Regulatory Issues and Sustainable Consumption and Production Policies in Europe: Effects on Copper and Copper Products

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Agenda

Brief overview of ECI and Copper Alliance (2 mins)

European copper industry structure and key statistics (3 mins)

Overview of key EU policy issues affecting the European copper industry and its markets (15 mins)

• Industry Competitiveness (towards 20% GDP by 2020 target)
• Emissions Trading Scheme, Resource Efficiency, Energy Efficiency
• Access to Raw Materials
• Product Environmental Footprint
• Chemicals Management

Discussion (10 mins)
European Copper Institute

• Founded in 1996, in the UK, and based in Brussels since 1998
• Joint venture between the International Copper Association Ltd, (representing majority of world’s leading mining companies, custom smelters and semi-fabricators) and the European copper industry
• Part of the Copper Alliance, an international network of industry associations
• In Europe, network of ten national associations, some with over 75 years’ experience in promoting and defending copper markets
• 50 people in offices in Belgium, Finland, France, Germany, Greece, Hungary, Italy, Poland, Spain and United Kingdom
• Core website - www.copperalliance.eu
Copper Alliance™

Operates out of 27 offices* across the globe

* not all listed
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2012 copper supply in EU 27 – 4.3 MT

EU27 accounts for 15% aprox. of world demand (25 MT)

Main EU mines in Poland, Portugal, Spain & Sweden

35% aprox. of EU demand met through cathode and concentrate imports (mainly Chile, Indonesia, Mexico, Peru and Russia)

50% aprox. of European demand met through recycling

Source ICSG/IWCC/ICA
EU 27 end-use demand remains challenging

Volumes remain low

Source ICSG/IWCC/ICA
needed?
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Industry competitiveness

EU’s target industry growth to 20% of EU GDP by 2020 (15 – 16% today) but full costs of EU Policies have made industry uncompetitive

With metal prices identified globally, on London Metal Exchange, European, copper producers cannot pass on “higher” local costs

• Competitive access to raw materials and energy, plus scientifically relevant chemicals management standards, are critical

Proximity of copper producers and their customers (wire-rod makers and semi-fabricators) to value chain drives innovation

• Recognize non-ferrous metals in Horizon 2020 research priorities
Emissions Trading Scheme, Resource Efficiency, Energy Efficiency – “do more with less”

Emissions Trading Scheme (ETS) – reducing GHG emissions until 2020

- Manufacturers receive free allowances, with annual decrease until 2030
- Carbon leakage list of sectors:
  - Eligibility for indirect emission compensation/free allowances for direct emissions
  - Copper sector is on list for 2009 – 2014
  - Review under way for 2015 – 2020 (copper likely to remain eligible)

EU’s 2030 framework for Climate and Energy policies

- Greenhouse gas emissions, share of renewables and energy efficiency
- Energy efficiency cuts demand, reduces trade balance and creates local jobs
- Opportunity or threat to copper?
European copper industry carbon roadmap
- offset CO₂ “footprint” by “handprint” benefits from products

Expect publication in 4Q 2014

Energy represents 25 - 30% of industry operating costs
  • Annual consumption < 0.3% of whole EU industry

European copper industry emissions are +/- 3.4 million tonnes/annum
  • < 0.3% of whole EU27 industrial CO₂ emissions

Within 10 - 20 years, copper products could deliver 100 million tonnes/annum CO₂ savings
  • In motors, transformers and cables

Potential to double savings via building automation, smart electrification of cities, wind-powered production processes and electrification of thermal processes
Value chain resource efficiency comes at expense of industry energy consumption

- Reducing alloy strip thickness, from 1.0 to 0.25 mm, requires 3 * times energy
- High-performance, 2nd generation alloy needs 2 * energy compared to 1st generation
- “Avoid” industry being penalised, e.g. though ETS, or Energy Efficiency Directive
“...to enable Member States and private sector to assess, display and benchmark environmental performance of products, services and companies based on a comprehensive assessment of environmental impacts over the life cycle”

Key methodologies differ from LCA ISO and downplay copper proprieties:

