Securing Europe's future through a just and competitive circular economy

The global economy is at a critical juncture, as interlinked environmental, social and political tensions mount. Meanwhile, the economic order is shifting, with states increasingly using aggressive tactics to exploit materials and resources for the prosperity of their economies, in a zero-sum game approach often at the expense of others.

Within this context, the EU Circular Economy Act presents a unique opportunity to be strategic, by pioneering an innovative approach to resource management focused on reducing demand while advancing wellbeing. As clearly acknowledged by the Council of the European Union there is a *"need to decouple growth from resource use and its impacts by stimulating technologies and business models that make it possible to **reduce resource demand at production and consumption levels"**.* The interventions outlined below present a pathway to achieving the commitment in the 8th Environmental Action Programme *"to significantly decrease the Union's material and consumption footprint so as to bring them into planetary boundaries as soon as possible"*.[1]

To this end, the Materials and Consumption Taskforce members and partners jointly recommend three key interventions which, when implemented together, would:

i. ensure that the Circular Economy (CE) approach supports Europe to deliver on its climate and nature commitments by boosting innovation and keeping its resource use within Earth's regenerative capacity;

ii. reduce growing inequality and social tensions by ensuring the wellbeing needs of citizens are prioritised;

iii. drive the rapid development of GreenTech branches to secure transformative competitiveness on the fastest growing global lead markets and contribute to reducing the high share of material costs (> 40%) of manufacturing industry[2] ; and

iv. recognise the fragility of Europe's import-dependent economy and boost resilience through a global justice approach to resource governance.

Our recommendations:

1. Establish material footprint targets

Material footprint reduction targets are urgently needed to optimise material use and reduce demand while incentivising circular practices across businesses and industry. This is essential to enhance Europe's long-term competitiveness, strengthen strategic autonomy, and provide a realistic pathway to achieving the Green Deal, Fit for 55, and the recently proposed 2040 climate target of a 90% emissions reduction.

Key actions:

• **The European Commission should establish a dedicated expert committee on materials reduction targets, akin to the European Scientific Advisory Board on Climate Change. This would review scientific evidence for materials reduction target setting, identify consumption-based indicators that capture global impacts of EU consumption, and recommend target levels, timeframes and monitoring approaches.**

• **By 2028, develop EU material footprint targets for 2035 and 2040.**

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[1] Council of the European Union (2024) The 8th Environmental Action Programme Mid-term Review - The way forward to a green and just transition for a sustainable Europe https://data.consilium.europa.eu/doc/document/ST-11326-2024-INIT/en/pdf

[2] Compare German Environment Agency (2025) https://www.umweltbundesamt.de/publikationen/greentech-made-in-germany-2025-0; the figure >40% relates to German manufacturing industry

2.
Prioritise resource efficiency of key provisioning systems

The Commission should prioritise investment in key provisioning systems (food, housing, mobility and energy) to reduce inequality and social tensions while lowering Europe's material footprint. These systems should meet people's needs in a more resource efficient manner, enhance quality of life and drive innovation in circular business models, and supporting GreenTech, SMEs, and emerging market opportunities.

Key actions:

- Introduce provisioning systems logic in the Circular Economy Act, and work with respective Commissioners and Member States to develop roadmaps for how provisioning systems should be aligned with the above material footprint targets, while prioritising wellbeing outcomes across key domains.

- Support this innovation agenda through Horizon Europe funding, focusing innovation calls around wellbeing-enhancing and dematerialisation innovations across key provisioning systems.

- Initiate the development of a set of indicators that measure the efficiency of provisioning systems to meet needs in material-efficient ways.

3.
Champion international governance for resource use

To address rising geopolitical tensions and growing global uncertainty, the EU should champion a fair, transparent, and rules-based global governance framework for resource use, ensuring a just transition globally.

Key actions:

- Focus on the implementation of the International Resource Panel (IRP) co-chairs **Call to action** for the establishment of an international resource management body to ensure better transparency on material flows and inclusion of resource management in international efforts, including all existing international agreements.

