

RECYCLING AND MATERIAL CHAIN OPTIMISATION OF END-OF-LIFE PRODUCTS



EIT RawMaterials Vision & Mission

Europe is home to world leaders in manufacturing, game changing innovative technologies and an entrepreneurial infrastructure that can boost the transition to a resource-efficient and sustainable society. A sustainable supply of raw materials is vital for both this transition and for Europe's industrial activity.

The vision of EIT RawMaterials: *'To develop raw materials into a major strength for Europe'* will be realised by integrating knowledge from industry, higher education and research and by engaging stakeholders from the entire raw materials value chain. EIT RawMaterials will promote increased resource efficiency and the improvement of processes and products, support the introduction of new, innovative technologies and rethink our current linear economic model to move towards a circular approach. Further focus areas are to increase human capital in the raw materials sector and promote entrepreneurial education at all levels.

We see a Europe with industrial strength built on a foundation of efficient, secure and sustainable supply and use of raw materials. In this vision, products, processes and solutions are geared towards the closure of closely interconnected material cycles. These dynamic and rapidly changing material cycles will attract new investments, enhance the innovation capacity for competitiveness and incite the interest of talented, skilled, entrepreneurial employees. The aim is for society as a whole to appreciate the value of raw materials and perceive the sector as innovative and attractive.

The mission of EIT RawMaterials is to enable sustainable competitiveness of the European minerals, metals and materials sector along the value chain by driving innovation, education and entrepreneurship.

Turning Waste into Valuable Resources

Across the globe, primary raw material sources are depleting, while the amounts of industrial waste and end-of-life-products are rapidly increasing. These waste streams contain valuable raw materials that can be extracted to meet the growing demands from global industrial production and consumption.

Considering the materials needs of an exponentially growing world population, recycling will have to evolve from a side stream to a major pillar of raw materials supply if we want to protect our planet and make business sustainable. Currently, recycling rates of some base metals are higher than 50 per cent. However, a large number of crucial elements are almost completely lost in the value chain. This is particularly the case for less noble speciality metals used in functional materials, where production from primary resources often comes with large environmental footprints.

EIT RawMaterials supports innovation projects and new businesses that scale up and introduce new technological solutions to the market. These are aimed at improving both the amount and quality of raw materials recovered from secondary sources, that is, end-of-life products, industrial residues, tailings, and urban and landfill mining.

World-leading universities in the raw materials sector run related Master and PhD courses, and students are involved in many upscaling projects. For example, the current portfolio includes projects to develop cost-efficient dismantling technologies, optimise material supply logistics, and turn industrial waste into specified starting materials for industrial production.



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