

Guide to a circular economy — Part 1

Get started with your *circular strategy.*



Intro

**Unlocking a true circular system:
A call to action
for sustainable
transformation**

In the landscape of global industries, the move towards a genuine circular system remains a significant challenge. Despite a rising interest in sustainability, the 2024 Circular Gap Report highlights that true circularity is still on the decline, overshadowed by the relentless acceleration of global consumption. [Source](#).

Now is the time to redefine our approach, moving beyond a singular focus on material circularity (recycling) or substitution. We must shift towards building new circular ecosystems that prioritize the intensity of use for products, materials, and waste.

In this first chapter, we list the key drivers for you as a business to accelerate the shift to an ambitious circular economy. If you are clear on the reasons 'why', we provide the 3 core pillars to write your own circular strategy, addressing the 'what'.

In the second chapter, we will address the 'how'. How to build the business case for a pioneering shift from a linear to a comprehensive circular offer. We will give you the 3 building blocks to uncover new value, so you can start competing at scale with the dominant linear model.

[Read Part 2](#)

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Ready to dive in and start an ambitious circular journey for your company or organization? Download here our Circular Strategy Templates.

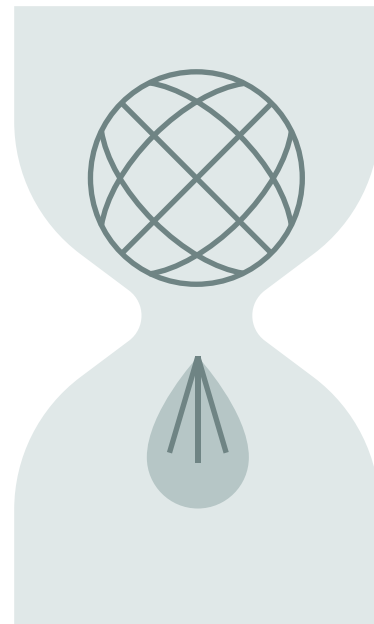
[Circular Strategy Templates](#)

The importance of *circularity* for your business

1. Sensing the Urgency

1.1. Sustainability commitments

As businesses worldwide agree to take up their responsibility in averting climate change, sustainability commitments are no longer optional but imperative. Whether driven by an internal eco-consciousness or impending outside regulations such as the EU's Corporate Sustainability Reporting Directive (CSRD), companies are struggling to translate lofty ambitions into tangible, impactful projects. Maximizing the intensity of product or material use is a pivotal strategy to significantly influence key metrics in sustainability reporting.



1.2. Material scarcity and volatility

Our reliance on supply chains, particularly those originating in or involving China, poses a growing risk to long-term business success. Recent global events, from the pandemic to geopolitical conflicts, underscore the vulnerability of these supply chains and the profound impact of price fluctuations on business outcomes. Building a resilient business model—one that decouples growth from excessive material consumption through strategies like reuse and repair—promises a more stable and secure future.

1.3 Legislation

In the context of the ambitious European Green Deal and the pursuit of climate neutrality by 2050, legislative changes are inevitable.



Proactively adopting sustainable practices not only aligns your business with evolving environmental standards but also positions you ahead of regulatory shifts. Specific directives, such as the Packaging and Packaging Waste Directive, underscore the importance of considering the entire life cycle of packaging, emphasizing reuse and repair potential.

Aligning with the Green Deal not only ensures compliance but also opens doors to funding opportunities for innovative yet potentially risky projects.

Packaging and Packaging Waste Directive (2018/852/EU)

This directive prioritizes extended producer responsibility and promotes the design of reusable and recyclable packaging. It underscores the importance of a circular approach, focusing on the full life cycle of packaging.

Waste Framework Directive (2008/98/EC) and Single-Use Plastics Directive (2019/904/EU)

Both directives advocate for reusable alternatives and measures to limit the consumption of single-use plastics through robust reuse and repair initiatives.

Ecodesign Directive (2009/125/EC)

This directive encourages products that are easier to repair and have a longer lifespan, contributing to a circular economy.