- Support innovative proposals such as the **Global Mineral Trust** to allow for allocation of materials and in particular critical raw materials through a multilateral framework based on justice and equity.

- Use the EU's Development Assistance Portfolio to help resource-rich low-income countries build capacity so that they can retain the value from the export of critical materials and natural resources, primarily through materials processing.

'Considering the inherent impact of resource extraction and processing, and the impossibility of 100% circularity, it is crucial to prioritise the reduction of resource use and move towards a less material-intensive European economy.'

— EEA (2024) —

Introduction

Natural resources are the basis of our economy, wellbeing, and our future security.
Currently the extraction and processing of materials are responsible for 60% of climate impacts including land use change, over 90% of land related biodiversity loss and water stress and around 40% of health-related pollution impacts.[3] The EU is highly dependent on material imports from the rest of the world to meet its needs, importing more than twice the amount of goods by weight from the rest of the world than it exports.[4]

The EU has thus rightly acknowledged the importance of resource management in tackling the triple planetary crisis and for achieving strategic autonomy through various legislative agendas, including Green New Deal; Circular Economy Action Plan (2020); Eco-design for Sustainable Regulation; Critical Raw Materials Act; Sustainable and Circular Textiles Strategy.

While these efforts are commendable, they are not sufficient to deliver the systemic transformation to a circular and resource-efficient economy that is required to meet the EU's agreed climate and nature targets nor guarantee long term security for the region.

Key issues with current approaches to resource management at the EU level:

1. **Lack of clear long-term direction, leading to fragmentation of implementation across Member States**

2. **Over-reliance on recycling and waste management, without giving proper recognition to the highest impact potential of optimising resource use across provisioning systems and reducing demand.**

3. **Emphasis on sustainable products and efficiency, while failing to address unsustainably high consumption levels.**

4. **Lack of incentives to restructure business models and industry decisions regarding reduced material use and impacts from consumption.**

5. **Do not adequately address for global context and mounting geopolitical pressures related to resource use and the embedded impacts of consumption. Focus to date has been on securing supply of raw materials rather than rethinking drivers of demand.**

To overcome these challenges and deliver a systemic approach to the Circular Economy that Commissioner Jessika Roswall called for in her opening address at the European Green Week 2025, The Materials Taskforce recommends the following three interventions.

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[3] International Resource Panel (2024) Global Resources Outlook https://www.resourcepanel.org/reports/global-resources-outlook-2024

[4] Eurostat (2025) Physical imports and exports https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Physical_imports_and_exports

Recommendation 1: Establish material footprint targets

To deliver on the climate, biodiversity, and resilience goals of the Green Deal, the Circular Economy Act must establish economy-wide **material footprint reduction targets**, aligned with planetary boundaries. Building on previous policy recommendations,[5] a **binding EU-wide material footprint target** would reinforce the EU's efforts to decouple growth from resource use — a pillar of the Green Deal.

A **material footprint (MF)** approach, measured in tonnes per capita, integrates the impacts of domestic extraction and net imported materials, to capture the impact of a country's overall resource consumption. In 2023 Europe was using on average 14 tonnes per capita (Eurostat, 2025), which is well above sustainable levels and should be significantly reduced.

Material footprint targets do not symbolise a new goal, but rather should be seen as implementation targets that are essential to reach already existing policy commitments. Without addressing resource use directly, the EU risks burden shifting (for example, from carbon impacts of fossil fuels to biodiversity and land-use impacts from mineral extraction) or outsourcing impacts to other territories (via carbon leakage and relocation of production to outside the bloc).

Addressing material use directly through science-based material footprint targets would overcome these challenges by incentivising systemic transformation of the economy. Creating the much-needed incentives would boost demand for secondary raw materials, circular products, and services. A target would also meaningfully contribute to European competitiveness by reducing the high share of materials cost in manufacturing.[6] For metal ores and fossil energy materials, the EU is highly dependent on imports from the rest of the world[7]; a systemic demand reduction approach would meaningfully contribute to strategic autonomy, reducing dependence on global supply chains and reducing geopolitical shocks. Reducing Europe's material use is also essential to free up ecological capacity for lower income countries to develop their economies and meet essential needs. With a new north star guiding economic activity and security, Europe can serve as a model of an ecologically sustainable and socially just society.

