



Supplying Europe's low-carbon transition: the role of a balanced chemicals policy

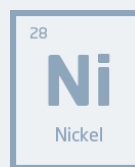
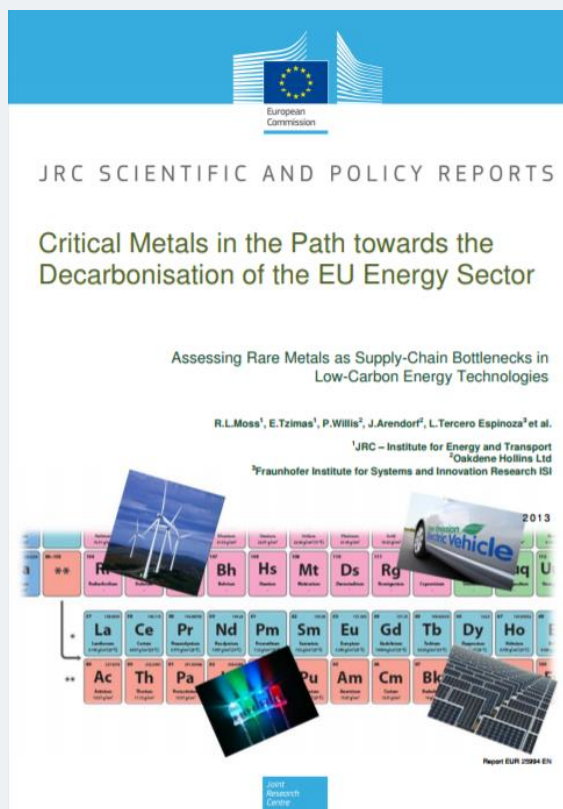
Guy Thiran, Director General, Eurometaux

31st January 2018

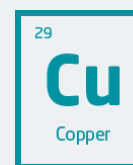


Europe's low-carbon transition will require more of all non-ferrous metals

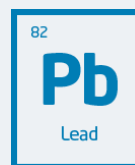
>20% more metals will be required by 2030 for new low-carbon technologies*



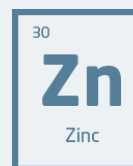
+101,310 tonnes



+246,474 tonnes



+63,386 tonnes



+23,758 tonnes



+9,427 tonnes



+732 tonnes

Our industry is well positioned to make those metals: Spotlight on Bulgaria

 **Bulgaria**

FACILITIES:

20

EMPLOYEES:

13,000

OUTPUT:

€3 billion

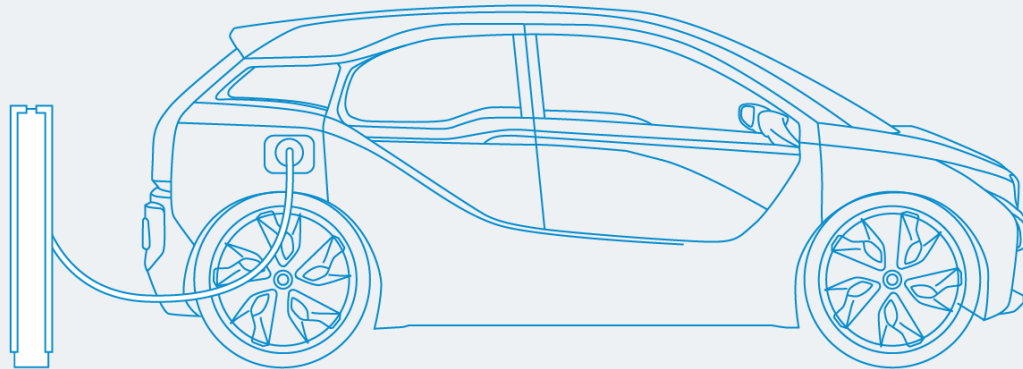
FULL VALUE CHAIN:

