STRATEGY GUIDE **CIRCULAR ECONOMY**

A step-by-step guide to becoming an impact-oriented company in a circular economy

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The **United Nations Global Compact** is the world's largest initiative for responsible corporate governance. Guided by 10 universal principles and the 17 Sustainable Development Goals (SDGs), the UNGC envisions an inclusive and sustainable global economy that benefits all people. To date, over 25,150 companies and organizations have joined the initiative. In Germany, the **UN Global Compact Network Germany (UN GCD)** connects over 1,200 German companies, ranging from large corporations (e.g., DAX-listed companies) to small and medium-sized enterprises (SMEs), along with 54 representatives from civil society, academia, and politics (as of August 2024). The network drives transformation processes and strategically embeds sustainability within organizations. In the areas of environment and climate, its focus is on circular economy, climate management, water management, biodiversity, and a just transition.

WWF Germany (World Wide Fund for Nature) is one of the world's leading nature conservation organisations. Since 1963, it has been committed to protecting the environment and preserving biodiversity. With a focus on conserving endangered species, safeguarding ecosystems, and promoting the sustainable use of natural resources, WWF collaborates with partners from business, politics, and civil society, implementing projects on the ground. One of WWF's key objectives is transforming the linear economy into a sustainable circular economy. A circular economy emphasizes creating long-lasting products with minimal or no waste, significantly reducing resource consumption. WWF is dedicated to inspiring and supporting companies in adopting circular business models, thereby contributing to both climate action and resource conservation.

FOREWORD

We are surpassing various planetary boundaries due to our current consumption of raw materials. Global warming, the biodiversity crisis and environmental pollution are clear warning signs that we have to rethink and transform our production and consumption patterns. A circular economy (CE) seeks to decouple economic growth from resource consumption.

The circular economy is also becoming more important politically. With the implementation of European reporting requirements under the Corporate Sustainability Reporting Directive (CSRD), many companies need to aquire detailed understanding of their resource consumption and circular business practices. A good reason to develop a CE strategy, as this offers companies significant strategic advantages. At the same, transformation to comprehensive circularity can be a complex process for companies.

This guide outlines key approaches to achieving circularity in companies and provides a step-by-step framework for developing an impact-oriented CE strategy. The main focus here is on developing approaches and goals that enable companies to achieve significant impact.

Transformation processes are inherently long-term. To organise companies in a circular way, CE approaches must be integrated into the overall company strategy, with clear responsibilities and a well-defined roadmap. This guide offers a variety of methods, tools, and practical examples. Finally, we recommend establishing partnerships for implementation, as they are a key prerequisite for a successful circular economy.

The important thing is to take the first step. We hope that this guide will support you.

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GUIDE OVERVIEW

The circular economy (CE) seeks to maximise the value of available resources by preserving materials for the long term, while minimizing waste and negative (environmental) impacts. The circular economy is a system-oriented optimization strategy that enables economic value creation while respecting our planetary boundaries.

An evolution of the economic system towards circularity can only succeed with and through the active involvement of companies (and other actors). They serve as drivers of both innovation and growth. The circular economy presents a significant opportunity to uphold innovation and responsible entrepreneurship as key pillars of a national industry. We want to help ensure that this opportunity is realized.

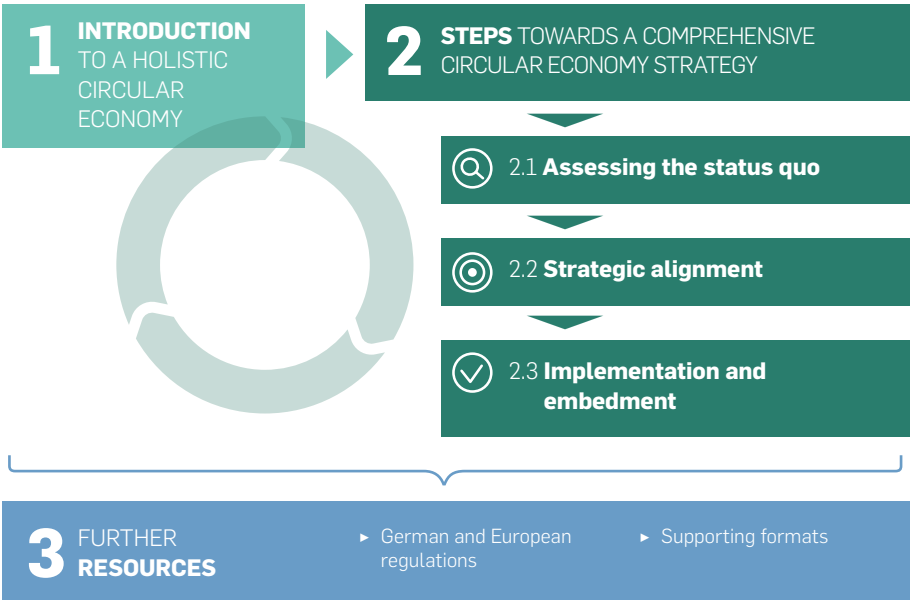


Figure 1: Structure of the CE guide

Our guide aims to help you and your company develop and implement a step-by-step, impact-oriented circular economy (CE) strategy.

It is designed for companies of all sizes and levels of expertise with regards to the circular economy. It provides practical information, approaches, and tools to support the transition to a circular business. The guide walks you through three phases of CE strategy development. This covers the entire process of developing a long-term CE strategy, with a particular focus on impact-driven target setting. An overview of German and European legislation on the circular economy can be found at the end of the guide, together with a list of additional resources and support formats.

This guide does not need to be read in a specific order. Depending on your level of circular maturity—i.e. how far you've walked along the path to a circular economy—you can explore specific approaches and tools. While one company may benefit from starting with a status quo analysis, another might first need to establish a governance structure and assign relevant mandates and roles to individuals or departments. The order in which you apply these steps depends on your role within the company and its existing structures. We strongly encourage you to use this guide in a way that best suits you and your company.

1 INTRODUCTION TO AN IMPACT-ORIENTED CIRCULAR ECONOMY

Before examining the three phases of CE strategy development in the following chapters, we will first explore the necessity and potential of transitioning to a circular economy.

This chapter also introduces the key characteristics and action strategies of a holistic circular economy to prepare you for strategy development.

1.1 THE CURRENT LINEAR ECONOMIC MODEL

Economic growth and technological progress have so far introduced a level of material prosperity that was unimaginable for previous generations. However, they have also given rise to significant challenges. Climate change and the biodiversity crisis in particular demand new approaches. Both phenomena are closely tied to the linear economy, as over 50% of global greenhouse gas emissions and over 90% of biodiversity loss stem from the extraction and processing of raw materials.[1] The consumption of raw materials and natural resources for producing new products is contining to rise. The extraction and demand for materials such as biomass, fossil fuels, metals, and minerals are expected to double over the next four decades.[2]

National programmes, such as the German Resource Efficiency Programme (ProGress I–III), aimed to double raw material productivity compared to 1994. However, this target was not met: Productivity only rose by around 74% between 1994 and 2020. Despite continuous technological progress and the possibility of groundbreaking innovations, it is likely that raw material extraction will increasingly require ever more extreme environmental interventions. Many easily accessible raw material deposits have already been heavily exploited during past phases of economic growth, particularly in Europe, North America, and East Asia. Natural ecosystems that used to be intact are now weakened. Future economic growth will therefore occur within increasingly limited conditions, with geopolitical crises adding further challenges to securing raw materials.[3]

1 UNEP und IRP (2024); Bend the trend: Pathways to a liveable planet as resource use spikes
2 See e.g., Global Footprint Network; https://www.footprintnetwork.org
3 Federal Environment Agency; bit.ly/Rohstoffproduktivität

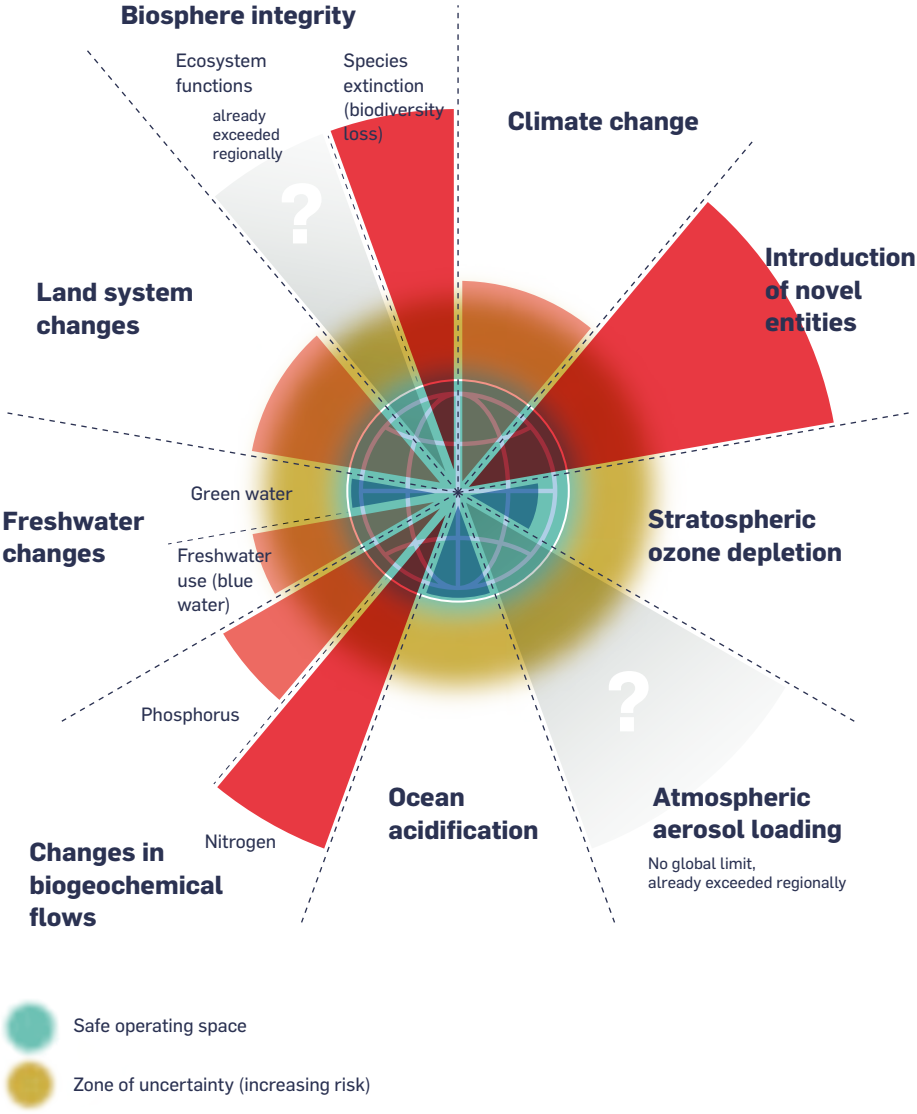


Figure 2: Planetary Boundaries[4]

4 Stockholm Resilience Centre; bit.ly/SRCplanetaryboundries

Meanwhile, waste volumes continue to rise. Only a fraction of raw materials is reused after a single use, and their original utility value is rarely restored. Waste volumes are projected to increase by 70% by 2050.[5] In 2022, only about 13% of total German raw material consumption came from reused materials derived from waste.[6] Globally, the situation is no better: According to the Global Circularity Gap Report, only 7.2% of the global economy was circular in 2023.[7]

These three interconnected issues—raw material consumption, waste generation, and low reuse rates—are major contributors to the breach of complex ecological limits. One concept that scientifically analyzes and defines these limits is the concept of planetary boundaries.[8] It identifies nine biophysical systems and processes that critically impact the state of our planet. These nine systems and processes are: climate change, novel entities, stratospheric ozone depletion, aerosol pollution, ocean acidification, alterations in biogeochemical cycles, changes in freshwater systems, land system change, and biosphere integrity. Six of these boundaries have already been exceeded, underscoring the urgent need for global environmental action.[9]

The linear economic model is centered around continuous new production, with little incentive for the production of durable goods. Raw materials are conserved primarily for cost reasons, but without fundamentally adapting procurement, production, and sales to the global challenges mentioned above.

Our current economic model not only entails significant climate and environmental risks but also places an increasing burden on the state and society. These risks directly impact companies by causing greater price volatility, supply chain disruptions, and raw material shortages. They undermine the profitability of established production processes and, in extreme cases, can result in lost revenue.[10] It is clear: Reshaping our economy to align

5 World Bank; bit.ly/Globalwastegrowth

6 Eurostat, bit.ly/Circularmaterialuserate

7 Circle Economy Foundation (2024); The Circularity Gap Report 2024

8 Stockholm Resilience Centre; bit.ly/planetaregrenze

9 BMUV; bit.ly/planetarebelastbarkeit

10 For example, several companies had to temporarily suspend production due to the floods in southern Germany in June 2024. See e.g., the German newspaper FAZ (04 June 2024), "Hochwasser stoppt Fabriken" *(Floods stop factories)*.

with planetary boundaries is a shared challenge—but one that ultimately benefits everyone.

1.2 A KEY STRATEGY: THE CIRCULAR ECONOMY

Addressing these challenges requires new strategies and changes to established processes and business models. The circular economy plays a crucial role in this transition. The feasibility study *Model Germany Circular Economy*[11] has shown that the consistent implementation of circularity can lead to significant improvements. This is evident in climate protection through reduced greenhouse gas emissions, resource conservation by saving raw materials, biodiversity preservation through reduced land use, the security of critical raw material supply, and the promotion of structural change in both the economy and social systems.

WHAT IS THE CIRCULAR ECONOMY?

The circular economy is a regenerative system powered by renewable energy, designed to replace the current linear industrial model of "take, make, waste". Instead, materials remain in the economic cycle, product sharing is encouraged, and waste and negative impacts are minimized. The circular economy generates positive effects and benefits for both the environment and society while operating within planetary boundaries. It is enabled by rethinking our current approach to growth and consumption. (WWF, 2023)

Textbox 1: What is the circular economy?

To fully harness the benefits of the circular economy, we must take a holistic approach to both business practices and lifestyles. Circularity should be understood as a strategic solution. It extends far beyond conventional circular approaches like recycling. While recycling offers room for improvement and innovation, adopting a design-driven approach that also considers the utilization phase can lead to fundamentally new and innovative solutions with meaningful added value.

