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INSIGHTS ON POLICY LEVERS RELATED TO THE EU CIRCULAR ECONOMY ACT

Suggestions for policy priorities and
catalysing factors

Sitra memorandum

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Suggestions for policy priorities and catalysing factors

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Foreword

Europe is entering a new era in which economic resilience, security and environmental sustainability can no longer be pursued separately. As Sitra's Megatrends 2026 highlight, shifts in power, resources, technology and society are converging in ways that demand a stronger European response.

Europe's dependence on imported raw materials has become a strategic weakness, made more visible by supply chain disruptions and an increasingly fragmented geopolitical environment. At the same time, global circularity is moving in the wrong direction while material extraction and environmental pressures continue to grow.

Sitra has prepared this memorandum to support the success of the forthcoming EU Circular Economy Act, a much-needed initiative for Europe. Accelerating the circular transition requires smart regulation.

From the EU's Circular Economy Act to extended producer responsibility schemes around the world, the direction is clear: linear systems are losing their license to operate. Regulation should therefore be seen not as a constraint, but as a catalyst. At its best, it creates a level playing field, encourages innovation and protects those most exposed to environmental harm.

Data and artificial intelligence are reshaping what circularity can achieve. Tools such as artificial intelligence (AI) and digital product passports (DPPs) are already improving transparency, traceability and intelligence across material flows.

Finland was the first country in the world to develop a circular economy road map, with Sitra playing a key role in facilitating its creation and supporting its implementation. Sitra has also funded practical experiments for many of the solutions needed and now operates the EU Circular Economy Resource Centre (EU CERC).

We hope this memorandum will contribute to the European debate by offering forward-looking insights and practical recommendations for a more resilient and competitive Europe.

Helsinki, March 2026

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Esipuhe

Eurooppa on astumassa uuteen aikakauteen, jossa taloudellista kestävyyttä, turvallisuutta ja ympäristön kestävyyttä ei voida enää tavoitella erillään toisistaan. Kuten Sitran Megatrendit 2026 -raportissa korostetaan, muutokset vallan, resurssien, teknologian ja yhteiskunnan kehityksessä yhdistyvät tavalla, joka vaatii Euroopalta voimakkaampaa vastausta.

Euroopan riippuvuus tuontiraaka-aineista on muuttunut strategiseksi heikkoudeksi, joka on tullut entistä näkyvämmäksi toimitusketjujen häiriöiden ja yhä pirstaloituneemman geopoliittisen ympäristön vuoksi. Samalla globaali kiertotalous kehittyy väärään suuntaan, kun taas raaka-aineiden louhinta ja ympäristöpaineet kasvavat edelleen.

Sitra on laatinut tämän muistion tukeakseen Euroopan unionin tulevan kiertotalousasetuksen onnistumista, joka on Euroopalle erittäin tarpeellinen aloite. Kiertotalouteen siirtymisen vauhdittaminen edellyttää älykästä sääntelyä.

EU:n kiertotalousasetuksesta aina ympäri maailmaa käytettävään laajennettuun tuottajavastuuseen suunta on selvä: lineaariset järjestelmät ovat menettämässä toimintansa oikeutusta. Sääntelyä ei siis tulisi pitää rajoitteena, vaan kiihdyttäjänä. Parhaimmillaan se luo tasapuoliset toimintaedellytykset, kannustaa innovaatioihin ja suojelee niitä, jotka ovat alttiimpia ympäristöhaitoille.

Data ja tekoäly muokkaavat sitä, mitä kiertotaloudella voidaan saavuttaa. Tekoälyn (AI) ja digitaalisten tuotepassien (DPP) kaltaiset työkalut parantavat jo nyt materiaaliketjujen läpinäkyvyyttä, jäljitettävyyttä ja tietopohjaa.

Suomi oli maailman ensimmäinen maa, joka laati kiertotalouden tiekartan, ja Sitra oli avainasemassa sen luomisessa ja toteuttamisen tukemisessa. Sitra on myös rahoittanut käytännön kokeiluja monille tarvittaville ratkaisuille ja ylläpitää nyt EU:n kiertotalouden resurssikeskusta (EU CERC).

Toivomme, että tämä muistio edistää eurooppalaista keskustelua tarjoamalla tulevaisuuteen suuntautuvia näkemyksiä ja käytännön suosituksia entistä kestävämmän ja kilpailukykyisemmän Euroopan luomiseksi.

Helsinki, maaliskuu 2026

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Förord

Europa står inför en ny era där ekonomisk motståndskraft, säkerhet och miljömässig hållbarhet inte längre kan eftersträvas separat. Som framgår av Sitras rapport ”Megatrends 2026” samverkar förändringar inom maktförhållanden, resurser, teknik och samhälle på ett sätt som kräver ett kraftfullare europeiskt svar.

Europas beroende av importerade råvaror har blivit en strategisk svaghet, vilket har blivit tydligare genom störningar i leveranskedjorna och en alltmer fragmenterad geopolitisk miljö. Samtidigt går den globala cirkulära ekonomin i fel riktning, medan utvinningen av material och miljöbelastningen fortsätter att öka.