Circular Economy Action Plan (COM/2020/98 final)

Emphasizing the importance of reuse and repair, this plan aims to strengthen the "Right to Repair" and explores options for extending the lifespan of products.

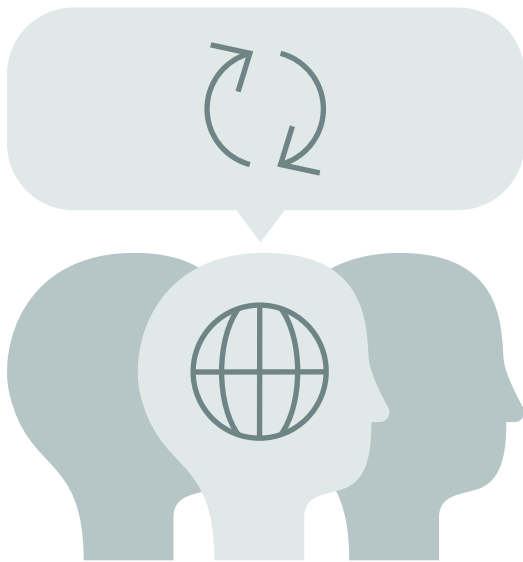
Textiles Strategy (COM/2021/102 final)

This strategy focuses on improving the durability and reparability of textiles, discouraging practices that contribute to textile product disposal.

E-waste Directive (2012/19/EU)

This directive includes provisions to encourage electronic product design with a focus on durability, reparability, and upgradeability.

2. Meeting Consumer Demands



Consumer concerns about (plastic) pollution have become increasingly clear and continue to be a top priority. Shifting towards recyclable packaging, while essential, may not be sufficient to address the perception problem. With consumers becoming more discerning, a transition to reuse and repair models can offer a verifiable environmental impact. [Source](#)

Fast fashion's unsustainable waste generation is increasingly unacceptable, particularly to the younger generation. The surge in the global secondhand market, driven by Gen Z consumers, reflects a growing openness to buying second hand. [Source](#)

Reuse and repair models not only align with these changing market dynamics but also provide a platform for meaningful consumer engagement through digital interactions.

3. Industry Leadership and Competitive Edge

Committing to a transition away from single-use plastic and embracing reuse alternatives can define your business as an industry leader. Case studies of major players experimenting with new models, coupled with active programs from industry networks like Ellen MacArthur Foundation (EMF), Consumers Goods Forum (CGF) and the Global Plastics Treaty [source](#), reveal a landscape ripe for innovation. Collaborating on these new models can lead to international partnerships, expanding your business's global reach and ensuring it remains at the forefront of industry developments. In a rapidly evolving business landscape, staying behind is not an option.

