



From Linear to Circular: The Shift in Supply Chains



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The circular economy is a rapidly growing movement that aims to change how we think about resources, production, and consumption. It is a model that prioritizes the closed-loop system where waste and by-products are reused and recycled as inputs for new products and services, reducing waste and conserving resources (Ellen MacArthur Foundation, 2018). The circular economy offers a unique opportunity for companies to create value for themselves, for their customers, and for the environment (McKinsey & Company, 2020). This is an important approach, particularly in light of the world's growing material use (Figure 1).

In only 50 years, global use of materials has nearly quadrupled—outpacing population growth. In 1972, as the Club of Rome's report *Limits to Growth* was published, the world consumed 28.6 billion tonnes. By 2000, this had gone up to 54.9 billion tonnes, and as of 2019, it surpassed 100 billion tonnes.

The relationship between the circular economy and supply chains is critical, as the success of the circular economy depends on the efficiency and sustainability of supply chain operations. To maximize the benefits of the circular economy, companies must re-design their supply chains to focus on reducing waste, conserving resources, and maximizing resource use (WRI, 2019). This requires shifting from the traditional linear supply chain model to one that emphasizes collaboration, innovation, and closed-loop processes (McKinsey & Company, 2020).

The circular economy offers a wealth of opportunities for companies looking to improve sustainability, reduce costs, and create new business opportunities (Geyer, R. et al., 2017). To succeed in the circular economy,

companies must adopt a strategic and collaborative approach involving all actors in the supply chain and the commitment of organizations to invest in the necessary infrastructure and processes to make it a reality (WRI, 2019).

One company that has effectively integrated circular economy principles into its supply chain is Patagonia, the outdoor clothing and gear company. Patagonia has implemented a range of sustainability initiatives, including the use of recycled materials in its products, the repair and reuse of products, and the recycling of end-of-life products (Patagonia, 2020). These initiatives have reduced the environmental impact of Patagonia's operations and have created new business opportunities for the company (Patagonia, 2020).

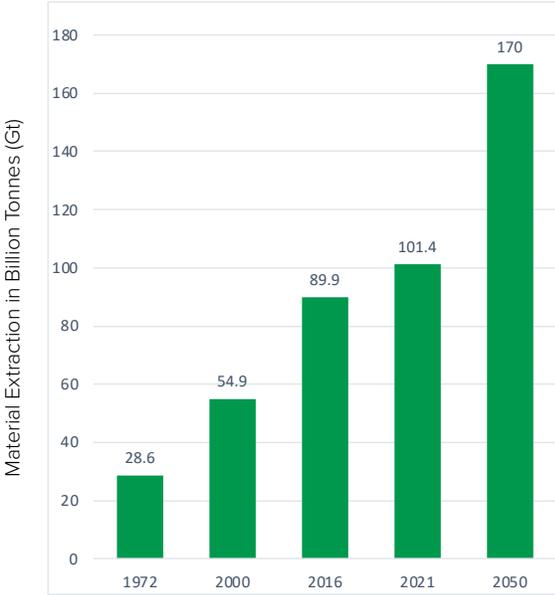
While the implementation of the circular economy in supply chains presents several challenges, including the need for cooperation between different actors in the chain (WRI, 2019), the need for transparency in supply chains (United Nations Environment Programme, 2018), and the need to balance cost savings with sustainable procurement practices (McKinsey & Company, 2020), the benefits of the circular economy are significant.

Cost savings can be achieved by reducing waste, conserving resources, and improving supply chain efficiency (McKinsey & Company, 2020). The Ellen MacArthur Foundation estimates that the circular economy has the potential to save companies \$640 billion annually by 2030 and reduce greenhouse gas emissions by 28% (2018).

Reduced environmental impact can be achieved by reducing greenhouse gas emissions, water use, and

other environmental impacts associated with the production and consumption of goods and services (Ellen MacArthur Foundation, 2018). For example, Unilever has set a goal of making all of its packaging fully recyclable, reusable, or compostable by 2025, which will significantly reduce the environmental impact of its operations (Unilever, 2021).

Figure 1: Material Extraction and Use Per Capita



Source: Circle Economy, (2022). The Circularity Gap Report 2022.

New business opportunities can be created by developing new products and services based on circular economy principles (Geyer, R. et al., 2017). Philips, for example, has developed a range of products and services that are based on circular economy principles, including its “closed loop” product design, which prioritizes resource conservation and waste reduction (Philips, 2019).

While the circular economy offers significant benefits, there are also challenges that companies face in its implementation. In the current supply chain-constrained an inflationary environment, businesses may face difficulty in sourcing materials and goods that meet the criteria of the circular economy. This can result in increased costs and delays in production, making it more challenging for companies to realize the full benefits of the circular economy (Ellen MacArthur Foundation, 2021).

Inflationary pressures can also challenge companies seeking to adopt the circular economy. As the cost of inputs increases, companies may struggle to maintain their margins while adhering to the principles of the circular economy (European Commission, 2021). This can make it difficult for companies to prioritize sustainability initiatives over short-term financial considerations (World Bank, 2021).

Another challenge for businesses seeking to adopt the circular economy is the lack of standardization and regulatory support (OECD, 2020). With no common framework for the circular economy, companies may struggle to ensure that they are measuring their progress in a meaningful way (European Commission, 2021). Additionally, without regulatory support, companies may face difficulties in convincing suppliers and consumers to adopt the principles of the circular economy (Ellen MacArthur Foundation, 2021).

Despite these challenges, many companies have demonstrated that it is possible to overcome them and achieve success with the circular economy. By working together with suppliers and customers, businesses can drive the necessary changes in the supply chain and create a more sustainable future (World Business Council for Sustainable Development, 2022). Through continued innovation, collaboration, and investment, businesses can create a more sustainable, circular economy that benefits everyone (OECD, 2020).

“ Spend intelligence and management can also play a part in the success of the circular economy by helping businesses to identify areas for improvement and potential areas for cost savings. ”

Chief Procurement Officers (CPOs) play a critical role in the success of the circular economy. They are responsible for sourcing materials and goods, and they have the power to drive change by choosing suppliers who embrace sustainability and the principles of the circular economy. Spend intelligence and management can also play a part in the success of the circular economy by helping businesses to identify areas for improvement and potential areas for cost savings. By leveraging spend intelligence and management, CPOs can ensure that their companies are making informed decisions that are aligned with their sustainability goals. Additionally, spend intelligence can provide data-driven insights into the behavior of suppliers and help companies to track the progress of their sustainability efforts.

The next steps for businesses interested in pursuing the circular economy strategy are:

- Develop a strategic approach to the circular economy, involving all actors in the supply chain and committing to investing in the necessary infrastructure and processes.
- Empower CPOs to drive change by choosing suppliers who embrace sustainability and the principles of the circular economy.
- Utilize spend intelligence and management tools to identify areas for improvement and potential cost savings.
- Continuously innovate, collaborate, and invest in the circular economy to create a more sustainable future that benefits everyone.
- Address the challenges of the circular economy, such as inflationary pressures and the lack of standardization and regulatory support, to realize its full benefits.

Following these steps, businesses can create a circular economy that offers cost savings, reduced environmental impact, and new business opportunities.

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