Sitra har utarbetat denna promemoria till stöd för EU:s kommande rättsakt om cirkulär ekonomi, ett välbehövligt initiativ för Europa. För att påskynda omställningen till en cirkulär ekonomi krävs effektiv politisk styrning.

Från EU:s rättsakt om cirkulär ekonomi till system för utökat producentansvar runt om i världen är riktningen tydlig: linjära system förlorar sin rätt att verka. Lagstiftning bör därför inte ses som en begränsning, utan som en katalysator. I bästa fall skapar den lika villkor, uppmuntrar till innovation och skyddar de som är mest utsatta för miljöskador.

Data och artificiell intelligens omformar vad cirkulär ekonomi kan åstadkomma. Verktyg som artificiell intelligens (AI) och digitala produktpass (DPP) förbättrar redan transparensen, spårbarheten och informationsflödet i materialflödena.

Finland var det första landet i världen som utvecklade en färdplan för cirkulär ekonomi, där Sitra spelade en nyckelroll i att initiera och stödja dess genomförande. Sitra har också finansierat praktiska experiment för många av de lösningar som behövs och driver nu EU:s resurscenter för cirkulär ekonomi (EU CERC).

Vi hoppas att denna promemoria kommer att bidra till den europeiska debatten genom att erbjuda framåtblickande insikter och praktiska rekommendationer för ett mer motståndskraftigt och konkurrenskraftigt Europa.

Helsingfors, mars 2026

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Summary

The transition to a circular economy has stagnated despite existing European Union policies, due to fragmented secondary raw material markets, weak price signals favouring virgin materials, and regulatory barriers. The expected Circular Economy Act (CEA) could play a central role in harmonising rules, correcting market failures, strengthening demand and supply for high-quality recycled materials, and creating a functioning single market for secondary raw materials that supports investment, scale and price competitiveness.

The objectives of the Circular Economy Act are highly strategic: strengthening the European Union's resilience, competitiveness, and security by reducing dependence on imported critical raw materials.

This Sitra Memorandum explores possible policy directions for the Circular Economy Act and outlines how it could become a core market-shaping instrument for Europe's circular economy transition. It examines the Act's objectives from a systemic perspective and identifies policy levers for different parts of the economy. The memorandum recommends actions both for shaping the Circular Economy Act itself and for supporting the systemic transition towards a circular economy.

The memorandum suggests that the Circular Economy Act should prioritise measures that encourage the retention of valuable materials within the EU and support investment in domestic capacity for recovery and processing. It should also coherently complement and activate existing legislation, notably the Ecodesign for Sustainable Products Regulation and the Critical Raw Materials Act. Digital enablers are presented as key tools for improving transparency, trust, quality and the management of multiple life cycles.

Finally, the memorandum notes that the Circular Economy Act must both align and seek synergies with global value chains, investment partnerships and trade policy.

Yhteenveto

Siirtyminen kiertotalouteen on polkenut paikallaan Euroopan Unionissa huolimatta nykyisistä politiikkatoimista. Syinä ovat erityisesti sekundääris-ten (eli kierrätettyjen tai uudelleenkäsiteltyjen) raaka-aineiden hajanaiset markkinat, neitseellisiä materiaaleja suosivat heikot hintasignaalit sekä sääntelyyn liittyvät esteet. Tulevalla kiertotalousasetuksella (Circular Economy Act, CEA) on keskeinen rooli näiden haasteiden ratkaisemisessa: se voi yhdenmukaistaa sääntöjä, korjata huonosti toimivia markkinoita sekä vahvistaa korkealaatuisten kierrätysmateriaalien kysyntää ja tarjontaa.

Kiertotalousasetuksen odotetaan edistävän toimivien sisämarkkinoiden syntyä sekundäärisille raaka-aineille tavalla, joka tukee investointeja, tuottaa mittakaavaetuja ja parantaa hintakilpailukykyä. Samalla sen tavoitteet ovat luonteeltaan strategisia, sillä asetuksen toimet vahvistavat kestävyyttä, kilpailukykyä ja turvallisuutta vähentämällä EU:n riippuvuutta kriittisten raaka-aineiden tuonnista.

Tämä Sitran muistio tarkastelee ehdotettavan kiertotalousasetuksen mahdollisia poliittisia suuntaviivoja ja kuvaa, miten siitä voitaisiin kehittää keskeinen markkinoita muovaava väline Euroopan siirtymälle kiertotalouteen. Muistio lähestyy kiertotalousasetuksen tavoitteita systeemisestä näkökulmasta ja tunnistaa keskeiset vipuvaikutukset talouden eri osa-alueilla. Se esittää suosituksia sekä kiertotalousasetuksen sisältöä koskevista ratkaisuista että sitä täydentävistä toimista, joita tarvitaan systeemisen muutoksen tukemiseksi.