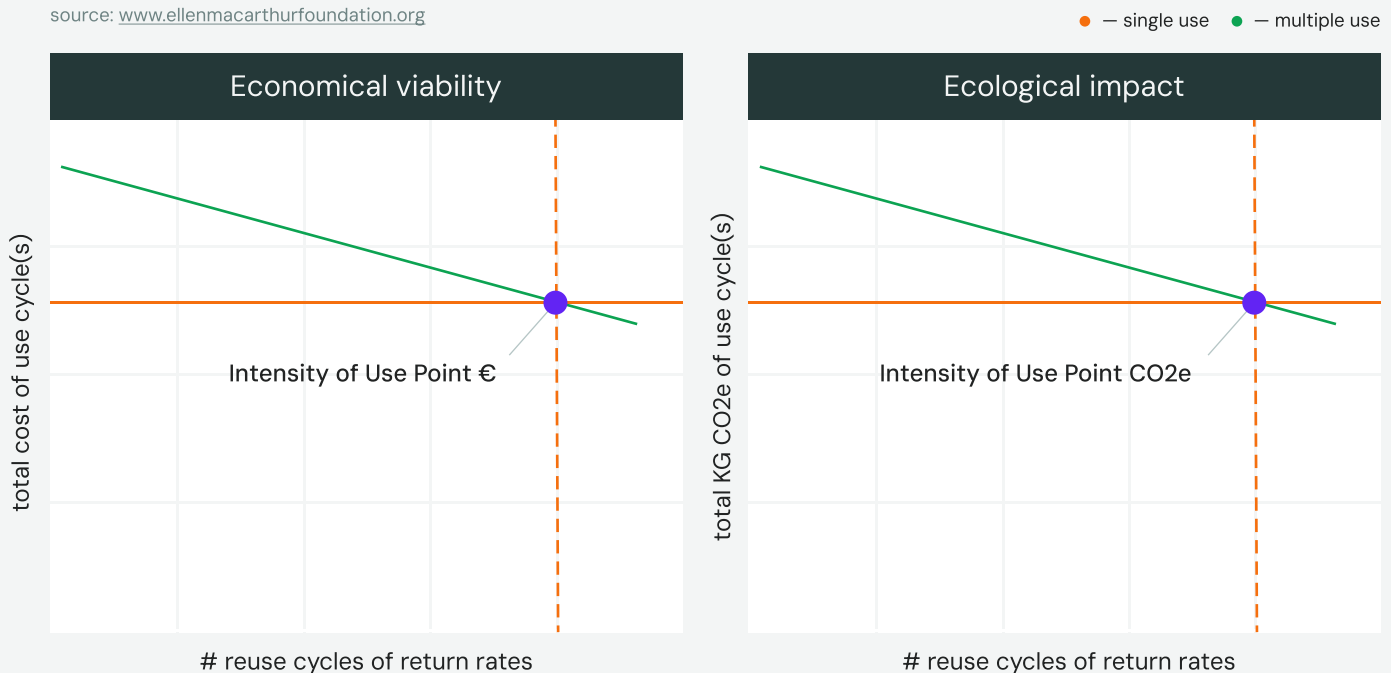
The intensity of use *cascade*

Applying a new perspective to find business opportunities with the circular economy

In the quest for a more circular economy, this approach transcends the traditional focus on recyclability. The Intensity of Use cascade introduces a clear focus on encouraging heightened use intensity of products, materials and waste across all life cycle stages.

1. Intensity of Use point

source: www.ellenmacarthurfoundation.org



For any reuse/repair model, it is critical to identify the Intensity of Use Point. This is the juncture where reuse becomes more profitable and less environmentally harmful compared to the single-use model. Achieving this point may be straightforward in some cases, while in others, it might necessitate a radical increase in efficiency and scalability. The good news is that this point is always within reach.

Modeling the above figures requires thinking beyond the reality of today. Too often, figures from the current optimized single use context are compared with current small scale trials in multiple use. We need scale, investments in infrastructure and investments in behavior change to reach the Intensity of Use point for all products. Innovative real life cases have shown that multiple use will become more profitable and less impactful for the environment versus single use.

2. Three pillars of the Intensity of Use cascade

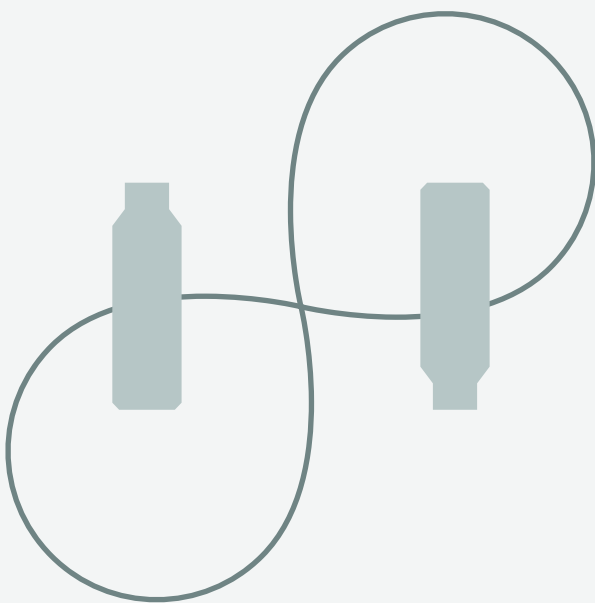
2.1 Increase the Intensity of Use of the product/packaging

Starting with the primary product or packaging, the focus shifts from outright recyclability to maximizing the number of times a product or product component delivers its service.

