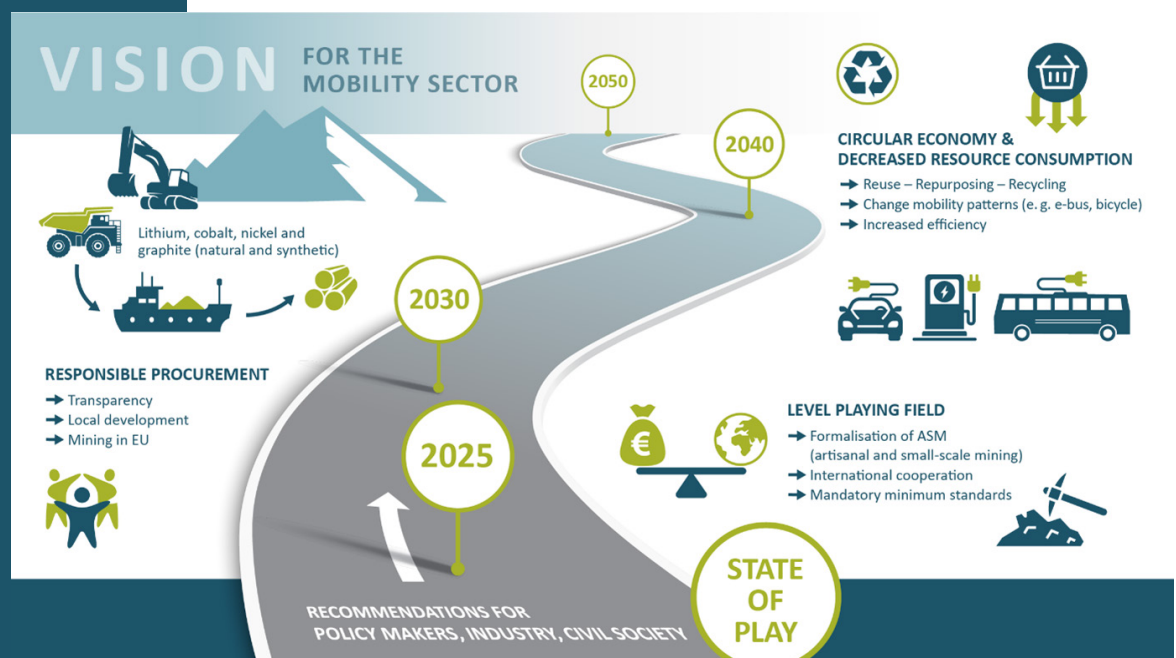


TOWARDS RESPONSIBLE SOURCING: WHAT'S NEXT FOR THE MOBILITY SECTOR?

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1. Introduction

The transformation of the mobility sector is essential in order to meet the Paris Agreement's goals. According to various studies¹, passenger cars will need to run on battery power, as other fuel solutions are neither economically nor technologically feasible. Furthermore, a reduction in the number of cars and the use of public transport is needed to reduce the mineral resource use in car manufacturing and to be able to reduce emissions as soon as possible. Based on the concepts of [planetary boundaries](#) and [strong sustainability](#) as well as environmental justice considerations, the RE-SOURCING project has developed a Vision for the Mobility Sector with a focus on battery electric vehicles. Starting from the [current state of the mobility sector supply chain](#), the RE-SOURCING project, together with actors from different stakeholder groups, regions, and nodes in the supply chain developed a [sectoral Roadmap](#). This Roadmap provides milestones and recommendations for EU policy makers, international industry, and civil society organisations on how to achieve the vision of a responsible and sustainable mobility sector.



[The Roadmap](#) is structured to achieve three overarching targets that are interlinked and need to be pursued simultaneously to achieve the Vision:

1. Circular Economy & Decreased Resource Consumption
2. Responsible Procurement
3. Level Playing Field

¹ [A global comparison of the life-cycle greenhouse gas emissions of combustion engine and electric passenger cars; E-fuels: why e-fuels in cars make no economic or environmental sense; Resource consumption of the passenger vehicle sector in Germany until 2035 – the impact of different drive systems.](#)

Target 1 “Circular Economy & Decreased Resource Consumption”



Target 1 addresses the need for **changes in behaviour and economic systems** to stay within planetary boundaries. There is a need of fundamental changes in transport behaviour and also systemic changes for the recycling and use of secondary raw material. Resource efficiency in battery production must be significantly increased, a greater number of batteries must be collected for recycling and the recovered raw materials must be used to a higher extent in new batteries. In addition, battery and vehicle efficiency must be increased.



The **first milestones** are due in **2025**. To achieve these, action is now required and all actors need to work together to develop policies for **sustainable consumption and production** (e.g., legislation for cell production efficiency and mandatory requirements for charging points). The industry needs to focus on the production of electric vehicles instead of fossil fuel driven cars and the growth in the number of all cars in the EU has to be curtailed. Industry actors need to **design batteries for recycling** and **optimise logistic and recycling programmes** to advance recycling methods and resource efficiency. NGOs can make important contributions to these efforts by pushing for the **creation of strong standards for recycling** and **remaining in a constructive exchange** with all actors. Alternative transport has to be chosen more often. This requires legislation to build infrastructure for public transport, shared transportation and bikes roads, as well as providing education and information to the public by NGOs.