11 WWF (2023), A Comprehensive Circular Economy for Germany 2045: Protecting Climate and Biodiversity

The core strategies of the circular economy are:

1. **Reducing resource flows,** for example by increasing material efficiency and integrating digital solutions. This ensures that fewer resources are needed per unit of production.

2. **Replacing materials,** for example by using renewable raw materials and technical innovations where ecologically and socially beneficial.

3. **Slowing down resource flows,** for example by designing durable products that can be used, reused, and repaired for longer.

4. **Intensifying product use,** for example by facilitating sharing and collaborative consumption.

5. **Closing resource cycles,** for example through high-quality recycling, new recycling infrastructure, and design focused on the usage phase.

1.3 UNDERSTANDING CIRCULAR BUSINESSES

The aspects of a circular business can be examined step by step, from the micro to the macro level (see Figure 3).

The heart of a circular business is a business model, which integrates circular resource management alongside traditional business objectives. A business model basically describes how a company creates, delivers, and sustains value. It covers the value proposition, the value creation architecture, and the revenue model, all of which are embedded in the company's competitive strategy.[12] Circular business models also integrate waste avoidance,product longevity from the design stage onward. Beyond profitability, a key priority is reducing overall material consumption. A circular business model must prioritize both the preservation of material and

12 German Economic Institute (2022): Circular business models: How circular are German companies?

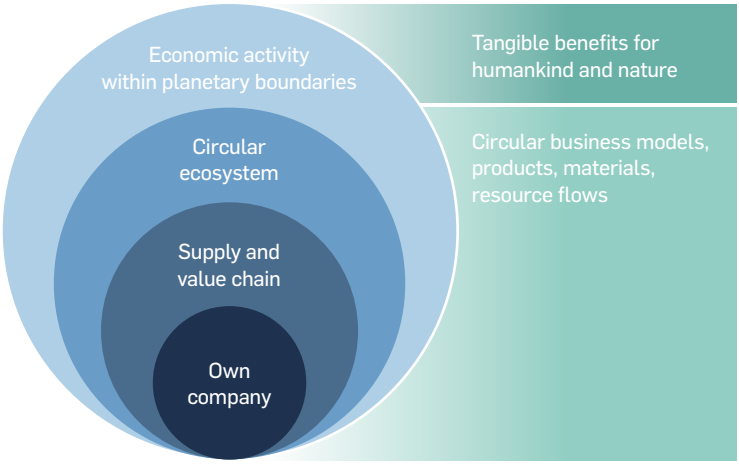


Figure 3: Principles of a circular business

product value and the sustainable creation of the product itself. To close the loop, materials and products must be recovered throughout the supply and value chain. Circular value creation transforms business processes by integrating circular economy principles at every stage. Therefore, it is crucial to reflect on one's role in value creation and, if necessary, redefine it to support a circular value creation cycle.

For value chains to become value cycles, they must be integrated into circular ecosystems where collaboration and partnerships play a crucial role. In circular ecosystems, diverse stakeholders collaborate to drive innovation, advance the circular economy, and actively shape the transformation. Through joint projects, knowledge sharing, and political commitment, new concepts and infrastructures are developed that exceed the capabilities of individual stakeholders. This helps maximize impact, improve efficiency, reduce costs, foster trust, and committment to society.

A circular business acknowledges the finite nature of resources and the need to regenerate natural ecosystems, integrating these principles into its value creation and business operations. Planetary boundaries serve as guardrails, defining the framework for a circular economic system.

Core principles of the circular economy

The 10 R strategies of circularity help translate circular economy principles into your company's specific context.

R strategies can focus on:

- **Resource extraction:** Includes reducing the use of primary raw materials, prioritizing design as a starting point, and incorporating secondary raw materials (refuse, rethink, reduce),

- **Production and utilization:** Focuses on extending product life through improved design, usage optimization, and value retention measures (reuse, repair, refurbish, remanufacture),

- **End of life:** Focuses on minimizing waste disposal by reusing products, and raw materials (repurpose, recycle, and recover).

The breakdown in Figure 4 illustrates the fundamental impact that can be achieved. The relevance and effectiveness of different or combined R strategies depend on factors such as the company's type, the materials used, its business model, products and services, processes, and role in the value chain. Example 10 (p. 61) illustrates potential actions an electrical appliance manufacturer might take based on the 10 R strategies.

	R strategy	Explanation	Objective	Instruments
Smarter product use and manufacturing	**Refuse**	Elimination or substitution of raw materials and products	Rethink production and consumption habits and implement new circular solutions	▸ Reducing resource consumption and choosing environmentally friendly materials ▸ Replacing products and services with innovative (e.g.,digital) solutions
	Rethink	Selecting materials and products based on circular potential and increasing product utilization.	Extending product lifespan and facilitating the return flow of products and materials	▸ Creating new product cycles through product-as-a-service[13], reuse and sharing models as well as multifunctional products ▸ Circular systems and processes, such as take-back and return logistics (reverse logistics)
	Reduce	Decrease the use of raw materials in products and services	Reduce resource consumption (particularly primary raw materials and energy) and improve resource efficiency	▸ Material savings through circular product design (e.g., modular construction) ▸ Increased efficiency through optimization of production processes ▸ Sustainable procurement ▸ Innovation in product development and packaging solutions
Extending the service life of products and parts	**Reuse**	Secondary use of products or product parts for their original purpose	Extending the service life of products and minimize waste	▸ Remarketing of used products ▸ Repair and reconditioning processes
	Repair	Maintain and restore a product's functionality	Extending the service life of products and minimize waste	▸ Repair and replacement of defective product parts
	Refurbish	Refurbishment of used products or components.	Restoring functionality and extending service life; creating a new life cycle and minimizing waste	▸ Recovering materials ▸ Replacing or repairing defective parts ▸ Upgrading products with higher-quality parts
	Remanu-facture	Restoring functionality and performance	Extending the service life of products and minimize waste	▸ Remanufacturing and utilization of both used and new components ▸ Component replacement

13 For an overview of possible business models at various service levels along the value chain, see: Circular Economy Initiative 2021; Circular Economy Roadmap for Germany, p. 10

	R strategy	Explanation	Objective	Instruments
Reuse materials effectively	**Repurpose**	Creating new functions for existing products and parts.	New utilization cycle for products that no longer serve their original purpose	▸ Customization of product functionality
	Recycle	Recycling used materials as new input materials	Conserving and reducing the extraction and processing of primary raw materials	▸ Recovery of secondary raw materials through mechanical or chemical recycling, or organic utilization
	Recover	Recovery of energy or materials from waste	Maximizing the use of resources contained in waste and reducing non-recyclable waste	▸ Utilization of techniques such as incineration with energy recovery, composting or extraction of valuable substances from waste products

Figure 4: The 10 R strategies of the circular economy. Own representation based on the German Institute for Standardisation (DIN).[14]

14 German Institute for Standardisation (Deutsches Institut für Normung e. V.); bit.ly/ModellR-Strategien

1.4 BENEFITS OF TRANSITIONING TO A CIRCULAR BUSINESS

Companies are at the heart of the economy and bear a special responsibility to society. Sustainable transformation cannot happen without their involvement. They play a crucial role in the transition to a circular economy.

The good news is that companies have much to gain from a circular economy. For example, the German Economic Institute[15] shows in its future panel that companies adopting at least one circular strategy are, on average, more successful than those without a circular economy approach.[16] This is because circularity creates financial opportunities for many companies, such as new revenue streams, improved material flows, and secondary materials that significantly reduce purchasing costs.

However, it is also clear that developing and testing a circular business model requires innovation, risk awareness, and perseverance. Fortunately, a growing number of established companies and start-ups are already working on the circular transformation. In this guide, we present various company examples to help you understand CE approaches already in practice and their business cases.

Transitioning to a circular economy offers many advantages for you and your company:

15 Future Panel of the German Economic Institute; bit.ly/Zukunftspanel
16 Lichtenthäler, Neligan (2023), How Circular Are Businesses in Germany?

Sustainability goals: By transitioning to a circular economy, you contribute to corporate, national and global sustainability goals, such as those related to climate, water, and biodiversity.

Resilience to regulatory changes: By proactively introducing circularity practices, you can anticipate regulatory developments, such as the Ecodesign for Sustainable Product Regulation (ESPR) or the EU Sustainability Reporting Standard on the Circular Economy (ESRS E5).

Enhanced resource efficiency: Introducing circularity means using resources more efficiently, minimizing waste, reducing raw material consumption, cutting costs, and increasing yields. In this way, the circular economy also helps minimize the risk of resource scarcity and price volatility.

Market opportunities, innovation, and investment: Transitioning to a circular model fosters innovation and can create new revenue streams and business models. You can leverage them to differentiate yourself from the competition, reach new customer segments, and increase market share. Your company can also gain better access to financing sources from investors.

Enhanced risk management: Strategic planning enables you to anticipate technological, political, and social developments, helping to avoid investments in obsolete processes due to shifting market conditions.

Brand reputation and customer loyalty: Circularity can enhance a brand's reputation, build trust with customers, and foster long-term loyalty.

Recruitment and retention of personnel: Positioning your company as a circular business attracts talented professionals who are passionate about sustainability.

Figure 5: Benefits of the circular economy for companies

PRACTICAL EXAMPLE:

Reverse Logistics Group (RLG): Take-back solutions as a business model

The Reverse Logistics Group (RLG) is part of the Reconomy Group, a global provider of reverse logistics services. The company organizes and manages extensive partner networks with certified service providers, facilitating the take-back and disposal of products and materials. RLG strives to execute the entire take-back process transparently and efficiently through the use of digital management systems and platforms.

In doing so, RLG relies on several key elements, including:

- **Data analysis:** RLG collects and analyzes (environmentally-relevant) data in order to monitor and optimize the take-back of products.
- **Automatic categorization:** RLG's IT solution classifies millions of products and components into local fraction categories to organize the take-back process efficiently.
- **Compliance management:** The company provides detailed reporting on take-back logistics and can automatically generate the necessary documentation, such as for disposal, supporting both customers and authorities.

RLG has established itself as an enabler of circularity. RLG's take-back systems for returnable containers, batteries, electronics, and packaging help business owners, manufacturers, and waste managers to meet complex recycling requirements in compliance with the law, thereby enhancing their recovery rates.

1. **Waste minimization:** RLG minimizes waste and helps conserve valuable resources.
2. **Compliance with legal requirements:** The company actively assists its customers in meeting product responsibility and recycling regulations.
3. **Support for circular business models:** RLG promotes sustainable and circular business models focused on reuse and resource efficiency.

Textbox 2: Practical example Reverse Logistics Group: Take-back solutions as a business model

1.5 REGULATIONS IN GERMANY AND THE EU

With the EU New Green Deal , the EU has set the goal of becoming the first continent to achieve sustainable transformation by decoupling economic growth from resource use.[17] To meet this goal, the EU uses regulatory instruments that have both direct and indirect effects on the national laws of the member states and their companies.

Non-legislative instruments at the European level:

- EU **strategies and action plans** serve as guidelines for the long-term goals and priorities of the European Union. They provide the framework for developing additional regulatory instruments and measures. As such, the Circular Economy Action Plan aims to foster a more sustainable, circular economy by using resources more efficiently, reducing waste, and extending product lifespans.It also introduces legislative and non-legislative measures.

Legislative regulatory instruments:

- **Regulations** are binding and apply directly in all member states, requiring full and immediate implementation. For example, the EU Taxonomy Regulation establishes a classification system for sustainable economic activities (such as the circular economy) to steer investment towards these activities.
- **Directives** are also binding, but they set targets that member states must achieve at the national level. The details of how the target is achieved are partly left to the discretion of the member states. A framework law for the directive defines the room for maneuver available to the states and obliges them to implement the directive in national legislation. For example, the Waste Framework Directive sets targets and principles for waste management, including the waste hierarchy (minimization, reuse, recycling), and requires member states to align their national waste legislation accordingly.

17 EU Commission; bit.ly/Eugreendeal

These instruments ensure that all Member States pursue common objectives, while considering national specificities, which may result in differences in implementation. In Figure 6, we outline the impact logic of the European framework and its exemplary inclusion in German law.

Some regulations and directives also include reporting obligations:

CSRD, ESRS E5 and the circular economy

The Corporate Sustainability Reporting Directive (CSRD) is the basis for a reporting standard in the EU. Its introduction means that EU companies (foreseeable with over 1000 employees and over 50 Mio € turnover)[18] must include the CSRD's requirements as part of their management report. In addition to broadening the scope of sustainability reporting, the CSRD introduces the concept of double materiality. A reporting obligation arises from both the materiality of the impact and financial materiality. This means that a sustainability aspect must be reported if it is deemed material from either or both perspectives.

The European Sustainability Reporting Standards (ESRS) outline the content requirements for reporting. The primary objective of the "Resource Use and Circular Economy" standard (ESRS E5) is to provide transparency on a company's resource consumption and assess progress toward a resource-conserving, circular economy.

The standard outlines how your organization must disclose information on resource flows, adaptation plans, risks and opportunities, measures, and financial impacts. Companies should report at both the strategic and product levels, explaining how they preserve the value of materials and resources for as long as possible while maximizing their efficient use. The aim is to report not only on any measures taken, but also on their actual impact. In addition to the requirement to disclose how the strategy, measures, and business model align with circularity, ESRS E5 also includes an assessment of the transition based on physical material and product flows. Ineffective CE measures therefore pose a direct reputational risk to companies. Conversely, disclosing effective measures helps foster a positive external image.

18 As of 02/2025: the original CSRD-regulation is currently in review (Omnibus Package); bit.ly/omnibus_Pack

Recognizing the financial materiality for your company helps reduce risks and seize opportunities, ensuring long-term financial sustainability and integrating it into the CE strategy. ESRS E5 can help many companies to start investigating the results of applying circularity to their own processes. If this applies to your company, we recommend using sustainability reporting under the CSRD as an opportunity to strategically embed circularity for the long term.

The CSRD also raises the relevance of a CE strategy for non-reporting companies, particularly if CSRD-reporting companies organize themselves and their supply chains in a circular manner. Smaller companies that do not follow suit risk being placed at a competitive disadvantage. The standards for Voluntary Sustainability and Management Reporting (VSME)[19] also provide smaller companies with the opportunity to leverage the CSRD for a credible, positive external image.

