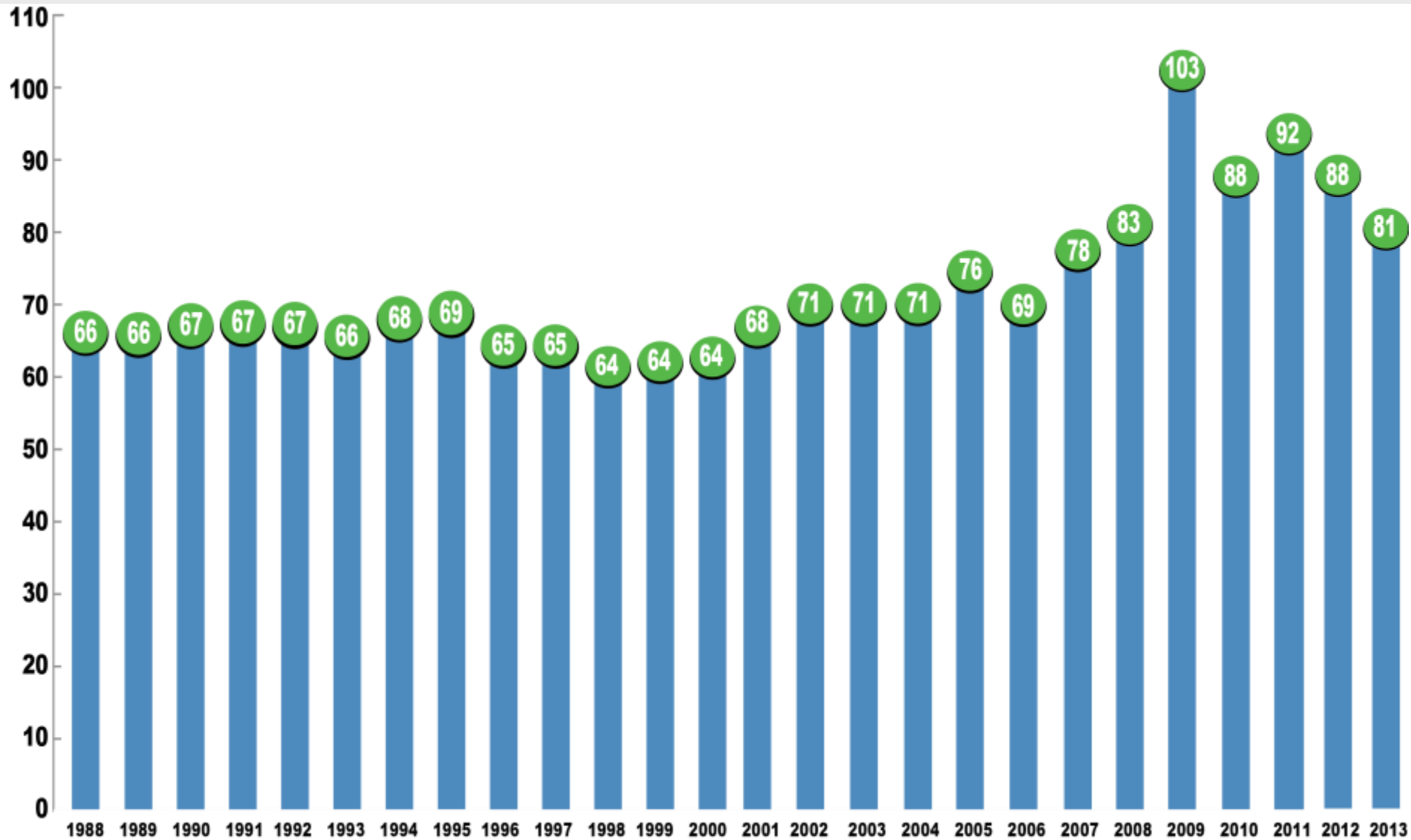
Energy Efficiency

27% Energy Use Reduction in North America Since 1990





OVERALL STEEL RECYCLING RATE





A Partnership in Steel Making

Two Production Methods:

BOF or Integrated Mill

About 40% of overall U.S. production
Uses coke to convert iron ore to iron
Typically 65-75% molten iron
and 25-35% scrap

