

The logo for AlixPartners, featuring the word "AlixPartners" in a white, sans-serif font. The background is a dark green with abstract, concentric circular patterns in a lighter shade of green, creating a sense of depth and movement.

AlixPartners

From Waste to Worth

Capturing economic and
sustainable value in
circular value chains

April 2026

Introduction: Sustainability as strategy

While sustainability may have slipped down the priority list for many C-suite executives, the signals that it is a genuine strategic game-changer remain solid. Advancing on this front—despite temporary headwinds—will pay dividends in the long run. Sustainability will no longer be an option.

Circular value chains offer a transformative alternative to the traditional “take–make–dispose” model—unlocking economic gains, environmental benefits, and strategic resilience.

This paper explains the concept, highlights real-world successes, and outlines the obstacles and solutions to building circular advantage.

SUMMARY

- 1** Breaking the myth of recycling
- 2** Circularity: the business case
- 3** Facing the common traps
- 4** In action: pioneers and proof points



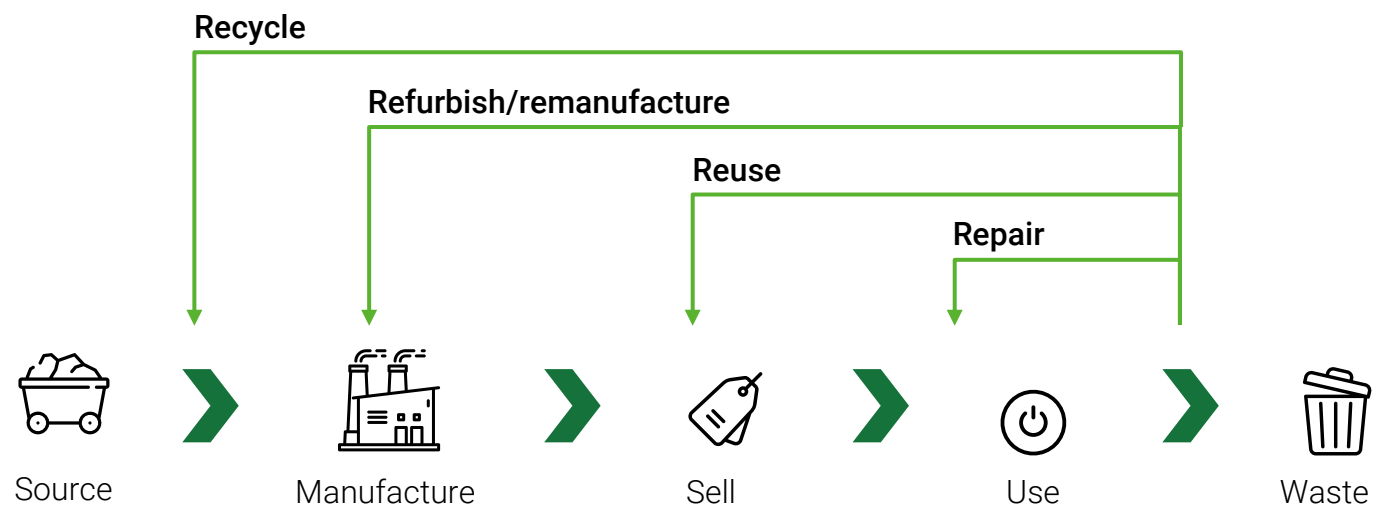
What is a circular value chain?

Breaking the myth of recycling

A circular value chain keeps **products, materials, and resources in use** to preserve value and cut waste. Unlike linear systems, it creates a **closed loop** where products are repaired, reused, refurbished, remanufactured—and only as a last resort, recycled.

Key insight: Recycling is the *least* value-preserving option; true circularity aims to maintain the highest possible product value.

Figure 1: Main forms of circularity: what steps do you leverage in your organization?



Five levers of circularity

- 01: REPAIR** Fix faults to extend product life without changing its core function.
- 02: REUSE** Use products/components again for the same purpose with minimal alteration.
- 03: REFURBISH** Restore used products to good condition by cleaning and replacing parts.
- 04: REMANUFACTURE** Disassemble to component level and rebuild to “as new” quality.
- 05: RECYCLE** Transform waste into raw material (value-destructive, last resort).

