Key enablers for a circular economy

As described by the United Nations (UN), humanity is facing a triple planetary crisis[1], made up of three interlinking 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[2], the extraction and processing of natural resources account for about 50% of climate change, 90% of biodiversity loss, and 90% of water stress.

Turning the tide on this triple planetary crisis is one the core objectives of circular economy – a concept that offers a comprehensive and integrated approach to addressing the crisis. Transitioning to a circular economy is therefore crucial to mitigate climate change and to counteract the depletion of natural resources and the risk of overshooting planetary boundaries that regulate the stability, safety and resilience of the Earth.

A circular economy is based on three key principles:[3]

- **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, make products out of them and, eventually, 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.

The International Chamber of Commerce (ICC) was founded in the aftermath of the First World War to promote global trade and investment on the belief that strong and mutually beneficial commercial ties would foster peace and prosperity among nations. This basic principle is as relevant today as it was then. A circular economy can spur sustainable economic growth, job creation and help build resilience including for micro-, small- and medium-sized enterprises across the world.

---

[1] UNFCCC, 'What is the Triple Planetary Crisis?', www.unfccc.int/blog/what-is-the-triple-planetary-crisis, 2022.
[2] UN Environment, 'Global Resources Outlook 2019', www.resourcepanel.org/sites/default/files/documents/document/media/gro_2019_fact_sheet.pdf, 2019.
[3] Ellen MacArthur Foundation, 'What is a circular economy?', www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview, accessed 01/12/2023.

To enable a circular economy, which requires trade and cooperation among nations, we have identified **five key enablers**.

1. Change the way we view "waste" 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. However, regulatory barriers to the free trade of resources are impeding the scalable reuse of the Earth's resources. According to the OECD, if circular material flows are not increased, the use of global materials is expected to reach 160 billion tonnes in 2060.[4] It is imperative to reverse this trend, but we are far from where we need to be. Today, only a small share of materials entering the global economy is recovered or recycled. One of the main reasons for this is that most governments define waste without distinguishing between resources that can be reused, recovered, repaired, repurposed or refurbished and those that need to be recycled or otherwise disposed of. As a result, companies cannot access or trade still useful resources, which may for example be of superior quality to newly mined yet polluted resources because they are classified or defined as "waste". Thus, changing the way we view and define waste to align with circular economy principles is key to allowing the free trade of resources and keeping materials and products in use for as long as possible. This will enable companies to better access and trade resources that can have multiple lives.

2. Prioritise the quality of products over the nature of original production

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 for existing production plants. As a result, the transition from "waste" to a marketable product is complicated and sometimes even illegal. Companies wishing to ship materials for circular economy purposes face complex legislative frameworks that treat all products that originate from "waste" as potentially harmful and environmentally unfriendly. For example, a used office chair cannot be returned to the manufacturer because it will be treated as "waste". To allow circularity, recovered and recycled goods and materials should be subject to the same industry standards and requirements as appropriate regardless of whether they are sourced from "waste" or virgin production. For instance, when nutrients like phosphorous or magnesium are recovered from what is currently defined as "waste", it should be the quality of these recovered nutrients that determines their use rather than their origin.[5] This would also help attract investments in the capacity to source and store materials with potential value for immediate and future use. One way of facilitating the transition to a quality-based approach 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.

---

[4] OECD, 'Global Material Resources Outlook to 2060: Economic Drivers and Environmental Consequences', https://doi.org/10.1787/9789264307452-en, 2019.

[5] International Chamber of Commerce, 'Policy Brief: Circular material flows for research and innovation', https://iccwbo.org/news-publications/policies-reports/circular-material-flows-for-research-and-innovation, 2023.

3. Enable the use of strategic material banks and cross-border reverse logistics

In addition to legal and regulatory impediments, "waste" ends up in landfills because current technologies are not yet mature enough or available to allow for the proper treatment, recovery, and recycling of "waste". However, with the acceleration of circular innovations and solutions all around the world, materials that are currently considered as waste could be properly and safely stored in material banks for future use. These banks prevent the contamination of the environment (air, water, soil) and the negative health impacts associated with the pollution by landfills.[6] For consumer-focused companies, their sold products are the "material banks" and need to be collected through functioning cross-border reverse logistics, which is critical for enabling a circular economy.[7] Finally, strategic circular resources must be allowed to be imported duty free.