- End of Life recycling 50% max
- Inclusion of eco-tox and human health parameters
- Inclusion of abiotic depletion potential

ECI and its members will be active in Commission 3-year pilots on pipes and metal sheets
Access to raw materials - End-of-waste criteria for copper scrap

EU still has strong secondary copper smelting and refining sector

Seeks to reduce EU net exports of +/- 900 KT/yr copper scrap

New Regulation 715/2013 determines when copper (EoL) scrap ceases to be waste

ECI cooperated closely with Commission’s Joint Research Centre

Content of foreign material limited to 2% (sizeable opposition from scrap traders)
Copper Industry actively contributed in review of the Reference Document on Best Available Techniques (BAT) in Non Ferrous Metal production (NFM BREF)

Although EU industry best in class already, TWG* in Seville 17-24th March concluded on Best Technologies and more reduction of dust, SO2 emissions and water emissions

Outcome will impact seriously investment plans in several EU primary and secondary production plants

* Under Industrial Emission Directive, the TWG Technical Working Group is pre-step to political debates in Member States Forum and adoption of conclusions in Official Journal (1)
Chemicals management

Since 2008, copper has an EU approved Voluntary Risk Assessment (VRA published on ECHA website),

REACH 2012 registration dossiers for copper (based 2008 VRA), plus Intermediates from smelting/refining/semi-fabricating

However, many EU and national regulatory developments continue to make use of other data sources (water, soil and sediments)

EU (SCOEL) and Germany (MAK) proposing 10 - 100 times lower safe limit values for copper (inhalation) at workplace (vs. today’s 1.0 mg/m³)

Copper harmonized classification – CLH proposal for coated copper flakes and copper compounds to start at September 2014 Risk Assessment Committee meeting

➢ Key issues: Metal fate/removal and Chronic environmental classification

REACH intermediates – close to completing upgraded dossiers for Intermediates to reflect stronger ECHA guidance on Strictly Controlled Conditions
OECD

Many nations expanding their chemicals management practices (Australia, Korea, Japan, Turkey….)

• Challenging and resource intensive effort for global copper companies

Copper will follow Molybdenum and submit dossier under OECD’s Cooperative Chemicals Assessment Meeting (CoCam) process

• Copper plus copper compounds (CuSO₄, CuO, Cu₂O, Copper oxychloride)
• IUCLID and Chemical Safety Report on effects (exposures are local), based on EU Risk Assessment and REACH dossiers
• Submission by Italy in 1Q for review in 3Q 2014
• Key issue: different hazard grades (massives, powders and coated flakes),

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Classification of lead

ECHA Risk Assessment Committee – December 2013

- To protect children (neuro-developmental toxicity), proposes lead metal (powder and massive) be classified as reproductive toxicant class 1
- Specific Concentration Limit 0.03%

Hazard classification will seriously impact alloys, slags, concentrates, and intermediates

Copper industry position

- Accepts classification, but challenges validity of 0.03% SCL
- Need to distinguish between powders and massive, pure lead and alloys
- Copper alloy recycling results in impurities
- No “viable” material alternatives and economic implications
- Eurometaux/ECI has submitted a socio-economic analyse
- To be discussed at ECHA meetings on 3 and 4 April (*CARACAL)

* CARCAL: Competent Authorities for REACH and CLP
International Maritime Organization (1/2)
Follow-up on ECI 2013 presentation

Adopted new regulations for discharges of solid bulk cargo residues in MARPOL Annex V

- Cargo residues, classified as “Harmful to the Marine Environment”, can not be discharged into the sea from 1 Jan 2013
- Self classification by shipper from 1 Jan 2013
- Some relaxations if “no adequate port facilities” until 31 Dec 2015

Sept 2013, indicative lists of HME substances being developed

- Provide separate, clearly classified and non-classified lists
- How to handle materials of varying composition, such as metal concentrates?
- Industry contributing to work of Correspondence Group led by Japan
Members asked ECI to lead a global industry effort to secure compliance

- Formed business venture to allow participation by non-members
- Chose methodologies from Risk Assessment and REACH, to build a simple Excel based model for use by all members
- Inputs of chemical speciation and mineralogy drive classification and provide shipper’s declaration
- Of 117 concentrates assessed, 3-4% require HME classification
- Detailed summary on public ECI website
- Outreach to IMO and key countries, Chile, Norway, ICSG...