Setting clear material footprint targets can also support the EU's simplification agenda by providing a unified, measurable goal that aligns and streamlines diverse circular economy policies and regulations across sectors, reducing complexity and improving policy coherence. It offers Member States clear long-term direction while allowing them the flexibility to apply fiscal and policy tools such as resource taxes or VAT reductions on CE products and services in ways that best suit their national contexts to steer economic activity toward this overarching goal. It would be also a clear signal to the private sector, providing an incentive to focus on innovation efforts related to GreenTech developments, societal resilience and all material savings aspects of a circular economy.

Germany, Europe's largest economy, has already shown leadership in this domain, setting a 6-8 tonne per capita material orientation target in its Nationale Kreislaufwirtschaftsstrategie (NKWS). To ensure harmonisation and prevent burden shifting to other Member States, action must urgently be taken at the bloc level to align goals and remove fragmentation. The European Commission has already laid the monitoring groundwork with Eurostat consistently tracking material footprints per capita for all EU member states—a logical next step is binding targets under the Circular Economy Act.

Key actions:

- **The European Commission should establish a dedicated expert committee on materials reduction targets, akin to the European Scientific Advisory Board on Climate Change. This would review scientific evidence for materials reduction target setting, identify consumption-based indicators that capture global impacts of EU consumption, and recommend target levels, timeframes and monitoring approaches.**

- **By 2028, develop EU material footprint targets for 2035 and 2040.**

[5] Council of the European Union (2024) The 8th Environmental Action Programme Mid-term Review - The way forward to a green and just transition for a sustainable Europe https://data.consilium.europa.eu/doc/document/ST-11326-2024-INIT/en/pdf. OVAM (2023) The Missing Piece of the EU Green Deal: The case for an EU resources law. IRP (2024) Bend the trend: pathways to a liveable planet as resource use spikes, EEA (2024) Accelerating the circular economy in Europe: state and outlook 2024.

[6] See Acatech (2021), https://en.acatech.de/publication/circular-economy-roadmap-for-germany/

[7] Eurostat (2025) Physical imports and exports https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Physical_imports_and_exports

Recommendation 2: Focus on key provisioning systems

Of the five million tonnes of materials used in the EU in 2022, 65% accumulate in material stocks such as buildings and infrastructure, while most of the remaining 35% becomes waste.[8] The Circular Economy Action Plan (2020) had a strong focus on optimising existing value chains and reducing waste. However, there is a need to go further upstream and address material stocks, moving beyond products to instead optimise key provisioning systems. A provisioning systems approach looks at how materials, technology, institutions, and social norms interact together to turn natural resources into goods and services that people need. Our built environment, energy, mobility and transport and food provisioning systems are not only responsible for securing the wellbeing of Europe's citizenry and the productivity of the economy but are also the highest environmental impact areas — responsible for an estimated 90% of all global material use.[9] The shift from products to systems will better align circularity with climate, health, and equity outcomes by taking into consideration the nexus between material use and a sustainable economy that is resilient to future shocks and stresses.

Ensuring that these provisioning systems are designed to meet needs in the most circular, resource-efficient manner - while maintaining or improving wellbeing outcomes - will be the key to Europe's long-term competitiveness. Redesigning these four key provisioning systems so that they are socially just and resource efficient is also a huge opportunity to drive innovation and create new green lead markets and job creation across the bloc.

Alongside these core provisioning systems, EEA analysis shows that resource use and consumption related impacts associated with textiles, electronics and services (such as health, education, finance and recreation) are mounting.[10] There is thus a growing need to future proof these provisioning systems by integrating a demand-side approach. For example, the Circular and Sustainable Textiles Strategy must go further to incorporate material footprint and consumption reduction targets in addition to the product efficiency measures outlined in the existing strategy.

