

Circular Economy: Squaring the circle

How moving towards a carbon-neutral and ecologically sustainable circular economy is not only natural but can also be profitable.

Linear resource extraction is a fairly new phenomenon

According to paleoanthropologists, circular production processes have been with us since the dawn of time.¹ Reducing waste and designing affordable goods and services built to last is natural but can also be profitable. Indeed, what has been unusual in human history has been linear resource extraction geared towards producing, consuming and throwing away goods in the 20th century, partly because price mechanisms failed to fully incorporate social and environmental costs. Once something becomes scarce, its price goes up, encouraging innovation.² Carbon emissions and climate change are cases in point. Alas for now, global circularity is dismal, with only 7% of all material inputs into the world economy in 2023 consisting of secondary materials being cycled back after the end of their useful life.³

Incentives are changing

The good news, especially in Europe, is that policymakers increasingly recognize the wisdom of using market mechanisms to decouple economic growth from resource consumption.⁴ The European Investment Bank (EIB), for example has lent out €3.4bn to support circular economy projects over the last five years (see chart). Used cleverly, the circular economy can be a smart way to cut costs and tackle a whole host of other disruptive challenges, including demographic shifts.⁵ For example, circular supply chains can introduce fully renewable, recyclable or biodegradable materials that can be used in consecutive lifecycles, increasing certainty in the face of supply-chain disruptions. New forms of digital technology offer opportunities to rent, share, swap or lend idle goods. This changes producer incentives, by putting durability and performance, rather than volume, at the forefront.⁶

Regulation encourages longer lasting products

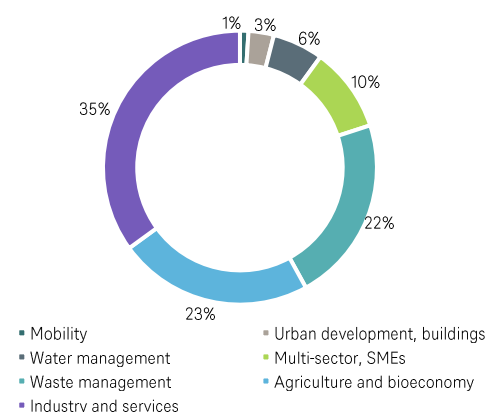
The rise of biodiversity regulation also helps eliminate harmful practices, encourages more sustainable activities, and promotes nature-positive policies. The European Green New Deal⁷ has ushered in promising opportunities across sectors like fast fashion, mobility and construction. Circular regulations are compelling companies to design products that are more durable, easily repairable and longer lasting.

For example, companies sometimes try to keep lifetimes of their products down, as lightbulb manufacturers infamously did since the 1920s.⁸ Or take clothing companies; these have historically tended to use mixed textiles, which are hard to recycle. To become circular, textile manufacturing needs to re-engineer production processes to employ fibers that are easier to reuse.⁹

A sustainable supply chain can contribute to profits

"Firms that embrace sustainability in their supply chains could also be able to attract eco-conscious consumers, resulting in increased brand loyalty and market share. This can not only improve the firms' sustainability but can also contribute to their bottom line," argues Paul Buchwitz, Head of ESG Thematic Equities at DWS. Not so long, one problem with this was that regulations differed across different countries and trading blocks. Circular economies rarely crossed borders. But as global environmental concerns continue to grow, one would expect national or regional norms to converge, often, presumably, in line with European regulatory templates.¹⁰

EIB Circular Economy lending by sector (2018-2022)



Source: European Investment Bank as of 05/2023

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Footnotes

- ¹ Our ancestors, going back at least to Neandertals, probably designed their stone tool production techniques so that when a tool broke down in predictable ways, the resulting new parts could readily be used for making other tools. See, for example, Mithen, S. (1996) *The Prehistory of the Mind: The Cognitive Origins of Art, Religion and Science*; Thames & Hudson
- ² For plenty of fascinating examples, see Simon, J. (1996). *The Ultimate Resource 2*; Princeton University Press
- ³ [The Circularity Gap Report 2023](#)
- ⁴ [World Bank Document - Squaring the Circle : Policies From Europe's Circular Economy Transition](#)
- ⁵ Manyika, J. and Woetzel, J. (2016), *No Ordinary Disruption: The Four Global Forces Breaking All the Trends*. PublicAffairs
- ⁶ See numerous case studies in Lacy, P. and Rutqvist, J. (2015), *Waste to Wealth: The Circular Economy Advantage*. Palgrave Macmillan
- ⁷ Programme of the European Parliament, aiming at making Europe climate-neutral by 2050 while increasing competitiveness of European industry
- ⁸ [The Economist | Introducing a more circular economy will meet with resistance \(economist.com\), September 27, 2018.](#)
- ⁹ [The Economist | Battery-makers are powering a circular economy \(economist.com\), October 27, 2022.](#)
- ¹⁰ [DWS Investment GmbH | A Framework for European Transformation, December 2022.](#)

Glossary

Carbon neutrality means achieving a balance between emitting carbon and absorbing carbon from the atmosphere in natural carbon sinks such as soils, forests and oceans, or through carbon capture technology.

A **circular economy** aims to close energy and material cycles by reintroducing previously unused emissions and waste back into production processes. Measures to achieve a circular economy include: sustainable construction, refurbishing and recycling.

The **European Investment Bank** is a multilateral financial institution owned by the EU member states. It provides both equity and debt financing for projects that meet EU policy objectives in areas such as climate change, the environment and infrastructure.

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