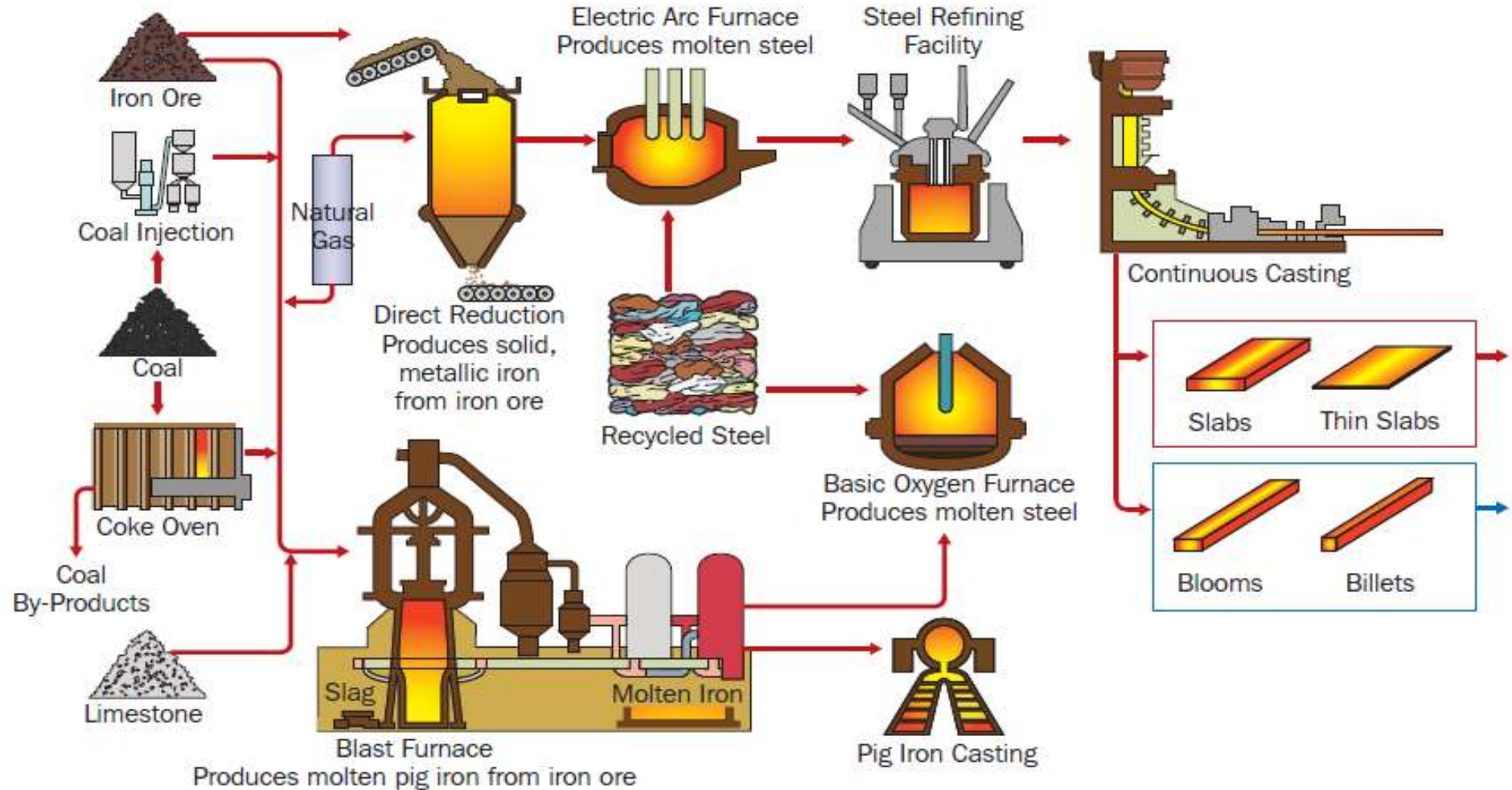
EAF or Mini Mill

About 60% of U.S. production
Uses primarily scrap and
direct-reduced iron (DRI)
Typically 0-25% iron and 75-100% scrap





Production Overview





Typical Steel Products



hot rolled shapes



steel deck



steel studs



hollow structural sections

Other products:

Plates

Purlins

Rebar



World Steel Market

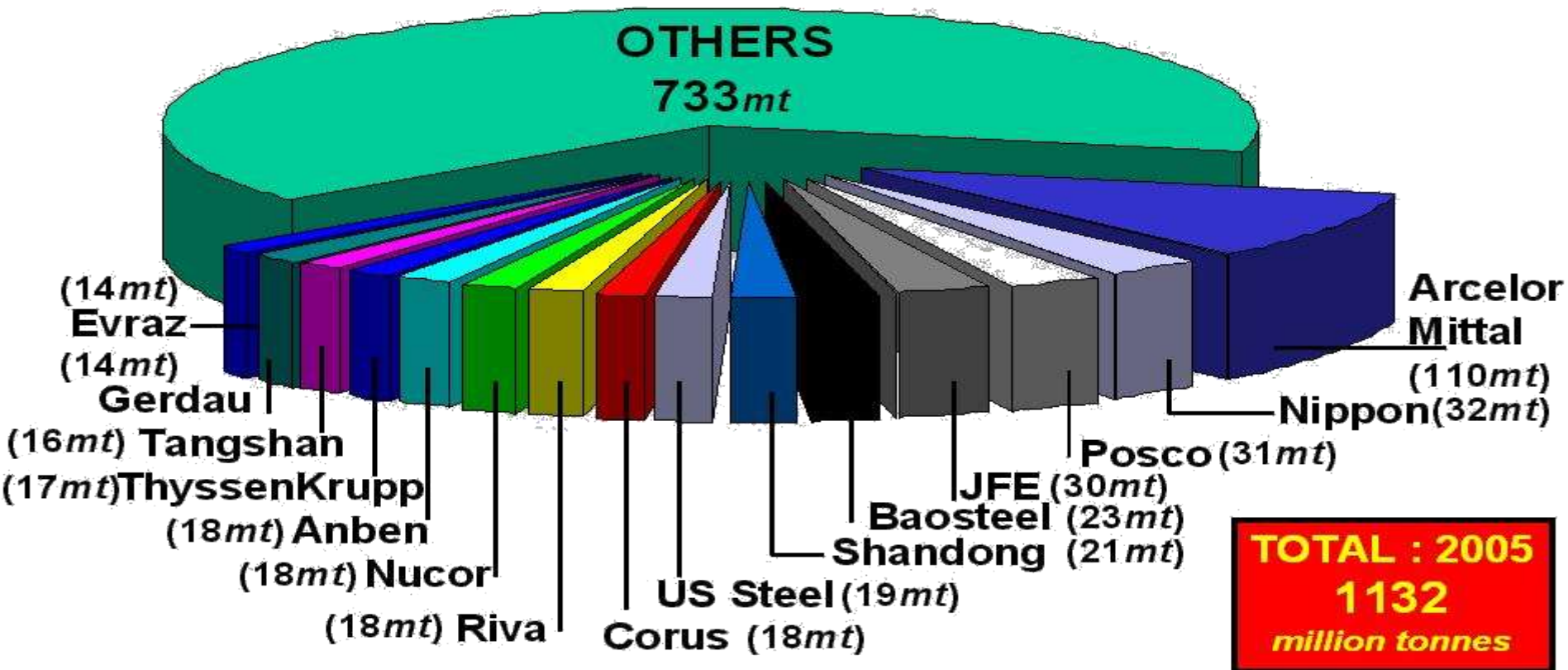
- World Production = 1,490,000,000 tons
- Chinese Production = 700,000,000 tons
- US Production = 86,000,000 tons