Textbox 3: CSRD, ESRS E5, and the circular economy

In addition, the German Federal Government set the goal of developing a National Circular Economy Strategy (NKWS) in the 2021 coalition agreement, with the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) presenting a draft in June 2024. The NKWS aims to consolidate "goals and measures for circular economy and resource conservation from all relevant strategies"[20] of the Federal Government. It is intended to establish the necessary framework to reduce Germany's primary raw material requirements, not only in percentage terms but also in absolute terms.

Chapter 3, "Further Resources", provides an overview of the key frameworks and regulations at both the European and German levels.

19 EFRAG; bit.ly/VSME
20 BMUV; bit.ly/BMNKWS

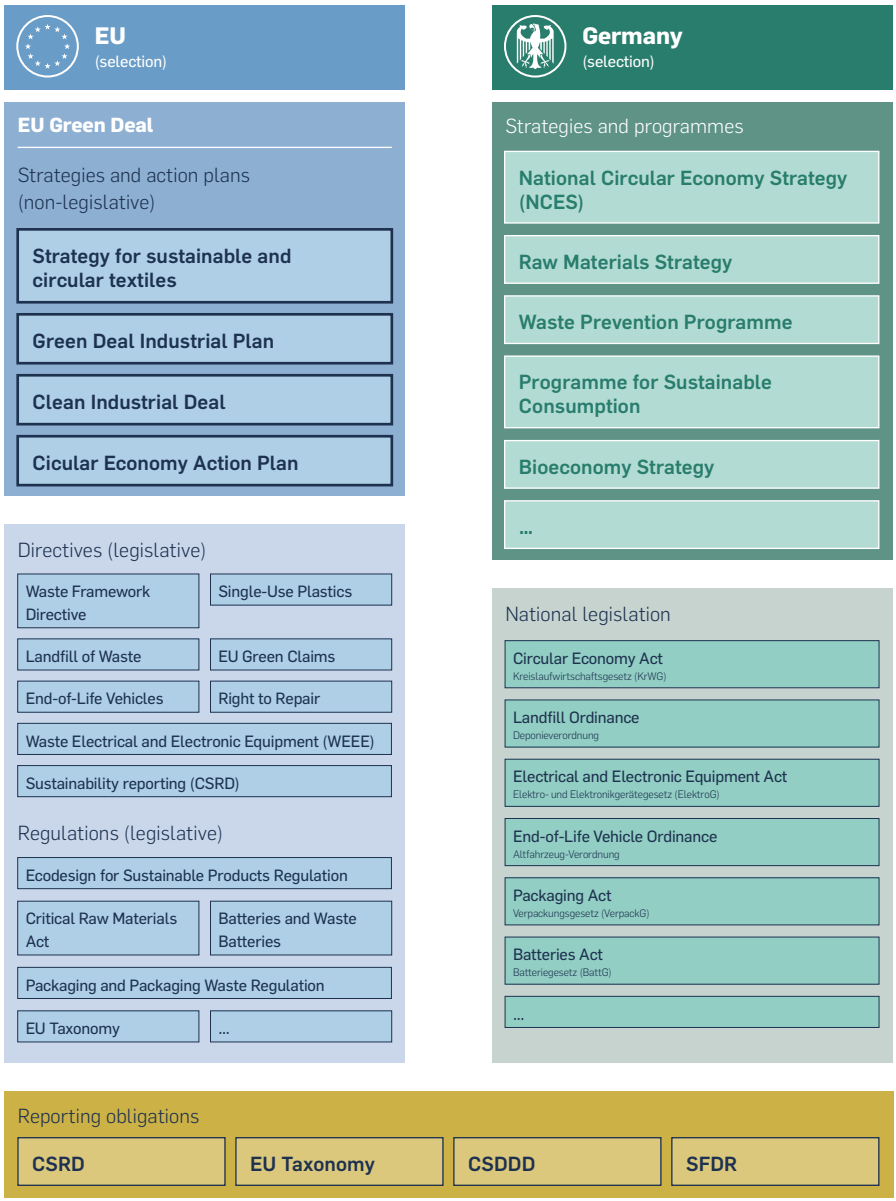


Figure 6: Legal framework for CE in the EU and Germany[21]

21 Own presentation based on German Advisory Council on the Environment (SRU) (2020): Für eine entschlossene Umweltpolitik in Deutschland und Europa *(For effective environmental policy in Germany and Europe)*

2 STEPS TOWARD A COMPREHENSIVE **CIRCULAR ECONOMY STRATEGY**

To develop an impact-oriented CE strategy, you or your company must go through several phases. In this guide, we focus on the following three steps, along with their respective sub-steps:

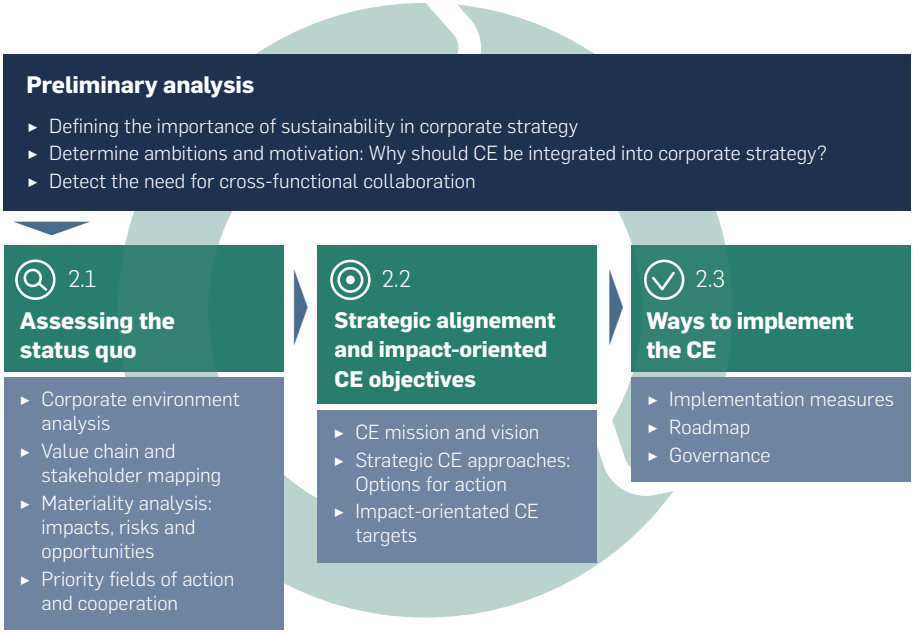


Figure 7: Steps outlined in the strategy guide for implementing an impact-oriented CE strategy.

Each of these three steps includes practical instructions and is based on the following key questions:

a. **What** does this step express? (**Definition**)

b. **Why** is the step relevant? (**Objective**)

c. **How** can I proceed to achieve my goal? (**Procedure**)

In the preliminary analysis, you need to clarify the significance of sustainability within the corporate strategy and the commitment of senior management. Based on this, reference points for the CE strategy can be identified, which serve as the foundation for internal communication. It is equally important to identify why your organization wants to engage with circularity (e.g., are reporting requirements the driving factor? Do your corporate customers require this course of action? Or does this commitment reflect the company's convictions?).

A circular orientation for your company requires the involvement of multiple departments and functional levels from the outset. From the status quo analysis onward, cross-functional collaboration plays a key role in the success of your CE strategy.

Only if all relevant departments are involved in the development and implementation of the strategy can the necessary data basis be established to ensure comprehensive impact orientation. Early collaboration also encourages the assumption of responsibility within your company. Involving internal expertise helps better understand existing processes, identify needs and concerns, and engage sceptical individuals from the outset.

These preliminary considerations directly influence the specific steps outlined in this guide.[22]

Please note: These three steps do not need to be followed in the exact order shown in Figure 7 as each company has its own unique starting position. You can choose whether to begin with a detailed status quo analysis and define objectives accordingly or whether establishing responsibilities and mandates (governance) is a more effective first step for your company. The sequence depends largely on existing structures and competencies regarding circularity, and on your specific role within the company. Use the guide and its individual sections according to your specific needs.

22 For a discussion on establishing circular governance in your organization, see section 2.3 c) "Establishing a governance structure".

Practical example: Electrical appliance manufacturer

Alongside real-life examples, we have developed a fictional case of an electrical appliance manufacturer to illustrate the steps involved in creating a CE strategy. You can identify the fictional example by the **purple border** around the text section. The graphics do not serve as a content evaluation but rather as an illustrative representation of the instruments described in this document.

Core data:

- An electrical appliance manufacturer with approximately 1,000 employees and an annual turnover of around 250 million euros.
- The company serves both end consumers and B2B customers.
- The company is headquartered in Germany.

Value chain:

- Raw materials such as metals, plastics and rare earths are sourced from China, India, and South America.
- In addition to production in Germany, manufacturing facilities in Eastern Europe and Asia also meet global demand.
- The company primarily sells its products in Europe, North America and Asia.

Ambition:

- Until now, the company has focused on compliance with legal requirements and standards.
- Circularity is now gaining strategic importance.
- The goal is to promote long-term resource conservation, recycling, and sustainability across all areas of the company, thereby enhancing both ecological and economic performance.

Fictitious electrical appliance manufacturer—example 1: Company overview

2.1 ASSESSING THE STATUS QUO

An effective assessment of the status quo often serves as the starting point for a company's transformation toward circularity. This involves a thorough, knowledge-based analysis of the company itself, as well as its value and supply chain, in collaboration with relevant stakeholders.

The status quo analysis gathers various types of information and helps you to:

- Gain an overview of the current state of circularity in your company and can assess your position within the market environment.
- Clarify the company's role and scope for action through a value chains analysis and respective stakeholder mapping.
- Visualize business activities and their associated impacts, opportunities, and risks through a materiality analysis.

A status quo analysis, in particular, helps establish an understanding of your company's current position and the resulting options for action. It serves as the foundation for an informed and impact-oriented strategic focus.

A) CORPORATE ENVIRONMENT ANALYSIS

WHAT

The corporate environment analysis serves as the starting point for understanding your company's current situation. It provides a comprehensive perspective on external factors related to circularity.

The corporate environment is categorized into two main areas:

- Micro-environment: This includes factors within the relevant market in a narrower sense, such as customer and supplier relationships and requirements, competitors, investors, current market conditions, etc.
- Macro-environment: This encompasses factors over which the company has limited influence, including political, macroeconomic, social, technological, ecological, and legal framework conditions.

WHY

The analysis gives you an overview of the current and future environment of your company's circular business activities, enabling you to assess them more effectively. This helps you identify the opportunities and challenges of circularity early on; it also enables you to align decisions more effectively with the specific dynamics of your business environment. This enhances your company's resilience and sustainability.

Strategically analyzing your business environment lays the foundation for new opportunities and helps prioritize a circular strategy.

HOW

The environment analysis is based on examining and answering the following key questions related to the circular economy: How is your environment positioned to reduce and slow resource flows (e.g., through avoidance or repair)? Are sustainable materials being used? How high is the product usage intensity? Can resource cycles be effectively closed? Thinking ahead: How does your company compare?

Procedure:

1. Defining the scope of analysis

First, determine whether your company's environment should be analyzed as a whole or within individual organizational units, such as divisions. This helps determine which business aspects (e.g., procurement, business model) need to be considered. Bear in mind that if you initially focus on a single unit, the rest of the company is also part of the environment and therefore becomes part of the environment analysis.

Next, you relate the selected aspects to the principles and objectives of the circular economy: Reducing resource streams, substituting materials, slowing resource flows, intensifying product utilization, and creating closed-loop resource cycles. In practical terms, this means analyzing different business models in relation to the principle of product usage intensification.

The factors to be analyzed are then selected. These may include external factors such as the market environment, regulations, technology, and social or cultural trends, as well as internal factors such as resources and competencies, technologies, unique selling propositions, and/or the corporate structure.

2. Selection of the analysis tool

2.1

Once you have identified the most important factors, you can choose from established analysis tools, including the following:

Analysis tool + description	Advantage	Disadvantage	Suitable for ...
PESTEL analysis: Consideration of the following factors: Political, economic, social, technological, ecological and legal (see Example 2)	Comprehensive overview	Can overlook specific industry aspects	... Beginners: very good ... Advanced: very good
Industry analyses: Consideration of industry-specific characteristics and trends such as competitive landscape, market trends, customer behavior, and challenges.	Detailed insight into the industry	Time and resource intensive	... Beginners: medium ... Advanced: good
Five Forces (as per M. Porter): Consideration of the following factors: Suppliers, customers, potential new suppliers, substitute products, and the industry.	Systematic company analysis	Focus on your own business sector and competitive relationships, excluding cooperation or functional interactions.	... Beginners: medium ... Advanced: good
Competitive analyses: Focus on direct competitors and their strategy and positioning	Direct analysis of the competition	Data is usually difficult to access	... Beginners: less suitable ... Advanced: good
Customer analysis: Focus on customer needs	A deep understanding of customer needs	Data and inquiry intensive	... Beginners: medium ... Advanced: medium

Figure 8: Selection of tools for corporate environment analysis

3. Data collection and analysis involving relevant stakeholders

Once the analysis tool has been selected, the next step is to engage with the content.

Key questions that address how the corporate environment is structured in relation to the circular economy can assist with this step. For example:

- What current and future circular political and legal framework conditions affect the company (e.g.,legal requirements, subsidy programmes, environmental agreements)?[23]
- What economic trends and developments are influencing material availability or prices?
- How is customer awareness developing?
- How are competitors positioning themselves with regard to circularity?
- Which current products and services are aligned with the future of circular economy?
- How should or must supply chains be designed to support a circular economy?

The content can be developed through methods such as surveying internal and external stakeholders, conducting literature research, purchasing external consulting services, or other approaches. After collecting the data, the next step is to evaluate the range of topics identified. Possible evaluation criteria include the company's influence on shaping the relevant environment, the positive or negative impact on the company, or a combination of several criteria.

EXCURSUS: DIGITAL TECHNOLOGIES

Digitalization, whether through optimized processes or modern hardware, can greatly support the implementation of circular business models.

