



POSITION PAPER

Eurometaux's proposed measures to ensure an effective EU circular economy

Brussels, 10th March 2015



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I. Executive Summary

Turning Europe into a more circular economy will create jobs and economic growth, thanks to secured access to raw materials and support to the competitiveness of European recycling and downstream industries. The business case for enhanced resource management is strong. Europe imports a major part of its raw materials, while its urban mine offers a huge opportunity to access valuable materials from products.

Recycling valuable materials is a highly efficient way of reintroducing them into the EU economy, hence supporting value creation, while lowering environmental impacts and energy intensity of materials supply. Non-ferrous metals can help this business case, with their endless recyclability meaning they can be re-used again and again, truly contributing to a Circular Economy.

High volume metals including aluminum, copper, nickel, zinc and lead already having high recycling rates in Europe, and a great potential for increased recycling of other metals remains, including other valuable and critical raw materials. However, our industry still faces challenges at all stages of the metals value chain, from leakage of waste outside of Europe, to the continued lack of implementing measures to reduce land-filling in several EU Member States.

The European Commission can address these challenges altogether through their Circular Economy Package, by implementing several measures across each stage of the metals lifecycle to achieve priority objectives:

- **Secure cost-efficient access to secondary raw materials.** as a complementary approach to mining and resource-efficient manufacturing and use of materials
- **Move from “waste” management to “resource” management,** by prioritising the efficient recovery of valuable materials from recyclable waste and end-of-life products.

Achieving these objectives will be an environmental and economic “win-win” for Europe, helping to establish an EU circular economy, while supporting the continued competitiveness and growth of our industry and others.

In particular, Eurometaux highlights ten key recommendations that will facilitate the circular management of metals, facilitate their contribution to a circular economy and achieve the priority objectives.

Ten key recommendations for the re-tabled Circular Economy Package

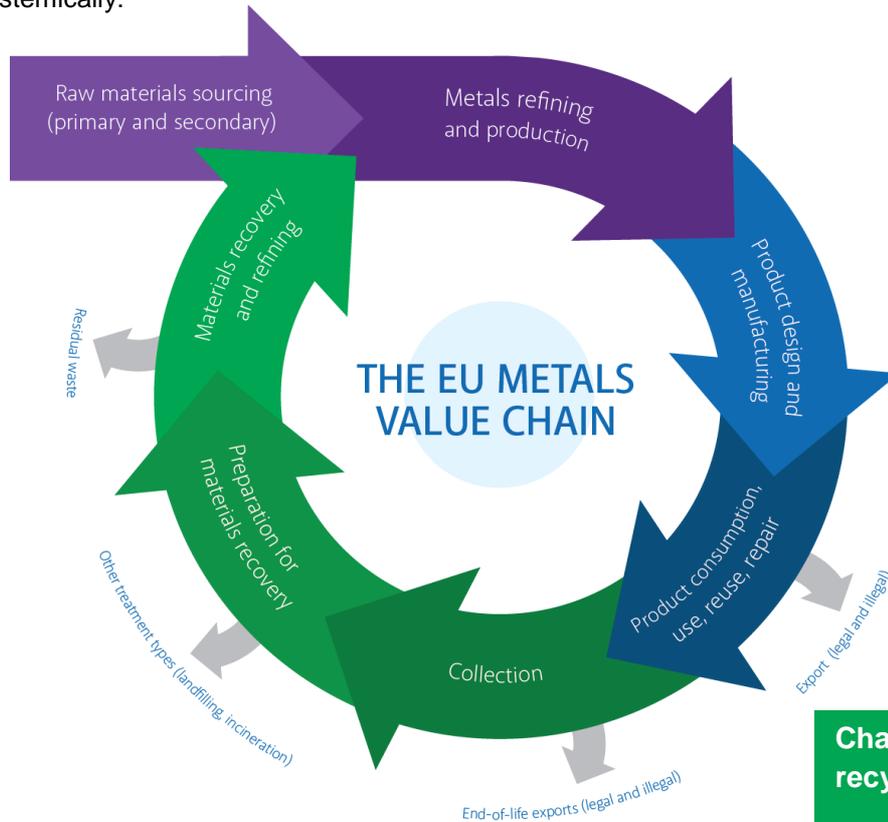
- Consider recyclability and durability in product design
- Implement separate collection of waste streams at their source.
- Apply minimum operating conditions for Extended Producer Responsibility (EPR) schemes, adopting the principles of shared responsibility, transparency and accountability.
- Adopt ambitious, but pragmatic waste recycling targets and clearly define harmonized definitions and calculation method, bearing in mind the priority objective of moving from waste management to resource management (material recovery)
- Establish a mandatory EU certification scheme applicable to certain waste streams (e.g. WEEE and batteries), in order to provide the required framework for quality recycling of EU scrap.
- Implement measures to improve control at borders, in order to minimise illegal exports of waste
- Facilitate trade of by-products, waste and end-of-life products, to facilities meeting quality treatment criteria
- Introduce a progressive landfill ban on recyclable post-consumer goods
- Secure regular monitoring of end-of-waste export flows
- Provide increased funding for circular economy innovation and R&D projects, in particular supporting the recycling of increasingly complex products.