Muistio korostaa, että kiertotalousasetuksen tulisi kannustaa arvokkaiden materiaalien säilyttämiseen EU:ssa ja investointeihin eurooppalaiseen kierrätys- ja jalostuskapasiteettiin sekä toimia johdonmukaisesti yhdessä olemassa olevan lainsäädännön kanssa, erityisesti kestävien tuotteiden ekologisen suunnittelun asetuksen ja kriittisten raaka-aineiden asetuksen kanssa. Digitaaliset mahdollistajat esitetään keskeisinä välineinä läpinäkyvyyden, luottamuksen, laadun ja elinkaaren parantamisessa.

Muistio kiinnittää myös huomiota siihen, että kiertotalousasetuksen puitteissa olisi etsittävä synergiaetuja globaalien arvoketjujen, investointikumppanuuksien ja EU:n ulkopoliittikan kanssa.

Sammanfattning

Omställningen till en cirkulär ekonomi har stagnerat trots Europeiska unionens politiska ansats, som en följd av fragmenterade marknader för sekundära råvaror, svaga prissignaler som gynnar jungfruliga material och regulatoriska hinder. EU:s rättsakt om den cirkulära ekonomin (Circular Economy Act, CEA) skulle kunna spela en central roll för att harmonisera regler, korrigera marknadsmisslyckanden, stärka efterfrågan och utbudet av högkvalitativa återvunna material och skapa en fungerande inre marknad för sekundära råvaror som stöder investeringar, skala och priskonkurrenskraft.

CEA:s mål är mycket strategiska: att stärka EU:s motståndskraft, konkurrenskraft och säkerhet genom att minska beroendet av importerade kritiska råvaror.

Denna promemoria från Sitra utforskar möjliga politiska riktlinjer för CEA och beskriver hur rättsakten kan bli ett centralt marknadsformande instrument för Europas omställning till en cirkulär ekonomi. Promemorian analyserar CEA:s mål på systemnivå och identifierar viktiga politiska verktyg för olika delar av ekonomin. Rekommendationer ges för åtgärder som bör forma CEA och åtgärder som stöder en systemförändring som främjar en cirkulär ekonomi.

Promemorian föreslår att CEA bör fokusera på åtgärder som uppmuntrar till att behålla värdefulla material inom EU, investeringar i inhemsk kapacitet för återvinning och bearbetning, och att det på ett sammanhängande sätt bör komplettera och aktivera befintlig lagstiftning, särskilt förordningen om ekodesign för hållbara produkter och lagen om kritiska råvaror. Digitala möjliggörare presenteras som viktiga verktyg för att förbättra transparens, förtroende, kvalitet och flera livscyklar.

Slutligen konstateras i promemorian att CEA både måste anpassa sig till och söka synergier med globala värdekedjor, partnerskap för investeringar och handelspolitik.

1. Introduction

Access to resources has emerged as an immediate economic, security, and wellbeing imperative. Resource availability is increasingly shaping Europe's future operating environment and ability to seize new economic opportunities (EEA, 2025a). At the same time, Europe's heavy dependence on imported critical raw materials (CRMs) has emerged as a significant strategic vulnerability. Both the Draghi report (2024) and Letta report (2024) highlight how the current extractive commodity-based supply model, characterised by geographically concentrated extraction and processing, exposes the EU to geopolitical, economic and security risks.

The circular economy offers a pathway for reducing import dependencies, mitigating exposure to external shocks, retaining value within the EU economy, and building more resilient systems through trade partnerships. More broadly, the circular economy aims to decouple resource use from economic growth by designing out waste, keeping materials in use, and regenerating natural systems. It is essential for achieving net-zero targets (Bruegel, 2024), halting and reversing biodiversity loss (Sitra, 2022), and reinforcing Europe's long-term resilience and security (Letta, 2024; Draghi, 2024). Incremental improvements are no longer sufficient; an ambitious and coherent policy approach is required to address structural barriers and create a predictable operating environment aligned with existing EU frameworks.

In response to these challenges, the European Commission is preparing a Circular Economy Act (CEA) in 2026 to strengthen strategic autonomy, reduce reliance on virgin materials and vulnerable global supply chains, address the persistent structural challenges facing circular economy activities, and build a circular single market as introduced in the Letta report. In this Sitra Memorandum we:

- **identify the key policy levers** central to the Circular Economy Act; and
- **examine additional EU level and international interventions** needed to accelerate the realisation of these key policy levers.

We discuss this in two parts. Chapter 2 discusses the levers needed for a functioning secondary raw materials market. Chapter 3 discusses how the European secondary materials market is intertwined with global value chains and partnerships. Finally, Chapter 4 presents recommendations.

