Agenda for a resilient European metals supply for the green and digital transitions

In its COVID-19 recovery, Europe is prioritising a more resilient supply of the metals and minerals demanded in higher volumes for the green and digital transitions. Europe’s metals industry has a shared ambition to invest into improving the EU’s resilience and advancing our global sustainability leadership. We need to learn lessons from COVID-19’s disruption of global supply chains and tackle our growing metals dependency.

Together, our business leaders emphasise the growing urgency for Europe to make its secure and sustainable metals supply a central priority in plans for a resilient, green, and digital European economy. In this declaration we recommend a comprehensive EU agenda that unlocks financing and investment, takes bold global action, creates a level playing field, and makes sustainability Europe’s metals differentiator.

The EU has a high and rising dependency for the range of metals required for the transition to a climate neutral economy. The World Bank has concluded that all these metals will be required in higher volumes of up to 500% for batteries, renewable energy technologies and clean mobility. As well as a limited industrial capacity for critical metals like lithium, cobalt and rare earths, Europe has lost a significant share of the global market in the last decade for the base metals where it has an industrial base (e.g. aluminium, copper, nickel, lead, zinc).

Decisive EU action is needed to prevent a further decline of Europe’s metals production and to instead stimulate new investments into expanding our mining, refining, processing and recycling capacity. We support measures to restart Europe’s automotive sector, initiate the renovation wave, and make sustainability Europe’s metals differentiator.

Our companies have an ambition to invest further to improve Europe’s metals resilience for the green and digital transitions. We want to keep advancing the climate performance of our smelting and refining operations and to take advantage of competitive carbon-free electricity whenever it is available. We want to expand our sustainable mining capacity for base and critical metals in the EU and abroad. We want to recycle more metals from batteries, electronics, transport, packaging, buildings and other key waste streams. And we want to do all this while ensuring the highest protection for human health and environment.

We will only be able to capitalise on this potential if Europe establishes a coherent regulatory framework and a level playing field with other world regions. Europe’s metals sector currently struggles to compete with under-priced and subsidised imports from China and other areas of the world, which have a significantly higher carbon and environmental footprint. We need the EU to be much bolder in tackling global competition distortions, in ensuring competitive energy prices, and in creating a more predictable and coherent regulatory environment within which companies can make their new investments.

Finally, while Europe can and should do more domestically, we stress that the EU will always have a significant import reliance on other parts of the world. The most competitive resources for several strategic metals are located elsewhere, and other world regions are now investing aggressively into shoring-up their long-term supply. Europe must take urgent steps to secure the sustainable and diversified global resources its green and digital transitions will require.

Europe has reached a critical fork in the road. The next five years will decide whether we succeed in recovering and growing our own sustainable metals and minerals value chains, or whether other areas of the world will push further ahead in the global resources race. This declaration provides our full commitment to work with the European Union to achieve the shared goal of a resilient European metals supply for the green & digital recovery.
We, the undersigned European metals industry leaders, endorse this declaration for a resilient EU metals supply for the green and digital transitions.

The policy agenda that follows has been developed independently by Eurometaux and its membership to implement this overall declaration in more detail.
Unlock EU Financing and Investment

Europe wants to grow its metals value chains while encouraging their long-term shift towards climate-neutrality and wider sustainability. Achieving both these goals will be very challenging and highly capital intensive — in an immediate period when Europe’s metals industry is suffering from reduced demand, metals surpluses and low metals prices due to the COVID-19 pandemic.

Major new EU and Member State financial tools are being introduced through the “Next Generation EU” COVID-19 recovery plan, alongside existing important tools such as the Important Projects of Common European Interest (IPCEI). Companies across Europe have until now experienced challenges in accessing EU and Member State funds, which have typically focussed on the downstream.

A political signal is needed to direct these tools towards recovering and expanding all stages of Europe’s metals value chains (mining, refining, processing, recycling) — which should be formally identified by the EU as a necessary and strategic component for the green and digital transitions. Metals leaders are ready to engage in high-level EU discussions and alliances to define a bold and coherent programme to promote industrial recovery and a resilient metals supply.