GLOBAL STEEL

SLOWLY CONSOLIDATING - BUT STILL FRAGMENTED

Top 15 Steel Producers make 35% of World Steel



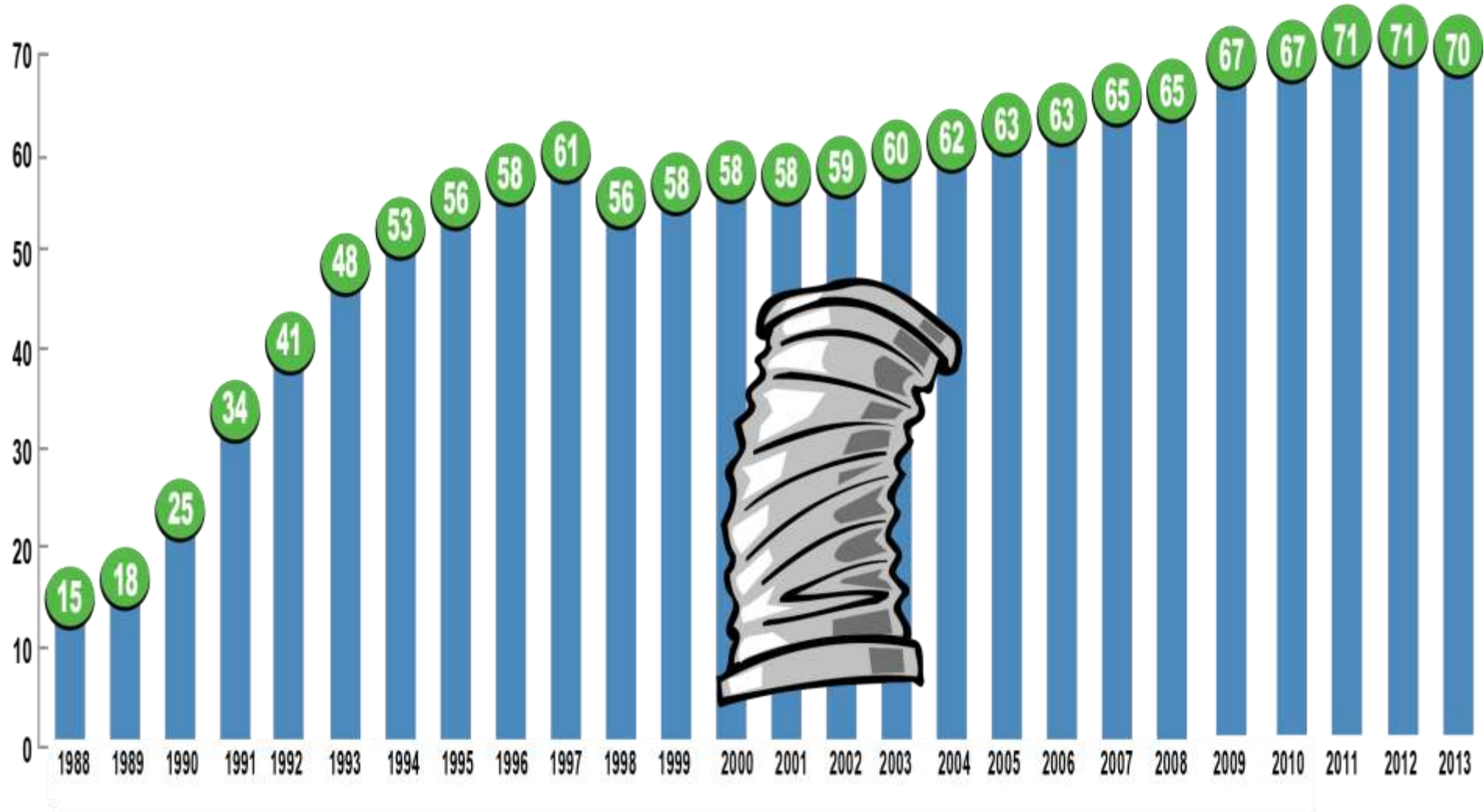
TOTAL : 2005
1132
million tonnes

Source : IISI

Iron and Steel Statistics Bureau



CONTAINER RECYCLING RATE





Over 5900 programs collect empty aerosols in their steel can mix

Orlando, FL / Des Moines, IA /
Annapolis, MD / Toledo, OH / Tampa, FL
Montgomery, AL / Gwinnett County, GA
Charlotte, NC

Little Rock, AR recently added empty steel aerosols to their recycling collection program