These key recommendations are outlined in detail throughout this position paper, along with a selection of other supporting measures that the EU can implement across the value chain to support metals recycling.

II. Challenges faced by the EU metals value chain

When tackling the challenges and barriers to a more circular use of metals in Europe, a systemic approach is required, using a combination of complementary measures across the value chain. Eurometaux also emphasizes that one-size-fits-all policy requirements will not be effective in realising the circular economy model across all European sectors. Specific management options are also required to optimise the use, reuse and recycling of non-ferrous metals.

Eurometaux aims to illustrate this process, by providing an overview of the different challenges faced at each stage of the European non-ferrous metals value chain, and related recommendations about how they can be addressed systemically:



Challenges - metals recycling

8. Sub-optimal collection and sorting schemes
9. Landfilling of post-consumer goods containing valuable metals
10. Pre-treatment challenges
11. End-of-Waste
12. A lack of transparent and harmonised calculation method, definitions and reporting
13. A lack of global level playing field conditions
14. Illegal shipments of waste to non-EU countries
15. Technological challenges
16. Enforcement of waste legislation & transparency

Challenges – metals sourcing and production

1. Ensuring sustainable sourcing
2. Improving EU access to critical & valuable raw materials
3. Effectively regulating hazardous substances
4. Barriers to industrial symbiosis

Challenges - metals use

5. Implementing recyclability within product design
6. The consistency of EU products policy
7. Guarantee of materials recovery after product reuse/repair

III. Eurometaux recommendations to address these challenges

Challenges for metals sourcing and production

1. Ensuring sustainable sourcing of raw materials

The European non-ferrous metals industry supports the global objective to increase transparency in sourcing of raw materials. European metals companies are already actively involved in a number of responsible supply chain initiatives and auditing program schemes, which have achieved measureable results in improving supply chain transparency (e.g. the Aluminum Stewardship Initiative). Any EU legislation should build on these initiatives, rather than duplicating their requirements.

It should be noted that secondary and primary raw materials are sometimes mixed, and hence it is virtually impossible (and unnecessary) to trace back secondary raw materials to the originally used primary raw materials. However, it remains essential to ensure that recycled materials are treated against quality criteria.

How can the Circular Economy Package address this challenge?

- Give support to internationally recognised voluntary schemes, such as the OECD's Due Diligence Act or existing industry schemes.
- Recognise the difficulties in tracing back secondary raw materials to the originally used raw materials, while ensuring that recycled materials are still treated against quality criteria.

Example: Conflict Minerals Regulation

As part of the ongoing development of a Regulation to move towards increased transparency in trade of minerals with conflict-affected areas, Eurometaux has called for the recognition of existing industry voluntary schemes, and measures to ensure a global level playing field. It has also requested to exclude secondary raw materials from the Regulation scope. A constructive list of "conflict and high-risk areas" is needed in this context. This would facilitate the identification of such areas by the raw materials importers and would avoid legal uncertainty.