Why go circular? The business case

Circularity is not one-size-fits-all: Aerospace and automotive can capture significant cost and resilience gains, while consumer goods or fashion see more loyalty benefits. Solutions need to be tailored to each company, taking into account its specificities.

	AEROSPACE & DEFENSE	AUTOMOTIVE	CONSUMER GOODS	FASHION & LUXURY	INDUSTRY/ UTILITIES
Improve resilience	■ ■ ■	■ ■ ■	■ ■ □	■ □ □	■ ■ □
Reduce cost	■ □ □	■ □ □	□ □ □	□ □ □	■ □ □
Cut waste	■ ■ ■	■ ■ ■	■ ■ ■	■ ■ ■	■ ■ ■
Reduce CO ₂	■ ■ □	■ ■ □	■ ■ □	■ ■ □	■ ■ □
Build loyalty	-	■ □ □	■ ■ □	■ ■ □	■ □ □

Improve resilience: Future-proof your EBIT

Circular supply chains reduce exposure to **resource scarcity, price volatility, and geopolitical shocks**, thus decoupling raw material spend from market fluctuations.

Example: Apple’s “Daisy” robots recover gold, cobalt, and rare earths from old iPhones, cutting dependence on volatile mining markets as gold prices double.

Source: [Apple développe ses programmes de recyclage internationaux - Apple \(FR\)](#)

Reduce cost

Reusing materials lowers raw-material spend and production costs, and more than 50% of executives expect cost reductions when implementing a circular value chain.

Recovered metals are a prime example: secondary ingots are typically 30–50% cheaper per ton than material from primary smelters.

Example: Caterpillar remanufactures heavy equipment, saving 127 millions of tons of raw in four years, with more than 85 patents.

Source: [Cat@ Reman | Le processus de remanufacturing | Cat | Caterpillar](#)

Cut waste and CO₂

Circular models can cut landfill waste by **40%** and lifecycle carbon emissions by **up to 45%**, helping meet tightening regulations and carbon-credit requirements.

From an economic perspective, this approach is also aligned with existing waste management regulations, particularly Extended Producer Responsibility (EPR), which requires companies to take accountability for the end-of-life management of their products.

By doing so, businesses not only avoid penalties and rising carbon costs but also strengthen their competitive position by staying ahead of the increasingly numerous compliance requirements.

As regulations increasingly promote circularity, companies must adapt promptly to stay competitive and protect their EBIT.

Example: Renault’s Choisy-le-Roi plant refurbishes automotive parts, slashing industrial waste by 70%.

Source: [Europe’s first circular economy factory for vehicles: Renault | Ellen MacArthur Foundation](#)

Build loyalty

Circularity is a powerful engine of brand loyalty, forging a stronger bond with customers.

