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Revision of the EU Circular Economy Monitoring Framework

Input from the European non-ferrous metals industry

Introduction

The EU Circular Economy Monitoring Framework, adopted in 2018, assesses the progress toward a more circular economy and its effectiveness at the EU and national level. The framework, including ten indicators covering four dimensions: i) production and consumption, ii) waste management, iii) secondary materials and iv) competitiveness and innovation, needs some modifications to show the actual situation, especially in view of the EU Green Deal ambition.

The EU non-ferrous metals industry delivering materials for the green and digital transitions actively contributes to the EU circularity objective. As achieving resource security and reducing dependencies becomes even more challenging, the monitoring framework needs to put measurements on an equal footing for every Member State, reflect the reality and avoid double counting.

In this paper, Eurometaux comments on selected metals-related indicators, presenting its views on the possible improvements.

Overall recommendations

- **Use available data** – Monitoring of the EU circularity progress should be based on the official, available European data (e.g. Eurostat) to ensure that all Member States report on a comparable basis.
- **Remove ineffective indicators** – Indicators selected for the monitoring framework should adequately reflect the EU social, economic and industrial reality.
- **Carefully select potential new indicators** – Any new indicator should avoid duplication with the existing ones and needs to have a solid set of data already available at the EU level.
- **Coordinate indicators with the legislative developments** – Encourage Member States to report as quickly as possible according to the most recent methodologies arising from revised and/or new EU legislation.

Comments on selected indicators

Indicator 1: EU self-sufficiency for critical raw materials

The EU Critical Raw Materials list increases with the subsequent editions. The first edition in 2011 counted 14 critical raw materials (CRM), while the recent, fourth edition, published in 2020 has 30 entries. Currently, the



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European Commission, supported by the SCRREEN Project, is preparing the 5th list, scheduled for publication in 2023.

Most CRMs have a high import reliance and a low recycling rate. In fact, for many of them, e.g. bismuth, niobium, and lithium, the first factor is 100% or close to it, and the second is even close to 0%. A minority of current CRMs have higher recycling rates, and it is unclear how the recycling rates would factor into the assessment of self-sufficiency.

The EU is not self-sufficient in CRMs. China mostly leads in terms of supply, followed by USA and Brazil. As for the processing, there is only a few where EU Member State is mentioned, namely Germany producing refined gallium (8% on the global level) and tungsten (1%), Finland – germanium (10%), France – hafnium (49%) and silicon metal (4%).

Innovation in materials sciences and metallurgical extraction techniques, as well as (legal) framework conditions to improve collection/recycling, can help to reduce EU dependency on the imported CRM. Still, there is a limited extent to which it can be applicable.

Our recommendation:

- An indicator on EU self-sufficiency for CRMs is not necessarily the most practical as the EU Critical Raw Materials List expands with each subsequent edition. Facing the full dependency on some of the imported CRM, combined with their processing outside of Europe, we need to boost their recycling in the EU. However, it also needs to be acknowledged that for certain other critical raw materials it is necessary to grant the access to ore deposits in Europe.

Indicator 2: Green Public Procurement in EU-wide public procurement

Green Public Procurement (GPP) can have a positive impact on improving circularity as it can build a critical mass to trigger similar activities in private and industrial procurement. This is valid both for public sourcing of products (vehicles, electronic & office equipment, buildings, etc.) as well as for end-of-life (EoL) management of public goods.

Mandatory GPP could be a path-maker towards the new circular business models. In fact, it has recently been introduced by the European Commission in its legislative proposal from 30th March on the Ecodesign for Sustainable Products Regulation (ESPR).

GPP requirements should be established including holistic sustainability aspects. They should cover the whole life cycle of products and highlight material efficiency (e.g. reparability and recyclability) criteria and clear requirements for quality treatment of products at the end-of-life. Moreover, the GPP criteria should avoid the



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introduction of purely hazard-based provisions in relation to chemicals, without taking into account specificities of the non-ferrous metals and alloys. It is important to avoid unintended consequences that could hinder the recycling of metals and their circularity. Only in this way we can ensure that the valuable materials embedded in the products are duly recovered and brought back to the loop.

Green Public Procurement should also create incentives for use of secondary raw materials that substitute primary materials in the construction sector. Tender specifications for public infrastructure works and buildings should include indicators for a minimum share of those materials, like for final slags in road construction or in cement and concrete production.

Our recommendation:

- The indicator on the Green Public Procurement should be kept. GPP requirements should be based on the life cycle approach and consider sustainability, circularity and climate-neutrality aspects, making sure that the end-of-life goods enter proven/certified quality repair and recycling facilities.

Indicator 5: Overall recycling rates

Urban mining offers a great potential for getting back the non-ferrous metal scrap. Measuring recycling rates of municipal waste is extremely important but this indicator has major limitations. Until not so long ago, national recycling rates for municipal waste and other streams were incomparable because the Member States calculated them at different stages of the recycling value chain. In fact, some EU countries reported only the amount of waste collected as if it was recycled, instead of the amount they have actually recycled.

The last revision of the Waste Framework Directive (851/2018) brought an obligation for the Member States to measure recycling rates at the input to the last recycling process, or otherwise to estimate the average losses occurring after first sorting operations. However, the full picture of the new measurement pattern is yet to come.