2. Increasing EU access to critical and valuable raw materials

By increasing the recycling of critical and valuable metals, Europe can lower its dependence on imports and improve the competitiveness of downstream industries. However, because EU waste policies traditionally focus on volume and weight, certain valuable materials in end-of-life products are not yet sufficiently targeted in European collection and recycling.

How can the Circular Economy Package address this challenge?

- Take a product-centric approach to evaluate efficient and feasible options for recovering the most valuable materials from end-of-life products.
- Ensure a wider focus on critical and valuable raw materials in EU policies.

3. Effectively regulating hazardous substances

Within the EU, the safe management of chemicals is regulated by the REACH and CLP Regulations, along with several other pieces of legislation to provide requirements on aspects such as air or water emissions. However, chemicals management too often relies on the hazard only, rather than providing a tool with which to achieve effective management of exposure and thus risk. Hazardous metals are used in products to deliver specific functionalities and hence are present in some recycling loops, but this does not automatically mean they provide a risk to the environment or human health during recycling or reuse.

For example, metals that have a hazard classification, but which are encapsulated in products (or in a matrix), are not released under normal handling and use, and are usually less bioavailable and therefore not posing a risk. If well handled, they can be recycled while avoiding any risk to human health or the environment.

Strictly hazard-based legislative measures on these types of substances will lead to the non-recycling of products that have been in use for long periods and do not create a residual risks for man and environment. Hampering the recycling would be disproportionate, with the environmental and socio-economic benefits of that recycling loop.

When considering such legislative measures, REACH and CLP, as well as other EHS-related legislation, should not work in isolation, and should consider at an early stage the socio-economic benefits of materials recycling, in order to avoid disproportionate requirements that hinder recycling or make it technically/economically unviable.

How can the Circular Economy Package address this challenge?

- Advocate a risk-based approach, using the right legislative risk management tool for regulating each substance, where necessary, in order to avoid disproportionate restrictions on the use or recycling of certain metals within Europe. For example:
 - When there is a risk to be tackled in an industrial workplace, REACH authorization does not bring any added value compared with the level of protection that can be achieved with well implemented workplace legislation (by e.g. applying an EU-wide Occupational Exposure Limit).
- Promote the use of socioeconomic assessments when regulating the use of hazardous substances, in order to include a proper valuation of their recycling value chain vs the residual risk.

4. Barriers to industrial symbiosis

Non-ferrous metals companies have long implemented the “industrial symbiosis” principle along the sector, or together with other sectors. Given the intrinsic value and recyclability of non-ferrous metals, innovative solutions have been developed to recover as much metal from waste and by-products from the production process as is economically and technically feasible. Residues from metals production are used as additives in roads, construction or other markets.

However, the non-harmonised status of waste and by-products across Member States complicates the transport of waste and by-products, hence hampering their further treatment. The Circular Economy Package should provide measures to facilitate this transport, while avoiding weakened controls (see part 11).

How can the Circular Economy Package address this challenge?

- Recognise the need for harmonised definitions of waste and by-products across Member States, in order to facilitate trade of waste and by-products within Europe (while avoiding weakened controls).
- Support the recovery of metals from bottom ashes at incineration plant when economically and technically viable.

Challenges for metals use

5. Implementing recyclability within product design

Recycling and durability of products are important elements that should be better addressed at the design stage, along with economic and technical viability, in order to anticipate for their sustainable end-of-life treatment. Eurometaux considers that the Eco-design Directive can evolve to provide EU generic requirements on resource efficiency, with practical aspects to be defined through a parallel process, for example standardisation or a value chain platform. Such approach should however ensure a smooth functioning of the internal market and avoid non-harmonised approaches across the Member States.

Metals can be recycled again and again without losing properties or market value (multiple recycling), and so the market for recycled metals already exists in Europe. Therefore, Eurometaux stresses that implementing a given amount of “recycled content” in a product would not always be economically or even environmentally appropriate for non-ferrous metals, as the demand for metals is growing and the availability of secondary raw materials is lower than potential demand.

Since there is no need to boost the market for recycled metals, the EU should instead focus on ensuring that metals-bearing products are recycled effectively, again and again, at their end-of-life.