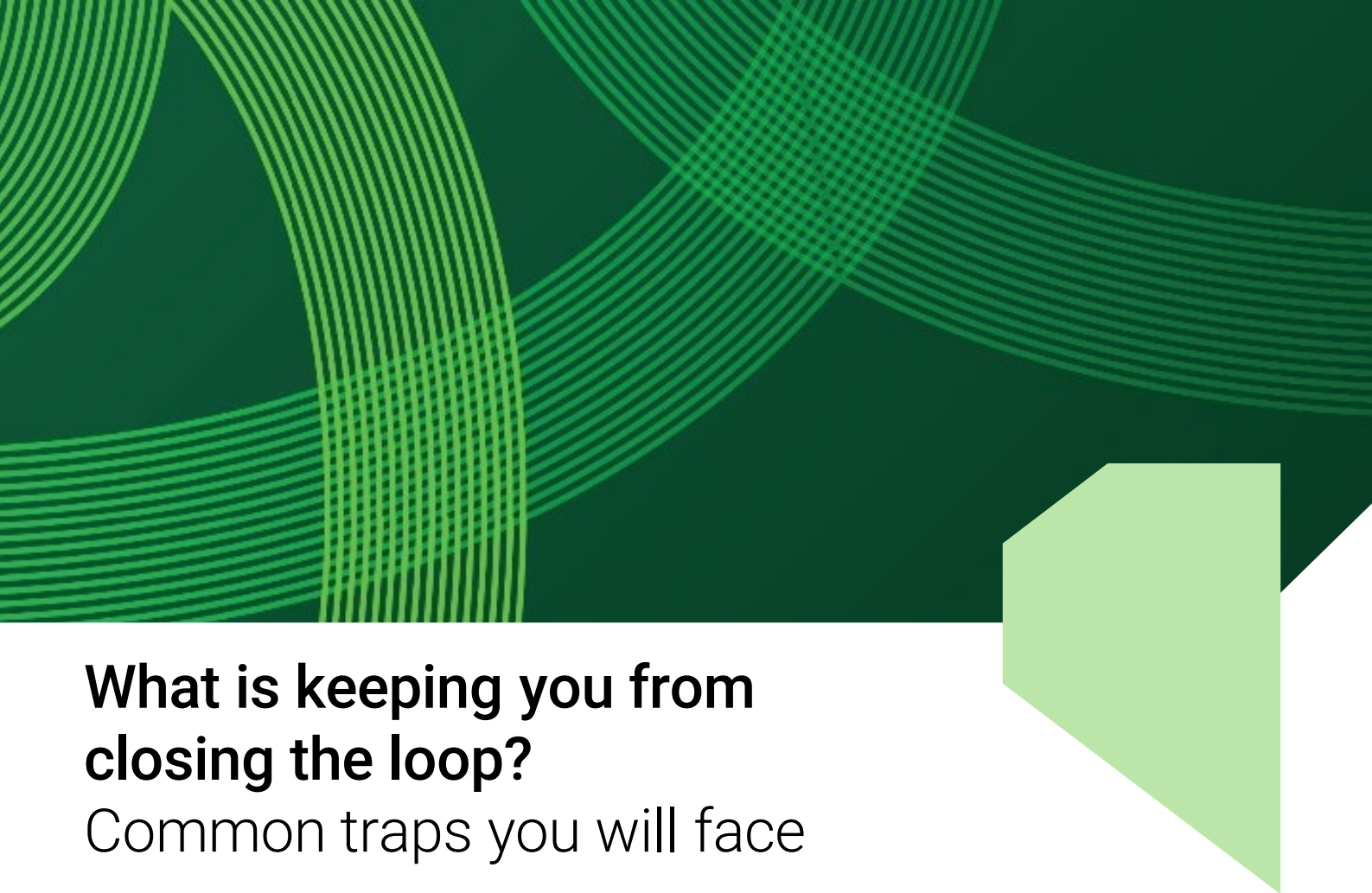
Environmentally-conscious buyers appreciate the positive impact of choosing refurbished or returned products, while even more skeptical consumers respond to **clear financial rewards**.

Take-back schemes and upgrade bonuses drive repeat engagement and eco-driven brand preference.

Example: Orange Buy-Back – In France, Orange offers a **€50 bonus** when customers bring back their old smartphone while purchasing a new one or subscribing to a higher-end plan.

Source: [Orange REprise : on vous dit tout ! - Communauté Orange](#)

Takeaway: Circularity is more than a sustainability badge—it’s a margin and resilience engine in an unpredictable market.



What is keeping you from closing the loop?

Common traps you will face

To get there, there are a number of hurdles to overcome.

Despite its benefits, the transition to a circular value chain presents several challenges that companies must navigate.

Operational complexity and upfront costs

The shift from a linear to a circular model requires complex operational changes, including (not exhaustive):

- Redesigning products to prepare them for efficient repair, dismantling and recycling
- Reconfiguring supply chains
- Developing new recovery and recycling processes.

These changes can be demanding and time-consuming. The complexity of circular value chains can be clearly illustrated by the case of retailers in the consumer electronics sector (e.g., smartphones, computers). One of the main challenges lies in retrieving products that have been sold and therefore dispersed among individual consumers. Retailers must therefore develop effective strategies to collect these used devices to enable proper recycling and reintegration into the value chain.

Initial investments in technology, infrastructure, and training can be significant. Companies must be prepared to allocate resources to develop circular capabilities and integrate them into their existing operations.