Longevity beyond durability: Quality will facilitate a longer life, but intensity of use transcends product longevity. The functional life of packaging or clothes often exceeds the actual time of use because of current market dynamics (throw away culture, fast fashion, ...) Rather than merely focusing on making products durable, businesses can explore design strategies that foster emotional attachment and consumer engagement in a different way, leading to a more intensive use of those products we already own.

Infrastructure for reuse, repair and refurbish: Taking responsibility in creating infrastructure that supports easy repair and reuse can amplify the intensity of product use. Once the context defines reuse as the new normal, behavioral change will follow. Collaborating with repair services or establishing in-house repair programs not only extends the life of products but also nurtures a sustainable consumer relationship. Additionally, this creates meaningful jobs in the social economy.

Energy efficient products: For goods that require energy in their use phase, such as appliances, optimizing the energy intensity per use is critical. Companies should drive refurbishment initiatives to ensure a prolonged low-energy lifespan. So ideally a machine or appliance should be designed to allow for future energy efficiency upgrades.



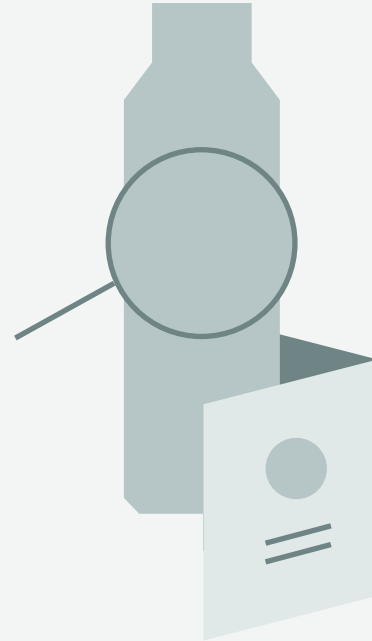
2.2 Increase the Intensity of Use of the material

The next imperative is elevating the intensity of material use. It starts with design for recycling, but surpasses traditional recyclability efforts, emphasizing an active role for businesses to take up in ensuring materials are genuinely recycled.

Material ID: Adopting digital product passports enhances traceability and facilitates responsible recycling. Integrating technologies like RFID ensures precise material identification, contributing to efficient recycling processes. Businesses can explore partnerships with tech providers or invest in developing proprietary tracking systems.

Incentive structures: Creating incentive structures that encourage consumers to return materials for recycling can revolutionize material recovery. For instance, packaging designed for reuse may make use of a deposit system, encouraging returns, and in doing so also streamline sorting. Thus providing a very pure stream of non-contaminated materials allowing qualitative recycling.

Collaboration across the value chain: Companies can engage in collaborative initiatives with material suppliers, recyclers, and technology innovators to explore new materials, recycling methods, and detection technologies. Such collaborations can drive the development of materials with enhanced recyclability and the creation of closed-loop systems.



source: www.kbacflooring.co.za



2.3 Increase the Intensity of Use of low-value waste streams

As responsibility extends to the product's use intensity and material, the third layer involves exploring underutilized waste streams.

Upcycling technical waste streams: Thorough assessments of available waste streams, especially low-value ones, presents opportunities for innovation. Companies can identify waste streams that are currently overlooked to create new use cases within their portfolio. Multiple providers are even offering services to connect available waste streams to your needs. One just has to be careful to avoid perpetuating the market for hard-to-recycle materials. It's better to phase out certain materials instead of creating yet another object that will never be able to be recycled (for example bricks from mixed plastic). Recycling Gantoise is a good example where a difficult to recycle waste stream (used polypropylene clothes from hospitals) is transformed into recyclable materials for the car industry. [Source](#)

Upcycling organic waste streams: The same logic works in the world of organic waste streams: identify underutilized waste streams and investigate how they could fit your needs. But beware: the opportunities and pitfalls here differ from technical waste. For example, food waste can be converted into building blocks to create functional chemicals or compostable materials. They could serve as a direct replacement for problematic resources like petrol or palm oil. Most of these technologies are in the stage of proof of concept and require partners to scale.