-  Mining
-  Production
-  Transformation
-  Recycling



New metals and alloys will continue to enable low-carbon innovations

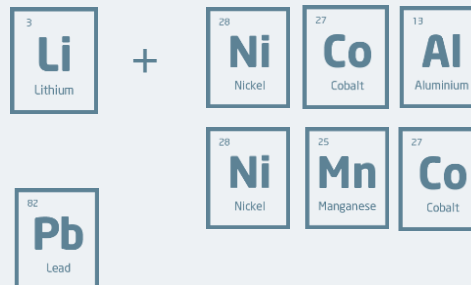
Example: Clean mobility is driven by metals alloys



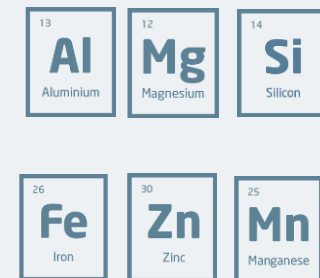
Signalling cables (charging)



Batteries



Lightweighting



In parallel, Europe's metals industry's sustainability must continually improve



Responsible
sourcing



Low
CO2 footprint



Circular
Economy



Safe use of
chemicals

*A strong EU Industrial Policy is essential to support
our sustainable development*

A shared aim: Hazardous substances must be used and recycled safely

2018 EU Non-Toxic Environment Strategy

“the development of sustainable substitutes including non-chemical solutions”



1/3



of all industrial metal
elements are on a
“hazard” list globally



We must ensure these metals are used and recycled safely

Our ambition: A risk-controlled environment

Risk Controlled Environment



Hazardous substances are only used when exposure to human health or the environment is controlled

Three examples (among others):



Stainless steel
kitchenware



Brass
instruments



Car
batteries

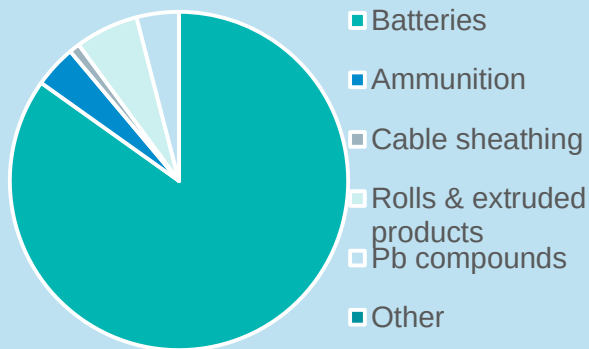
How are we working towards a risk-controlled environment? – Three steps

Risk-controlled environment =

1. Mapping where our metals are used + 2. Evaluating where exposure happens + 3. Implementing risk control measures

For example: Lead

Uses of Lead



Exposure scenario

Environmental and social responsibility for the 21st Century

Health Issues for Lead Workers and the General Population

The health information content of this fact sheet has been derived from Environmental Health Criteria 165: Inorganic Lead prepared by the International Program on Chemical Safety (IPCS) and published by the World Health Organization in 1995. Discussions of specific health issues are referenced by noting the pertinent page numbers of EHC 165. This summary is primarily focused upon health issues potentially relevant to the occupational health setting. Coverage is also provided of exposure and health issues which may be of concern to 'informal worker sectors' involved in the use or recovery of lead-containing materials. Finally, a summary is provided of low-level exposure and health issues of potential relevance to the general population.

The health impacts of lead have been and are intensively studied. Multiple papers have appeared subsequent to the publication of EHC 165, illustrating the nature of available

Overview of Lead Exposure

Health effects of lead in humans are produced following exposure and uptake of lead into the body. The sampling of blood, preferably by venipuncture, and analysis for lead concentration is the most commonly applied index of exposure in both occupational and general population settings. Accordingly, discussions of health effects are generally related to the blood lead levels of the populations under study and not to levels of external exposure per se.

In the occupational setting, exposure via air and ingestion constitute the primary routes of exposure. Dermal absorption of inorganic lead through unabraded human skin is considered to be minimal (IPCS 165: 105). The relationship between air lead and blood lead in the occupational setting has been the subject of much study. In general, blood lead/air lead relationships are found to be curvilinear in nature. This is to say, the impact of a given air lead level upon blood lead will vary as a function of the intensity of exposure history.