How can the Circular Economy Package address this challenge?

- Support the implementation of generic EU regulatory requirements on recyclability in product design (design for recycling), with a flexible approach to implementation for each product group.
- Avoid taking a “recycled content” approach for metals, but focus on ensuring that metals-bearing products are recycled effectively, again and again, at their end-of-life (multiple recycling).

6. The consistency of EU products policy

The consistency and coherence of EU product policies is essential. Currently, Eurometaux considers that there are too many methodologies applied for similar purposes in Europe (i.e. eco-design, eco-label, environmental footprinting, GPP).

The Circular Economy Package provides an opportunity to work towards a coherent product policy framework, based on harmonised methodologies and lifecycle approaches. Overlaps should also be avoided with other items of EU legislation. Notably, the REACH Regulation already determines safe conditions for production and use of chemicals and for risk management, and this work should not be duplicated in product policies.

N.B. The non-ferrous metals industry is involved in the EU's pilot project on the Product Environmental Footprint, considering that product footprinting must take into account the whole product lifecycle, including use and recycling phases (as opposed to an energy-focused footprint). Looking ahead, it considers that the PEF methodologies should be aligned to avoid confusion, but benchmarking and reporting should be voluntary and left to companies.

How can the Circular Economy Package address this challenge?

- Work towards a coherent EU product policy framework, based on harmonised methodologies and lifecycle approaches
- Avoid overlaps of EU product policies with other pieces of EU legislation

7. Guaranteeing materials recovery after product reuse/repair

Reuse and repair of products are valuable to extend a product's lifetime. However, high-quality end-of-life recycling should always be ensured. Reuse and repair are options that should always be considered in a life-cycle context, avoiding loopholes for easy shipping of end-of-life products to low quality treatment facilities.

Such loopholes could mean that Europe is losing the valuable materials embedded in products, leading to unrecovered/cost-inefficient recovery of valuable materials and, significantly reducing the environmental value of such approaches from a life-cycle perspective.

A good example of effective recycling is provided by the lead industry with a 99% collection and recycling of automotive lead-based batteries in the EU (see *The Availability of Automotive Lead-Based Batteries for Recycling in the EU*). See also the copper example of circular economy (<http://bit.ly/1Evd1Fg>).

How can the Circular Economy Package address this challenge?

- Take a lifecycle approach to managing the resources embedded in products, and include requirements to guarantee the quality recycling of products being exported for reuse/repair.

Challenges for metals recycling

DEFINITION: The recycling value chain

Currently, the Waste Framework Directive's definition of recycling is interpreted as "collection" or "preparation for material recovery", but not as "material recovery". This means that in Europe, "recycling rates" are actually in most cases collection rates. Measurement should be closer to the material recovery step.

Eurometaux considers that the recycling value chain can be broken down into three highly interdependent steps: collection, preparation for materials recovery and materials recovery. The Commission could secure this by adding the following definition to the Waste Framework Directive:

"Recycling value chain means the sequence of operations leading to the recovery of materials from waste. These operations include (1) collection), (2) preparation for material recovery which covers manual and/or mechanical options & sorting and (3) material recovery which consists of chemical, physical or metallurgical operations, but does not include incineration for energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations. The recycling value chain ends when the waste is reprocessed into products or material which do not require any further processing, whether for the original or other purposes.

8. Sub-optimal collection and sorting schemes

The efficiency of Member State collection and sorting schemes varies widely across Europe, with much scope to improve both their efficiency and transparency. Without effective collection schemes across the EU, the recycling rates cannot increase significantly.

How can the Circular Economy Package address this challenge?

- Introduce separate collection of waste streams at their source, and waste-stream specific collection targets. For some waste streams, this should be complemented by quality standards for the pre-processing and end-processing steps.
- Implement minimum operating conditions for Extended Producer Responsibility (EPR) schemes. Within these conditions, Eurometaux insists on the importance of shared responsibility, fair cost-sharing and accountability, to allow materials recyclers to influence the collection schemes that contribute to their achievement of the EU's recycling targets.
- Enhance transparency across the entire value chain, from collection to material recovery.