There is some work to be done in orchestrating the emerging supply chain from waste to final solution. It's not yet a one stop shop. The venture studio [Etsaw](#) is a good example of how they are facilitating the creation of new materials from waste. MarinaTex for example is a home compostable material alternative to plastic films made from marine-friendly and waste ingredients.

Still, it remains advisable to approach the rapidly evolving world of compostable materials with due caution. Since they could lead to a material replacement strategy instead of a proper material reduction strategy. Issues like lacking in proper processing infrastructure and the risk of contaminating the recycling processes, make their current use cases limited. But a dissolvable film or any films used directly on the land can have valuable applications.



2.4 A combined strategy

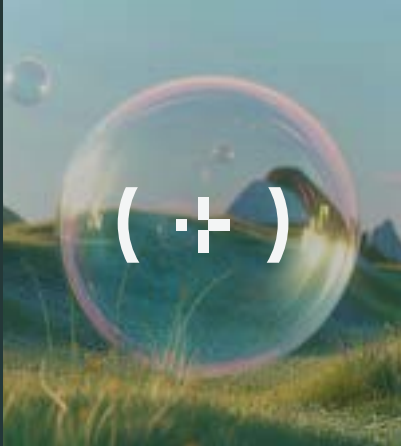
The goal for the future is to combine the 3 layers into one system. Starting from a safe material, both for people and planet, that is made from organic waste or carbon capturing. That material is then turned into a durable product that is used to the maximum through a refill, reuse, repair and refurbish model. Since the product is part of a smart take back system, it can be collected as a pure material stream for qualitative recycling. In this system, recycling of compostable materials like PHA becomes possible as they would not be contaminating the current collection. This would again increase the intensity of use of the material instead of it being immediately composted.

3. Conclusion: A new paradigm for circular economy

The Intensity of Use cascade challenges businesses to redefine their relationship with products, materials, and waste streams. Beyond recyclability, it encourages a holistic view that emphasizes longevity, responsible material recovery, and the unlocking of value from low-value waste streams. In adopting this approach, businesses not only contribute to a more circular economy but they are also creating a future-proof business model.



Our 3 step model from opportunity to scalable *circular business model*



01

Scan

Scanning for circular business opportunities within the company. Assessing the viability, desirability and feasibility to unlock circular business models as a first step.

- Company & product scan
- Market & legislation scan
- Logistics analysis
- Business case potential
- Key recommendations

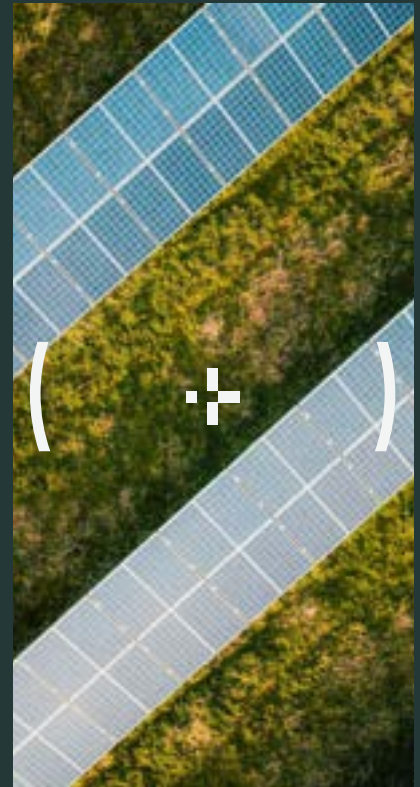


02

Pilot

Testing the circular model in a controlled environment at the earliest stage, allowing for learning and adaptation before full-scale implementation.