There is a high potential for investing to improve Europe’s metals recycling capabilities, and to develop new sustainable mining and refining operations for base and critical metals in the EU and abroad. Tools like the upcoming Low-Carbon Industry Alliance and ETS innovation fund are essential for supporting further efforts to lower the sector’s greenhouse gas emissions. Europe’s Just Transition Fund can also create new manufacturing jobs in the metals value chain to support transitioning regions.

OUR SUGGESTED EU POLICY MEASURES:

• Bring metals industry company CEOs and their value chains together under the forthcoming Raw Materials Alliance, led by EIT Raw Materials and linked with the Low Carbon Industry Alliance
• Unlock financial and investment support for supporting and expanding Europe’s entire metals value chains through the Important Projects of Common European Interest (IPCEI) and Public Private Partnerships (including for further reduction of greenhouse gas emissions)
• Encourage Member States to direct their new COVID-19 recovery funds towards improving metals and minerals resilience and supporting the sector’s recovery
• Recognise the Just Transition Fund’s potential for creating new high-quality manufacturing jobs in the metals value chain, for example to support coal mining regions
• Ensure the EU’s Sustainable Finance agenda recognises the need for new investments into sustainable metals value chains to supply the green transition, and includes workable criteria for best performing European metals mining, refining and recycling companies

The EU Metals Value Chain

Metals required in green and digital technologies

BASE METALS
- Aluminium
- Copper
- Nickel
- Lead
- Zinc

PRECIOUS METALS
- Gold
- Silver
- Platinum
- Palladium

SPECIALITY METALS
- Cobalt
- Gallium
- Germanium
- Indium
- Lithium
- Molybdenum
- Tantalum
- Tungsten
- Tellurium
- Silicon
- Rare earths (Nd/Dy)

Batteries Solar Power Wind Power Clean Mobility Electronic & Grid
**Four pillars for Europe to establish a resilient metals and minerals supply**

### Be Bolder on the Global Stage

Europe’s share of the global metals market has declined in the last decade while China’s has sky-rocketed through a programme of state support and subsidies. EU industries are increasingly reliant on more carbon-intensive imports with a higher environmental footprint, while losing valuable metals scrap through exports to other regions. And we have fallen behind in the race to secure long-term global supply sources for our strategic primary raw materials.

Europe’s primary aluminium capacity has reduced by 1/3 since the 2008 financial crisis, with China growing to produce 60% of the world total (vs. 10% in 2000). Likewise, copper production in Asia increased fivefold and doubled its market share from 27% in 1990 to 62% in 2017. China has also established its foothold in the global battery materials value chain, investing massively to control 35% of the world’s nickel mines, 50% of lithium production capacity, and 65% of refined cobalt.

China has gained its global metals advantage through a programme of government pricing interventions, subsidies and other market distortions. One representative statistic: Five Chinese firms received over 85% of the subsidies dealt out to global aluminium companies from 2013-2017, amounting to $70bn according to the OECD. Companies also have easy access to finance for greenfield mining and refining projects from China’s state-owned financing institutions.

Europe must be bolder and less naïve on the global stage to prevent another contraction of its metals industry as other world economies recover faster from the COVID-19 health crisis. Otherwise we will lose out on the opportunity to supply the extra materials required for green and digital technologies. To drive new investment, the EU must take a more globally focussed competition policy to tackle market distortions, keep metals waste as a European resource, and develop its own global strategy for securing diversified and sustainable material supplies.

**OUR SUGGESTED EU POLICY MEASURES:**

- Strengthen the EU’s trade and competition toolbox to safeguard European production from unfair competition, address the distortive effects of subsidies and structural overcapacities in the global metals market, and facilitate diversification of supplies. Climate issues should be considered when evaluating anti-dumping or anti-subsidy measures.

- Develop a strategy for securing the primary raw materials Europe’s green recovery will require from deposit-rich third countries, including support to new mining projects from European-owned companies and a focus on environment and health standards.