Product redesign, supply-chain reconfiguration, and recovery logistics require new capabilities and significant initial investment.

Regulatory inconsistencies

Circular regulations remain **heterogeneous, incomplete, and fast-evolving**.

Even within the EU, companies must navigate multiple initiatives—**REACH, Right-to-Repair, Batteries Regulation, Waste Framework**—yet critical pieces are still **missing or only partially defined**.

For example, there is not yet a consistent EU-wide obligation on the **minimum percentage of reused or recycled content**, nor a unified framework for **transparency in environmental communication**.

These gaps create uncertainty, allowing greenwashing risks to persist and making it harder for companies to plan investments with confidence.

Stakeholder value allocation and ecosystem maturity

Circularity demands collaboration and **fair value sharing** across the entire value chain—including suppliers, distributors, customers, regulators, and even **direct competitors**.

Because materials and products circulate through multiple hands, success requires joint standards, shared logistics, and transparent data flows. Without coordinated action among all actors, companies risk fragmented take-back programs, inconsistent quality, and missed economies of scale.

Customer Willingness To Pay (WTP)

While consumers often declare a preference for sustainable products, real purchase behavior shows a gap between intent and action, particularly when circular products carry a price premium. According to our 2024 Customer Survey, only 36% are ready to pay more for sustainable products.

Moreover, **low transparency and persistent greenwashing** mean that even customers who are ready to pay more often **cannot identify which products truly deserve that premium**, limiting their ability to reward genuinely circular offerings.



Circularity in action: Pioneers and proof points



Circularity to secure tomorrow's business model: Michelin success story

Michelin has tire innovation written in its DNA. Beyond technical breakthroughs, the brand is laying the groundworks to create a business-model advantage with circular solutions. In a nascent, highly competitive ecosystem, the challenge is significant—but early traction is real thanks to an evidence-based, pragmatic approach.

The tire industry is one of the most advanced in terms of recycling. Today, in the most mature countries, up to 96% of tires are collected and around 40% of these are recovered for open loop material recovery in Europe. Every year, more than a billion tires reach the end of their life worldwide, offering a potential for material recovery that is still largely untapped in particular in close loop.

In Chile, Michelin opened a 7,725 m² facility capable of cutting and shredding up to 2,200 giant 1.6-m (63-inch) mining tires per year. This is a first step to separate metal from rubber chips. These rubber chips could be subsequently transformed in recovered oil and recovered carbon black (rCB) by using pyrolysis technology. Unfortunately, there is no pyrolysis in Chile, but some projects are in preparations.

In Europe, to recycle passenger cars and truck tires, Michelin — with Infiniteria alongside Enviro and Antin— is accelerating its scale-up with the launch of Europe's first large-scale pyrolysis plant, capable of processing 35,000 tons annually of end-of-life tires. The plan is to “hyperscale” multiple plants in Europe to process at least one million tons of end-of-life tires.

These types of projects systematically face significant operational, financial, and ecosystem-related challenges. Success therefore relies less on linear execution than on the ability to adapt, learn, and rebound quickly

How they did it:

- ✓ Develop the technology at the pilot scale with a key pyrolysis partner, Enviro.
- ✓ Find a financial partner to support the “hyperscaling”, Antin an infrastructure fund.
- ✓ Mobilize the ecosystem including customers, competitors and suppliers to derisk the project collectively.

It is a collective challenge to change mindset and to develop new business models.

Circularity as a service in the luxury sector: ReValorem success story

ReValorem

Bridging the gap between consumer intentions and actual circular practices requires a pragmatic understanding of the real-world limits and opportunities of circularity. This is precisely where companies like ReValorem make the difference. The French-based company specializes in the reuse and recycling of unsold goods for luxury industries.

ReValorem's process starts from dismantling products – such as shoes, leather goods, textiles, accessories, furniture, eyewear, and perfumes—to separate materials, which are then sorted and transformed into new raw inputs like polymers, metals, or textiles that can be reintegrated into manufacturing chains. With greater resources from premium pricing, luxury brands can invest more heavily in R&D and set ambitious targets for recyclability and product design. ReValorem capitalizes on this by collaborating closely with brands to design products for easier disassembly and recycling. The company also provides a “circularity index” to help clients track and enhance their circularity performance. Their experience shows that successful circularity requires not only technical solutions and R&D, but also transparent supply chains and a willingness to rethink product design from the outset.