- Pilot set up, powered by
 - Made eco-system
 - Product & packaging design
 - Custom digital platform
 - Digital Product Passport
 - Data collection & analysis
 - Business case refinement
 - User testing



03

Scale

To expand the model across multiple locations or products, integrating learnings from the pilot to ensure success at a larger scale

- Implementation plan
- Supply chain integration
- Final business case
- Digital integration with existing ERP platforms
- Marketing and communication support
- Continuous monitoring and improvements
- Sustainability reporting

A strong legacy in a variety of industries



New models for Retailers

To assess and understand the current ecosystem, identify circular opportunities, scan the company

Added value for Brands

Set up circular models, as part of a network across the value chain. Test in a safe environment and scale with success.



Go circular in Fashion

Promote circular practices, reduce waste, and drive sustainable innovation. Get in line with UPV and other legislation.



Go circular in Healthcare

Reduce waste and scope 3 emissions by setting up circular systems. Redesign the value chain towards a circular business model.



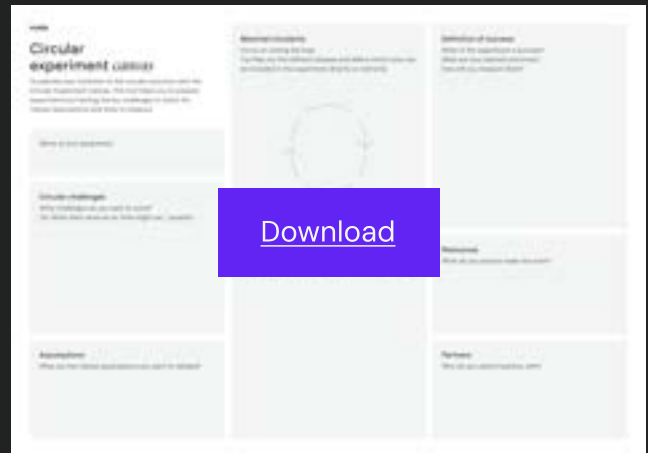
Go circular in Industry

Reduce waste and scope 3 emissions by setting up circular systems. Redesign the value chain towards a circular business model.

Download our circular strategy templates

Circular experiment canvas

Ready to dive in and start an ambitious circular journey for your company or organization?



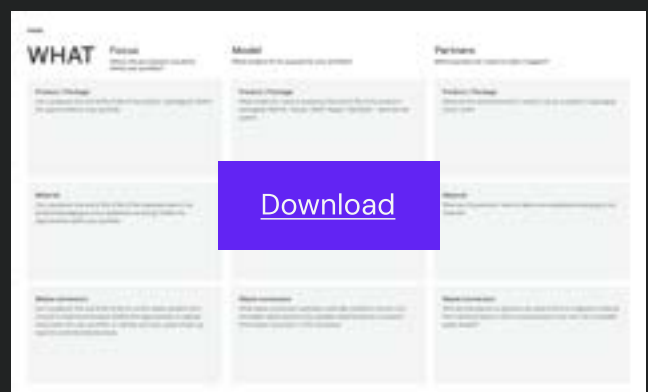
WHY canvas

By evaluating the core macro trends that impact the shift to a circular economy, you can define what factors are most crucial for your case. That will define your focus in the next stage.



WHAT canvas

The canvas helps you to identify the broad spectrum of opportunities for going circular in your business. It pushes the boundaries of circularity and makes you explore new systems instead of having a pure material focus.



HOW canvas

We'll start mapping the complete system journey and identify where we can create value. We can find value in enhancing the customer experience, or drive efficiencies in the supply chain thanks to the digitization of the circular model.



The urgency is real, time to go circular is *now*.

We hope you found the insights and strategies outlined in this section both inspiring and practical. The transition towards a circular model is undoubtedly complex, bridging the gap between theory and application poses a unique set of challenges.

To help you navigate this journey more effectively, we are excited to offer you a complimentary 1-2 hour online session. This session is designed to inspire you with some relevant cases and help you identify the critical challenges specific to your business as a first step towards circularity.

Let's transform challenges into opportunities together.

[Schedule your session](#)



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[Book a chat](#)

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