- Use bilateral free trade agreements to help secure a sustainable and diversified raw materials supply, while using stricter rules of origin to manage goods flowing through from non-partner countries.

- Tackle Europe’s uncontrolled exports of valuable metals waste to countries without equivalent environmental and safety standards, instead promoting their sustainable recycling in Europe.

- Push for an ambitious reform of the World Trade Organisation to effectively tackle issues of state subsidisation and global overcapacities, including improvement of the dispute settlement mechanism.
Four pillars for Europe to establish a resilient metals and minerals supply

Make sustainability Europe’s differentiator

Metals produced in Europe offer the best guarantee of lifecycle sustainability, being produced to high environmental and social standards and with a lower carbon footprint than other world regions. The EU can support its industry through demanding equal environmental and social standards for all actors on the EU market, and encouraging the use of sustainably produced European metals in key value chains.

The carbon footprint for primary European metals production is up to 8x lower than producing the equivalent metal in China, with the sector reducing its greenhouse gas emissions by 61% since 1990. European producers also already produce over 50% of their base metals from recycled sources, compared with 20% in the rest of the world. Across the value chain, the sector applies best-available techniques for controlling its environmental emissions, and European-owned companies have led global efforts to establish due-diligence schemes for validating ethical materials sourcing.

Europe’s environmental and social leadership very often results in inherently higher production costs, which can disadvantage both producers and recyclers versus cheaper production elsewhere. The EU must either level this out or evaluate how to stimulate the domestic market for sustainably produced European metals while keeping a level playing field, including through product-level measures.

The EU’s Circular Economy agenda should also prioritise measures to increase recycling rates of strategic metals from vehicles, batteries, electronics, buildings and packaging, as well as from green technologies like solar panels and wind turbines when they’re available for recycling in the next decade. Most important is to ensure that Europe’s waste is directed to recycling operators that meet adequate environmental and quality standards. Further innovation and support will also be necessary for the critical metals which currently have very low recycling rates due to technical or economic unfeasibility.

OUR SUGGESTED EU POLICY MEASURES:

- Build on experiences with the Product Environmental Footprint methodology for metals and their products, for example through initiatives like the WEF “Batteries Passport”, which aims to establish a quality seal for batteries covering material provenance, environmental impacts and climate footprint
- Evaluate how to create demand for lower-carbon metals produced in Europe, for example through labelling, standardisation or public procurement
- Apply harmonised EU due-diligence programmes to the full product value chain, building on existing industry schemes, to ensure equal coverage of materials in imported products
- Support Europe’s world-leading metals recyclers, through
  - Requiring minimum standards when recycling European electronics, vehicles and certain batteries, both inside and outside the EU
  - Easing waste shipments across EU borders
  - Investing into advanced sorting and recycling processes
  - Designing products for circularity

| Carbon footprint of primary metals production, EU vs China (tCO₂) |
|-----------------------|---------------------|--------|
| Aluminium             | 7.0                 | 21.0   |
|                       | x3                  |        |
| Nickel                | 9.0                 | 70.0   |
|                       | x8                  |        |
| Silicon               | 3.4                 | 11.6   |
|                       | x3.4                |        |
| Zinc                  | 2.4                 | 61.0   |
|                       | x2.5                |        |

Sources: European Aluminium, The Nickel Institute, AlloysConsult, Congcong Qi, et al., 2017

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<th>Percentage of primary and recycled base metals production in total base metals production EU and the Rest of the World.</th>
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Sources: Fraunhofer ISI, OECD
Four pillars for Europe to establish a resilient metals and minerals supply

Ensure an EU level playing field

To make new investments, European metals companies will require a predictable and coherent regulatory framework at EU and national levels, providing a level playing field for them to compete with other world regions. Compared with global competitors, European producers are subject to progressively more stringent regulatory measures and high energy/carbon costs.

The metals industry is the only basic materials sector that sees consolidated global price setting for most of its products, notably through the London Metals Exchange (LME). EU metals producers can therefore not pass on unilateral regional costs to their customers without losing market share.