Similar effort now underway on for Safety Of Life at Sea (SOLAS) during transport of solid bulk cargoes

- New criteria for cargo residues, to be classified as “Materials Hazardous in Bulk”:
  - Address human health and physical hazards during loading and shipping
  - Updates of the International Maritime Solid Bulk Cargoes code (IMSBC)
New ECI website (1/2)
- www.copperalliance.eu/policy

Initiatives and Regulations

The European Copper Institute monitors and contributes to the EU legislative agenda on issues relevant for the copper industry as well as market access for its products. Backed up by the advocacy umbrella of Eurometaux, our policy agenda stretches across industrial policy, climate change, through issues such as energy efficiency and renewables, human health and the environment.

Examples of public policy issues that relate to copper can be accessed through the clusters below:
New ECI website (2/2)
- 4 clusters connected to (social, professional) networks

Industrial Policy
- ECI celebrate the new high-tech office in focus for a better social and sound energy efficiency (EEC, September 2013)
- ECO NATIONS - Close-up analysis: Energy opportunities for a cleaner and greener world (EEC, September 2013)
- Contribution from ECI member, the European Commission on methodology for Commission carbon calculating the Kt of carbon and emissions due to energy consumption by the final demand in 2010: 2016 (European, July 2013)
- Business trust units in small to medium enterprises in 2014: Increasing carbon and industrial policies (Eurostat, March 2013)
- Significant policy impact: The Clustering Training System (CTS) should provide a cost-effective and quick solution to increase the competitiveness of EU (European, July 2013)
- Solar energy and wind in the EU: A new impulse to the economy and industry (ETR, the Observatory for the Wind, November 2009)
- Research and development awards for European sustainable ITRE Committee: Vote on "An Effective Raw Materials Strategy for Europe" (European, EuroMediterranean, July 2011)
- Multiple "benefits of a competitive European Copper industry" (EC, July 2012)

Energy and Climate Change
- Only 3% energy savings target for 2030 can deliver EU objectives for competitiveness, energy and climate (the Commission for ENERGY SAVINGS, October 2013)
- Building Automation: "The Scope for Energy and CO2 saving in the EU" (EEC, Leonardo ENERGY, August 2012)
- The European Commission's future climate change and energy policies to 2020 - what would be the most competitive direction? (Eurostat, July 2013)
- Copper's contribution to renewable energy on the European market (ETR, the Observatory for the Wind, October 2010)
- The Committee for ENERGY SAVINGS (March 2011)
- ECO NATIONS - Close-up analysis: Energy consumption in industry and manufacturing (EC, Leonardo ENERGY, December 2010)
- Energy policies to be first priority for 2013 (the Coalition for ENERGY SAVINGS, November 2012)
- Priority message 2013: KPIs to KPIs: Energy saving in manufacturing - no exception (the Coalition for ENERGY SAVINGS, December 2011)

Environment
- European Parliament's position on the reform of the European waste management legislation (Eurostat, September 2013)
- Trend of the year for Europe: The Cohesion and Climate Change Fund (EC, November 2012)
- Recommendation on the non-use of plastic bags (EC, September 2007)

Health
- Comments and reports analyses for support schemes: ECO's brief into the public consultation on the proposal for a restriction of lead and its compounds in articles intended for consumer use (EC, August 2013)
- Comments and reports analyses for support schemes: ECO's brief into the public consultation on the proposal for a restriction of lead and its compounds in articles intended for consumer use (EC, May 2012)
- Some economic praise on the changes in concentration on value of market (EC, November 2012)
- Copper, essential for a healthy brain: Video (ICCA, April 2012)
- Comments on "Tampering with nature: Are the world's oceans ready for human impact?" (EC, April 2013)
- The Côte d'Ivoire Wind Assessment (EC, April 2013)
Thank you from ECI’s team

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