Worker protection measures



Lead and lead battery industries announce ambitious new targets to protect workers

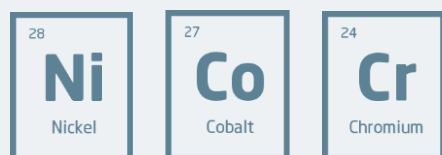
(Brussels 15 June, 2017) - Battery Council International (BCI), EUROBAT and the International Lead Association (ILA), have announced a new voluntary target to protect worker health in the lead producing and battery manufacturing and recycling industries.

Significant improvements have already been recorded in the now completed three-year voluntary programme to reduce worker blood lead levels to below 30mcg/dL (microgrammes per deciliter) and the new target of 20mcg/dL will reduce the level of lead in blood of employees still further - BCI represents battery manufacturers in North America, EUROBAT in Europe, Africa and the Middle East and ILA represents lead producers principally in Europe and North America



Example of where the EU can help industry: Regulate alloys based on sound science

Individual metals

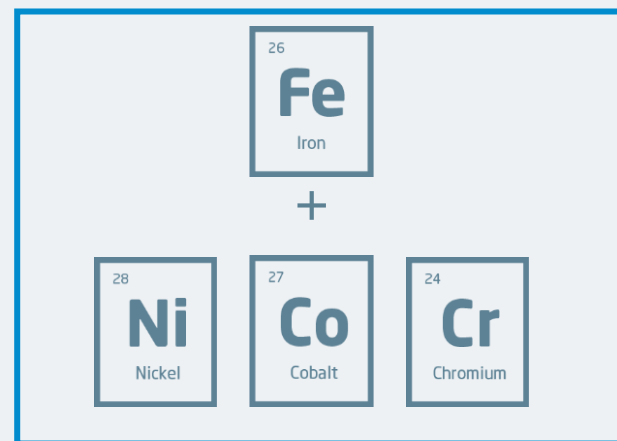


Risk profile =
individual metals

VS.

Alloy

e.g. stainless steel



Risk profile =
alloy matrix

**EU chemicals policy can support industry by
recognising the different risk profile of metal alloys**

Outcome: Low-carbon innovation and safe chemicals management TOGETHER

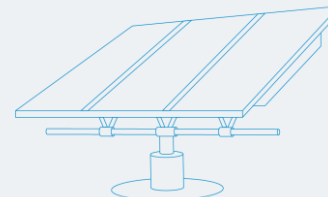
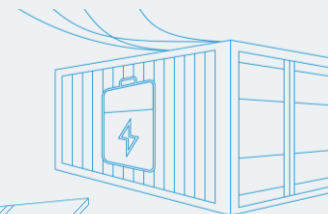
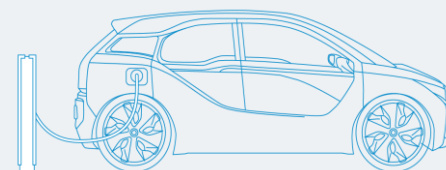
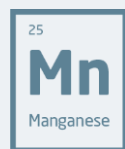
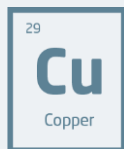
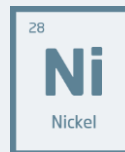
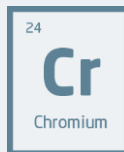
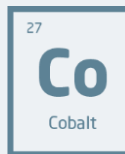
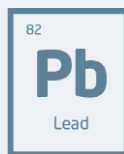
Risk-controlled environment

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Only safe uses of 'hazardous' materials

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Full toolbox for low-carbon innovations



Can we take the necessary steps together?

Thank You

Guy Thiran
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13 Al Aluminium	29 Cu Copper	28 Ni Nickel	82 Pb Lead	30 Zn Zinc	79 Au Gold	47 Ag Silver	78 Pt Platinum	51 Sb Antimony	4 Be Beryllium	14 Si Silicon	27 Co Cobalt	42 Mo Molybdenum	23 V Vanadium	50 Sn Tin	46 Pd Palladium	44 Ru Ruthenium	75 Re Rhenium	76 Os Osmium	77 Ir Iridium	74 W Tungsten	73 Ta Tantalum	32 Ge Germanium	34 Se Selenium	31 Ga Gallium	24 Cr Chromium	12 Mg Magnesium
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