Key actions:

- The European Commission should introduce provisioning systems logic in the Circular Economy Act, and work with respective Commissioners and Member States to develop roadmaps for how provisioning systems should be aligned with the above material footprint targets, while maintaining or improving wellbeing outcomes across these domains. Significant opportunities exist to ensure this systemic thinking is embedded across the upcoming European Affordable Housing Plan and the Bioeconomy Act

- The European Commission can support this innovation agenda through Horizon Europe funding, focusing innovation calls around wellbeing-enhancing and dematerialisation innovations across key provisioning systems, not just product efficiency.

- The European Commission should work towards developing a set of indicators that measure the efficiency of provisioning systems to meet people's needs in material-efficient ways, (e.g., warm, healthy m²/person; affordable km of mobility/year; healthy kcal/day)

[8] EEA (2024) Accelerating the circular economy in Europe: state and outlook 2024

[9] International Resource Panel (2024) Global Resource Outlook https://www.resourcepanel.org/reports/global-resources-outlook-2024

[10] EEA (2024) From data to decisions: material footprints in European policy making https://www.eea.europa.eu/en/analysis/publications/material-footprints-in-european-policy-making

Recommendation 3:
Champion international governance for resource use

Current patterns of resource use are geopolitically unstable, ecologically destructive, and socially unjust, with high-income nations consuming on average six times more than low-income countries, while the latter suffer the environmental and human costs associated with extraction. Moreover, this asymmetry denies lower income countries the resources needed for development and to meet basic needs, which is feeding global instability, driving conflicts, migration patterns and geopolitical tensions.

Effective global governance is thus vital to address the transboundary nature of material flows and to prevent resource depletion and environmental degradation beyond Europe's borders. Under the current ad hoc governance regime, there is a strong risk that the global energy transition will be obstructed, due to trade restrictions or disputes along supply chains for essential components and critical raw materials. The EU should therefore champion the development of a justice and rule-based natural resource governance framework, that is both multilateral and transparent.

Key actions:

- **The European Commission should focus on the implementation of the IRP co-chairs' Call to Action for the establishment of an international resource management body to ensure better transparency on material flows and inclusion of resource management in international efforts, including all existing international agreements.**

- **The Commission should advocate for material targets in global fora (UNEA, G20, etc.) and put in place the right governance to work together with other countries on this topic.**

- **The European Commission is encouraged to support innovative proposals such as the Global Minerals Trust to allow for allocation on materials and in particular critical raw materials through a multilateral framework based on justice and equity, not geopolitical clout.**

- **The Commission is encouraged to use the Development Assistance Portfolio to help resource-rich low-income countries build capacity so that they can retain the value from the export of critical materials, primarily through materials processing.**

Conclusion

In an age of polycrisis, a just transition to a circular economy has the potential to be the antidote to so many of our current challenges and to secure Europe's future security and prosperity.

However, without ambitious policies that fundamentally reset the priorities and direction of the economy, this promise will remain unrealised, and the EU risks missing its climate goals and forfeiting opportunities for innovation, competitiveness, and social equity.

We urge the European Commission to consider these recommendations and firmly embed regenerative circularity into its overarching strategy towards resource security, climate action, competitiveness, and sovereignty.

The expertise of organisations represented and members of the Materials and Consumption Taskforce will be made available at request to support the Commission in policy design or future research.

Taskforce Members:

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The Materials and Consumption Taskforce was established to highlight the critical importance of materials in production and consumption in the context of the global economic system and to ensure a systems approach to enabling and optimising circularity within the EU and globally.

The Taskforce draws on the expertise of members of the Club of Rome and Hot or Cool Institute, in collaboration with members of the International Resource Panel, Earth4All Initiative, Wuppertal Institute, and other highly recognised science-based organisations.

MATERIALS & CONSUMPTION TASKFORCE

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