

ENVIRONMENTAL STEWARDS,
JOB CREATORS, ECONOMIC LEADERS

www.isri.org



Voice of the Recycling Industry

Institute of
Scrap Recycling
Industries, Inc.

Responsible Recycling Trends and Analysis

Robin K. Wiener
2010 E-Scrap Conference
New Orleans, LA

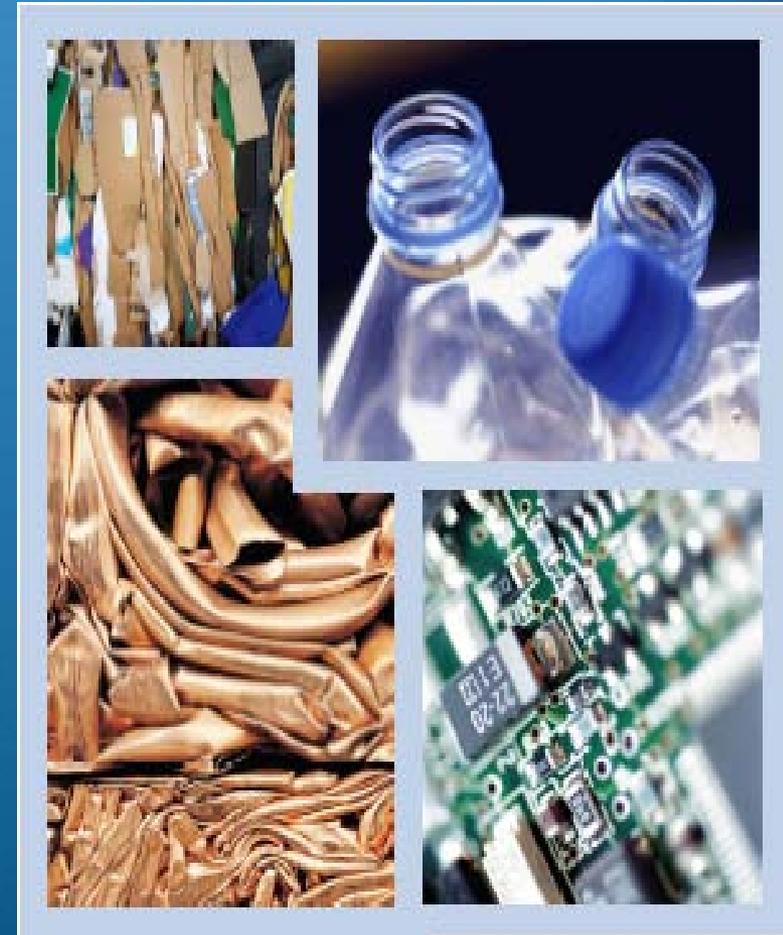
Overview

- Introduction to ISRI
- Trends in global demand for scrap commodities
- Trends relating to Quality, EH&S
- ISRI's efforts regarding sustainable e-recycling

Institute of Scrap Recycling Industries (ISRI)

Over 1,550 member companies -
7,000+ facilities worldwide - that
process, broker & consume scrap
metals, paper, plastics, glass,
textiles, rubber, and electronics.

~ 350 companies that process e-scrap
for recycling



Over 100 years of recycling experience

Industry employs over 100,000 in U.S. and has been creating “green jobs” for decades.

Many ISRI members have been in business for 3 generations or more



Commodities processed

Industry processes between 125 and 150 million tons annually of recyclables, destined for both domestic use and overseas markets, including --

	2008	2009
Total Processed (million metric tons)	150	125
Value of Materials Processed (Billion US\$)	86	54
Iron and Steel (metric tons)	85,000,000	71,000,000
Aluminum (metric tons)	5,500,000	4,600,000
Copper (metric tons)	1,800,000	1,700,000
Paper (metric tons)	47,000,000	45,400,000
Lead (metric tons)	1,200,000	1,300,000

Worldwide Demand for Scrap Commodities

Scrap is the 1st link in the global manufacturing supply chain, meeting more than 40% of industrial consumers' raw material needs annually worldwide