9. Landfilling of recyclable post-consumer goods containing critical/valuable metals

Across Europe, too many valuable metals are still landfilled, rather than being recovered through the recycling value chain. A progressive landfill ban on recyclable post-consumer goods would begin to address this issue but must be supported by complementary measures to promote quality recycling from collection through to material recovery.

Eurometaux emphasizes that industrial waste is in many cases residual waste, which cannot be recycled or put back on the market. Although non-ferrous metals companies strive to minimise the amount of landfilled process waste, industrial landfilling cannot be completely avoided under present economic and technical conditions.

Although incineration should not be considered as equal to recycling, in some cases material recovery is economically and technically unsound, for example to recover some low-purity plastics that may feed in a mix with metals well into a metallurgical process.

How can the Circular Economy Package address this challenge?

- Introduce a progressive landfill ban on recyclable post-consumer goods as an aspirational target for Europe, to be supported by complementary measures promoting quality recycling from collection through to material recovery.
- As the management of process emissions, efficiency and waste is organized through the Industrial Emissions Directive, there is no added value in addressing these topics under the Circular Economy Package

10. Challenges with pre-treatment

Preparation for materials recovery is a technical process, which requires further investments to promote the uptake of existing separation technologies (e.g. eddy currents, sink-floats), but also to develop further innovative separation technologies like sensor based sorting.

This is especially important for waste streams containing copper or aluminium, as the improvement can contribute to quality recycling.

How can the Circular Economy Package address this challenge?

- Encourage further investments to promote the uptake of existing separation technologies and development of further innovative separation technologies.

11. End-of-Waste criteria

Although the objective of the EU's end-of-waste criteria is valid (i.e. to facilitate trade and foster their valorisation), Eurometaux is concerned that the export of valuable materials embedded in products will be encouraged, without guarantee that they will be treated properly.

As long as the output fractions from the recycling process need further reprocessing – whether they have achieved the end-of-waste status or not – quality treatment should be ensured, including exported fractions outside of the EU. Without any guarantee in this direction, the objective of the end-of-waste status to facilitate sound treatment will not be achieved.

How can the Circular Economy Package help?

- Secure regular monitoring of “end-of-waste” export flows, including statistics.
- Align various legislative measures.

12. A lack of transparent and harmonized calculation methods, definitions and reporting

Targets should be pragmatic, notably in terms of time horizon, while ambitious. The calculation method should leave no room for different interpretation and take account of the strategic objective of recovering material and not only treat waste.

The target for construction and demolition waste should exclude other material recovery operations. In order to avoid that valuable waste streams with high metal content are lost in backfilling and to foster quality recycling of these wastes, backfilling should be forbidden for wastes with metal concentrations above maximum limit values - e.g. metals like zinc, lead, copper, tin, chrome, nickel and iron - and the respective wastes should go to metals recovery/metals recycling operations.

How can the Circular Economy address this challenge?

- Adopt ambitious, but pragmatic waste recycling targets.
- Adopt clear definitions and a harmonized calculation method, bearing in mind the objective of moving from waste management to resource management (material recovery).

13. A lack of global level playing field conditions

The Circular Economy Package should ensure free and fair trade of raw materials, products and waste. To this end, level playing field conditions must be established for the treatment of waste and valuable materials embedded in products.

If this is not the case, the valuable part of the EU's waste will be exported, either legally or illegally, with no guarantee of quality treatment, no efficient recovery of materials, and no value creation in Europe. This would also impact on the capacity of EU recycling companies to invest in new processes or expand.

Due to the high intrinsic value of certain scrap, some non-EU countries buy waste and end-of-life products at high prices, while their recycling efficiency and environmental performance are in some cases not equivalent to European standards.

The EU should also facilitate the trade of shipments of waste to European quality recycling units, whether intra-Europe or imported into Europe.

How can the Circular Economy address this challenge?

