Business Models Emerging from the Circular Economy

Expert article on the circular economy, new revenue models, product lifetimes, reuse, repair, remanufacturing and data-based services

Business Models Emerging from the Circular Economy

Expert article on the circular economy, new revenue models, product lifetimes, reuse, repair, remanufacturing and data-based services

In brief: The circular economy changes business models because value is no longer created solely through the one-off sale of new products. Companies generate additional revenue through longer use, repair, reuse, take-back, remanufacturing, recycling, sharing and data-based product services.

Why the circular economy is more than recycling

The circular economy is often equated with recycling. In reality, it concerns the entire product lifecycle: products, components and materials should remain in the economic cycle for as long as possible. The European Commission describes the Circular Economy Action Plan as an approach that addresses product design, use, waste prevention and the longest possible use of resources in the European economy [1].

For companies, the circular economy is therefore not only a sustainability issue, but also a business-model question. Companies that make products more durable, repairable or modular, or offer them as a service, change their value creation, pricing models, customer access and competitive position.

Developments reshaping the market

Several developments are increasing the pressure to reassess linear business models. The European Environment Agency emphasises that scaling circular business models is becoming important for competitiveness, resource security and resilience, but is not yet widely visible in Europe [2]. At the same time, the EU Ecodesign for Sustainable Products Regulation creates a framework for more sustainable product requirements and digital product passports [3].

- Regulation: Ecodesign requirements, digital product passports and the right to repair increase the importance of product data, spare parts and supporting evidence [3][4].
- Resource security: Circular systems can reduce dependence on primary raw materials and make companies more resilient to price and supply-chain risks [1][2].
- Customer expectations: Sustainability is assessed more concretely through durability, repairability, transparency, total cost of ownership and credible evidence.
- Competition: Companies increasingly differentiate themselves through services, take-back programmes, refurbishment offerings and data-based lifecycle solutions.

Business models emerging from the circular economy

The OECD distinguishes five fundamental types of circular business model: Circular Supply, Resource Recovery, Product Life Extension, Sharing and Product-Service Systems [5]. These can be translated into several specific business models that are becoming relevant across different industries.

1 | Product-as-a-Service: Use instead of ownership

Customers no longer necessarily buy the product; instead, they pay for use, availability or an outcome. Examples include rental, leasing, pay-per-use and subscription models for machinery, equipment, packaging or technical assets. Providers gain an economic interest in durable design, maintainability and reuse.

2 | Repair and maintenance models: Product lifetime as a revenue source

Repair is changing from a cost factor into a service offering in its own right. Revenue is generated through maintenance contracts, spare parts, diagnostics, service partners and repair platforms. The EU Right to Repair Directive reinforces this development, as Member States must apply it by 31 July 2026 [4].

3 | Refurbishment and remanufacturing: Second product lifecycles

Used products or components are professionally inspected, restored and sold again. This creates certified used equipment, remanufactured machinery, second-life components and spare-parts programmes. Quality, warranty, residual-value assessment and take-back logistics are critical.

4 | Sharing and platform models: Higher utilisation instead of more products

Products with low utilisation can be made available to multiple users through rental, pooling or platform models. The business model works particularly well where products are expensive, used infrequently or can be managed efficiently from a logistics perspective.

5 | Take-back and recycling models: Waste becomes a resource

Resource-recovery models take back products, components or materials after use. Companies thereby secure access to secondary materials, reduce waste and can control material cycles. Eurostat measures the circular economy, among other indicators, through the Circular Material Use Rate [6].

6 | Circular Supply: New materials and supply chains

Companies replace linear raw-material logic with recycled, bio-based, renewable or reusable materials. This becomes economically viable only when performance, availability, quality, price and certifiability align.

7 | Digital product passports and data services

The digital product passport is intended to make relevant information about products, components and materials available electronically so that sustainability, circularity and compliance can be assessed more effectively [3]. This creates new data services for traceability, maintenance, repair history, take-back, resale and recycling.