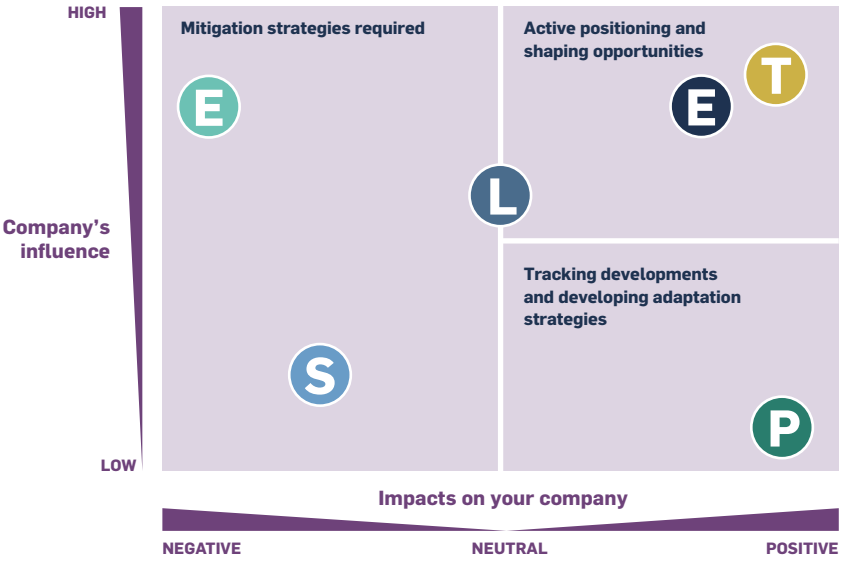
- **Industry and environmental management 4.0:** Integrating digital technologies into production processes enhances flexible and efficient manufacturing.
- **Internet of Things (IoT):** It connects devices and machines, enables automated data analysis and process control, optimizes resource consumption, and reduces waste.
- **Real-time data and product life cycle data:** Information on the use and condition of products supports sustainable product design, optimization, repair, reuse and recycling (e.g. RFID chips)

Textbox 4: Digitalization and circular economy

23 See Chapter 3 "Further resources", p. 86

2.1

P Political	**Promotion of the circular economy:** Amendment of the German Electrical and Electronic Equipment Act (ElektroG) and the development of a National Circular Economy Strategy by the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV).
E Economic	**Market demand:** Growing demand for sustainable products and solutions is driving the growth of the circular electronics industry and creating new economic opportunities.
S Social	**Labour market:** The availability and qualification of skilled professionals in circularity and sustainable technologies are crucial for developing new market opportunities.
T Technological	**Innovation:** Technological advancements could enable more modular designs for electronic devices, making repairs and recycling easier.
E Ecological	**Raw material availability:** Sustainability and the availability of raw materials are critical factors. Reducing consumption through reuse can lower environmental impact and reduce the ecological footprint.
L Legal	**Regulations:** Implementation of the EU directive promoting the repair of products to conserve resources. The deadline for transposing this directive into national law is June 30, 2026.



Fictitious electrical appliance manufacturer—example 2: Evaluated corporate environment analysis

B) VALUE CHAIN AND STAKEHOLDER MAPPING

WHAT

Value chain and stakeholder mapping visualises all the steps a service, material or product goes through from raw material extraction to disposal. A complete presentation includes the involved stakeholders as well as their business relationships and interdependencies.

Examining the value chain provides an overview of the entire range of interactions required for a product or raw material. It illustrates the different phases, including extraction, production, delivery to end consumers, usage, and final disposal after use. Stakeholder mapping allows you to identify individuals, groups, or organizations affected by or influencing your business activities.

WHY

This comprehensive approach helps you and your company clearly identify your internal and external value creation steps—both upstream and downstream in the value chain.

Through this analysis, you can:

- Gain insights into resource flows and assess related sustainability aspects (e.g., biodiversity, water, climate, or socio-economic impacts),
- Identify opportunities for collaboration along the value chain,
- Recognize and engage relevant stakeholder groups (e.g., regulatory authorities, local communities, NGOs).

Mapping the value chain and stakeholders forms the knowledge base for circular and interconnected value creation. This overview enhances your understanding of your company's activities within its circular ecosystem.

HOW

In a value chain analysis, a company's various activities are divided into upstream, direct, and downstream activities:

- Upstream activities refer to all activities that take place before actual production within the company. This may also include intangible activities for services.
- Direct activities comprise the actual production and manufacturing of (end) products or the delivery of services by the company.
- Downstream activities cover all processes that occur after the company's entrepreneurial activity

2.1

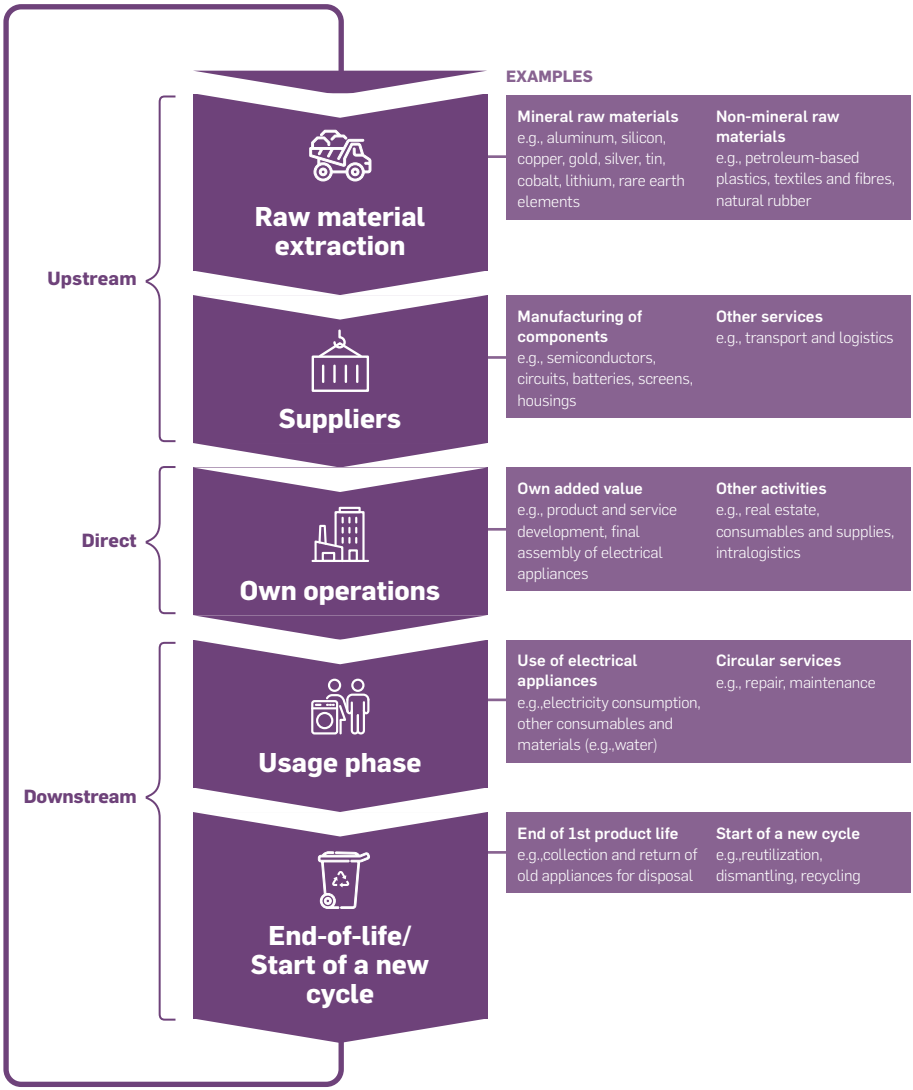
Procedure:

1. Identifying the key steps in the value chain

For a thorough value chain analysis, you should consider at least the five areas shown in Example 3:

- Raw material extraction
- Suppliers
- Own operations
- Usage phase
- End-of-life (product lifecycle completion); possibly the start of a new circular loop

The level of detail in breaking down these steps can vary. Suppliers often consist of a chain of companies and may include additional substeps, such as raw material processing and the subsequent production of intermediate products before they are further processed into a (preliminary) end product in your company's direct operations. Similarly, a company's own operations often involve multiple production stages, especially in cases of complex corporate structures or broad product portfolios. The goal is to generate a sufficiently detailed breakdown that allows for meaningful analysis relevant to your company.



Fictitious electrical appliance manufacturer—example 3: Five areas for analyzing the value chain

2. Recording and documenting relevant materials, products and services

Once you have determined the level of detail, you can now structure the most important materials, products and services along the individual steps of the value chain. A risk-based approach is recommended for this qualitative assessment, especially if you find it difficult or impossible to obtain information about deeper levels of the supply chain. In this case, assumptions must be made based on global metadata on material flows (see example 4).

Information about the deeper supply chain is crucial for accurately mapping the actual value chain. At the same time, this data is relevant for stakeholders in the next step. By gathering this information, you also create greater transparency, which is beneficial for downstream strategic considerations.

An electrical appliance manufacturer purchases custom-made aluminum components within Germany and maintains a strong relationship with its direct supplier (tier 1). However, the company does not know where its supplier sources their intermediate products (tier 2) or raw materials (tier-n).[24]

If no specific information is available, the manufacturer should make well-founded assumptions. For example, over 57% of all globally exported aluminum ores originate from Guinea.[25] Based on this assumption, the company can proceed with the next steps of the status quo analysis.

Fictitious electrical appliance manufacturer—example 4: Assumptions about the deeper supply chain

24 In a value chain, suppliers are often structured in successive levels. Manufacturers, for example, rely on direct suppliers (tier 1), who in turn source intermediate products from component manufacturers (tier 2). Suppliers further down the value chain are referred to as tier-n suppliers.

25 Harvard Growth Lab; bit.ly/atlaseconomiccomplexity

3. Identifying and categorizing stakeholders.

Once you have identified the relevant steps and intermediate products, stakeholder mapping along the value chain completes your analysis. In this context, stakeholders include all relevant internal and external interest groups and individuals who are either affected by or influence your business activities. An influence-interest matrix can help visualize the influence stakeholders have on different steps in your value chain and their specific interests. This analysis can also help identify potential future partnerships.

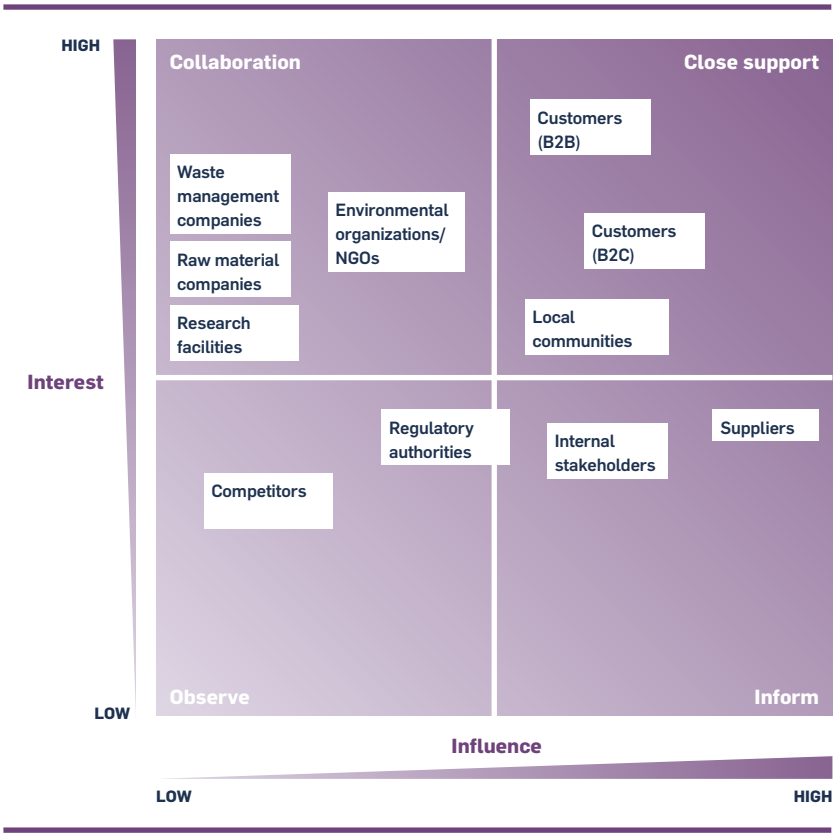
Conducting stakeholder mapping requires collaboration across various internal teams, including sustainability and environmental officers, compliance managers, supply chain and logistics experts, procurement specialists, as well as marketing and sales representatives. It may also be beneficial to involve external experts in the process—particularly individuals with specialized knowledge of stakeholder influence and interests—who can provide a more comprehensive perspective.

Potential stakeholders

1. **Raw material companies**
   Collaboration with these companies can help develop environmentally-friendly extraction methods and ensure that raw materials are sourced efficiently and sustainably.
2. **Suppliers**
   Suppliers must be informed about sustainability requirements and quality standards to ensure they use environmentally-friendly materials and processes.
3. **Customers (B2B) and consumers (B2C)**
   Both B2B and B2C customers require active engagement and strong management to ensure they fully understand and support the circular benefits of products.
4. **Internal corporate stakeholders**
   Internal stakeholders must be well informed about the circular properties of products and their environmental benefits so that they can effectively communicate this knowledge both internally and externally.
5. **Waste management companies**
   These companies play a crucial role in implementing sustainable and environmentally-friendly practices and promoting circularity.

Potential stakeholders	
6	**Research facilities** Collaborating with research and development (R&D) institutions can support the development of new sustainable materials and circular production methods.
7	**Competitors** Monitoring market competitors helps identify best practices and innovative technologies. Through cooperation, circular practices can be encouraged and reinforced among shared suppliers.
8	**Regulatory authorities** Authorities ensure that all legal requirements for sustainable processes are met.
9	**Environmental organizations/NGOs** These organizations often take a monitoring role in assessing the environmental impact of business activities and contribute to the adoption of sustainable practices.
10	**Local communities** Local communities should be informed about business activities that may have socio-environmental impacts on them. This promotes transparency and trust.

Fictitious electrical appliance manufacturer—example 5: Stakeholder mapping



Fictitious electrical appliance manufacturer—example 6: Influence-interest matrix along the value chain

C) MATERIALITY ANALYSIS: ASSESSING IMPACTS, OPPORTUNITIES, AND RISKS

WHAT

Companies are subject to dependencies. They rely on natural resources and ecosystem services, while also being influenced by societal factors. These dependencies, identified in previous steps, lead to impacts, opportunities, and risks.

Impacts refer to the positive and negative effects a company has on society and the environment at the time of analysis. Opportunities and risks become visible through a well-founded evaluation of these dependencies. You already explored external and internal factors related to the circular economy in the corporate environment analysis, and the value chain assessment has further completed this picture. Now, you can analyze and assess in detail the economic, environmental, social, and economic impacts, opportunities, and risks.