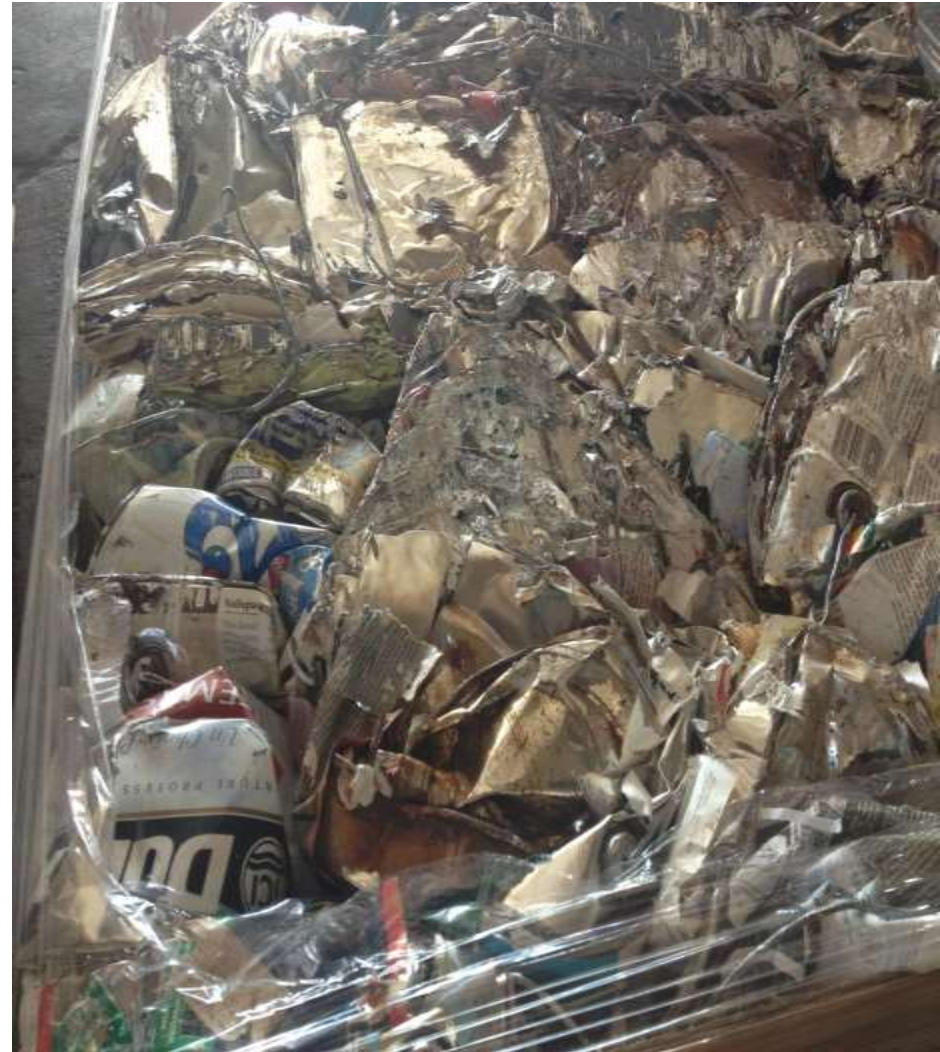
72 OF TOP 100 CURBSIDE PROGRAMS
INCLUDE EMPTY STEEL AEROSOL CANS



**PLEASE RECYCLE
WHEN EMPTY**

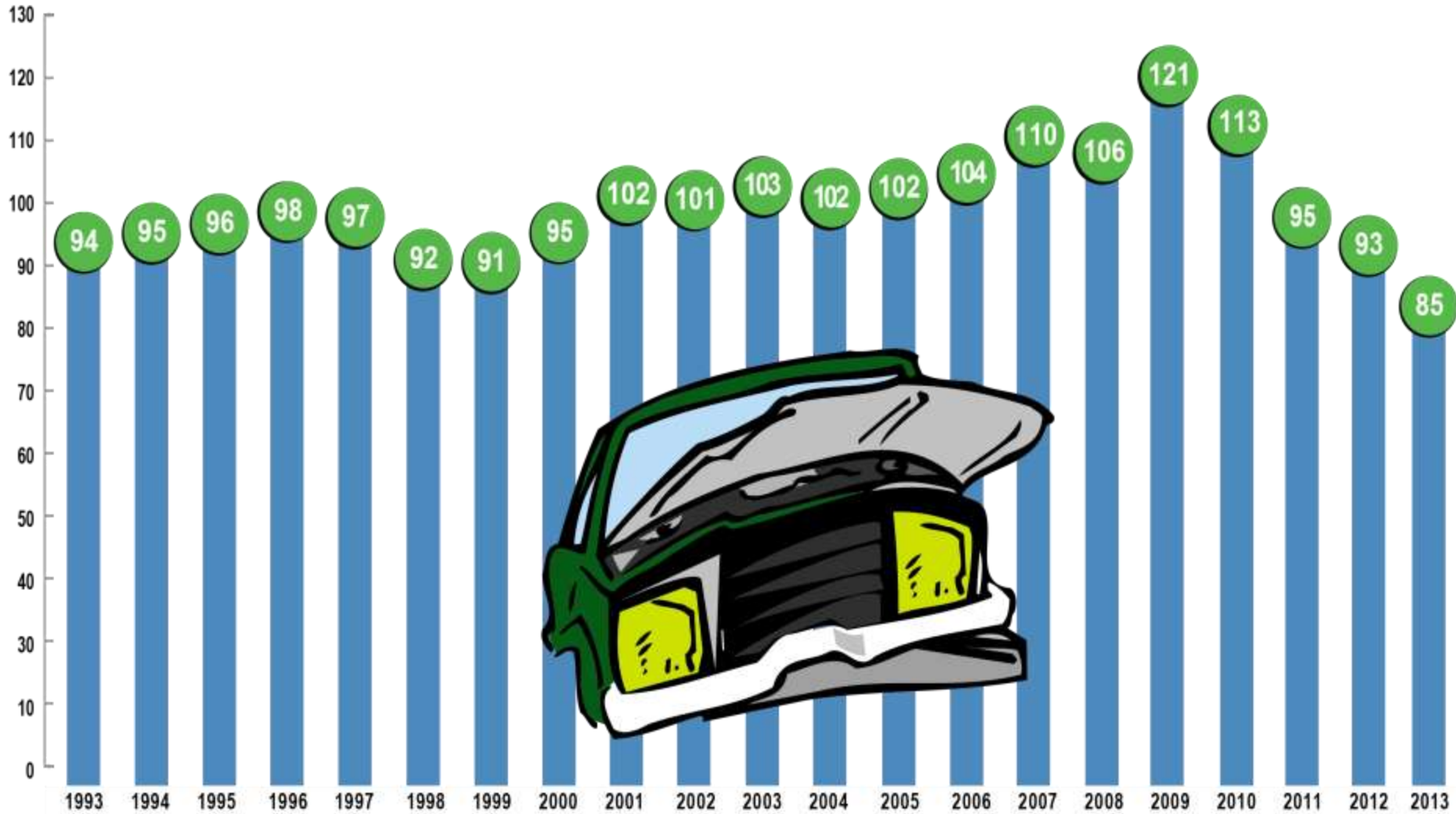


Paint Cans: Empty with Dry Skin!