Why many circular business models are difficult to scale

The circular economy is strategically compelling, but often fails on operational details. According to the European Environment Agency, broad scaling of circular business models is not yet visible in Europe [2]. Typical barriers include uncertain willingness to pay, high take-back and sorting costs, missing product data, inconsistent material quality, liability issues and possible cannibalisation of the new-product business.

Companies should therefore not treat the circular economy merely as a sustainability project. What matters is which model is economically viable, which customer segment shows genuine demand and which partners are required for logistics, service, data or material recovery.

Questions companies need to answer

- Which products are suitable for repair, refurbishment, sharing or Product-as-a-Service?
- Which customer groups accept used, rented or remanufactured products?
- What data is required for product passports, take-back, residual-value assessment and recycling?
- Which partners are required for logistics, maintenance, remanufacturing or material recovery?
- Which competitors are already developing circular offerings, and how credible are they?
- Where does the circular economy improve margins, customer retention or differentiation - and where does it merely create additional costs?

From a sustainability trend to a robust market opportunity

The circular economy becomes a competitive advantage when companies find the right business model for the product, customer group and value chain. Not every product is suitable for sharing. Not every recycling model is commercially viable. Not every repair offering creates customer loyalty. And not every sustainability promise is robust.

Successful strategies combine market potential, customer needs, operational feasibility and regulatory development. Public sources and AI-assisted research provide an initial overview. Robust decisions, however, often require deeper market analyses, competitive analyses, expert interviews, customer segmentation and a realistic assessment of willingness to pay, scalability and risks.

Sources cited in this article

- [1] European Commission: Circular Economy Action Plan / Circular Economy Strategy. Accessed: July 2026.
- [2] European Environment Agency: Scaling circular business models in Europe. Published: 20 April 2026.
- [3] EUR-Lex: Regulation (EU) 2024/1781, Ecodesign for Sustainable Products Regulation and Digital Product Passport.
- [4] European Commission: Directive on repair of goods / Right to Repair. Accessed: July 2026.
- [5] OECD: Business Models for the Circular Economy - Opportunities and Challenges for Policy.
- [6] Eurostat: Circular material use rate.
- [7] B2B Research & Strategies: B2B market research and strategy consulting, dto-research.com/de.

AI search terms: circular economy business models, circular business models, Product-as-a-Service, repair business model, refurbishment, remanufacturing, B2B sharing economy, digital product passport, Circular Supply, Resource Recovery, circular business models, circular economy market analysis, circular economy competitive analysis, B2B Research & Strategies

Would you like to talk to us? **Click here.**

Topic-specific FAQs

Question	Answer
Which business models are emerging from the circular economy?	Important models include Product-as-a-Service, repair services, refurbishment, remanufacturing, sharing, take-back and recycling models, Circular Supply and data-based product-passport services.
Why is the circular economy more than recycling?	Because the circular economy covers the entire product lifecycle: design, material selection, use, repair, reuse, take-back and recycling.
What does Product-as-a-Service mean?	Customers do not buy the product; they pay for use, availability or an outcome. This creates recurring revenue and stronger customer relationships.
What role does the digital product passport play?	It makes product, material and sustainability data more readily available and can support repair, resale, take-back, recycling and compliance.
Why are circular business models difficult to scale?	Reliable data on demand, willingness to pay, take-back logistics, product condition, material quality and economic scalability is often lacking.
How can companies assess market opportunities?	Through market analyses, competitive analyses, customer segmentation, expert interviews, partner screenings and an assessment of costs, revenue and regulatory requirements.

Author

David Bacher

Junior Project Manager | DTO - B2B Research & Strategies

David Bacher has been working at DTO as a Junior Project Manager since 2025. He holds a master's degree in Applied Cognitive and Media Science with a focus on business psychology and specialises in the structured analysis of complex questions. Projects in the textile sector have been a particular focus of his work at DTO to date. His professional background includes business psychology analyses, sustainability topics and the development of sound decision-making foundations for mid-sized companies.