2. Europe needs a functioning secondary raw materials market

2.1 Current situation: from policy to practice

The European Union has made substantial progress towards a comprehensive circular economy policy framework with the two Circular Economy Action Plans (CEAP) in 2015 and in 2020. Published under the Green Deal Industrial Plan (2023), the Critical Raw Materials Act (CRMA) (2024) continues to drive the circular economy agenda in the sectors with valuable, scarce and strategic raw materials used in the green and digital transition as well as defence. The recycling target for strategic minerals (25%) also sets a clear pathway for expanding the EU's consumption of secondary CRMs. Furthermore, the Ecodesign for Sustainable Products Regulation (ESPR) introduces a new approach to managing the circularity of products.

Despite an ambitious policy framework in the EU, circular economy has not progressed at the desired pace, remaining effectively stagnant. Even if a modest decoupling has been achieved, the EU's circular material use rate (CMUR) has increased by only 1% since 2010 (EEA, 2024). Material use and waste generation show no sign of a significant decline and targets for reducing waste generation are not on track (EEA, 2025b). Also, many circular business models, which would have significant potential (Accenture, 2015), still operate in niche markets (EEA, 2024). Stable market growth can be seen in only a limited set of markets, such as electronics refurbishment in Europe (Mobility Foresights, 2025).

The production and refining of many CRMs remain highly concentrated and has in some cases increased in recent years (IEA, 2025). For example, China controls more than 90% of rare earth elements of refined output. In addition, the market prices of several critical raw materials, such as lithium, cobalt, vanadium and nickel show even higher volatility than oil and natural gas, leading to highly unstable market conditions (IEA, 2025). Moreover, factors such as trade restrictions, long investment cycles and mounting geopolitical tensions undermine the predictability and security needed for investment.

Waste prevention measures are still inadequate (EEA, 2023a) leading to the significant production of household, industrial and hazardous waste. For example, in 2022, 54% of Waste Electrical and Electronic Equipment

(WEEE) was collected and treated in Europe. Much value is lost through collection gaps, landfilling, incineration, recovery processes and formal and informal exports (FutuRaM, 2025). The viable recycling of critical raw materials is hindered, for example, by the complexity of recovery and recycling processes and their high costs. Nevertheless, recent estimates indicate that the recoverable raw materials embedded in Europe's WEEE stream represent a value of more than ten billion euros annually, and this value is projected to increase as material intensities and waste volumes grow (ITU & UNITAR, 2024 & FutuRaM, 2025).

One of the most prominent challenges is the difficulty of transporting waste across borders within the EU. Diverging national interpretations of the definitions of waste and the lack of mutual recognition of end-of-waste status create legal uncertainty, often preventing waste from being used efficiently as secondary raw materials. These differences, along with slow and complex cross-border shipment procedures, hinder the free movement of recyclable materials, constrain the achievement of sufficient economic scale, and undermine circular economy objectives (Turunen, 2025; EEA, 2023b).

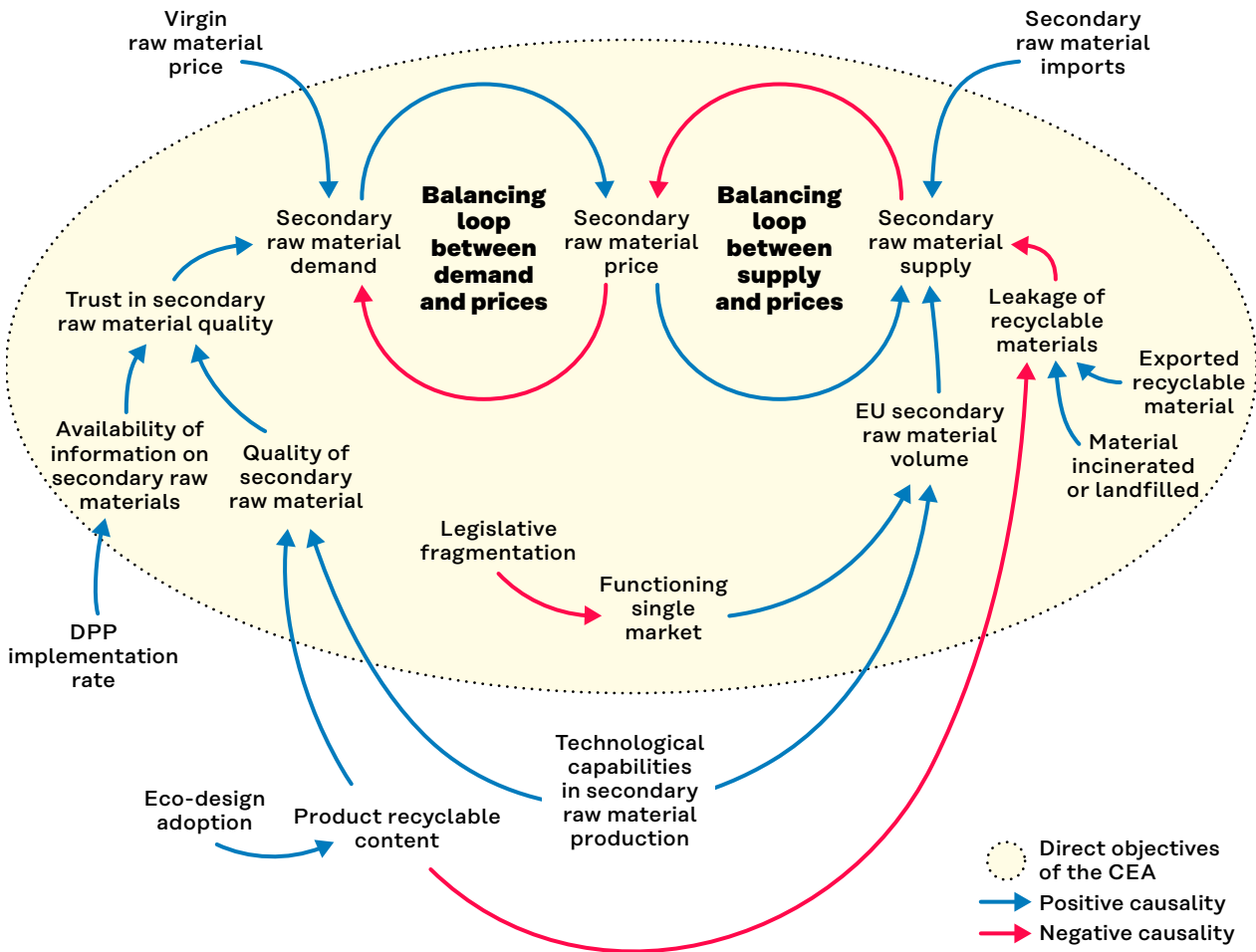
2.2 Impact pathways and priority policy levers for the Circular Economy Act