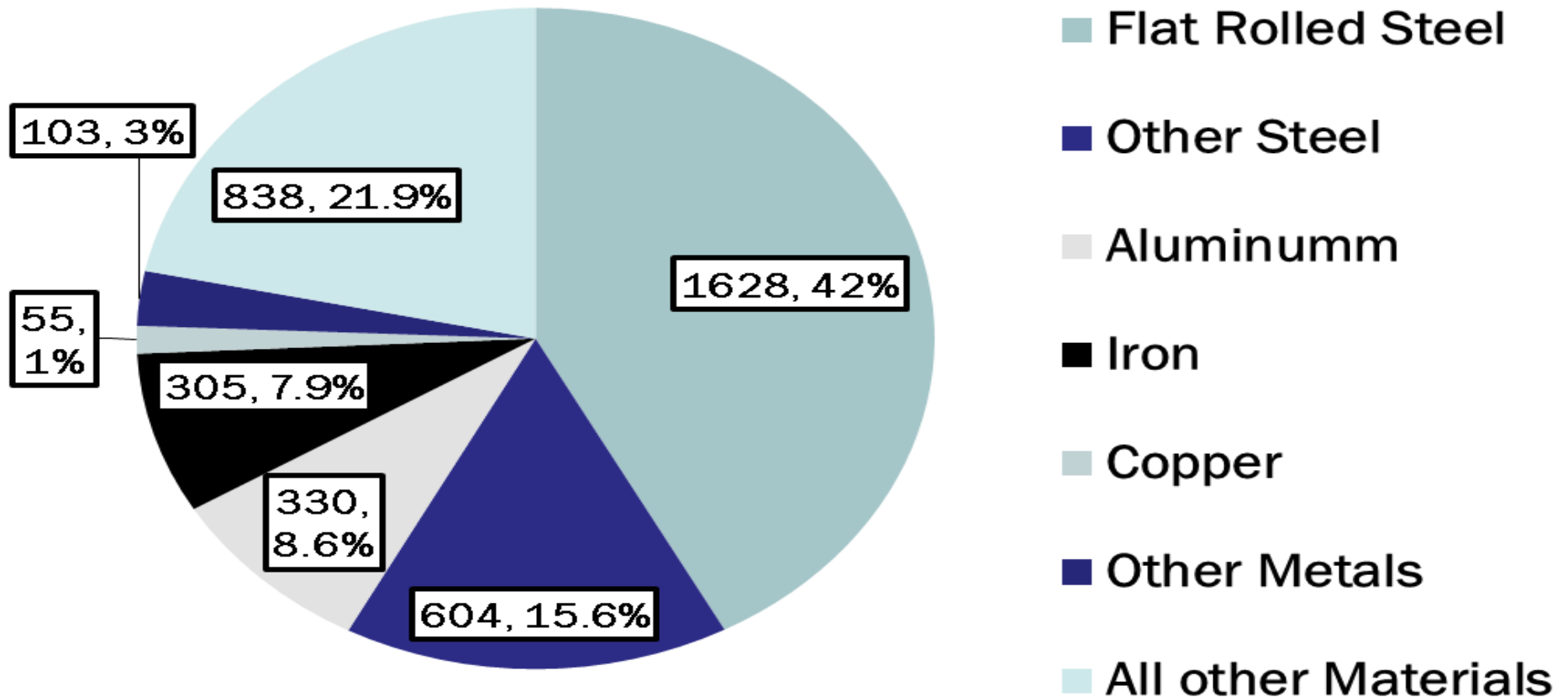
AUTOMOBILE RECYCLING RATE





Steel Content in Today's Automobile

2010 Light Vehicle Content Material Content



Total of 3,863 pounds, **58% steel**



APPLIANCE RECYCLING



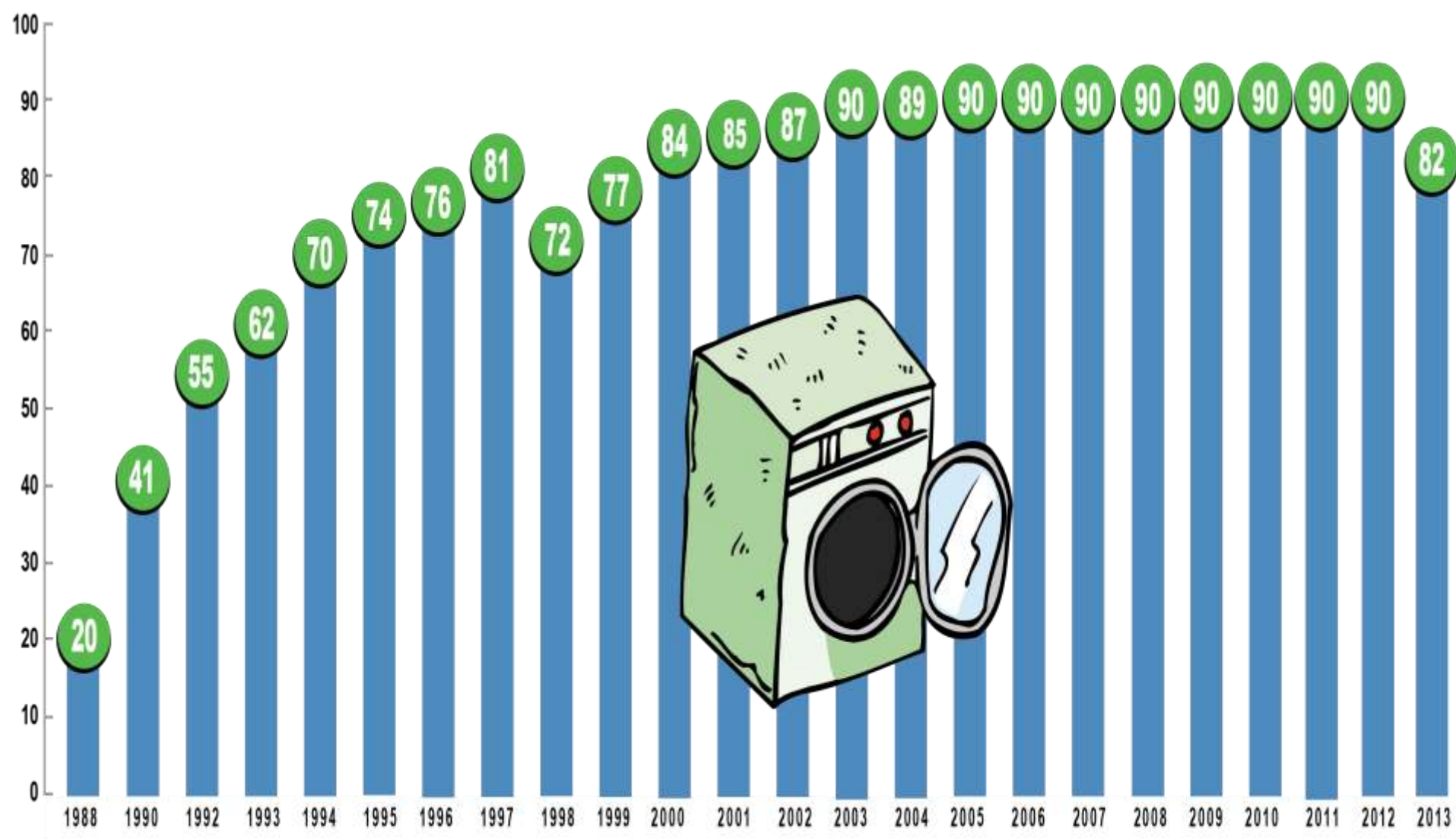
A typical appliance is produced using about 65 percent steel which is the primary reason nearly 90 percent of discarded appliances are recycled each year.