WHY

Analyzing dependencies along the value chain with regard to impacts, opportunities, and risks allows companies to make informed decisions and focus on key areas of influence.

The materiality analysis helps identify hotspots, highlighting priority fields of action where the impact of the existing business model on nature and society is most significant.

By developing a sustainability and circular economy strategy based on these key challenges, your company can position itself as a trustworthy player and partner in the eyes of stakeholders.

In the context of the European Corporate Sustainability Reporting Directive (CSRD), the concept of double materiality has become increasingly important (see Chapter 1.7, "Regulations in Germany and the EU"). By analyzing impacts, opportunities, and risks, you are already laying the foundation for double materiality analysis. The steps described below under HOW have the following objectives:

- Identify and name potential and actual positive and negative impacts along the entire value chain. For an analysis in terms of CSRD materiality, these impacts only need to be examined in greater depth.
- Gather and assess insights on potential financial opportunities and risks.
- Support the CSRD materiality assessment based on your qualitative insights and quantitative data, for example, by evaluating magnitude, scope, irreversibility, and likelihood of occurrence.

If your company is required to report under the CSRD, use the results of the analysis and consolidate them for the double materiality analysis. Ideally, you should not need to conduct any additional analytical steps beyond those already described.

HOW

To conduct a meaningful assessment of your business activities, you need to collect both qualitative and quantitative data. We recommend taking a pragmatic approach to evaluation,especially if not all data is readily available. Start with the knowledge you already have and expand it step by step. For example, you can begin with a basic hotspot assessment. As you gather more information—about the industry, your company, and eventually materials and products—this hotspot analysis will become increasingly specific. Ideally, over time, you should develop a comprehensive inventory of all material and product flows, tracking their impacts and dependencies along the value chain.

Procedure:

1. Define your own database, scope and assessment objectives

Data relevant to circularity can come from a variety of indicators, including (raw) material and product data—such as all the materials and products used in current business activities.

- Quantifying and recording the share of critical raw materials in a product, considering factors such as regional availability, geopolitical challenges, and regulatory frameworks (e.g., the EU Critical Raw Materials Act).
- Tracking resource flows, material losses, and site-specific data beyond your own production processes.

To first determine what data is already available within your company, you should identify internal data sources, such as financial records, environmental data, procurement data, etc.

The scope and objective of the assessment can be derived from what you aim to achieve with the analysis, for example:.

- Should regulatory requirements be considered, including the necessary data depth for reporting obligations? In this case, certain parameters for the analysis may already be predefined.
- Is waste minimization the main focus? Or is the goal to assess the specific impact of materials that become waste at different stages (e.g., greenhouse gas emissions along the material value chain)?

Depending on the goal of your analysis, you can proceed to select the appropriate tools in the next step.

2. Selecting suitable tools and collecting further relevant data

There are various approaches you can take for your analysis, including:

- Internal workshops
- Qualitative assessments by internal experts
- More detailed assessments, such as material flow analyses, life cycle assessments (LCA), and risk assessments (e.g.,WWF Risk Filter Suites)
- Target setting guidelines of the Science Based Targets Network

Workshops within the company are an easy starting point, especially if you are at the beginning of your transformation journey. They allow you to tap into existing internal knowledge in a low-threshold way. For companies with limited experience in impact analysis, it may also be beneficial to rely on external expertise, either through appropriate tools or targeted collaborations. Once you have chosen an approach and a tool, you will be able to determine whether additional indicators or data need to be gathered or if the data collected in step 1 is already sufficient for analysis.

When selecting your approach, you should aim to identify effective measures for improvement and pinpoint the most significant impact levers.

Analyzing socio-ecological indicators is central to an impact-oriented CE strategy. These indicators can be derived from existing literature or sources that deal with human rights, water, biodiversity, and climate. Key socio-ecological indicators include:

- Greenhouse gas emissions
- Land use for the extraction of raw materials
- Toxicity of materials used
- Soil and water pollution, as well as air pollution caused by the emission of harmful substances
- Working conditions

Similarly, financial indicators should and must be identified for the assessment carried out by the company, including data on supply chain risks, as well as current and future demand and supply prospects. Relevant financial indicators include:

- Current or future resource scarcity, which may limit availability and drive up costs.
- Industry developments (e.g.,material innovations) that may influence future demand for a specific material or product.

3. Identifying and assessing impacts, opportunities and risks using the selected tool

In the final step, take a closer look at the data obtained using the chosen approach. The goal is to identify key impact areas and map out the most significant effects. These impacts can be material or product-specific effects along the value chain, or location-specific conditions of the company's own production sites, suppliers or raw material sources.

Review the list of identified impacts, risks, and opportunities, and categorize them based on severity and impact level. To do this, you determine the extent, scope and irreversibility on a range from low to high impact. When assessing negative impacts, the term severity or impact severity is used. The details matter: Even a material with relatively low environmental impact compared to others may have a high overall effect due to the absolute quantity used. Additionally, you should assess the likelihood of occurrence for potential impacts.[26] Impacts can be either positive (opportunities) or negative (risks).

26 EFRAG (2022); Draft European Sustainability Reporting Standards, Chapter 3.4

Based on this assessment, you should now prioritize key topics, determining where the most urgent need for action lies for your company. A risk-opportunity matrix that evaluates impacts and dependencies (see Figure 9) can be a useful tool for this process. All impacts exceeding critical severity thresholds should be considered significant issues for your company.

Include the results of your corporate environment analysis (e.g.,your company's potential influence), as well as insights from value chain and stakeholder mapping. Your key stakeholders can provide valuable input by helping to assess the list of impacts, estimate their likelihood of occurrence, and evaluate the extent of their impact. To avoid risking a bias in the overall materiality analysis, consider whether the selected stakeholders have in-depth expertise on the relevant impacts or whether they are more likely to contribute a general view. Also consider any vested interests of stakeholders.

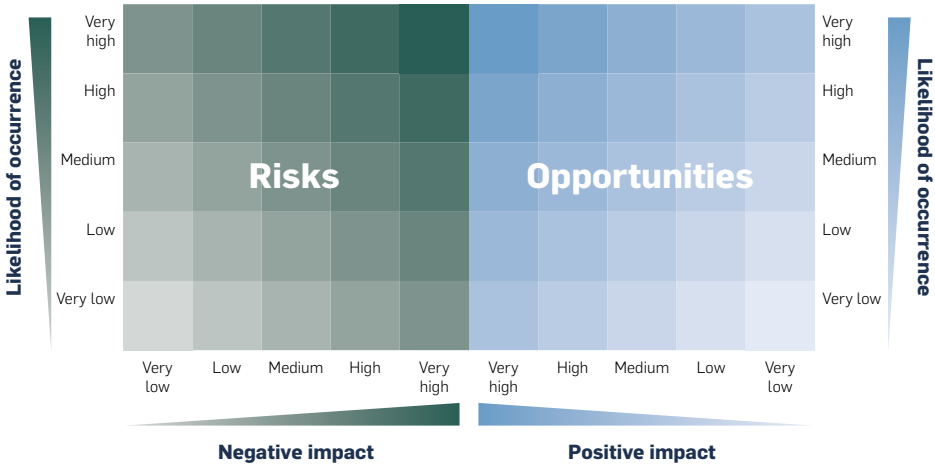


Figure 9: Risk-opportunity matrix. Assessment scheme for the materiality of the impact

2.1

Sustainability aspects	Raw material extraction	Suppliers	Own operations	Usage phase	End-of-Life
Material consumption	●	●	●	●	●
Material losses	●	●	●	●	●
Water consumption	●	●	●	●	●
Greenhouse gas emissions	●	●	●	●	●
Working conditions	●	●	●	●	●
Social security	●	●	●	●	●
Consumer health	●	●	●	●	●

● Major impact ● Medium impact ● Minor impact

Fictitious electrical appliance manufacturer—example 7: Assessment of ecological and social hotspots

Another option is to visualize the findings in a table to clearly highlight the (negative) hotspots (see example 7). A major impact indicates a high need for action, which is crucial for defining and achieving your goals and circular strategy.

D) PRIORITY FIELDS OF ACTION RESULTING FROM THE STATUS QUO ANALYSIS

The steps of a status quo analysis result in opportunities, risks and external requirements that reveal the need for entrepreneurial action with varying degrees of urgency. This allows you to set knowledge-based priorities and recognise potential conflicting objectives early on (trade-offs at different levels).[27]

- The corporate environment analysis enables you to identify the specific challenges and opportunities in your business environment. It helps you to assess your company's influence and understand external factors that may have a direct and indirect impact on you. This analysis supports the early identification of new business opportunities while also strengthening your company's resilience and sustainability.

- By analyzing the value chains, you can define your position in the value chain and identify potential levers for action. This allows you to gain insights into resource flows and explore approaches to increase material efficiency and reduce costs (e.g., through R strategies). Combined with stakeholder mapping, you gain a better understanding of your (circular) ecosystem and how your company interacts within it. Additionally, you can determine which stakeholder groups should be involved in your next steps, either due to their direct impact or their ability to veto decisions.

- The materiality analysis helps identify hotspots and other action areas along the value chain. It serves as a starting point for informed decision-making, ensuring that you focus on the most critical areas of influence.

27 Conflicts of objectives with regard to circular processes arise at different levels and can be based on impact (economic, environmental, social), on the time factor (e.g., short and long-term objectives) or on processes (e.g., involvement of suppliers and interest groups).
See e.g., Ünal/Sinha (2023); Sustainability trade-offs in the circular economy: A maturity-based framework

By evaluating the status quo analysis, you can strategically prioritize future business actions based on knowledge and data. Priority fields of action—that is, topics where your company has the potential for significant impact—form the basis for the transition to a circular business.They provide the necessary focus and are key building blocks for defining and aligning your impact-oriented circular economy (CE) strategy.

Corporate environment analysis: The foundation for new business opportunities

Regulations, rising raw material prices, and societal pressure on products are key external influencing factors. While technological innovations create opportunities, ecological and legal requirements increase the pressure to act.

Value chain and stakeholder mapping

The company has a significant impact on the sustainability of its processes and products. Through innovations in sustainable technologies and materials, it has the opportunity to promote a circular economy along the entire value chain and to minimize its environmental footprint. Additionally, raw material procurement provides an opportunity to improve ecological and social standards.

Ecological hotspot analysis

Raw material extraction leads to high environmental impacts, while energy-intensive production and recycling present additional challenges. Transport and product use also contribute significantly to greenhouse gas emissions. Furthermore, risks in raw material extraction include human rights violations and child labor, as well as poor working conditions among suppliers, particularly in emerging economies.

Priority fields of action

1. **Raw material procurement**
2. **Material consumption**
3. **End-of-Life**

Fictitious electrical appliance manufacturer—example 8: Identifying priority fields of action

2.2 STRATEGIC ALIGNMENT AND GOALS

An impact-oriented circular economy strategy must be individually defined for each company. The key is to establish an internal framework tailored to your organization. To achieve this, the following elements are helpful:

- A circular economy vision outlines a positive future scenario and serves as an inspiring foundation for you and your company.
- Your individual mission is derived from the vision (and findings from the status quo analysis). It provides an initial perspective on how you see the specific role of your company.
- Specific circular economy approaches are used to convert the mission into actionable options.
- In conjunction with the defined priority fields of action, specific circularity goals can be established, focusing on their impact.

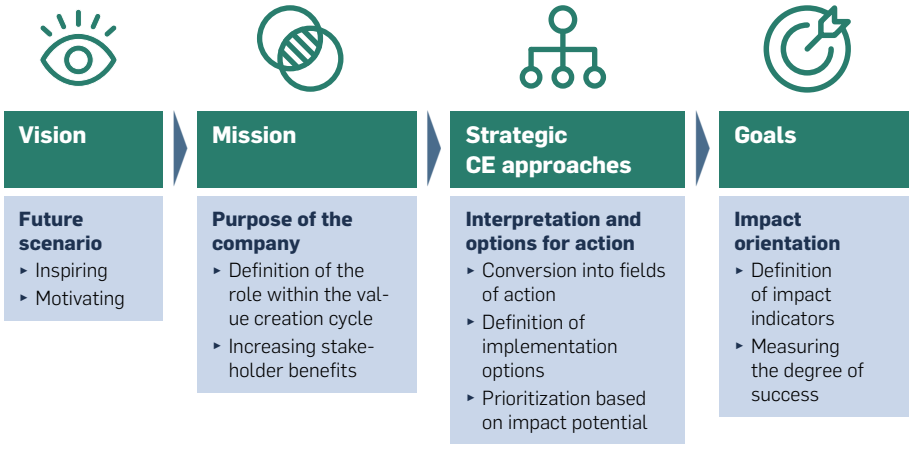


Figure 10: Developing a corporate circular economy strategy

We recommend conducting a comprehensive analysis of the status quo before formulating a definitive circular economy strategy. This makes it easier for you to assess and consider the identified opportunities and risks, and the priority fields of action. However, it is also possible to define your company's vision and mission for circularity first and subsequently align them with external framework conditions (e.g., through tools such as corporate environment, value chain, or materiality analysis) and adjust them if necessary.

A) VISION AND MISSION: NORMATIVE FOUNDATIONS FOR A CE STRATEGY

WHAT

A circular economy vision describes the ideal long-term goal for your company in the areas of circularity and sustainability. An authentic vision reflects the company's values and the underlying purpose of its business activities. It serves as a guiding star and provides the long-term basis for strategy and goal setting.

The mission is more specific, outlining your company's particular role and the mandate derived from the vision. It represents a solution-oriented approach that helps achieve the vision. The mission describes your company's role within the circular economy and the added value it creates for stakeholders.

WHY

A clear vision and mission are the basis for ensuring that all the elements of organizational development align effectively, synergies are leveraged, and the transformation process is tailored to your company's needs. An ambitious, yet realistic, vision inspires and motivates employees and customers, while the mission provides a clear direction for your company.

Your mission helps define your company's role within the circular economy. For example, if you aim to be a pioneer, you can plan to take the lead in circularity through a comprehensive initiative.

HOW

Based on the status quo analyses (Chapter 2.1 Assessing the status quo), you can define what circular economy means for your company and industry, and formulate an ambitious vision and an action-oriented mission.

Ideally, this process takes place together with key internal stakeholders to ensure a long-term transformation that is driven and supported from within.

