# METALS FUNDAMENTAL TO CREATING SUSTAINABLE SOCIETIES



At Eurometaux, we represent the non-ferrous metals industry in Europe. We are proud that our members are at the forefront of the effort to create more sustainable societies. Metals contribute to all components of sustainable development.

# **Economic growth**

Structural and functional uses of metals provide economic activity and growth in both the domestic and export markets. Sectors such as automotive, machinery building, power Infrastructure, construction, metal extraction, engineering and many, many more, amount to billions of euros of trade in European-led world class technologies, products and services.

#### Social

The metals industry employs many skills and expertise in a variety of job types. From nano-particle to gigantic civil constructions or space exploration, in SMEs or global companies, the metals industry supports researchers, scientists, teachers, engineers, medics, technologists, metal workers, recyclers and construction labour, to name but a few...

#### **Environment**

Metals are directly contributing to the development of environmental infrastructure projects. The metals industry is continuously investing with its partners and customers in resource efficiency and productivity, contributing to light weighting, downsizing, yield improvement and higher productivity of systems and appliances - whether a medical device, mobile phone, an air-conditioning system, factory, supermarket, railway system or a construction vehicle.

#### And this because ...

#### Metals are durable.

Many metals are extremely durable, meaning that they can withstand wear, pressure or damage for long periods of time. This durability contributes to sustainability by minimising maintenance and reducing the need for replacement.

# Metals are infinitely recyclable.

Many metals can be economically recycled repeatedly without losing their unique properties such as strength, conductivity or durability. This makes them ideal for recycling because they can be used again and again in manufacturing new products. Thanks to recycling, more than 95% of lead-acid batteries for vehicles are recycled in Europe, and over 65% of copper and 75% of all the aluminium ever produced are still in use today.

# Metals improve energy efficiency.

Metals can dramatically improve the energy efficiency of electronic goods. Metals such as silver and copper are able to conduct electricity while resisting heat to produce impressive energy savings.



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Industries across Europe are using metals to create more sustainable products, services and infrastructure. Here are five notable examples.

#### **Transport:** Metals enable sustainable transport

Metals play an important role in creating more sustainable transport on land, sea, air and even space. Metals such as aluminium or magnesium can make vehicles lighter in weight, reducing their fuel consumption - without compromising safety. Other metals are used for high energy efficient powertrains and motors for transportation. And less fuel consumption reduces the amount of carbon emitted into the atmosphere. Precious metals such as platinum are also critical to catalytic converters, reducing pollution from vehicle exhausts.

### **Energy:** Metals generate, transport and store renewable energy

Metals are major contributors to sustainable energy by storing, transporting and generating renewable energy. Renewable energy technologies such as photovoltaic cells, solar thermal systems and hydroelectricity need metals such as aluminium, nickel, zinc, copper and potassium to function. Metal components account for nearly 90% of the weight of a modern wind turbine. Metals such as lead, nickel, copper, cobalt and lithium are critical to the motors and batteries of hybrid and electric cars. Without metals, none of these innovations for creating and storing renewable energy would be possible.





# **Communications:** Metals improve functionality and resource efficiency

Modern communication and IT require metals to improve the

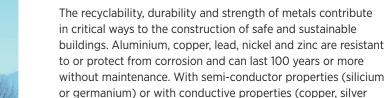


Creating sustainable societies involves more than just the environment. It also relates to improving human health. Many metals are essential trace elements to human health (copper, magnesium, manganese, molybdenum, selenium or zinc) and are used widely in modern medicine. Metals such as platinum are key ingredients in cancer chemotherapy. Stainless steel alloying several metals is well-known for medical equipment, lead provides a radiation shield during x-rays, while copper alloy touch surfaces help to reduce healthcare-associated infections due to their intrinsic antimicrobial properties.

**Healthcare:** Metals improve human health







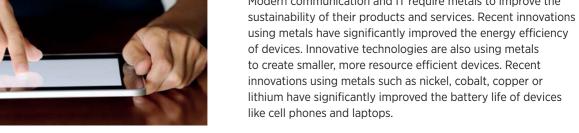
construction



electronics in modern buildings.

**Construction:** Metals enable sustainable

or tin), metals are essential to efficiently use electricity and





#### **About Eurometaux**

Eurometaux is the European association of the non-ferrous metals industry. It is composed of a wide network of companies producing, transforming and recycling non-ferrous metals in Europe. Our members also include national federations, and European and International commodity associations. Our objective is to enable the entire value chain of the non-ferrous metals industry to prosper in the FU and contribute towards more sustainable societies.

## The Metals Industry: Commitment to Sustainability

The non-ferrous metals industry, especially in Europe, has made continuous progress in reducing its environmental impact by improving its resource and energy efficiency. Overall, the metals industry in Europe outperforms most other regions in the world. It will continue to operate with the highest standards.

# Metals: Driving economic growth and innovation in Europe

The non-ferrous metals industry contributes to a significant 2% of gross domestic product in the EU. Metals enable European innovation by providing a wide range of other industries with essential materials to invest in research and development. The industry employs more than 400,000 people directly, and another 1,000,000 indirectly.