	2008	2009
Total Exported (million metric tons)	46	44
Value of Materials Exported (Billion US\$)	28.6	21.4
Number of countries exported to	153	154
Aluminum exports (metric tons)	1,981,644	1,657,606
Copper (metric tons)	908,130	842,573
Iron and Steel (metric tons)	18,865,413	20,011,795
Zinc (metric tons)	90,992	47,119

Worldwide Demand for Scrap Commodities

Top International Trading Partners --

	2008	2009
China (\$US)	\$8.0 billion	\$7.4 billion
Canada	\$4.0 billion	\$2.6 billion
Turkey	\$2.0 billion	\$0.9 billion
South Korea	\$2.0 billion	\$1.4 billion
United Kingdom	\$1.9 billion	\$0.7 billion
Switzerland	\$1.7 billion	\$3.3 billion
Taiwan	\$1.6 billion	\$0.9 billion
Japan	\$1.0 billion	\$0.3 billion
Germany	\$1.0 billion	\$0.04 billion
Mexico	\$0.9 billion	\$0.6 billion

Trends Relating to Quality, EH&S

- US scrap industry committed to not just delivering plentiful volumes of scrap, but delivering high quality scrap for both our domestic & international customers in an environmentally responsible manner
 - Technological advances have resulted in significant gains in scrap quality over the last several years.
 - Advances in data-sanitization technology and various separation technologies, including sorting and infra-red technology and shredding, as well as greater attention to preprocessing all have contributed to continuous quality improvements.

Dedication to Quality, EH&S

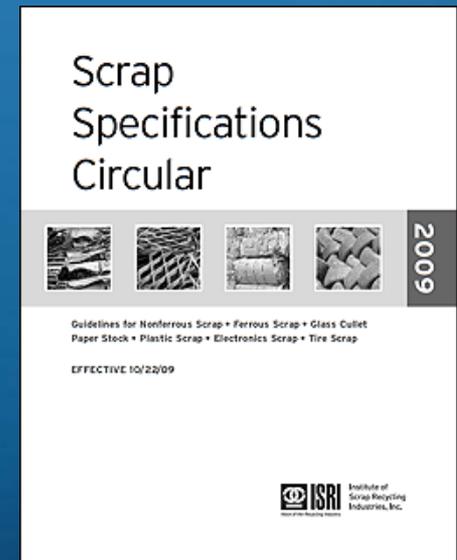
ISRI dedicated to doing all it can to promote the worldwide quality of scrap, processed in an environmentally responsible manner, protective of worker safety

- RIOS®
 - Voluntary, comprehensive environmental, health & safety, and quality management system that integrates the best aspects of ISO 14001, ISO 9001, and OHSAS 18001
 - Accredited certification program supported by the ANSI-ASQ National Accreditation Board (ANAB)
 - 21 facilities certified to R2/RIOS® or R2 (including 1 international)
 - More than 50 facilities working towards certification



Dedication to Quality, EH&S

- Design for Recycling®
 - Developed in early 1980s
 - Designed to encourage manufacturers to consider end-of-life issues of their products at the design stage
- ISRI Scrap Specifications Circular
 - Industry-wide, globally accepted set of descriptions and guidelines for industry grade scrap commodities
 - Facilitates the consistent & uniform trade of scrap recycling
 - Available at www.isri.org



Dedication to Quality, EH&S

- **ISRISafety** launched Jan. 1, 2005
 - Provides comprehensive, consultation and training resources to ISRI members
 - Fundamental shift in focus –
 - From passive assistance to hands-on, pro-active training
 - From worker focus to management focus with goal of providing safety an equal seat at the table with profit and quality
 - Over last 5 years, ISRI provided approximately 300 Safety Blueprints, OSHA 10-hour training programs, and Driver “Ride-a-longs” at member facilities
 - All free of charge to ISRI members



www.ISRISafety.org

Electronics Recycling

ISRI is Fully Committed to Electronics Recycling

ISRI Electronics Recycling Division Leadership

- Division Chair: Joe Clayton
- 1st Vice-Chair: Renee St. Denis
- 2nd Vice-Chair: Jake Player