Steel content of appliances drives recycling!





Appliance Recycling Rate





Nobody likes a smart_ _ _!

Only in Wyoming





American Metal Market

AMM Weekly Shredded Scrap Price Composite (price per gross ton)



Based on markets in Alabama, Pittsburgh, Chicago, and Philadelphia.

Source: AMM.

Effective March 1, 2014, AMM's weekly composite price for shredded scrap no longer includes Birmingham and Houston. The new composite price includes consumer buying prices for these cities: Alabama, Chicago, Pittsburgh and Philadelphia.



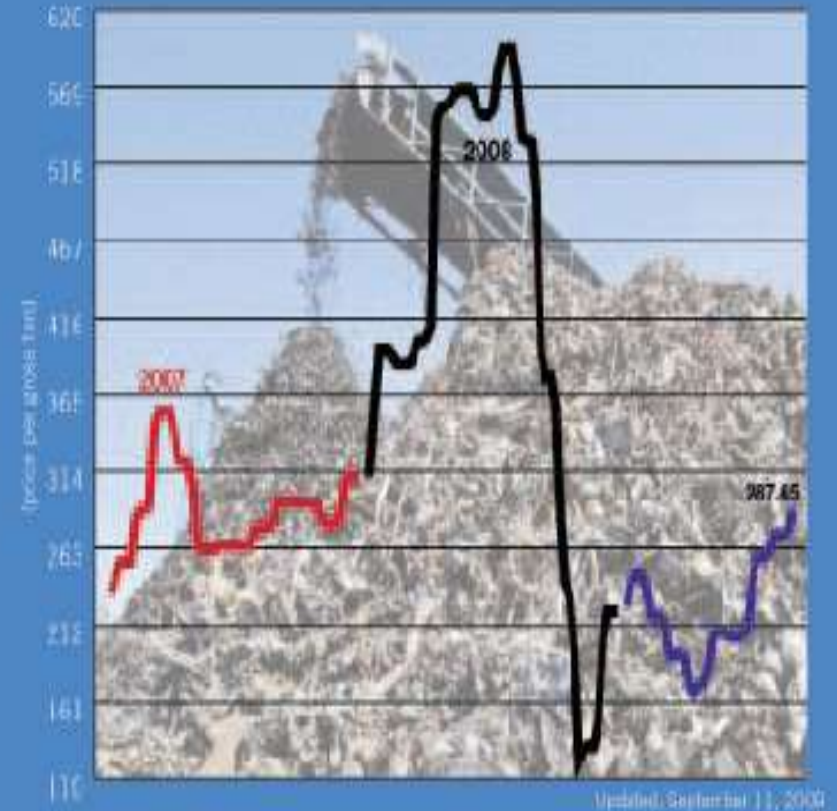
Historical Perspective ('06 &'09)

AMM Weekly Shredded Scrap Price Composite



Based on markets in Birmingham, Pittsburgh, Chicago, Philadelphia and Houston.
Source: American Metal Market

