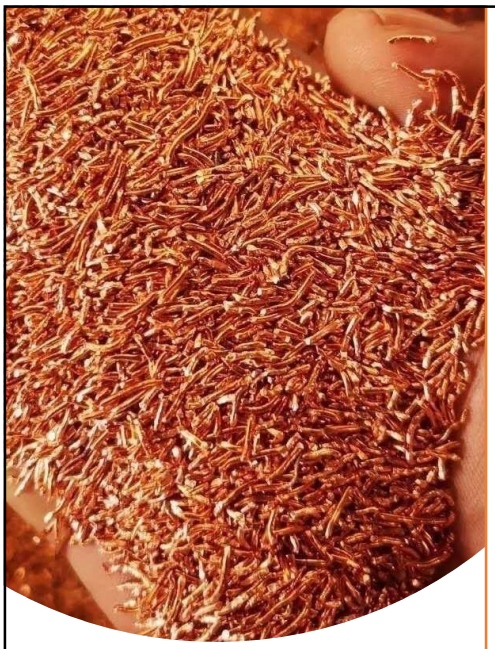


Maximising the Efficiency of Metals Recycling

Joint Study Groups' Seminar

Alev Somer
BIR Trade & Environment Director

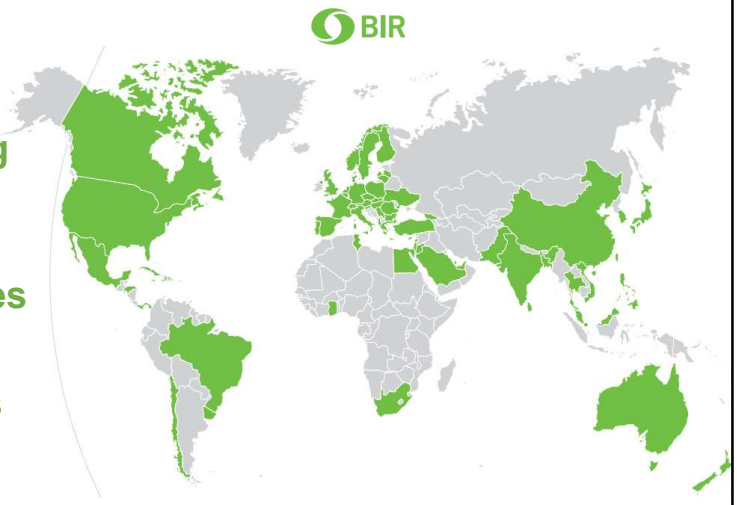
BIR – THE GLOBAL FEDERATION OF RECYCLING INDUSTRIES

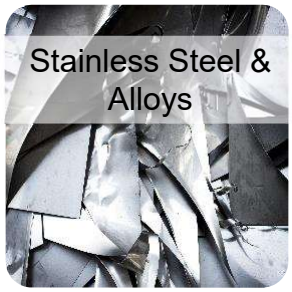
BIR

Established in **1948** as the **global federation of recycling industries**

representing **30,000 companies**

1000 members in 70 countries





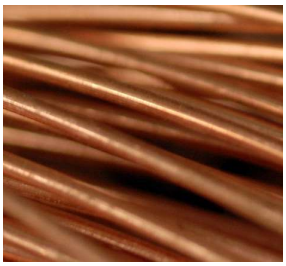
BIR

Main objectives:

- Promote materials recycling and recyclability
- Facilitate free & fair trade of secondary raw materials
- Protect the environment
- Source information for members and industry
- Represent the recycling sector in International fora

Metals recycling

- Metals do not degrade or lose their chemical properties in the recycling process
- They can be recycled an infinite number of times
- Value chains are already largely circular
- Environmental benefits in terms of resource, energy, and CO2 savings resulting from the use of secondary materials



Energy savings

ENERGY SAVINGS	
ALUMINIUM	> 95%
COPPER	> 85%
PLASTIC	> 80%
PAPER	> 65%
STEEL	> 74%
ZINC	> 60%
LEAD	> 65%

Metals recycling saves between 65 to 95% of the energy needed compared to production processes using virgin raw materials

Carbon footprint

Carbon footprint for primary & secondary production

Material	Primary ($ktCO_2e$)	Secondary ($ktCO_2e$)	Savings ($ktCO_2e$/100,000t)	% Savings (CO_2e)
Aluminium	383	29	354	92
Copper	125	44	81	65
Ferrous	167	70	97	58
Paper	0.17	0.14	0.03	18

- Metals mining contributes to 10% of global GHG emissions
- Recycling industry is a forerunner in decarbonisation and in transitioning to “green” metals

Recycled metals in new metals

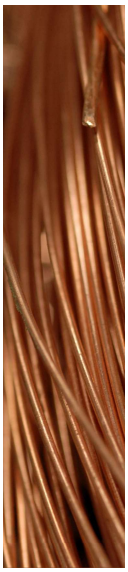
New metals made using recycled material

Aluminium	33%
Copper	40%
Lead	35%
Zinc	30%

High recycling rates

But rate used in new metals could be improved

Recycled content targets



Positive long-term demand outlook

- Investments in the Middle East & North America
- New capacities for production of recycled aluminium for extrusion, automotive and packaging applications
- Increasing demand with EVs, digital & green energy technologies

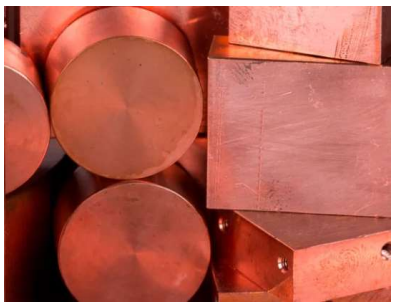
- China's reopening following its prolonged period of tight COVID-related restrictions will eventually bring a recovery and revamping of consumption and production levels

Role of recycling in meeting future demand for metals

Metals industry shifts to produce more from scrap to reduce carbon footprint

Scrap is an **internationally traded commodity** which benefits from **access to global markets**

- Key in suppressing **industry emissions**
- Reduces **primary resource consumption**
- Part of **global efforts** to lower CO2 emission



Challenges

Trade Barriers

- Export restrictions & Trade bans (i.e. South Africa)
- Climate change regulations
- More backdoor protectionism

Impact of trade barriers

- **Distorts** market equilibrium, lowers recycling rates & investments
- **Hampers** recycling industry, metals sector, circular economy, climate targets

Net zero should not be achieved **at the expense of free trade in scrap**

Conclusion – how to maximise the efficiency of metals recycling

- **Recycled content targets** to accelerate demand for recycled metals & level the playing field with extracted raw materials
- **Recognition of Environmental Benefits** to incentivise the environmental advantages of using recycled metals
- **Collection targets & enhanced technologies** to ensure effective recovery of materials
- **Removing trade barriers** to ensure market equilibrium and balance supply, to promote free & fair trade, and to support global climate change mitigation & circularity objectives

BIR

Any Questions?

Thank you

Alev Somer, Trade & Environment Director

Bureau of International Recycling aisbl
Avenue Franklin Roosevelt 24 | 1050 Brussels | Belgium
asomer@bir.org | bir@bir.org | www.bir.org

Follow us on

LinkedIn

Twitter