

WRITTEN BY



CIRCULARITY IN SERVICE OF BIODIVERSITY PROTECTION

DRAMATIC LOSSES

Resource extraction and processing is responsible for 50% of greenhouse gas emissions and more than 90% of biodiversity loss. According to World Wide Fund for Nature ‘The Living Planet Report’ from 2022, populations of wildlife mammals have declined by 69% since 1970. Representation of wild mammals on Earth decreased from 10 million tons of carbon equivalent (tC) in 1900 to 3 million tC in 2015, just 2% of World’s mammal biomass.¹

In the same period, the World human population increased from 1.7 billion people to 7.4 billion. The correlation is not accidental. Just in last 50 years, the volume of materials extraction increased by 193%, the production of meat by 244%, the coverage of deforested land by 40% and marine fish catch by 47%. The volume of materials entering global economy has more than tripled over the same period from 30 up to 106.6 billion tons per year, and it continues to grow. It’s expected to rise by another 60% by 2060 and the related waste production shall increase by 70% by 2050. At least 14 million tons of plastic waste end up in the oceans every year. The pressure on natural resources is immense. In 2023, Earth Overshoot Day—the date when humanity exhausts nature’s annual resource budget—fell on August 2 (March 14

for the USA, and May 12 for Slovakia). Globally, we consume resources as if we had 1.75 planet Earths, and our current consumption trajectory points toward a demand equivalent to three planets.

Circular solutions for business and well-being have become well known as circularity turns to be a recognized business tool, reaching the megatrend status according to the Circle Economy Foundation. At the same time, it is clear from global trends that the application of circular principles lags behind the growth rate of the global economy, as the share of secondary materials consumed has decreased from 9.1% in 2018 to 7.2% in 2023. These figures show that we are missing out on achieving broader social and environmental opportunities linked to circular solutions implementation.

Circular economy solutions have gained significant recognition, with circularity now considered a major business tool and reaching ‘megatrend’ status, according to the Circle Economy Foundation. However, global trends reveal that the adoption of circular principles is lagging behind the growth of the global economy. The share of secondary materials used has dropped from 9.1% in 2018 to 7.2% in 2023. These figures highlight the missed social and environmental opportunities that come

from failing to fully implement circular solutions.

According to the World Economic Forum, the circular economy has the potential to reduce global greenhouse gas emissions by 39% and play a crucial role in addressing the biodiversity crisis. Additionally, it offers substantial value to businesses that embrace closing the production loop. By adopting circular practices, companies can lower costs, minimize risks associated with linear business models—such as resource scarcity, pollution, and commodity price volatility—and mitigate regulatory and political risks stemming from new legislation and reporting requirements. Moreover, it opens up new sales opportunities and revenue streams. In the EU alone, the circular economy is projected to generate \$2 trillion and create over 100,000 jobs by 2030.

EY Slovakia and its CCaSS team is ready

Biodiversity loss, along with other critical sustainability issues such as water depletion and climate-neutral energy production, represents one of the greatest challenges facing humanity. These issues directly impact our ability to survive and continue advancing our culture and its achievements. The circular economy is a key tool for reversing these negative trends and protecting our unique natural and cultural heritage. At the same time, it presents an opportunity that remains vastly underutilized.

to provide clients from different industries with comprehensive services in implementing circular business models as in the solution of sub-projects related to mapping and adaptation of supply chains, compliance with legislative requirements or identification of metrics and disclosure requirements in connection with reporting practices. So called R-Strategies cover under 9Rs all the way from linear to circular economy, starting with product and its packaging design, smarter manufacture and use, followed by extended lifespan, efficient product application and customer service.

“In an era where the circular economy is no longer just a vision but becomes an essential trend for the survival of businesses, every end is a new beginning and an opportunity to close the loop and create sustainable value not just for business but also for the planet,” adds Tereza Hanušová,

Senior consultant & circular economy expert, CCaSS EY Slovakia.

EY Slovakia and its Climate Change and Sustainability Services (CCaSS) team are ready to offer clients across various industries comprehensive support in implementing circular business models. This includes assisting with sub-projects such as mapping and adapting supply chains, ensuring compliance with legislative requirements, and identifying metrics and disclosure needs for reporting practices. The ‘R-Strategies’ cover all stages of the transition from a linear to a circular economy, following the 9R framework—from product and packaging design, smarter manufacturing, and use, to extended lifespan, efficient product applications, and enhanced customer service.

¹ The IPBES Global Assessment report concluded that 1 million species are at risk of extinction globally.

■ Circularity can yield value beyond financial gains the environment, customers, and day-to-day operations of a business too.



SOURCING VALUE

Direct cost reductions and savings

- Additional product revenue streams
- New product development from innovation
- Access to cheaper resources
- Reduced supply chain risk



ENVIRONMENTAL VALUE

Benefits from improved ecological footprints

- Reduced spending on pollution mitigation
- Reduced spending on legislative compliance
- Protection against legal recourse



CUSTOMER VALUE

Leverage market trends and consumer interests

- Increased customer loyalty
- Customer satisfaction
- Brand protection
- Reputational value



INFORMATIONAL VALUE

Valuable product data on supply problems, failure rates, and usage patterns

- Resilience against market disruptors
- Fewer losses due to greater oversight of supply chains
- Proactive evidence-based strategizing