Procedure:

1. The following key questions will help you to formulate a vision:

- Why is an economy within the planetary boundaries desirable for your company?
- What does circular business within planetary boundaries look like for you?
- What changes would you like to see implemented in your industry?
- What does an ideal sector-wide circular economy look like?

2. Once you have developed a vision, derive your mission from it. The following key questions will help you:

- What is your role within the value chain or value cycle in which your company operates?
- How can you proactively contribute to the circular economy within this role?
- What specific problem does your company aim to solve? How do you apply circular economy approaches to this end?
- What benefits does transitioning toward circularity bring to your company? In your role, how can you provide necessary and innovative solutions that strengthen your market position?
- What value do you generate for your customers and beyond? For example: How can the long-term preservation of material value ensure the practical value of your products?

Vision

Our vision is a circular economic system that is not only environmentally sustainable, but also makes a positive contribution to society.

The future of the electronics industry will be driven by circular innovations and sustainable practices, operating within the planetary boundaries.

We want to contribute to leaving a healthy planet for future generations.

Mission

We are on a mission to provide **long-lasting, repairable** and **fully recyclable products**.

We want to enable consumers to choose and use electrical appliances with minimal resource consumption, while ensuring that these products generate zero waste throughout their entire lifecycle.

In the future, our **raw materials** will come exclusively from **responsible sources** or be obtained through **closed-loop recycling**.

Our production relies on renewable energy sources, helping to mitigate climate change and protect natural ecosystems.

Fictitious electrical appliance manufacturer—example 9: Circular vision and mission

PRACTICAL EXAMPLE:

IKEA: Embedding circularity in the corporate mission

Company role: Manufacturer and retailer (franchise model) of furniture and home accessories with an integrated supply chain.

Derived from its vision of achieving a positive impact on the environment and society, IKEA set the mission "Circular Business by 2030" in 2018. Circularity was thus embedded as one of the three key elements of IKEA's sustainability strategy, with a focus on:

1. Circular **design criteria** (e.g.,easy disassembly, durability, lightweight materials).
2. **100% renewable and recyclable materials** (including sustainable material sourcing).
3. Building a circular **ecosystem** that actively involves partners and customers.

Based on this mission:

- IKEA has committed to producing at least 80% of its chipboard from recycled wood by 2030, thereby increasing the share of recycled wood in its products (as of 2023: 30% recycled wood in IKEA chipboard).
- IKEA wants to stop sending waste to landfill by 2030. To this end, each factory sets its own priorities and develops a roadmap for minimizing, reusing and recycling or disposing of waste.
- IKEA is testing buy-back and resale options, as well as leasing instead of purchasing models in individual markets (Netherlands, Sweden and Switzerland; as of June 2024)

IKEA is cooperating with the Ellen McArthur Foundation, among others, to achieve its Circular Business by 2030.

Textbox 5: Practical example—IKEA: Embedding circularity in the corporate mission

PRACTICAL EXAMPLE:

Philips: Embedding circularity in the corporate mission

Company role: Manufacturer and provider of healthcare technologies and services with a global reach.

As part of its corporate mission "Sustainable Health Technologies by 2025", Philips aims to take a leading role in the circular healthcare economy. The mission focuses on:

- **Circular design:** Applying eco-design principles to all new products.
- **Ressource efficiency:** Promoting of "use less, use longer, use again".
- **Innovative business models:** Developing new service offerings and end-of-use management.

In 2024, Philips defined circularity as a core pillar of its corporate sustainability strategy and reported that in 2023, 20% of its revenue came from products and services contributing to a comprehensive circular economy. Philips wants to increase this share to 25% by 2025.

Textbox 6: Practical example—Philips: Embedding circularity in the corporate mission

B) STRATEGIC CE APPROACHES: DEVELOPING AND EVALUATING OPTIONS FOR ACTION

WHAT

Strategic circular economy (CE) approaches are the overarching options for action a company uses to establish circularity within its operations. The selection of these approaches is based on the findings of the status quo analysis and the priority fields of action derived from it. CE approaches are always geared towards maximizing the potential impact of corporate action. The development of strategic CE approaches includes the identification of business models and the assessment of their potential for the company.

WHY

Strategic CE approaches are the first step after defining the vision and mission. The goal is to develop a circular economy strategy tailored to your company. By exploring and critically reviewing different approaches for the priority fields of action, you gain a deeper understanding of internal and external interactions. The insights gained from this process serve as the foundation for setting corporate goals, which can then be converted into measures within a roadmap.

HOW

You have determined your priority fields of action, formulated your vision and developed an action-orientated mission. Now it's time to bring these to life. The next step is to develop specific action options, which you will later evaluate (see Chapter 2.1 d).

Procedure:

1. Developing options for action

The first step is to generate a range of different CE approaches that can contribute towards achieving your corporate mission and improving your priority fields of action.

There are multiple pathways to achieving this goal. Options for action can be determined by redefining your company's role within the circular value cycle, applying circular R strategies to your corporate processes, and/or designing products or services in a way that aligns with circular economy principles. Each pathway offers a specific perspective, yet the options for action often overlap (Figure 11).

As there is no universal blueprint for transitioning to a circular company, it is essential to gather a broad range of ideas—for example, in a workshop. The key to success is a clear guiding question that allows everyone involved to work toward a common goal. Possible guiding questions include:

What do you need to fulfil your corporate mission?
How can improvements be achieved in your priority fields of action?

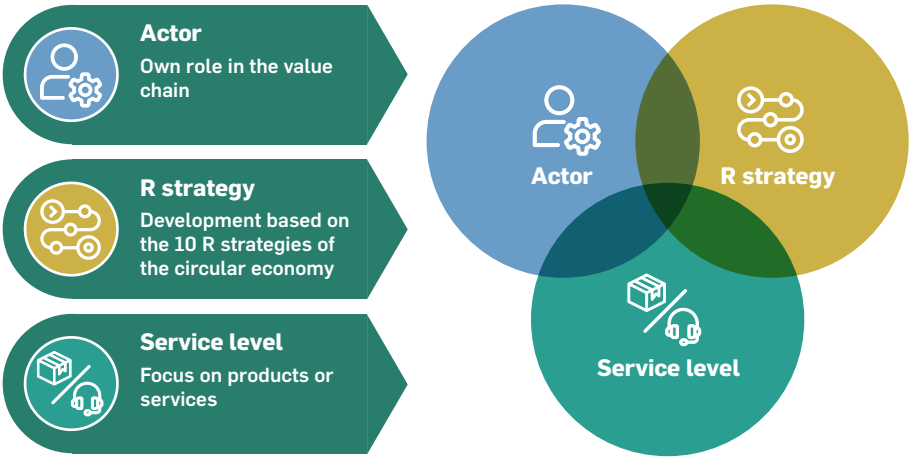


Figure 11: Deriving options for action

"MAKE IT CIRCULAR!"— A GAMIFIED INTRODUCTION TO CIRCULAR BUSINESS

One possible approach to developing initial CE approaches for your company is to use the "Make it circular!" simulation game created by acatech and WWF Germany. "Make it circular!" offers the opportunity to develop CE approaches and familiarize yourself with circular business models in a playful way using a set of cards and detailed support material. The game helps to recognize options for action that align your own business model more closely with the circular economy.
The free tool is industry-independent and consists of 22 templates for circular business models and a facilitation guide for workshops.

Textbox 7: "Make it circular!" strategy game as an introduction to the circular economy[28]

28 Acatech & WWF (2022), "Make it circular"—A Gamified Introduction to Circular Business Models in a Corporate Setting

It is important to incorporate external perspectives so as to generate a broad range of promising approaches and the resulting options for action.

Depending on the company's existing level of circular economy expertise, it may be useful to conduct the workshop together with external experts. This can help to highlight the innovation potential of the transformation and to bring enabling factors into the discussion to address key challenges from the outset.

Example 10 of the fictional company outlined in this guide illustrates how circular economy approaches can be applied based on the R strategies for an electronics manufacturer. These approaches were developed using the priority fields of action identified at the end of the status quo analysis. (see p. 51)

10 R-Strategien	**Raw material procurement** focus on purchasing	**Material consumption** focus on research & development (R&D)	**End-of-Life** focus on R&D and aftersales
Refuse	Avoid purchasing raw materials from conflict-affected regions.	Eliminate environmentally-harmful materials in product design.	
Rethink	Redesign purchasing strategies to create internal and external incentives for secondary raw materials.	Design products with multiple functions to increase product utilization intensity.	Define a service strategy (e.g., product-as-a-service) that ensures the return of products.
Reduce	Reduce absolute raw material consumption by procuring secondary materials.	Reduce material usage through lightweight and resource-efficient design.	Minimize material losses through optimized take-back and recycling processes.

10 R-Strategien	**Raw material procurement** focus on purchasing	**Material consumption** focus on research & development (R&D)	**End-of-Life** focus on R&D and aftersales
Reuse	Promote the purchase of reusable and recycled components.	Develop modular products with standardized components that can be easily disassembled to: ▸ Enable reuse of discarded devices. ▸ Increase repairability. ▸ Allow upgrades for older devices. ▸ Facilitate the integration of functional old components into new devices.	Develop (standardized) spare parts that enable the upgrading and reuse of old devices/ components.
Repair	Source spare parts that enable repairs and maintenance.		Establish an aftersales service for simple repairs and component replacements.
Refurbish	Procure high-quality components to upgrade products to the latest standards.		Offer consumers the option to exchange old or defective components. Refurbish and resell collected old devices and components.
Remanufacture	Purchase discarded product parts with the aim of integrating them into new products.		
Repurpose			Set up a platform for collecting creative reuse ideas for existing devices and encourage consumers to submit their own concepts.
Recycle	Encourage the procurement of materials that can be easily and efficiently recycled.	Design products in such a way that they can be easily broken down into their original raw materials.	Establish partnerships with take-back and recycling companies to create consumer-friendly return programmes and facilitate material recovery.
Recover			Build partnerships with companies that use energy-efficient waste recovery technologies.

Fictitious electrical appliance manufacturer—example 10: Options for action based on the 10 R strategies

2. Evaluating and prioritizing CE approaches

You have collaboratively analyzed existing processes and derived various options for action for your company. Now, these circular economy approaches need to be evaluated and prioritized. Below, we describe two possible tools that can help facilitate this process.

Evaluation tool: The assessment matrix

The following guiding questions can be used to draw up a comprehensive evaluation of each approach and the corresponding recommended actions:

- What potential improvements can be identified within the priority fields of action and relevant socio-ecological categories?
- How do the approaches relate to the economic activities of your company? What changes would be necessary compared to the current business model?
- How can (long-term) profitability be ensured? How should financial flows be structured once each CE approach is implemented (business case)?
- What outcomes can be expected? What risks might arise?
- Which actors and stakeholders (internal and external) are affected by the identified issues?
- What external changes (e.g., regulatory requirements) should be anticipated for the approach?
- What are the short/long-term advantages, as well as the potential drawbacks of each approach

By systematically answering these questions, you can develop a structured assessment matrix for the different options (see Example 11).

Priority field of action	CE approach	Evaluation criteria		
		Potential for improvement in the priority fields of action	Long/short-term advantages and disadvantages	Necessary changes with regards to corporate activity
Raw material procurement	Option 1: **Use of recycled materials**	**Medium**	**Long term:** Improved brand image and compliance with regulatory requirements. **Short-term:** Potentially higher material costs and lower material availability.	▸ New material flows require an adaptation of the supply chain. ▸ New suppliers and partnerships are required.
Material-verbrauch	Option 2: **Design for durability and repairability**	**High**	**Long term:** Reduced costs due to lower material consumption and less waste. **Short-term:** Higher development costs.	▸ Changes required in the design process. ▸ Increased cooperation with suppliers/customers (B2B) and consumers (B2C) necessary.
End-of-Life	Option 3: **Product-as-a-service business model**	**Medium**	**Long term:** Stable revenue streams and improved resource utilization. **Short-term:** Challenges in transitioning the business model and uncertain market expectations.	▸ Expansion of guarantee regulations and creation of financial incentives. ▸ Investments in marketing, IT and logistics necessary. ▸ New payment systems/cash flows need to be set up.
End-of-Life	Option 4: **losed-loop recycling systems**	**High**	**Long term:** Reduced raw material requirements and lower environmental impact. **Short-term:** High investments in (take-back) infrastructure.	▸ Adaptation across the entire supply chain and new partnerships are essential. ▸ Introduction of new take-back systems and incentive systems for return by customers (B2B) and consumers (B2C) is necessary.

Fictitious electrical appliance manufacturer—example 11: Evaluation matrix with possible criteria

Effectiveness risk matrix tool

Another method for prioritizing your CE approaches is to assess their effectiveness and potential risks. This approach helps you identify which strategies offer the greatest impact potential while aligning with your specific business context.

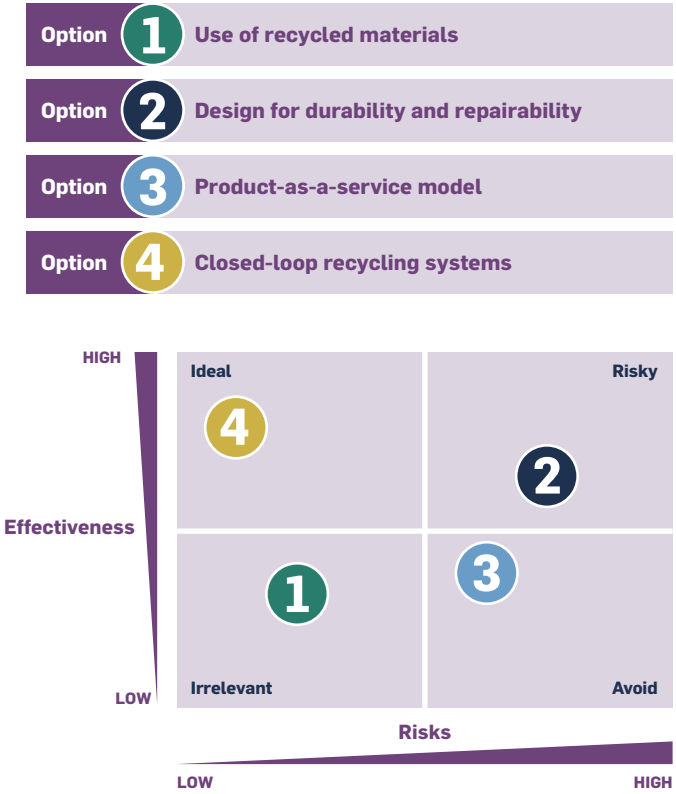
By categorizing options within an effectiveness-risk matrix, you will gain an initial understanding of:

- The impact and risks associated with each option.
- Which options are more promising for successful implementation.