AMM Weekly Shredded Scrap Price Composite



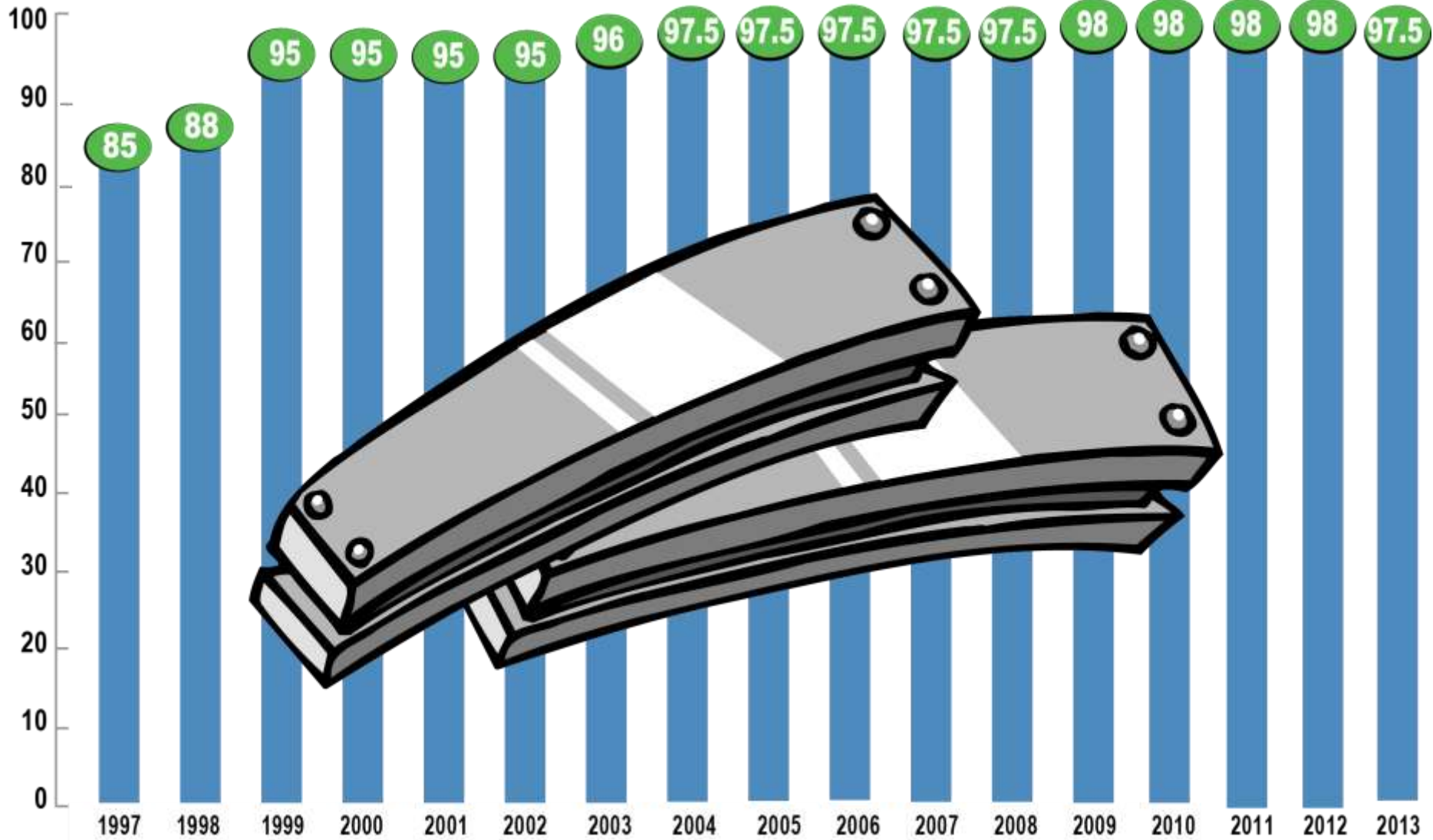
Based on markets in Birmingham, Pittsburgh, Chicago, Philadelphia and Houston
Source: AMM

Structural recycling rate steady for last 10 years!





Today, Construction means structural steel recycling!





American Metal Market

AMM Weekly No. 1 Heavy Melt Price Composite

(dollars per gross ton)



Jan. Feb. Mar. Apr. May Jun. Jul. Aug. Sept. Oct. Nov. Dec.
 Based on No. 1 heavy melting steel at Pittsburgh, Chicago and Philadelphia.
 Source: AMM.



Rebar Recycling Rate

Rebar recycling grows as concrete recycling expands!





• Ultra light Steel Auto Body



• Steel Bridges



• Steel Utility Poles



• Residential Steel Framing





New Steel Auto Body uses HSLA steel for strength





FHA has deemed 33% of bridges in US to be “structurally deficient”





Steel Industry is calling on Congress for new highway appropriations in order to rectify the situation using HSLA steel





The Strength and Sustainability of Today's Steel

Willis Tower, Chicago, IL



Then (1972)

- Sears Tower
- 76,000 tons of steel
- 20% recycled content (est)

Now (2013)

- Willis Tower (second tallest in hemisphere)
- 60,000 tons of steel (strength)
- 90% recycled content (for structural steel)
- 43,000 automobiles
- 7,000 tons of steel cans from curbside-drop off
- 10,000 tons of industrial scrap
- 876,000 fewer man-hours
- 58% smaller carbon footprint
- 74% less embodied energy



Still working to gain traction in the residential market





Ferrous Scrap Dealers

Years of steel recycling experience

Convenient locations

Container and transportation capabilities

Complete processing equipment

Strong relationships with end markets

Look for additional consolidation/vertical integration



Recycling Institute

Dave Keeling

P.O. Box 160

Big Bend, WI 53103

262-662-4435

dkeeling@steel.org



Website: www.recycle-steel.org

Twitter: @EnviroMetal

Facebook: www.facebook.com/EnviroMetal

YouTube: www.youtube.com/EnviroMetal



Scan QR code for email with steel recycling info