4. Adopt globally harmonised standards and definitions to achieve circularity at scale

Global challenges need global solutions. To achieve circularity at scale and ensure the success of circular business models and supply chains, governments must develop and adopt harmonised definitions, standards, and requirements that encompass the five loops of reuse, repair, refurbishment, remanufacturing, and recycling, reflect inputs from a broad range of industries, and account for variations across sectors. This includes global trading regulations and country-specific requirements. Global harmonisation and alignment within the multilateral rules-based trading system must be secured and amended at the World Trade Organization, which should look to international standards bodies for globally accepted definitions and standards. Local regulations should be aligned and interoperable with these global rules. This will support and enable change among all member countries, their customs agencies, and other relevant government agencies involved with imports and exports. From a customs perspective, the rules for material recovery from products classified for customs purposes 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.[8] The introduction of international material quality or content standards, as well as certification schemes, eco-design requirements, and government procurement schemes will play a critical role in increasing the use of recirculated raw materials and boosting free trade.[9]

---

[6] Siddiqua A, Hahladakis JN, Al-Attiya WAKA, 'An overview of the environmental pollution and health effects associated with waste landfilling and open dumping', Environmental Science and Pollution Research International, 29(39), 58514-58536, https://doi.org/10.1007/s11356-022-21578-z, PMCID: PMC9399006, 2022.

[7] Yamaguchi, S., 'Securing reverse supply chains for a resource efficient and circular economy', OECD Trade and Environment Working Papers, No. 2022/02, https://doi.org/10.1787/6ab6bb39-en, 2022.

[8] International Chamber of Commerce, 'The Circular Economy and International Trade: Options for the World Trade Organization', https://iccwbo.org/news-publications/policies-reports/the-circular-economy-and-international-trade-options-for-the-world-trade-organization, 2022.

[9] Yamaguchi, S., 'International trade and circular economy - Policy alignment', OECD Trade and Environment Working Papers, No. 2021/02, https://doi.org/10.1787/ae4a2176-en, 2021.

5. Recover raw materials from urban flows to boost food supply, prevent water scarcity and reduce the risk of eutrophication

According to the World Bank, 4.4 billion people, representing 56% of the world's population, live in cities, and it is expected that the global urban population will more than double in size by 2050. Adopting circular economy approaches to the use of resources in cities can play a key role in tackling climate change. Currently, improper and suboptimal use of resources and wastewater treatment facilities are contributing to water scarcity and pollution. Facilitating the movement of "waste" could decrease such negative impacts on the environment by reducing the reliance on wastewater treatment plants. In terms of food security, fertiliser nutrients like phosphorus and nitrogen are crucial for food production but are often sourced in unsustainable ways and end up in waterways, causing environmental problems like eutrophication. Among scientifically defined planetary boundaries[10], nutrient overload is already the deepest into red territory[11] and carries 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 the produced phosphorus is wasted in rivers and oceans, increasing the risk of eutrophication. Nitrogen is released back into the atmosphere at wastewater facilities. Currently, agriculture uses virgin phosphorus from depleting mines, and nitrogen is produced by using a century-old method, which uses around 2% of the world's energy and is responsible for nearly 1% of global GHG emissions.[12] The need for a virgin supply of agricultural fertilisers could be reduced while at the same time producing clean water for reuse by turning today's wastewater treatment plants into circular resource plants of the future. These plants could help enhance the world's food security.

[10] Stockholm Resilience Centre, 'Planetary Boundaries', www.stockholmresilience.org/research/planetary-boundaries/the-nine-planetary-boundaries.html, accessed 04/12/2023.
[11] Stockholm Resilience Centre, 'All planetary boundaries mapped out for the first time, six of nine crossed', www.stockholmresilience.org/research/research-news/2023-09-13-all-planetary-boundaries-mapped-out-for-the-first-time-six-of-nine-crossed.html, accessed 04/12/2023.
[12] International Chamber of Commerce, 'The Circular Economy and International Trade: Options for the World Trade Organization', www.iccwbo.org/news-publications/policies-reports/the-circular-economy-and-international-trade-options-for-the-world-trade-organization, 2021.

Please cite as:

ICC (2023), Key enablers for a circular economy.
www.iccwbo.org/news-publications/policies-reports/key-enablers-for-a-circular-economy/

About the International Chamber of Commerce

The International Chamber of Commerce (ICC) is the institutional representative of more than 45 million companies in over 170 countries. ICC's core mission is to make business work for everyone, every day, everywhere. Through a unique mix of advocacy, solutions and standard setting, we promote international trade, responsible business conduct and a global approach to regulation, in addition to providing market-leading dispute resolution services. Our members include many of the world's leading companies, SMEs, business associations and local chambers of commerce.

33-43 avenue du Président Wilson, 75116 Paris, France
T +33 (0)1 49 53 28 28 E icc@iccwbo.org
www.iccwbo.org @iccwbo