- Include provisions for establishing a mandatory EU certification scheme applicable to some waste streams (e.g. WEEE and batteries), in order to provide the required framework for quality recycling
- Further develop the Waste Shipment Regulation's “pre-authorized facilities” status
- Facilitate EU trade for recycling of by-products, waste and end-of-life products, whether intra-Europe or imported into Europe.

PROPOSAL: Certification of recycling facilities for some waste streams (e.g. WEEE and batteries)

The non-ferrous metals industry supports the development of a mandatory EU certification scheme applicable to some waste streams. This would help to establish global competition on an equal footing, by requiring that secondary raw materials may only be exported outside of the EU if a final processor is duly certified.

Eurometaux supports a scheme that would apply to certain waste streams, where the value and complexity of embedded materials has encouraged illegal shipments and/or sub-standard treatment (e.g. WEEE and batteries). This scheme for these waste streams should apply for all waste generated in the EU, wherever it is treated. This will provide a tool for customs to facilitate targeted controls and hence limit illegal exports, a level playing field to support the competitiveness of quality recyclers, improved security of supply for secondary raw materials and certainty that complex embedded secondary raw materials are properly recycled.

Article 27 of the Waste Framework Directive, on technical minimum standards for treatment facilities, could be reinforced through the Circular Economy Package to establish such a system for some waste streams

14. Illegal shipments of waste to non-EU countries

Valuable materials are in many cases exported illegally to non-EU countries, without any guarantee of quality recycling. A 2011 study concluded that if only 1% of all EU waste shipments were illegal, the total tonnage of illegal shipments would amount to 2.8 million tonnes per year, directly impacting on EU security of supply for secondary raw materials.

In such illegal shipments, the export bans for hazardous waste for disposal under the Waste Shipment Regulation are often circumvented, for example through waste being labelled as “second-hand goods” or “waste going to recovery”. The 2014 amendments to the Waste Shipment Regulation are welcomed as a starting point to tackle these problems, but the requirement for environmentally-sound management (ESM) equivalent treatment should be enforced more forcefully, for example through certification requirements.

How can the Circular Economy address this challenge?

- Optimise supporting measures in the WEEE and ELV directives
- Take measures to improve control at borders, including:
 - Harmonised control of shipments at harbours to avoid “port hopping”.
 - Identification of second hand goods in customs declarations so as to facilitate targeted controls
- In the case of waste streams where most illegal shipments occur (e.g. WEEE and batteries), introduce a requirement that secondary materials may only be exported if a final processor is duly identified and certified.
- Eurometaux supports the concept of electronic data interchange and enhanced monitoring of waste flows, but considers this is not sufficient alone.

15. Technological challenges with recycling increasingly complex products and waste

More support to innovation is required to address the technological hurdles related to the recycling of increasingly complex products with increased yield. Ideally, this should include multi-disciplinary research and cooperation across the value chain.

The European Innovation Partnership (EIP) on raw materials has rightfully highlighted the importance of raw materials for the economy, but more coordination between regions, Member States and the EU is needed for better funding opportunities and synergies.

Within this, the EU's structural funds should come in support to EU priorities and public-private projects on circular economy objectives.

How can the Circular Economy Package address this challenge?

- Encourage better R&D coordination between regions and Member States, potentially through EU structural funds, and provide better EU funding opportunities and synergies for circular economy innovation projects.
- Provide support to as-of-yet undeveloped approaches, including for example mining of landfills, recovery of metals in incinerators' bottom ashes or economically viable recycling of industrial waste.

16. Need for transparency and better Member State enforcement of waste legislation

Currently, there remains a lack of resources at national level to ensure that EU waste policies are duly enforced, in a harmonised way. Additionally, transparency should be enhanced across the value chain and contribute to better enforcement of existing collection and recovery/recycling obligations.

How can the Circular Economy Package address this challenge?

- Reinforce the role of IMPEL, the European network for the implementation and enforcement of EU law, for example by making it a mandatory body.
- Introduce more enforcement of existing EU waste legislation for example through more Regulatory approaches (as opposed to directives).

