Regulatory Issues for the Copper Industry in Europe

Bernard RESPAUT, European Copper Institute
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Context – a complex web of regulations

**THEME**
- Chemicals Management
- Circular Economy & Resources Efficiency
- Climate Change
- Global License to Operate

**European initiative**
- Non-toxic Environment
  - Classification (CLP)
  - Hazardous substances in products
  - OEL *
  - Drinking Water Directive
- Life Cycle Assessment
- Waste
- Innovation
- Emission Trading System (ETS) after 2020
- Clean Energy Package
  - Energy Efficiency Directive
  - Renewable Energy Directive
  - Governance and Market Design
- International Maritime Organisation (IMO)
- OECD Handbook

**Topics**
- Hazard vs Risk Management
- Competitiveness of the European Industry
- Consistency and Complementarity of Legislation

**Concerns**
- Consistency and Complementarity of Legislation

* OEL = Occupational Exposure Limit
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- International Maritime Organisation (IMO)
- OECD Handbook on conflict minerals sourcing

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1. **Non-toxic Environment**

1.1. **Classifications**

**Description**

- "Harmonized classifications" of metals and metal compounds are determined by the EU Risk Assessment Committee (RAC). The process is triggered by regulatory scrutiny OR by registration under parallel regulatory schemes (Biocidal Products Regulation)
  - 2014: Lead - reprotoxicity, Copper compounds
  - 2017: Cobalt, inert particles (TiO2)
  - 2018: Lead - ecotoxicity, Granulated copper

**Importance to the Industry**

- The stringent harmonized classifications have wide implications in EU and globally: restrictions in consumer products, regulatory burdens (e.g. SEVESO), transport legislation,…
- Risk of adverse market perceptions

**ECI activity**

- Scientific and stewardship expertise through the REACH Copper Consortium
- Advocacy on classification – also through Eurométaux
- Promotion of scientific methodologies adopted in the Copper Voluntary Risk Assessment and Copper REACH application dossier
1. Non-toxic Environment

1.2. Hazardous substances in products

<table>
<thead>
<tr>
<th>Description</th>
<th>The EU non-toxic environment agenda and REACH regulation ban or restrict substances of very high concern</th>
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<td>This affects the EU copper industry due to the presence of small amounts of hazardous constituents or contaminants in products and recycled streams</td>
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<th>Importance to the Industry</th>
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<td>• Barriers to market access for products (e.g. alloys, final slags)</td>
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<td>• Competitiveness of EU smelters, refiners, recyclers is at stake</td>
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<td>• Impact on the use of copper alloys</td>
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<td>• Influence on recycling streams (e.g. scrap, end-of-life vehicles)</td>
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<tr>
<td>• Engage with regulators and promote copper products contribution to circular economy (act as contributor in sustainable development)</td>
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<td>• Advocate use of risk-based (not hazard-based) product evaluations</td>
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<td>• Develop public affair and research plans that would permit to avoid the detrimental market impacts and limit test needs on copper alloys and final slags</td>
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1. Non-toxic Environment

1.3. Occupational Exposure Limit

**Description**
German proposal has been introduced to EU authorities to drastically (factor 100) reduce the current limit on occupational exposure to mist and dust from copper and copper compounds.

**Importance to the Industry**
- Risk of significant increase of operating costs to comply with an over-restrictive regulation

**ECI activity**
- Independent European scientific panel established to guide ECI in setting up an adequate research program that
  (a) investigates the validity of the current occupational exposure limit
  (b) reviews the conclusions of the available scientific data
1. Non-toxic Environment

1.4. Drinking Water Directive

**Description**

Transposition and implementation of EU Drinking Water Directive (DWD) into national law supposes drinking water materials (semis) meet the DWD guidelines on microbiological and chemical parameters of the water.

A 4-member states (France, Germany, Netherlands, UK) approach has been initiated to develop a common positive listing and approval scheme of materials and products, with the intention to become the base of an EU-wide system.

**Importance to the Industry**

- Harmonized European system for the use of copper in drinking water applications
- Protection of the copper share in drinking water systems

**ECI activity**

- Technical coordination of the build-up of the part of the positive list pertaining to copper and copper alloys – together with IWCC
- Advocacy towards the adoption of the proposed listing and approval scheme
2. Life Cycle Assessment (LCA)

**Description**
LCA recognised by the EU as the preferred methodology to define the environmental performance of products

EU methodology published for computing the Product Environmental Footprint (PEF), as a tool to improve resource efficiency

**Importance to the Industry**
- Opportunity to establish fair rules for metals to compute their environmental performance, including appropriate end-of-life properties (recycling)
- Opportunity to establish fair LCA criteria for Copper when compared to substitute materials such as plastics

**ECI activity**
- Participation –as technical secretariat- in the pilot PEF project on « Metals sheets for various applications » - with Eurométaux
- Participation in the pilot PEF project on « Hot and cold water supply pipes »
3. Emission Trading System (ETS) after 2020

**Description**
Current ETS under revision by the EU Commission with as intent:

a/ further reduction of GHG* emission by 43% by 2030
b/ 2.2% annual reduction in emission cap (currently 1.74% till 2020)

**Importance to the Industry**
- Increase in copper refining costs through rise of carbon price and reduction of free allowances rise of electricity prices (indirect costs)
- Increase of copper recycling costs (currently higher CO₂ emission)
- Reduction of compensations for carbon leakage

**ECI activity**
- Active advocacy – via Eurométaux – for a fair treatment of the copper industry:
  a/ recognition of the « price-taker » character of the industry, leading to automatic risk of carbon leakage
  b/ full and predictable compensation for indirect costs

* GHG = Greenhouse Gas
## 4. Clean Energy Package

### Description

Comprehensive initiative by the EU Commission with several components:
- renewable energies
- energy efficiency
- energy performance in buildings
- energy market design
- governance
- security of supply

### Importance to the Industry

- A **significant** opportunity to position copper as the metal of choice for the energy transition: smart grids, electric vehicles, electric motors, windmills, heat pumps, electricity storage, …

### ECI activity

- Multiple studies to demonstrate the contribution of copper: conductivity performance, reliability, recyclability, …
- Multi-annual advocacy campaign promoting 10 copper-based technologies that bring a significant contribution to the energy transition
- Comprehensive study to assess the impact of the energy transition on the long-term industry competitiveness
5. **International Maritime Organisation (IMO) regulations on bulk marine transport**

**Description**
- Obligation by IMO for shippers to self-classify their bulk cargoes:
  - hazardous to the marine environment (« HME »)
  - materials only hazardous in bulk (« MHB »)
- Recent regulatory challenge: metal concentrates could present a hazard « corrosive to metals »
- Testing method proposed by IMO is not fully adapted for solid materials

**Importance to the Industry**
- Classification of copper concentrates may lead to increased sea transport costs and in onwards land transport, due to additional safety precautions, increased insurance fees, reduced choice of shipping companies.

**ECI activity**
- ECI supports global industry in classifying copper ores and concentrates
- Scientific analysis confirmed the corrosion test currently practiced by the IMO only needs to be slightly adapted. This adaptation will lead to most copper concentrates not being classified as « corrosive »
- Advocacy –with ICMM- towards IMO regulators to defend the ECI classification approach at IMO level
Conclusion

A complex web of regulations …

**WHY:**
- √ a better quality of life
- √ continued economic prosperity in Europe

**HOW:**
- ! the European industry has to remain competitive
- ! regulations need to be consistent and complementary
- ! industry and regulators need to synchronize their approaches: risk vs hazard management