Ultimately, while finding internal resources to support circularity cannot be taken for granted, solutions like ReValorem act as service partners, guiding clients through the unpredictable nature of recycled material streams and helping them turn circularity from a regulatory burden into a source of competitive advantage.



Circularity within mass market: Danone success story

In 2023, as part of its *Impact Journey*, Danone took a decisive step toward circular packaging by transforming Badoit's iconic green bottle into a transparent one. By switching to clear PET, Badoit improved bottle to bottle recyclability to push further the circularity of their packaging.

The change was a complex cross-functional effort, requiring tight coordination between Operations, Marketing, and Purchasing. Thanks to strong alignment and extensive communication campaigns, the initiative not only enhanced sustainability but also delivered tangible business results:

- **Market share** increased measurably,
- **Brand image** improved with consumers,
- **COGS** were reduced, showing that circular design can increase revenue, lower costs, and benefit the environment.

This demonstrates that when sustainability is paired with an effective cross-functional effort, consumers are attracted, and companies unlock both environmental and economic value.



Image ©badoit fr 2026

Circularity at scale: VINCI's materials model in action



VINCI shows that circularity can be industrialized at scale while remaining economically sound. 21% of asphalt mixes now contain recycled materials, representing more than 6.5 million tons sold annually across Vinci Construction. End-of-life road surfaces are milled and reintegrated into new mixes whenever possible, turning waste infrastructure into a valuable input. Maturity varies by geography, with Germany leading, France already at 25% recycled content, and the United States also demonstrating strong adoption. Beyond asphalt, VINCI also upgrades a wide variety of materials (including slag, concrete, ballast, etc.) into construction aggregates, replacing primary extraction.

Circularity is driven by economic and logistical realities. The aggregates transport can double costs within 20 km, making local sourcing and “the right material for the right use” a powerful cost lever.

Challenges remain; customers often expect discounts on recycled materials, and strict standards still cap recycled content in some applications.

VINCI overcomes these constraints through engineering-led formulation by usage, blending recycled and natural materials to meet performance requirements at a single price point. Customers buy fit-for-purpose materials at a fair price, while VINCI captures value through higher recycled content. By engineering materials rather than selling commodities, and through a vertically integrated model, VINCI secures demand, expands addressable markets, and turns circularity into a durable competitive advantage.

Conclusion:

From obligation to advantage

Circularity is no longer a 'green premium'—it's a **strategic lever** to:

- Future-proof EBIT and supply resilience
- Unlock new revenue streams and cost savings
- Stay ahead of carbon and waste regulations

Transitioning may feel complex, but with the right partner it becomes a **growth engine rather than a compliance cost.**

AlixPartners brings:

- **Operational expertise** to redesign supply chains without sacrificing performance
- **Proven cost-optimization tools** for repeatable, sustainable savings
- **Transformation experience** to execute in high-stakes environments

Call to action:

Let's reimagine your value chain—**from waste to worth**—and turn circularity into lasting competitive advantage.

Thank you



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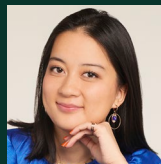
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About us

For more than forty years, AlixPartners has helped businesses around the world respond quickly and decisively to their most critical challenges—circumstances as diverse as urgent performance improvement, accelerated transformation, complex restructuring and risk mitigation.

These are the moments when everything is on the line—a sudden shift in the market, an unexpected performance decline, a time-sensitive deal, a fork-in-the-road decision. But it's not what we do that makes a difference, it's how we do it.

Tackling situations when time is of the essence is part of our DNA—so we adopt an action-oriented approach at all times. We work in small, highly qualified teams with specific industry and functional expertise, and we operate at pace, moving quickly from analysis to implementation. We stand shoulder to shoulder with our clients until the job is done and only measure our success in terms of the results we deliver.

Our approach enables us to help our clients confront and overcome truly future-defining challenges. We partner with you to make the right decisions and take the right actions. And we are right by your side. When it really matters.

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