Globally competitive electricity

The metals sector is one of Europe’s most electrified industries and depends on competitively priced electricity to stay viable in the global market. This high direct electrification is a major climate benefit that will allow the sector to eventually lower its carbon footprint by 81% in a decarbonised power system (a precedent-setter amongst energy-intensive industries) - assuming availability and competitive prices.\(^7\)

But there is a real risk that in the short to medium-term, metals producers will suffer from further increases in EU power costs versus global competitors already paying less for their electricity. The sector’s electricity-intensive nature and “price-taker” status makes it the most exposed to carbon leakage of all energy-intensive industries.

Competitive electricity is critical for Europe’s base metals industry, but also key for new projects to produce battery materials like lithium and graphite. It’s essential that the EU maintains targeted carbon-leakage measures for electricity-intensive industries, while facilitating their uptake of competitive low-carbon energy sources through power purchase agreements and other tools.

Coherent environmental legislation

Europe’s environmental legislation must be designed in an integrated and proportionate way, with technically feasible future demands on European companies and with equal coverage of imported materials and products.

There are several metals targeted by EU chemicals legislation that are essential to Europe’s climate-neutrality and circular economy goals, where substitution is not feasible and where exposure control must be the priority (e.g. cobalt and nickel in electric vehicle batteries, silver in solar panels, lead in wind turbine cables). European metals producers will keep investing into further controlling their chemicals exposure and reducing their remaining emissions to air and water, although already operating to best-available techniques.

Measures being considered under the EU’s Zero-Pollution agenda must be coherently designed, keeping a level playing field with imported products. European metals companies already report delays and complexities for receiving their environmental operating permits, and a lack of consistency for how and when certain metals are regulated under EU chemicals legislation.\(^8\) Long-term predictability is essential.
Four pillars for Europe to establish a resilient metals and minerals supply

OUR SUGGESTED EU POLICY MEASURES:

• Prioritise affordable and available electricity – eventually carbon-free - as the decisive factor for the metals industry’s competitiveness and transition towards 2050 climate-neutrality, while improving market conditions for companies to integrate low-carbon energy sources.

• Ensure improved and proportional compensation of the metals industry’s indirect carbon costs from the Emissions Trading System, as the priority to prevent carbon leakage, and develop a transition-friendly Energy and Environment State Aid Guidelines.

• Consider how to further safeguard electricity-intensive industries from high-CO2 imports, through improvement of existing carbon leakage measures, followed by a targeted assessment of how the Carbon Border Adjustment Mechanism (being developed for carbon-intensive industries) or other alternative measures could provide additional protection.

• Recognise the necessity for certain metals with hazardous properties in EU climate-neutrality and circular economy objectives, and set a framework within EU chemicals legislation for industry to control harmful exposure throughout their value chains, which also provides long-term certainty for new investments.

• Improve predictability and reduce delays for companies applying for environmental permits, and design a realistic Zero-Pollution agenda for further air and water emission reductions based on technical feasibility and comprehensive impact assessments.

Potential evolution of EU non-ferrous metals industry greenhouse gas emissions from a decarbonised power system (Mt CO₂e)

-81% overall reduction potential from 1990 levels (historical progress & decarbonised power)

-51% specific reduction from decarbonised power (vs. 2015)

19% remaining to be addressed by technology options

Sources:

1 European Aluminium
2 International Copper Study Group
3 European Commission
4 Metals for a Climate Neutral Europe, IES Brussels - bit.ly/metals2050
5 Metals for a Climate Neutral Europe, IES Brussels - bit.ly/metals2050
6 Metals for a Climate Neutral Europe, IES Brussels - bit.ly/metals2050
7 Metals for a Climate Neutral Europe, IES Brussels - bit.ly/metals2050
8 As one example, The European Commission is considering in new Circular Economy and Chemicals policy to minimise the presence of “substances of concern” in material cycles - a new category of chemicals much wider than “substances of very high concern” under REACH. Such a measure would cover several strategic metals for the climate transition (e.g. copper, zinc, silver), and has potential to create an additional barrier to their safe recycling in Europe.