The Circular Economy Act is primarily intended to accelerate the EU's transition to a circular economy, directly contributing to EU's goal to reach a 24% material circularity rate by 2030. Its focus on measures that correct market failures in secondary raw materials markets is fundamental for building Europe's circular economy capacity and accelerating the transition. Focusing on measures that address market failures in secondary raw material markets simultaneously strengthens the EU's autonomy, economic security, and resilience by reducing undesirable dependencies on raw material imports, benefiting the economy and the environment.

The connections between the different objectives to be proposed in the CEA are described in Figure 1. It shows that secondary raw material prices are the central factor influencing the balance between their supply and demand. The measures to be proposed by the CEA are intended to affect price signals. These measures can affect prices both directly (e.g. taxes of virgin materials and exports) and indirectly (e.g. demand pull and economies of scale). In the upcoming proposal, the main expected actions relate to affecting prices indirectly. When demand rises due to requirements that affect the price competitiveness of secondary raw materials, investments in technology follow, lowering recycling and processing costs further stimulating demand.

Figure 1: Systems diagram of CEA objectives* and other relevant factors

(*Sources: EC, 2025b & EPRS briefing, 2026)



The current markets – aside from the EU Emissions Trading System – do not adequately reflect the environmental impacts of materials and products or the risks associated with raw material availability. As the EU’s competences in taxation are limited, policy should focus on efficient, low distortion measures that create markets for secondary raw materials while carefully managing cost impacts. The expected main actions aim at increasing the supply of high-quality recycled materials, making recycled raw materials more price-competitive, and removing administrative barriers to reduce fragmentation between member states.

Clarifying, simplifying, and harmonising rules for waste and secondary raw materials enables the creation of a single market that supports the building economies of scale, especially relating to more specialised material fractions. Finally, reducing leakage through exports or incineration is an important factor promoting a resilient circular system.

While the CEA targets the above-described challenges, it cannot be seen in isolation from already existing policy frameworks. A careful consideration of the coherence of CEA with other regulations is needed to send a consistent signal to EU businesses (CEPS, 2025). The most obvious related policies are:

- **the ESPR**, which requires rapid and ambitious implementation, should be seen as an enabler of the CEA. Adequate resourcing, effective advancement, and strong compliance with the ESPR are therefore essential.
- **the CRMA**, whose objectives have suffered from a lack of incentives and binding legislation towards achieving the 25% recycling target. The CEA should incentivise a move towards the target and a diversification of different European actors engaged in the production of secondary raw materials within the EU.

Thus, it is important that the CEA activates supply chain resilience also through product policy. Product group-specific circularity, material composition and information requirements mitigate EU dependencies and promote resilience, as highlighted in a recent study by the European Commission's Joint Research Centre (JRC) (Maury et al. 2025). Recyclability requirements promote EU domestic production of secondary resources, strengthening diversity and security of supply, reducing the need for primary materials (Maury et al. 2025). This is important for the stability of demand in raw materials of strategic interest to the EU. Product group specific mandatory requirements for recycled content for those with high concentrations of critical raw materials (renewable energy technologies, ICT, electronics) should be the focus.