IV. Other general recommendations

In addition to the specific comments outlined above, Eurometaux has several other general recommendations regarding issues that have been raised through the Circular Economy Package

The need to develop a basket of resource efficiency indicators

“Raw materials consumption” (RMC) is a macro-economic indicator that can provide some indication of the EU-wide trend. Eurometaux considers that it cannot support decision-making due to its intrinsic weaknesses: being weight-based, incentivizing minimal rather than optimal use of materials, and disregarding the material in stock. In this context, an EU target on resource productivity would be meaningless.

Looking forward, a basket of resource efficiency indicators and sub-indicators will need to be developed and data collected, in order to guide and monitor EU decision making. As an example, the following indicators would be especially useful for supporting EU decision making and monitoring: the recycling rate, imports/exports, the landfilling rate, the treatment of material in certified facilities

The reliability, comparability and usefulness of these indicators will depend on the quality of data being used, and Eurostat trade data is often too aggregated for meaningful conclusions.

How can the Circular Economy Package help?

- Develop a basket of relevant resource efficiency indicators and sub-indicators to support EU decision making and support recycling.
- Improve the quality of data and coverage

Fostering optimal value-chains

As different materials and value chains face different challenges with regard to the Circular Economy principle, further work should be prioritised to better understand value chain differences, exchange best practices, and formulate design efficient solutions to tackle issues such as eco-design, design for recycling, end-of-life management, fitness for use, producer responsibility, and use of resources along the value chain.

How can the Circular Economy Package help?

- Set up a “centre of excellence” on supply chains, for example under the leadership and coordination of the EU’s Joint Research Centre.

ELVs and WEEE

Eurometaux considers that within the WEEE and ELV Directives, there are two “low-hanging fruits” that could easily be addressed in the Commission’s re-tabling of the Circular Economy package.

How can the Circular Economy Package help?

- WEEE - All exports of Waste Electrical and Electronic Equipment (WEEE) should be carried out in accordance with the minimum requirements in Annex VI of the WEEE Directive, with such shipments to be monitored accordingly. Exports for repair and reuse should be strictly framed to avoid ill treatment.
- ELVs – The existing correspondent’s Guidelines on shipments of end-of-life vehicles (ELVs) was already adopted by all Member States. It should be made legally binding and mandatory as an Annex to the ELV Directive, and criteria should be developed for assessment of equivalent conditions for the treatment of ELVs exported outside of the EU (as for WEEE).

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Eurometaux at a glance

Brussels-based Eurometaux represents the enterprises and organisations that make up the broad non-ferrous metals supply chain in Europe – from mining and refining, processing, fabrication and recycling.

The non-ferrous metals industry is driven by core values of safety, performance, integrity and innovation. These are at the heart of our work, guiding both Eurometaux and the membership.

Driving economic growth and innovation¹

€ **120bn**
annual turnover

500 000
direct employees

+ 3 million indirect jobs along the EU value chain

47million tonnes of annual production



Representing over a fifth of global production

At the forefront of a future circular economy:

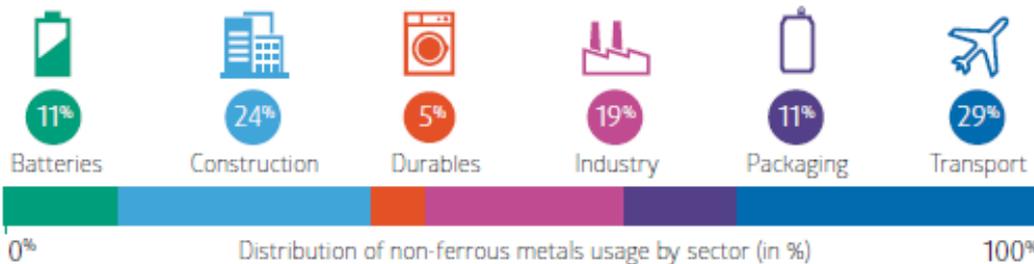
52% of pure base metals and alloys come from recycled sources



13% of the Earth's crust is made up of non-ferrous metals



Providing a foundation for Europe's main value chains to grow:



Non-ferrous metals are essential materials for Europe's leading manufacturing sectors. In Europe, the use of non-ferrous metals is split across the six main sectors above.