The evaluation of CE approaches within the effectiveness-risk matrix should be conducted transparently. Ideally, this assessment should be performed collaboratively with the stakeholders involved in the previous steps. The classification of the CE approaches follows one of the four categories below:

- High impact with low risk—Ideal. This is a highly promising starting point for your company.
- Low risk but limited effectiveness in the targeted field of action—Irrelevant. Implementation appears feasible. If no conflicts arise with other options, this approach could be pursued as a quick win with small but immediate success.
- Low impact with high risk—Avoid.
- High impact with high risk—Risky. A deeper analysis is recommended. In some cases, it may still be worthwhile to implement this CE approach, provided that risk management measures are put in place to mitigate potential challenges.

The evaluation results—whether derived from an assessment table or the effectiveness-risk matrix—may lead to a revision of initial considerations. Some previously non-prioritized CE approaches might emerge as higher priorities. This evaluation phase helps protect your company from investing resources in CE approaches that may not be viable in the long term or fail to deliver meaningful impact.



Fictitious electrical appliance manufacturer—example 12: Effectiveness-risk matrix

If it turns out that previously non-prioritized CE approaches now have priority, you must repeat the previous steps accordingly for these approaches.

Once the CE approaches have been prioritized and selected, you can proceed to formulate clear goals for your company's CE strategy.

PRACTICAL EXAMPLE:

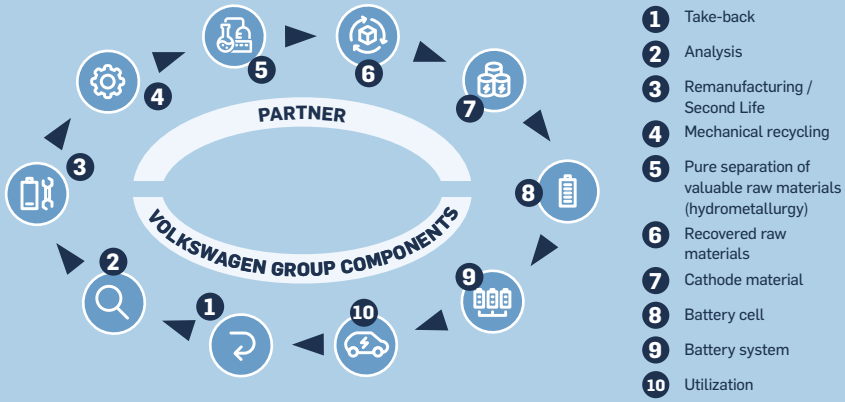
Volkswagen Group: Circular transformation as part of the corporate strategy

Company role: Car manufacturer

DThe Volkswagen Group (VW) has set a goal within its NEW AUTO corporate strategy to transition from a traditional automobile manufacturer to a mobility company. This transformation aims to diversify revenue streams and adapt to the changing market landscape. Circular processes play a key role in this strategy. VW's corporate environmental vision—"goTOzero"—explicitly incorporates circular economy principles. In addition to reducing external raw material flows and environmental impact, it also highlights the economic benefits of circularity. Priority fields of action include producing durable and repairable vehicles, implementing recycling processes, and promoting closed material loops.

Recycled raw materials: Initiative for closed battery loops

Since 2021, VW has been working to establish closed material loops for high-voltage vehicle batteries with the launch of a pilot recycling plant in Salzgitter. This initiative aims to recover valuable raw materials such as lithium, nickel, manganese, and cobalt, and feed them back into the production process. This enables a reduction in the need for new raw materials and supports VW's endeavours to conserve resources globally and achieve greater independence from global raw materials markets.



Textbox 8: Practical example—Volkswagen Group: "NEW AUTO" and "goTOzero"

C) DERIVE AND FORMULATE CIRCULARITY GOALS IN AN IMPACT-ORIENTED MANNER

WHAT

CE goals define how and by when the selected CE approaches should be established. These goals can be qualitative and/or quantitative and should provide clear guidance for further work and the development of a roadmap.

Such circularity goals incorporate a goal logic with various levels of impact. They also include an external perspective, which is essential for achieving the desired effect.

WHY

By formulating specific goals, you create commitment for implementation and make the success of the CE strategy measurable. A clear and ambitious goal statement also shows stakeholders the importance of circularity for your company and provides a solid foundation for credible communication about your efforts.

By focusing on impact and goal formulation, you avoid your company pursuing goals that may not deliver results in the medium term or need to be revised for other reasons. This helps you concentrate valuable resources and save time.It also significantly reduces the risk of your company being accused of greenwashing.

HOW

The starting point for formulating CE goals is the question of what needs to be implemented and why. You can use the following steps to formulate the circularity goals with a focus on impact and understand them within the context of a goal logic with different levels of impact (see Figure 12).

Procedure:

1. IOOI method - analyzing input, output, outcomes and impact

The IOOI method helps structure the impact chain by linking inputs, outputs, outcomes, and impact. This allows you to consolidate previous work and translate it into goal formulations.

To establish these connections and visualize the process, consider the following questions:

- Input: What resources are allocated to the project? What activities are being implemented?
- Output: What results are achieved through the project? Which processes have been modified or newly introduced?
- Outcome (results): What changes occur, for example, in the efficiency of redesigned processes?
- Impact: How does the project contribute to broader sustainability goals and societal developments?

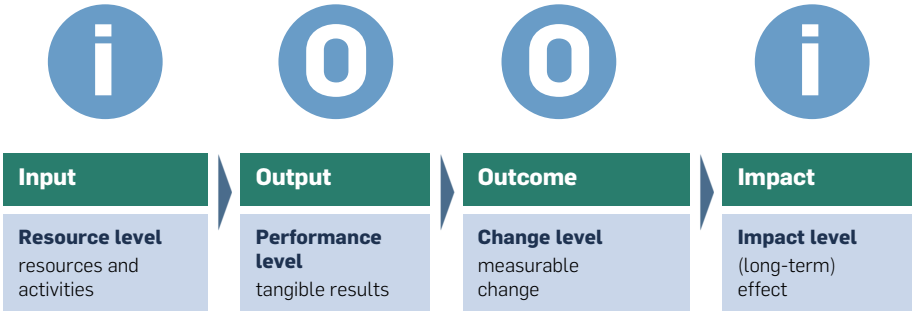


Figure 12: Impact chain analysis—the IOOI method

	Input		Output	Outcome	Impact
	Resources and investments	Activities	Performance level	Change level	Impact level
Goal	▸ 3 full-time employees (FTEs) allocated for the development and implementation of the CE approach for two years. ▸ €1.5 million designated for R&D projects focused on circular design and take-back/refurbishment processes.	▸ Development of products with a modular design. ▸ Design and implementation of a closed-loop recycling system within three years. ▸ Training of 50 employees.	▸ Increase the reuse rate of components to 70%. ▸ Take-back and recycling of 80% of sold devices within five years. ▸ Reusing 95% of production waste through closed-loop systems, starting in 2027.	▸ Reducing total waste generation by 50% by 2030. ▸ Minimizing the purchase of primary raw materials by 10% per year, starting in 2026. ▸ Lowering production costs. ▸ Reducing greenhouse gas (GHG) emissions.	▸ Mitigating climate change. ▸ Strengthening market position through environmentally-friendly practices. ▸ Reducing exploitative practices and promoting fair working conditions.
Sub-goals/ measures	▸ Secure funding ▸ Hire experts ▸ Establish partnerships	▸ Develop recycling technologies ▸ Implement pilot projects ▸ Train employees	▸ Increase the volume of recycled materials ▸ Optimize recycling systems ▸ Create closed material loops	▸ Reduce waste generation ▸ Minimize the use of new materials ▸ Enhance resource efficiency and circular economy practices	▸ Reduce environmental impact ▸ Promote innovation ▸ Strengthen brand sustainability
KPIs	▸ Budget amount and number of projects ▸ Number of experts hired ▸ Number of partnerships established	▸ Number of technologies and products developed ▸ Number of pilot project results ▸ Number of training courses and participants	▸ Volume of recycled materials ▸ Recycling rate ▸ Implementation level of closed material loops	▸ Waste reduction ▸ Use of primary materials ▸ Improvement in resource efficiency	▸ Mitigation of climate change ▸ Number of innovations assessed ▸ Change in brand perception

Fictitious electrical appliance manufacturer—example 13: The impact logic and key performance indicators (KPIs) in the IOOI goal levels for closed recycling loops

2. Formulating SMART goals—motivating and ensuring commitment

The formulation of SMART goals has proven to be effective in ensuring that objectives generate motivation and commitment. SMART stands for five key criteria that a goal formulation should meet. Below, we provide an example to illustrate this approach.

Goal formulation:
"We will increase the use of recycled materials in our product range by 30% by 2030. The increase will be implemented gradually at a rate of 5% per year." (baseline year: 2023)

S	**Specific** Clearly define what is to be achieved.	Increase the use of recycled materials **by 30%**.
M	**Measurable** Establish criteria to track progress.	Increase the use of recycled materials **by 5% annually** compared to the baseline year 2023.
A	**Achievable** Ensure that the goal is realistic and feasible.	Assess whether the necessary **resources and skills** are available to achieve the goal. It may be necessary to first remove any obstacles and define preliminary goals (e.g., building new partnerships or adapting product design).
R	**Relevant** Confirm that the goal is meaningful for the business and the priority fields of action.	Consider how increasing the **use of recycled materials** would significantly reduce environmental impact, lower production costs, create competitive advantages through new products and partnerships, and ensure compliance with regulatory requirements.
T	**Time-based** Set a clear timeframe for goal achievement.	by **2030.**

Fictitious electrical appliance manufacturer—example 14: Formulation of SMART goals

PRACTICAL EXAMPLE:

SHIFT GmbH: Sustainable resource conservation through modular smartphones

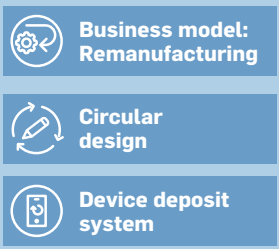
Company role: Manufacturer, retailer, and service provider

SHIFT GmbH specializes in the production and distribution of fully modular smartphones. The company follows a holistic approach, consciously applying the R strategies of the circular economy within its 13 SHIFT Cycles.

SHIFT considers all stages of the product lifecycle, focusing not only on reducing resource consumption but also on repairability and hardware upgrades during use. To increase the return rate of used devices, the company has implemented a deposit system for its products. SHIFT also prioritizes longevity in its device design to ensure the longest possible product lifespan.

The SHIFTphone

The design of SHIFTphone is based on a modular system, allowing for simple and cost-effective repairs instead of new purchases. To ensure component compatibility across different SHIFTphone models, standardized spare parts are developed. These components not only facilitate repairs but also allow for upgrades of older models. Additionally, functional parts from returned devices are refurbished and reinstalled if needed. The modular design makes it easier to separate materials and components, allowing them to be reintroduced into closed material loops.



- Loudspeaker
- HD display
- Front/rear camera
- Audio jack
- Charging port (USB C)
- Antenna module
- Mainboard
- Dual SIM and MicroSD slot
- Charging connector
- T3 standard screws
- B-frame carrier component
- Modular battery
- Device casing

Textbox 9: Practical example—SHIFT GmbH: Modular smartphones

PRACTICAL EXAMPLE:

Vytal Global GmbH: Minimizing packaging waste through reusable containers

Company role: Manufacturer and solution provider for reusable containers

Driven by its vision of a waste-free future, Vytal provides restaurants, cafés, and other food vendors (e.g., supermarkets) with reusable takeaway containers. The company's mission aims to become a leading global technology platform for reusability and circularity solutions. As an intermediary within the value chain, Vytal pursues multiple goals simultaneously:

- Refuse and reduce waste and single-use packaging and replace it with a sustainable reusable system (rethink, reuse).
- Help business partners (B2B) comply with mandatory reusable packaging regulations where applicable while reducing CO_2 emissions compared to single-use packaging.
- Eliminate harmful substances from plastic packaging by using BPA-free polypropylene and thermoplastic elastomers (refuse).

An innovative business model based on two pillars is key:

1) Participating sales locations, such as restaurants and cafés, pay a small fee when filling reusable containers (usage-based pricing model). This fee is deliberately kept low to provide an economic incentive for partner restaurants to choose reusables over single-use alternatives (main solution).
2) If a reusable container is not returned to a sales location within 14 days, ownership transfers to the user, and a fee is charged retroactively (secondary solution).

This system is enabled through a digital lending platform. Each reusable container has a unique QR code that is registered via an app, ensuring that every container is linked to a specific user. More than 6,500 business partners participate in the system. After use, customers return the containers to a partner location, where they are cleaned and prepared for reuse.

Textbox 10: Practical example—Vytal Global GmbH: refuse, rethink, reduce, reuse—minimizing packaging waste through reusable containers.[29]

29 Vytal Global GmbH; www.vytal.org; Kölnische Rundschau (24 January 2024), "Wie sich 'Vytal' zu einem echten Erfolgsmodell entwickelt hat" *(How Vytal has developed into a real success model)*

2.3 PATHWAYS TO IMPLEMENTATION

Once you have formulated your vision and mission, identified and prioritized your CE approaches, and derived and defined your CE goals, the next step is to determine how to implement the circular transformation.

This guide focuses on an impact-oriented CE goal-setting approach. Nevertheless, we recommend considering the following key elements in the implementation process:

- **Measures:** Define specific implementation actions for each circularity goal.
- **Roadmap:** Describe and schedule the actions in a roadmap, specifying the resources and responsibilities required.
- **Governance:** Establish a strong management framework to steer the normative and operational implementation of the CE strategy across all areas of your company.

The following sections outline these elements in detail.

A) DEFINING IMPLEMENTATION MEASURES

WHAT

A company's CE strategy requires a variety of different measures. Some can be implemented quickly, delivering short-term results, while others—such as new business models—require a comprehensive transformation of processes and business areas, the development of partnerships, and substantial financial investments.

At this stage, you can assess the financial feasibility of new models through a business case analysis. This helps integrate planned circular processes and business models with the company's long-term economic objectives. Unlike a mere reaction to market trends, the business case focuses on long-term corporate value creation.