In relation to secondary raw materials, there are two different but closely linked policy objectives which must be addressed: Firstly, increasing the production of recycled raw materials in Europe; and secondly, ensuring that recycled raw materials are trusted and of sufficient quality. Eliminating barriers that hinder the movement of waste across borders is critical to unlocking economies of scale and essential for attracting investment. Clear, quality-based criteria will unlock investment, strengthen the single market for secondary materials, and accelerate Europe's shift toward a truly competitive circular economy. The following steps should be taken:

- (a)** Harmonising waste classification by establishing EU-level end-of-waste criteria for different material groups, starting with prioritised raw materials;
- (b)** Ensuring that end-of-waste criteria are driven by material performance and scientific evidence, rather than by arbitrary restrictions related to size, feedstock, or use cases; and
- (c)** Harmonising transfer note obligations across member states.

The proposal for an Industrial Accelerator Act (European Commission, 2026a) introduces a ‘Made in Europe’ approach to create lead markets for certain product groups. A similar criterion could be applied to recycled raw materials in public procurement and public funding. Harmonised EPR is also an important lever for change at many points in the system, including through price signals, enabling collection, incentivising circularity, and addressing leakage.

Waste prevention, as highlighted by EPRS (2026), is as valuable as correcting the recycled raw material market. The circular economy is not limited to recycled inputs and recycling (e.g. Directive 2008/98/EC; Potting et al., 2017; Accenture, 2015). The influx of low-quality goods to the EU market from online sales amounted to 4.6 billion items in 2024 (European Commission, 2025a). Combined with safety concerns and competition distortions, these products are responsible for significant waste streams without contributing to their end-of-life treatment.

Extended product lifetimes reduce the demand for primary materials. Addressing market barriers that hinder systematic implementation of waste prevention policies within the circular economy policy mix is essential (NCM, 2025), and their implementation should also be monitored (EEA, 2023). Although ESPR makes it more feasible to repair and refurbish products, market creation for longer product lifetimes should be incentivised. Price signals should also be used to support reuse, through targeted policy measures such as value added tax (VAT) reductions and other fiscal incentives. Remanufacturing and refurbishing are growing segments of the economy, yet they are not sufficiently reflected in current measures.

2.3 Actions for catalysing systemic change

The EU has a unique opportunity to scale up circular economy through the Circular Economy Act. There are several actions that can catalyse the intended objectives of the CEA.

Invest in technological and industrial solutions and de-risk them

Improving the quality of recycled materials while keeping them price-competitive requires targeted support. Simply relying on price signals and private investment is not sufficient to deliver a more secure and geographically diversified supply of critical raw materials (CRMs). Active public policy will be required to de-risk and finance large scale industrial plants and steer investments back to Europe. EU-level financial and policy

instruments should play a central role by reinforcing quality assurance systems and enabling a robust, economically viable recycling infrastructure, particularly for critical raw materials. The recently announced REsourceEU Action Plan is an important step in this direction, but it will require a significantly greater scale and resourcing to be fully effective. This could concretely involve deploying targeted financial instruments, such as including blended public-private funding models, guarantee and risk-sharing mechanisms, and the strategic use of existing EU-wide funds, to accelerate the transition to a circular economy. In member states, fiscal incentives could be introduced for investments that strengthen resilience and accelerate the uptake of circular solutions.

Amplify circularity with data solutions

Important opportunities for the circular economy are made possible by interoperable data flows and by AI. Sitra (2024) presented results from DPP pilots carried out in Finland. The main finding was that the greatest circular economy benefits – such as improved repair, reuse, refurbishment, and material recovery – are created when product data flows seamlessly across the entire value chain and lifecycle, supported by interoperable data models and shared governance. DPPs should be framed as an enabler of secondary material markets and circular business models, rather than as a reporting obligation (Sitra, 2024). Data about composition, content and origin of raw materials is important for design choices and for communicating within the supply chain and to consumers. This is important back-end information for any new labels that could be introduced (e.g. “Recycled in the EU” and the “ESPR label”).

AI-based solutions are being tested in the critical raw materials recovery value chain for applications such as battery recycling safety, finding secondary uses for end-of-life batteries, the recovery of valuable metals, and remanufacturing. Targeting research and innovation funding for upscaling these kinds of applications, as well as optimising secondary raw material recovery processes (including sorting, material stream steering, maintenance, side-stream and recognition of materials) is necessary to further catalyse opportunities from the CEA measures.

Introduce overarching targets for resource use across the European Union

The Council of the European Union (2024) has called on the Commission to introduce ambitious, economically feasible and science-based resource use targets. Resource use targets should be seen as a long-term guidance and strategy for Europe’s circular economy policy, ensuring that industrial

and environmental policy drives Europe towards coherent outcomes. EPRS (2026) notes that the relative merits of absolute and efficiency-based resource targets need to be weighed in the design of such targets. The experience from Finland and its Strategic Programme for a Circular Economy demonstrates that these approaches are not mutually exclusive; a combination of a resource cap and efficiency target can work well, when combined with voluntary commitments activating industry, supported by partnerships with research institutes, and with exports exempted from the target (Ministry of the Environment of Finland 2021).