Division Priorities

- Standards and Certification
- Commodity Specifications
- Education & Training
- Policy Development

Opportunity to Set the Record Straight

ISRI's export policy is –

- Socially-responsible,
- Protects worker health and safety, and
- Ensures environmentally sustainable practices globally

ISRI condemns sham recycling and illegal exports; emphasizes critical need for compliance with both domestic & international law

- ISRI's commitment: e-recycling must be done right anywhere and everywhere in the world

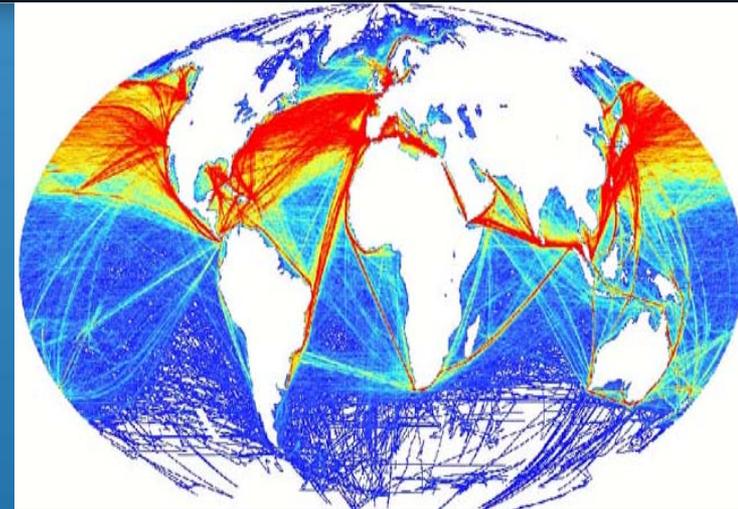
Develop Local, Trade Global

Export Bans are not the Solution

Between 2016 and 2018 the **developing world will generate more used and end-of-life computers than the developed ...**by around 2025, the developing world **will generate double** the developed world's used and end-of-life computers

Instead of banning trade the U.S. (and others) **should teach developmental countries how to improve health and safety conditions and encourage environmentally responsible recycling practices.**

Eric Williams, Asst. Professor Arizona State University
Journal of Environmental Science and Technology Journal 2010



Sustainable Electronics Recycling

Provides a real opportunity to boost environmental sustainability by sharing U.S. industry know-how, with the goal of growing responsible recycling

- At invitation of US/Chinese governments (& academia), ISRI has been engaged in China participating in forum to share knowledge/educate on best management practices
- Positive intervention has the potential to also boost economic development and job creation while effectively turning the tide on irresponsible recycling

3rd Party certification plays a critical role towards ensuring sustainable recycling

Proud of the R2/RIOS® Program – combines ISRI's RIOS program with the R2 program

- Assures compliance with domestic & international laws, including laws enacted by countries that have signed/ratified Basel Convention
- R2 prohibits exports except where legal and only under specified conditions designed to protect the environment and workers
- Provides for strict management of focus materials through final disposition
- Requires downstream due diligence
- Integrates, quality, environment & health and safety
- www.CertifiedElectronicsRecycler.com

R2 Solutions launched yesterday

- Independent, non-profit established to manage and oversee R2 and its implementation
- Highly regarded Board of Directors representing broad stakeholder interests
- Open and transparent governance structure
- Provides a long-term sustainable quality control mechanism
- www.R2solutions.org



“The R2 practices represent a significant accomplishment...[and] go beyond what the agency is able to legally require.”

United States Government Accountability
Office Report, July 2010

In Summary

- ISRI is committed to supporting and encouraging a sustainable and responsible global recycling industry – whether in New Orleans or Guangzhou
 - Encourage others to get involved in the effort to help promote sustainable practices worldwide

Get certified...it's the right thing to do



Thank You

For more information:

Robin K. Wiener

President

Institute of Scrap Recycling Industries, Inc.

robinwiener@isri.org

+1 202 662 8512

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