Resource scarcity threat and eco-innovation demand EU policy response

A new report reviews EU industrial and energy policy development, addressing growing resource scarcity and the urgent need to reduce global resource consumption. Proposed policy interventions include reform of the Eco-design Directive and regional funding mechanisms.

Extraction of mineral and biomass resources in the EU has grown by 3 per cent in 25 years, compared with global growth of 48 per cent, but only because the European economy is increasingly dependent on imports – it outsources more of its extraction than any other part of the world.

The report, written to support the work of the European Parliament’s ITRE Committee¹, recommends speeding up eco-innovation in the EU. This should encompass strategies for ‘greening the EU budget’: cutting unsustainable spending, and investing the savings in eco-innovation. It identifies two barriers to eco-innovation driving economic resource-efficiency, which the EU must actively address: 1.) policy gaps in the areas of entrepreneurship, pre-commercialisation and mass-market development and 2.) emotional and psychological barriers to uptake of eco-innovation by society.

Tools in the first case include market-based incentives, such as a new minimum tax directive on construction minerals, and reform of existing policies, such as the Eco-design Directive ², which may be extended from energy use to material intensity and innovation, or CIP³, which favours recycling technologies over new resource-efficient technologies. Additionally, the energy performance of buildings directive⁴ is insufficiently implemented. Industry engagement is considered essential for leadership on social change, creating products and communicating demand via service-oriented business models.

Global economic growth has seen rapidly increasing demand and prices for resources and increasing competition may soon lead to conflict. For instance, many reserves have already passed their peak production, including critical rare-earth elements vital for emerging high-tech and environmental industries, such as the photovoltaics sector, which could damage the innovation and economy of the EU. China has already attempted to restrict exports of such elements.

Analysis of resource use is a developing science, but the report outlines three areas of strategic importance and considerable technological interaction: housing, mobility and food. Selected eco-innovations examined include deep, ‘green’ renovation of housing, electric cars, and community-supported agriculture. Proposals include reducing large-scale infrastructure projects and favouring local development schemes, via reform of regional funding mechanisms; similarly, redirecting CAP funds toward locally-adapted sustainable production strategies.

With European Investment Bank support, integrated rural development and decentralised infrastructure for power and water treatment could promote local eco-innovation, supported by a network of European resource efficiency agencies. Following the gaps identified above, the study also proposes to establish three new initiatives: 1.) A European Trust Funds for Eco-Entrepreneurship to support system innovation driven by new companies; 2.) A Technology Platform for Resource-light industries, to develop new markets for European manufacturing industries; and 3.) A Programme to foster energy and resource efficiency in the building sector.


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