3. European circular economy as part of a global economy

3.1 Current situation: Value chains are global

Globally, the situation is even more concerning, with a gradual decline in the share of secondary raw materials in the economy, as the total volume of resources extracted has grown (Circle Economy, 2025). The first Circular Economy Action Plan (2015) already called for coherence between EU circular economy and external relation policies, and the broader multilateral system. While Europe has been a frontrunner in the gradual introduction of a comprehensive policy framework for the circular economy, other regions have also increasingly introduced circular economy policies (UNIDO & Chatham House, 2026). EPR regulations and schemes are becoming more commonplace globally (Barrie et al., 2024). The circular economy has so far played a relatively modest role in the EU's free trade agreements – which govern about 40% of the EU's total trade – although its potential role has been strengthened in some of the more recent agreements, such as those with the UK, New Zealand and Mexico, as well as the Clean Trade and Investment Partnership with South Africa.

Europe's circular economy transition cannot be separated from the realities of an interconnected global economy. European production and consumption depend on globally dispersed supply chains, exposing companies to geopolitical risks. High supply concentration makes certain raw materials particularly critical, for example, platinum and platinum group metals, 71% of which are sourced from a single country. Smart phones, for instance, consist over 300 parts and while final assembly tends to take place in South Korea and China. The raw materials originate from Africa, Latin America, Australia or China while processing and production stages for products consumed in the EU tend to be mainly in China. Similarly, Europe-based electric vehicle production heavily depends on raw materials and components from Asia (Carrara et al., 2023). Furthermore, European consumption has significant environmental impacts outside the EU, particularly biodiversity and climate impacts in sectors such as food, forestry, textiles and construction, which often occur far from the point of consumption. Circular design and business models can significantly reduce these outsourced impacts (Sitra, 2022; SEI York, 2026, forthcoming).

A significant issue is end-of-life exports. Low- and middle-income economies import second-hand products from Europe, driven by demand for cheaper products such as ICT equipment. They are intended to have a second life in the destination country, but lifetimes may be short, potentially contributing to e-waste accumulation (ITU & UNITAR, 2024). Further, waste is intentionally exported. According to Eurostat, EU member states exported 32.1 million tonnes of waste to non-EU countries in 2022, with the main destinations being Türkiye (12.4 million tonnes) and India (3.5 million tonnes) (Eurostat, 2024). The Global E-waste Monitor 2024 notes that of the 62 billion kg of e-waste produced in 2022, an estimated 18 billion kg of e-waste was handled in low- and middle-income countries, mostly by the informal sector, while approximately 14 billion kg was disposed of as residual waste, the majority of which was landfilled (ITU & UNITAR, 2024). However, since January 2025, the amendments to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal have required Prior Informed Consent (PIC) from e-waste importers. Nevertheless, Europe continues to export waste containing valuable materials to low- and middle-income countries.

3.2 Impact pathways and priority policy levers for the Circular Economy Act

The proposed CEA signals a strategic reorientation of how the EU positions itself within global value chains. By strengthening the circular single market, Europe will reduce its exposure to external dependencies. The proposed CEA is expected to introduce systemic, supply chain-wide changes which affect the value ecosystems related to the collection, processing, trading and re-introduction of materials to the market, both within the EU and among international actors connected to European markets. While the production of European secondary raw materials is boosted, non-European suppliers who currently export primary and secondary raw materials to the EU in sectors such as electronics, batteries, vehicles and construction material will face increasing competition and quality requirements. The CEA specifically aims to improve the conditions for the internal movement of waste reduction barriers to the movement of waste across borders in Europe. As a result, it is probable that leakage of valuable resources as exported waste will be reduced.

As EPR frameworks are revised, the CEA should realign them with their original objective of extended producer responsibility by enhancing producers' control over valuable materials and preventing leakage from exports of second-hand and end-of-life products. EPR requirements have

mainly focused on financial and operational responsibility for managing waste. In the current system, producers avoid financial obligations related to waste handled elsewhere. This is a gap in the current EPR systems (IISD, 2020). According to a European Environmental Bureau estimate, corresponding fees for handling the WEEE exported from Europe amount to EUR 340—380 million (OECD, 2023). For specific product groups such as WEEE and vehicles, the geographic scope EPR should be extended so that producer obligations do not end when products are exported (OECD, 2023). This could be achieved either by transferring paid waste management fees to the importing country or by producers retaining responsibility for the recovery of valuable materials when products reach their end-of-life abroad.

3.3 Actions for catalysing systemic change

Cross-continental coordination and strategic partnerships are essential to achieving a systemic transition to a circular economy. There are many opportunities that can be captured through strategic coordination and partnerships between Europe and its trade partners.