The next **milestones** should be reached by **2030**: The **number of registered cars** needs to decrease, with an increasing share of battery electric vehicles, ensured by legislation. All stakeholders need to work together to achieve **a cell production efficiency of over 99%²** and **high-value recycling processes** of batteries. Industry should reduce the **energy and resource intensity of battery production**. NGOs can help to keep the public informed.

By 2040, a circular economy for batteries should be implemented in the EU. The decrease of number of registered cars in the EU needs to continue. **By 2050**, the use of primary raw materials for traction batteries should be reduced by more than 80% (compared to 2035). After 2035, the market for traction batteries in the EU should decrease and a larger number of batteries should be collected for recycling, resulting in more than 90% of batteries being collected and recovered by 2050.

² A cell production efficiency of over 99% means that almost no waste is generated during production and the remaining is reused or recycled into the production process.

Target 2 “Responsible Procurement”

Target 2 focuses more on the organisations themselves, considering the entire supply chain. It includes **transparency** as a prerequisite for **supply chain due diligence**. Responsible procurement includes the support for **sustainable development** as well as the fair distribution of benefits and burdens, stakeholder engagement, and finding a European and worldwide common understanding of a sustainable product.

By 2025, the definition of a “**sustainable product**” should be discussed and agreed with all actors EU-wide. EU policy makers need to implement mandatory strong standards and oblige companies to implement transparent supply chains. Industry actors need to support this by setting **standards for tracing raw materials** and developing **supplier assessment strategies**. Worker’s rights abuses have to be eliminated and purchasing contracts should include responsibly mined minerals that adhere to strong standards. Civil society organisations need to be open for discussion with the other actors but remain critical.

A mandatory “**Social License to Operate**” for new mining projects as well as production and recycling sites should be implemented globally by **2030**. This also includes setting targets for local and regional value creation at production sites. Likewise, by 2030, **due diligence** should be included in all trade agreements throughout the supply chain globally for all raw materials. However, due diligence does not mean immediately terminating business relationships due to social or environmental issues. Instead, measures need be taken to make improvements (provided all actors are willing to cooperate). Within the EU, 100% of minerals and semi-products purchased need to come from **responsible sources or responsible recycling processes**. The general public should be driven to favour responsibly sourced products and be willing to pay higher prices.

Target 3 “Level Playing Field”

Target 3 aims at **harmonizing requirements** for companies operating and trading across supply chains and sectors, in and with the EU. Raw materials or products that are produced with lower standards should be disadvantaged in the future or no longer allowed. However, creating a level playing field also implies **supporting companies, regions, and countries** in improving their practices and achieving the required standards.

By **2030**, the voice of civil society, including legal communities, should be mandatorily involved in the approval process of mining projects. All actors should facilitate the formalisation of artisanal small-scale mining with the support of on-site projects. Furthermore, it is important to extend the **due diligence** to all raw materials entering into the EU. Transparency in production and the supply chain should also be established by 2030.

The introduction of **border tax adjustments** to account for differences in the environmental performance and social standards (including occupational and community health and safety, fair wages, etc.) of production processes outside the EU is an important measure to improve **competitiveness of European manufacturers**.

The civil society needs to support the achievement of a level playing field by researching and reporting on relevant aspects and informing the public through information campaigns and capacity building on the ground. All actors need to engage with other stakeholder groups.



Conclusion

Even though recommendations are subdivided according to three targets and actor groups, one of the key results of the Mobility Sector Roadmap is the necessity to simultaneously address all three targets. Therefore, there is the importance of **communication and cooperation between stakeholders along the whole value chain** for all three targets: none of the targets can be achieved by only one stakeholder group. All stakeholder groups need to pursue a **shared goal**. Frontrunners and role models are needed in all stakeholder groups where others can follow and for peer learning to take place. Significant and systemic changes are needed now and over the next decades to achieve climate targets and make the lithium-ion battery chain more responsible and sustainable. There is no time to waste - **we need to act now!** Changes are needed and cannot be postponed to the next generation or next legislation period.

Another crucial finding of the Roadmap and the consultation process is the importance of a **change in thinking**. All actors – policy makers (e.g., by setting overarching regulations with concrete criteria), industry (e.g., by implementing quality over price), civil society (e.g., by promoting good practice cases) and also the general public (e.g., by a change in transport behaviour) - need to understand, support and embrace the new way of thinking. The Roadmap also recognizes the need for **further research** to set ambitious but realistic targets and be as precise as possible to define the necessary measures.

The RE-SOURCING project also developed “*Good Practice Guidelines for the Mobility Sector*” to support the implementation of the Roadmap recommendations. The guideline outlines practices that the project considers ‘responsible’ to enable peer-learning and increase the uptake of responsible sourcing. The good practice cases for the mobility sector address different stages of the supply chains. Each segment of the chain has a particular set of challenges, and the selected good practices focus on issues that have the highest priority:

- **Responsible procurement of minerals:** by leading firms, through aligning with a strong responsible sourcing scheme.
- **Overarching regulation for a circular economy:** Create an overarching legislative binding framework by implementing a law at the highest level. Combine different interests and create political support by using sustainability as a competitive advantage.
- **Implement a circular economy for batteries:** Include re-buying as part of the product offering and ensure the return and reuse of products.
- **Chinese policy approach to sustainability:** Policy promotion of sustainable practices in the LIB value chain e.g., through including measurement of performance as part of standards and taking lead in setting sustainability requirements.

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