

Missing Links: how EU industrial policy can better support resource efficiency

A more circular economy and improved resource efficiency can bring significant benefits to the environment and to the economy. However, it can be argued that EU industrial policy has so far focused more on the transition to low-carbon production than on greening the demand side or increasing recycling rates. In this Perspective, SIEPS senior advisor **Mats Engström** suggests what a better policy mix might look like.

The latest report of the IPCC Working Group on mitigating climate change shows the importance of material efficiency in reducing industrial carbon dioxide emissions. But increasing resource efficiency – using less energy and raw materials to achieve a given outcome – would bring many further benefits.

In October 2023, SIEPS organised a roundtable with leading policy-shapers and experts on this topic.¹ It followed [a similar discussion](#) in March, which mostly focused on the contribution that resource efficiency can make in combatting climate change. In conformity with [literature](#) and interviews, the roundtable highlighted that state and EU action is needed to overcome certain obstacles.

Increased attention on efficiency

Impact assessments have highlighted business opportunities in moving to a more circular and resource-efficient economy. A recent [‘roadmap’ study](#) on this topic by the European Commission’s Directorate-General for Research and Innovation (DG RTD) showed that well-designed regulation has an important role to play in this kind of transformation.

The EU [Circular Economy Action Plan](#) and subsequent legislative proposals are initiatives to promote such developments. The Ecodesign for Sustainable Products Regulation is currently being negotiated between Council and Parliament. Agreement will be followed by concrete work on

several product groups. This could as a first step include textiles, furniture, tyres, toys and other finished products, as well as iron, steel, aluminium, and paper, in terms of intermediate products. Other upcoming legislation includes the Packaging and Packaging Waste Regulation, the Critical Raw Materials Act, the Right to Repair Regulation and the Construction Products Regulation.

So the EU is active in this area, as is EU industry. DG RTD highlights that ‘[t]he EU has the highest share (32%) of companies worldwide active in circular economy technologies compared to, e.g. the US (20%) and China (4.4%)’ and that ‘[t]he EU is also leading in circular economy technology inventions in absolute terms and as a share of green inventions at global level (2010–2018).’

Still, there seems to be a need to scale-up innovations for increased resource efficiency both to mitigate climate change and environmental degradation, and to further increase European competitiveness. As the DG RTD study also notes, ‘a clear innovation pipeline for major technologies seems to be missing. There is no continuous support from early development to uptake of circular technology projects.’

Although a few circular economy projects have received support under the EU Innovation Fund, most approved funding is for transformation of production facilities, for example low-carbon steel making. It can also be argued that recent industrial policy initiatives, such as the Sustainable

¹ Among the participants were several Member State experts, civil servants from the European Commission, high-level researchers, and business representatives. SIEPS would like to thank all participants in the roundtable for their excellent input. Recommendations in this paper are by the author.

Technologies for Europe Platform (STEP), are more focused on production-oriented activities, as a response to the Inflation Reduction Act (IRA) in the United States.

And although some financing for relevant activities is available through other instruments, such as Horizon Europe, LIFE and regional development funds, the European Court of Auditors states in [a recent report](#) that the uptake in Member States is slow.

A relevant research question is thus whether more initiatives are needed, targeted towards innovation, demonstration, and commercialisation of innovative resource-efficient technologies.

EU industrial policy for resource efficiency

The following are some possible starting points for policymakers based on the roundtable discussions organised by SIEPS as well as analysis of current developments in the EU.

Mainstreaming. Circular economy and resource efficiency were highlighted in the EU's '[New Industrial Strategy](#)', from 2020. However, such aspects need to be better mainstreamed into the present debate about competitiveness and strategic resilience. For example, the Strategic Technologies for Europe Platform (STEP) could identify more resource efficiency and circular economy solutions as priorities.

Incentives. [Transition theory](#) offers lessons on the need for a well-designed policy mix. In addition to ambitious targets, it is important to address regulatory gaps and create the right incentives for companies, for example increasing the profitability of more circular business models. The digital product passport promoted by the EU can set a global standard and help European companies make the most of their competitive advantages.

Targeted funding. Better support for large-scale demonstration can help commercialise innovative resource efficiency solutions, for example textile recycling and the use of digital tools to make waste collection systems more efficient. Earmarking parts of the Innovation Fund for this purpose and expanding other financial instruments in the next Multiannual Financial Framework could be ways forward.

Convening power. A specific problem for resource efficiency is bringing many disparate actors together in common proposals for financing. [The CINEA agency](#) could be given a clearer task in convening different actors for system change proposals.

Procurement and skills. Public procurement also has an important role to play, and more detailed guidelines for promoting resource efficiency solutions should be elaborated at EU level. Cities are well placed to design and implement system solutions, with intelligent collection, sorting, and recycling as one of several examples. Financing for such solutions could be increased and lessons could be more systematically drawn from individual projects under Next Generation EU. Skills is another important topic, and existing skills pacts need more financing to help close the [gaps](#).

Global partnerships. International cooperation is vital. Developing standards is a key part to facilitate transborder circular value chains, including recycling. Strategic partnerships with third countries have already been identified as key in areas such as critical raw materials. Such partnerships need to include resource efficiency as a key element. The EU should pay particular attention to how countries in the 'global South' can develop their economies as part of interlinked value chains.

Beyond efficiency. The concept of sufficiency has gained more prominence in the international debate. Making current consumption patterns more resource efficient is not considered to be enough: societies should also consider how much goods and services they really need to consume. This points to the need to move further also regarding policy instruments, such as sharing good examples in taxation.

Time for a new agenda

The Belgian Presidency of the Council of the EU plans to highlight resource efficiency and circular economy during its tenure in the first half of 2023. At the same time the European Council will discuss the Strategic Agenda for the next five years. This provides an opportunity to link resource efficiency more closely with the industrial development and competitiveness agendas which are now so sharply in focus for many European policymakers.