Strengthen opportunities with digital transformation

A global digital transformation will be an important enabler for the roll-out of systemic measures aimed at maximising the recovery of raw materials, by improving access to and compatibility of data on products, components and materials across multiple jurisdictions. Successful application of DPPs across jurisdictions is instrumental for having trustworthy data on the origin, consistent content, composition, quality, and environmental footprint of recycled materials (GACERE, 2025). Use-phase data should be leveraged to identify products suitable for reuse or recovery, enabling targeted circular strategies that reduce material leakage, prevent illegal trade and exports, and retain valuable materials within Europe. Reverse logistics and remanufacturing often operate across borders, making access to reliable data particularly important. Recovering materials of end-of-life products exported from EU benefits from access to information on product composition. As part of the CEA, the development of mutually beneficial and compatible data management supporting EPR systems should be recognised.

Interoperability of systems and harmonisation of standards are important factors in making systems work globally, as noted by, for example, the ASEAN Circular Economy Framework (2021). Thus, integrating circularity and digitalisation outcomes into EU external

financing mechanisms would be an opportunity to build operating conditions in support of the circular economy. GACERE (2025) noted that there is a lack of clear and supportive policies for digital innovation and the circular economy, which creates an uncertain environment for businesses looking to invest in these areas. This implies a need for developing policy frameworks that integrate digital technologies and circular economy practices.

Strategically re-align trade and global investments towards a circular economy

Export markets are important for businesses in the circular economy, as most countries are too small to sustain a fully circular economy on their own. SMEs in the circular economy tend to be generally more export-oriented compared to other companies in similar market segments (IISD, 2020). IISD (2020) found that digitally enabled services represent an underexploited circular economy opportunity for trade, particularly when supported by coherent data and local-content policies and suggested that trade liberalisation should take services into account.

Trade in secondary raw materials is central to catalysing the circular economy transition (EPRS, 2026). Trade policy is instrumental in ensuring common objectives and removing barriers, including through legislative alignment, data collection and monitoring frameworks, quality and traceability standards, and the harmonisation of waste and secondary raw materials regulations. Current Harmonised System Codes for international trade do not sufficiently distinguish between virgin materials, secondary raw materials, waste or second-hand goods. In addition to secondary raw materials, regulatory alignment could enable trade in higher value circular activities such as repair, refurbishment and remanufacturing (IEEP, 2022; IISD, 2020).

The need for international coordination and collaboration is particularly pressing as it relates to the growing demand for critical raw materials. Strategic partnerships and trade and investment agreements are vital for securing access, diversifying suppliers, and reducing dependencies and economic risk. This directly concerns the CRMA target on ensuring that not more than 65% of a CRM comes from a single country. It also touches on the CRMA targets related to recycling (25%). If the targets are to be met, inputs for this recycling would, in the short term, be best served by a combination of feedstocks from both EU and partner countries.

Trade and investments go hand in hand. For the European Union and its private sector, the Global Gateway creates opportunities for boosting the competitiveness and security of supply chains. The explicit focus on the circular economy, which is currently lacking, presents an untapped

opportunity for the Global Gateway (EC, 2026c). Investments in advanced sorting, dismantling and recycling in partner countries also serve as necessary preparatory steps for recovering critical raw materials (Blot et al., 2024; European Commission, 2026b). Giving more priority to the recovery of critical raw materials, integration of the digital transformation with circular economy outcomes, and improvements that tackle legislative bottlenecks in the strategic value chains would more explicitly contribute to European circular economy objectives.

4. Conclusions and recommendations

The forthcoming Circular Economy Act presents a critical opportunity to move Europe's circular economy from ambition to delivery. By addressing structural market failures that favour virgin materials, fragment secondary raw material markets and deter investment – through harmonised rules, stronger demand for high-quality recycled materials, embedded circularity in product policy and extended producer responsibility, and the use of data, digital tools and targeted investment – the CEA can become a genuinely market-shaping instrument. The ability of the new measures to catalyse systemic change to accelerate the transition to a circular economy relies on strong policy coherence and alignment with trade policy and global value chains.

Sitra's six recommendations for the CEA

This Sitra memorandum makes the following six recommendations:

- 1. Focus on creating a single market for secondary raw materials.** The CEA should enhance market certainty for secondary raw materials by creating a sufficiently large and predictable market.
- 2. Strengthen demand for high quality recycled materials.** The CEA should introduce strong demand side measures, including mandatory, product-specific recycled content requirements particularly in sectors critical to the green and digital transition. Stable demand is required to reduce price volatility and support long-term investments.
- 3. Strengthen EU-level financial support to de-risk enabling investments.** EU level financial instruments should be used to de-risk investment in recycling and processing infrastructure, especially for critical raw materials, in order to accelerate the development of processing capacity.
- 4. Reinforce implementation and coherence across existing policies.** The CEA should complement, reinforce and activate existing policies and legislation and send coherent signals.
- 5. Use data and digital tools to enable circular markets.** Data and data carriers should be treated as core enablers of circular markets, supporting transparency, quality assurance, multiple life cycles and material recovery.
- 6. Deploy trade and external relations as policy levers for enhanced resilience.** The CEA should recognise that its measures are a part of a system of complex supply chains and trade where external relations have a role in creating resilient value chains.

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