Our recommendation:

- Recycling rates indicator, based on the requirement that it is measured at the input to the final recycling operation, is fully supported as it allows to track the actual recycling levels in the EU Member States.

Indicator 6-c: Recycling rate of e-waste (WEEE)

E-waste recycling rate can be effective in measuring the quantity of recycled Waste Electrical and Electronic Equipment (WEEE). However, it does not say how much of each material is actually recovered. Mass-based indicators – i.e. product recycling rates – are appropriate for simple products (i.e. an aluminium beverage can), but not the complex ones that are increasingly present on the EU market.



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In particular, e-waste recycling rate do not measure what happens to valuable and critical metals (gold, silver, palladium etc.) that are present in the EEE in small volumes.

An example can be a typical smartphone with an average weight of 110 g where metals are accounted for 10,1 g (10 g for copper and 0,1 g jointly for silver, gold and palladium) and the remaining weight is glass and plastic.

Furthermore, it is apparent that many Member States are reporting very high recycling rates while in reality the WEEE is not recycled in a proper way, it is recycled only “on paper” or it is leaving the EU falsely declared as used goods. This can be clearly seen by 2019 data showing that almost all Member States fail to collect sufficient amount of e-waste separately and therefore do not reach the 65% collection target set in the WEEE Directive.

Our recommendation:

- WEEE (e-waste) recycling rate indicator should better reflect the issue of small-volume, valuable and critical metals that are necessary for high-tech applications. Moreover, Member States must be encouraged to collect and sort all the e-waste arising. In addition, expected review of the WEEE Directive (2012/19/EU) and the ongoing revision of the Waste Shipment Regulation (1013/2006) should close the loopholes for the missing e-waste.

Indicator 7: Contribution of recycled materials to raw materials demand

Recycled content looks at the quantity of recycled material used in the production of a new product. It is an indicator that makes sense for products containing materials for which the recycling industry is not profitable and/or the market is not mature yet.

For the non-ferrous metals this indicator is not appropriate due to the following reasons:

- recycled content is very sector-specific and non-ferrous metals already have high recycling efficiency;
- demand for non-ferrous metals is growing and considering the goals of the EU Green Deal the actual needs of the secondary raw materials will continue to substantially exceed their availability;
- recycling content is a statistical indicator and does not say anything about the efficiency of recycling process;
- secondary and primary raw materials are often mixed together in the non-ferrous metals production process, and they are not in direct competition.

Currently, our sector faces an increased number of legislative initiatives aiming to impose the recycled content obligation for non-ferrous metals. The most recent example comes from the Batteries Regulation proposal that includes a mandatory recycling content target on selected batteries metals (Co, Pb, Li, Ni). However, the legislative text does not define the methodology to calculate and verify the targets, which will be adopted only at



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a later stage via delegated acts. In our view, a robust, verifiable methodology and a thorough impact assessment should be undertaken before introducing the mandatory recycled content targets, especially until the batteries market grows more. In addition, primarily due to insufficient maturity of the European electric vehicles (EV) market, and subsequently due to a longer lifetime of EV batteries, we see a risk that Co, Ni and Li available for recycling could be redirected to the batteries sector for fulfilling the recycled content obligations lowering the amount of recycled content elsewhere and bring the European companies to a competitive disadvantage.

The overarching aim of any future waste legislation must be to maximise the recycling efficiency of metals-containing products coming to end-of-life. An adequate policy framework needs to be developed, boosting collection, guaranteeing high-quality recycling and ensuring that enough recycled materials is available in Europe. Such a framework will automatically trigger conditions for future potential development of the recycled content concept.

Our recommendation:

- Recycling content indicator is very sector-specific. For the non-ferrous metals, a far more important indicator is the End-of-Life Recycling Rate (EoL RR) which measures the efficiency with which the metal contained in EoL products is collected, pre-treated, and finally recycled.

Indicator 8: Trade in recyclable raw materials (within EU, with the outside world)

The trade of recyclable raw materials is an important indicator. However, it shouldn't be looked at in isolation from important aspects related to the following material and waste shipment related aspects:

- Raw materials presence in complex products – For example, more precious metals are exported within WEEE than individually. An indicator that only tracks precious metals exports (via relevant trade codes) will miss the bulk of precious metals exported in e-waste.
- Quality of recycling operations at the destination – Conditions for treatment of European waste outside the EU should be equivalent to these applied in the EU and thus linked to pre-consented/certified facilities.
- Recycling capacity within EU – If a material has high export levels but its European recycling industry has unexploited capacity, efforts are needed to boost the competitiveness of the existing EU recycling facilities.

Our recommendation:

- Trade in recyclable raw materials is a very important aspect that can be positively influenced by the on-going revision of the Waste Shipments Regulation regarding the intra- and extra-EU movement of waste.

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About Eurometaux: Eurometaux is an industry association representing the collective European non-ferrous metals industry, including smelters, refiners, fabricators and recyclers of all non-ferrous metals produced industrially in Europe. In total the industry employs 500,000 people across over 900 facilities, with an annual turnover of €120bn.

