**Key Principles for a Circular Economy**

As described by the United Nations, humanity is facing a [triple planetary crisis](https://unfccc.int/blog/what-is-the-triple-planetary-crisis), made up of three interlinked issues - **climate change, pollution, and biodiversity loss**. These issues are all driven by human activities and pose significant threats to the Earth's ecosystems, as well as to the well-being and survival of various species, including humans. [According to the UN](https://www.resourcepanel.org/sites/default/files/documents/document/media/gro_2019_fact_sheet.pdf), the extraction and processing of natural resources account for about 50% of climate change, 90% of biodiversity loss, and 90% of the water stress.Turning the tide on this “triple crisis” is one of the core objectives of circular economy – a concept that offers a comprehensive and integrated approach to addressing the triple planetary crisis. Transitioning to a circular economy is therefore crucial to our ability to mitigate climate change, the depletion of our natural resources, and the risk of overshooting which regulate the stability, safety and resilience of the Earth.

* **Eliminate waste and pollution:** The first principle of the circular economy is to eliminate waste and pollution. In the linear economy, we take raw materials from the Earth; we make products out of them; and eventually, we throw them away as waste.
* **Circulate products and materials (at their highest value):** The second principle of the circular economy is to circulate products and materials at their highest value. This means keeping materials in use, either as a product or, when the product can no longer be used, as components or raw materials. This way, nothing becomes waste, and the intrinsic value of products and materials is retained.
* **Regenerate nature:** The third principle of the circular economy is to regenerate nature. By moving from a take-make-use-waste linear economy to a circular economy, we support natural processes and leave more room for nature to thrive.

We have identified five important enablers for the circular transition:

1. **Change the way we view waste and enable the free trade of resources.**

The International Chamber of Commerce was founded in the aftermath of the First World War to promote trade and investment to foster peace and prosperity among nations. This basic principle is as relevant today as it was then. We need to reduce the barriers to the circular transition and enable the free trade of resources. In a circular economy, there is no waste, only resources that are being used over and over again. Today, only a small share of material entering the global economy are recycled materials. According to the [OECD](https://www.oecd.org/environment/waste/highlights-global-material-resources-outlook-to-2060.pdf), global materials use is expected to reach 160 billion tonnes in 2060, if we do not accelerate the enabling of circular material flows.

1. **Prioritise quality over origin**

The lack of harmonised end-of-waste criteria for many waste categories across countries is prohibiting the use of what is today the waste-based feedstock in existing production plants, making the transition from waste to a marketable product complicated and sometimes even illegal. This creates a complicated legislative framework with different rules for products that originate from waste. Products and materials should be subject to the same standards and requirements, regardless of whether their origin is waste or virgin production. Rather than its origin, the quality of materials should be the regulatory factor defining its use.[[1]](#footnote-2) **One way of facilitating this would be to establish clear end-of-waste criteria that enhance the safety and demand for recycled materials and enable the use of recycled products as a substitute for primary resources.**

1. **Enable free trade of resources independently of where it originates from.**

When national policies on resources are implemented, there is a huge risk that they become barriers to trade between countries and prevent the needed circular transformation. Laws and regulations are still geared towards the linear economy thereby restricting the growth of a circular economy. Thus, the transition towards a circular economy requires a comprehensive policy framework that addresses challenges on a global level. Case in point, existing domestic legislation and regulations, sometimes based on the implementation of international agreements, which aim to reduce the risk of improper treatment and/or management of waste that may end up in landfills, inhibit the cross-border shipment of waste. In doing so, these laws and regulations stop the recovery of raw materials. This is problematic for companies using circular economy approaches to solve the waste problem (and in the process address the risk of unlawful and dangerous waste stockage) through the recovery of raw materials by using new technologies. **Removing barriers and making it easier for waste used for research to cross borders are therefore important to create incentives for circular innovation, as well as promoting the use of strategic material banks to ensure that resources with a potential value in the future are not wasted or destroyed in the present.[[2]](#footnote-3)**

1. **Recovery of raw materials from urban flows can boost food supply, prevent water scarcity and reduce the risk of eutrophication of our waters.**

Fertiliser nutrients like phosphorus and nitrogen are crucial for food production but are sourced in unsustainable ways and often end up in waterways, causing environmental problems like eutrophication. Among scientifically defined [planetary boundaries](https://www.stockholmresilience.org/research/planetary-boundaries/the-nine-planetary-boundaries.html), nutrient overload is already the [deepest into red territory](https://www.stockholmresilience.org/research/research-news/2023-09-13-all-planetary-boundaries-mapped-out-for-the-first-time-six-of-nine-crossed.html), meaning a very high risk of irreversible damage to the planet. About 50% of global emissions of greenhouse gases (GHG) and about 90% of the challenges related to water stress and loss of biological diversity are also related to the extraction and processing of virgin materials. Today, the majority of phosphorus is today wasted into our rivers and oceans and as a consequence it will instead increase the risk for eutrophication. Agriculture is today supplied with virgin phosphorus from depleting mines. Nitrogen is also today wasted when it is released back into the atmosphere at our wastewater facilities. Indeed, nitrogen is produced by using a century-old method which needs around 2% of the world’s energy and is [responsible for nearly 1% of global GHG emissions](https://www.nature.com/articles/s41598-022-18773-w).[[3]](#footnote-4) There is, however, a very concrete solution to these problems. We could reduce the need of virgin supply of fertilisers to the agriculture sector at the same time as we produce clean water for reuse by enabling the transition of today’s **wastewater treatment plants to resource plants of the future. These plants could help enhance the world’s food security.**

1. **Standardisation as the key enabler for the free trade of resources independently of origin**

Today, the rules for material recovery from products classified as waste are very complicated and regulated based on the specific material. Laws regulating products differ from country to country, and this lack of standardisation constitutes a barrier to the use of recovered materials. Tracking trade flows is challenging, not least because the Harmonized System at the six-digit level codes does not make a clear distinction between recirculated raw materials and waste and scrap. **The introduction of international material quality or content standards, as well as certification schemes, eco-design requirements, and government procurement schemes (OECD 2020) will play a critical role in increasing the use of recirculated raw materials and boosting free trade.**

1. <https://iccwbo.org/news-publications/policies-reports/circular-material-flows-for-research-and-innovation/> [↑](#footnote-ref-2)
2. <https://iccwbo.org/news-publications/policies-reports/circular-material-flows-for-research-and-innovation/>, page 5 and 10. [↑](#footnote-ref-3)
3. <https://iccwbo.org/news-publications/policies-reports/the-circular-economy-and-international-trade-options-for-the-world-trade-organization/> [↑](#footnote-ref-4)