WHY

Defining specific measures transforms the strategic intent into clear action steps. This process also identifies potential challenges and solutions for implementation. By refining these action plans, you also prepare for

the financial evaluation of the planned projects, ensuring their economic viability.

HOW

At this stage, you will focus on the specific circularity goals you formulated in the previous section—whether using the SMART approach or the IOOI method (see Chapter 2.2 c: Derive and formulate circularity goals in an impact-oriented manner). Refer to your goals to extract key elements, guidelines, and requirements, and systematically work through them.

Procedure:

1. Developing implementation measures

For each goal, ask yourself: What does it take to achieve it?

Start with a short- and medium-term plan for your goals within the priority fields of action. Your plan should cover at least one year, with an outlook for the next one to two years. It should also include key stakeholders and required personnel.

Depending on the goal, you should also consider long-term needs and opportunities beyond the three-year horizon.

Additionally, determine which measures can or should be implemented in collaboration with internal and external partners. To do this, you can refer back to your status quo analysis, particularly your business environment, your position within the value chain, and your key stakeholders (see Chapter 2.1: Assessing the status quo) This foundation enables the development of collaborative projects within your circular ecosystem, helping to create synergies and reduce costs.

2. Developing a business case for new business models and solutions

The business case evaluates the financial, environmental, and social impacts of implementing circular practices. A key component of this assessment is a thorough cost-benefit analysis, which considers necessary investments, such as technology upgrades, training programmes, and/or process restructuring. These costs are then weighed against the long-term benefits, including lower disposal costs, increased operational efficiency, and a stronger brand reputation.

Beyond financial analysis, the business case also identifies potential risks associated with circular transformation. These may include regulatory challenges, market uncertainties, and supply chain disruptions. The business case also outlines risk mitigation strategies to ensure a smooth and resilient transition.

It is also important to consider the expectations and concerns of various stakeholders, ranging from consumers and investors to local communities. Addressing these perspectives is essential for building trust and securing support for circular transformation.

Organizations such as VDI ZRE and local actors provide tools to support this step.[30]

B) DEVELOPING A ROADMAP

WHAT

The roadmap translates planned measures into a well-founded and realistic action plan aimed at achieving circularity goals. At an operational level, a detailed roadmap serves as the foundation for process management and enables the early identification of obstacles and delays.

The roadmap also supports monitoring and reporting of measures. It provides comprehensive company-internal communication, fosters trust and motivation, and strengthens the company's image among customers and

30 VDI Competence Center for Resource Efficiency; bit.ly/Konzeptbewertung or the State of Berlin; bit.ly/KoordinierungKrW

consumers—whether as a transformation partner or a provider of circular solutions.

If the roadmap also presents long-term goals or planning, it supports communication about your company's ambition and measures, as it proves that you are striving for ongoing transformation.

WHY

The roadmap translates planned measures into a well-founded and realistic action plan aimed at achieving circularity goals. At an operational level, a detailed roadmap serves as the foundation for process management and enables the early identification of obstacles and delays.

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If the roadmap also presents long-term goals or planning, it supports communication about your company's ambition and measures, as it proves that you are striving for ongoing transformation.

HOW

While the following steps may seem simple, their implementation requires extensive detail work. Start by planning the necessary resources for each measure. Then, consider how a realistic overall timeline could be structured.

Procedure:

1. Resource planning

For resource planning, create an overview based on the previous action plan. This overview should include required budgets, personnel needs, spatial requirements, and external stakeholders. When planning human resources, consider whether new hires will be necessary and ensure that they are included in financial planning.

Analysis of your company and reporting	Building knowledge and capacities	Business models and innovation
▸ **Assessing the status quo** 0.5 FTE, € 10k ▸ **Stakeholder workshops** 0.5 FTE, € 5k ▸ **Strategy development** 1.5 FTE, € 20k	▸ **Building partnerships** 0.2 FTE, € 8k ▸ **Training and communication** 0.3 FTE, € 5k	▸ **Design of take-back systems** 0.5 FTE, € 9k ▸ **Start of pilot projects** 0.5 FTE, € 15k
▸ **IT systems** 1.5 FTE, € 20k ▸ **Compliance and certification** 0.3 FTE, € 8k	▸ **Cooperation and research** 0.5 FTE, € 15k ▸ **Cross-industry alliance** 1 FTE, € 25k ▸ **Co-design of standards** 0.5 FTE, € 10k	▸ **Investment in recycling technology** 2 FTE, € 50k ▸ **Expansion of pilot projects** 1.5 FTE, € 30k ▸ **Comprehensive circular business models** 1 FTE, € 20k
▸ **Circular economy as a core strategy** 1 FTE, € 50k ▸ **Full transparency and reporting** 0.5 FTE, € 10k	▸ **Leading role in initiatives** 1.5 FTE, € 30k ▸ **Global networking** 0.5 FTE, € 15k	▸ **Material innovation** 1.5 FTE, € 40k ▸ **Complete integration of circularity** 2 FTE, € 50k

Fictitious electrical appliance manufacturer—example 15: Resource planning for circular transformation

2. Timeline planning

Based on the identified activities, required resources, and other relevant factors, you can now plan the timeline for each step. The more external factors have an influence on the achievement of your CE goals, the more additional time buffers should be built into the schedule for risk mitigation.

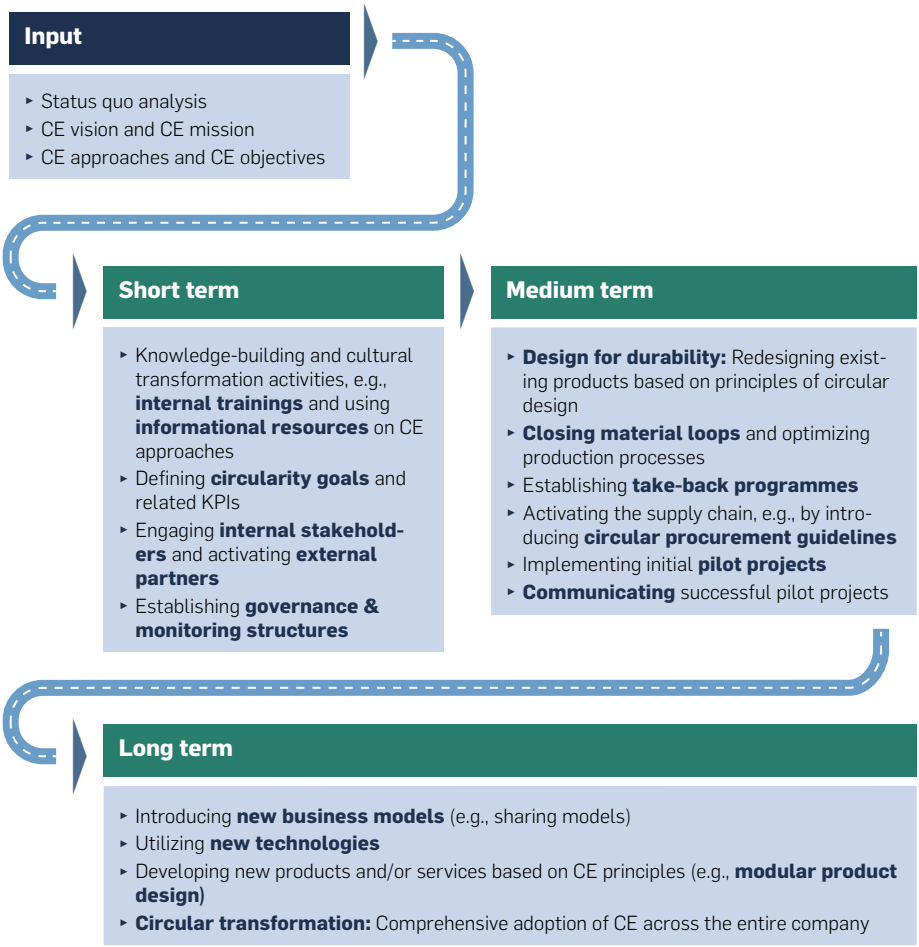


Figure 13: Potential measures for implementing CE approaches within a company

C) ESTABLISHING A GOVERNANCE STRUCTURE

WHAT

Corporate governance refers to the structures, processes, rules, and standards within which decisions are made. Effective governance provides a management framework to ensure that the strategy is implemented across all parts of the company. For a successful circular economy transformation, a clear commitment from top-level decision-makers is essential. Leadership must recognize both the relevance and potential of this transition.

WHY

Successful CE governance establishes guiding principles that set the strategic direction for the company. It ensures that roles and responsibilities are clearly defined, control and management systems are implemented, progress measurement is enabled, and policies, processes, and mechanisms are put in place. These framework conditions for individual and collective action facilitate clear coordination within the company, forming the foundation for effective collaboration among internal stakeholders and across departments.Good governance should also motivate employees to contribute to the transformation beyond their official roles.

Various corporate functions contribute directly to an impact-orientated CE strategy at all stages and should be considered in CE governance from the outset (see Figure 14). A smooth process and information flow is critical, so all stakeholders and their roles should be defined at an early stage.

Furthermore, anchoring the CE strategy at a higher corporate level is crucial. This ensures that existing resources are used efficiently and that the transition to circular processes is aligned with both the company's sustainability strategy and its overall corporate strategy.

Function/Role	Contribution
(Top) management	▸ Determines the strategic direction of the company. ▸ Allocates internal resources for the development and implementation of CE measures. ➔ Support from leadership is essential for integrating circularity at a higher corporate level.
Production	▸ Holds key information about production processes. ▸ Has data on resource consumption, waste generation and energy use.
Operations	▸ Ensures operational efficiency while monitoring potential bottlenecks. ▸ Assesses future developments (foresight), including profitability and return on investment opportunities.
Procurement	▸ Possesses knowledge of procurement volumes and supplier details. ▸ Must implement sustainable procurement criteria.
Finances	▸ Plans the company's overall budget. ▸ Secures resource allocation for (circular) projects and investments.
Research and development (R&D)	▸ Provides insights into materials and technologies used. ▸ Facilitates innovations in product design and business models.
Legal department	▸ Has the necessary expertise in relevant environmental regulations. ▸ Monitors reporting obligations and compliance requirements.
Sustainability	▸ Holds knowledge and data on environmental practices, impacts, and potential environmental risks.
Risk management	▸ Assesses ecological, social, and financial risks. ▸ Ensures the implementation of risk mitigation strategies.
Distribution	▸ Understands customer requirements and provides input accordingly.
Marketing and communication	▸ Helps effectively communicate sustainability strategies to stakeholders and customers.

Figure 14: Potential contribution of corporate functions to circular transformation

HOW

For a circular economy governance framework to be effective, it is essential to clearly define and assign responsibilities while ensuring that all relevant corporate functions are included.

Procedure:

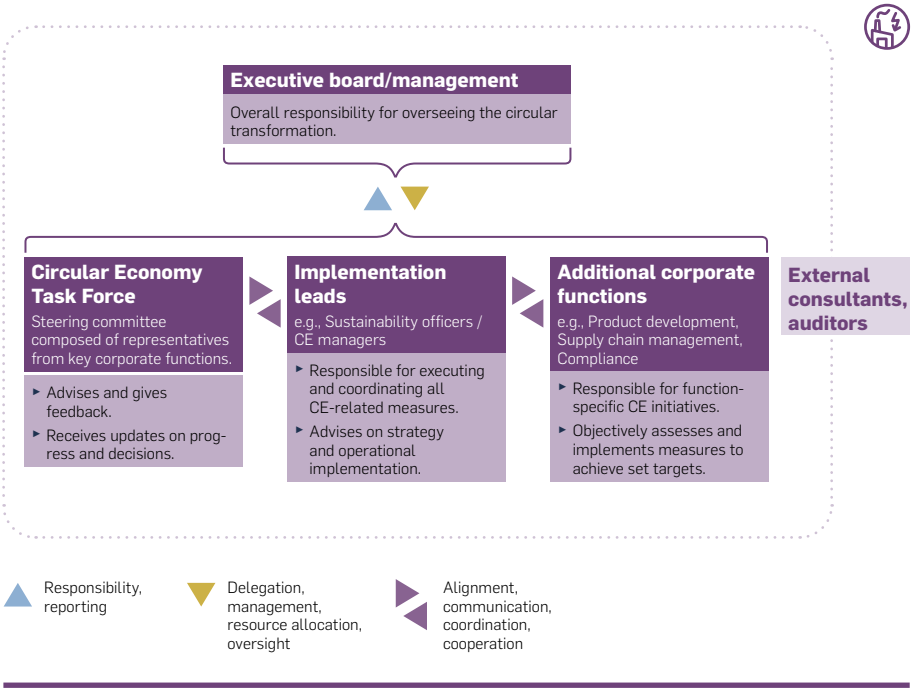
1. Defining organizational structures and responsibilities

To implement a CE strategy, various corporate functions such as procurement, production, and logistics must be considered. Therefore, it is advisable to identify key contacts within the company and establish a steering committee (e.g., a Circular Economy Task Force) to oversee preparation and coordination.

To embed circularity within the corporate structure, the following questions can help:

- Who in the company has the authority to approve the transition to a circular economy and can therefore act as a sponsor and key decision-maker?
- Which corporate functions and teams need to be involved, and for what purpose? What are their specific responsibilities?
- Who implements what measures at different levels of the organization?
- Which steering committees are required to oversee the process?
- How can processes and policies help to implement circularity? What mechanisms exist to resolve potential goal conflicts?

Coordination with top management is crucial to ensure the successful implementation of the CE strategy.



Fictitious electrical appliance manufacturer—example 16: Schematic CE governance framework

2. Change management: Planning and implementing organizational development

Regardless of the CE approaches chosen and the corresponding goals, specific measures are required to promote circularity within your company. A crucial aspect of this is embedding circular economy principles into the workforce, which can be achieved e.g.,through knowledge building, incentive systems, effective internal communication structures, and encouraging internal collaboration.

Since circular transformation involves modifying existing organizational structures and processes, it often encounters resistance. It is essential to understand the reasons behind such resistance and address

EXCURSUS: CIRCULAR LITERACY

Circular literacy refers to the knowledge and skills required to operate effectively in a circular economy. This includes a general understanding of how cycles work when re-using materials and products. Individuals also need the ability to make sustainable decisions and assess the ecological impact of products and services. This allows them to anticipate and reconsider the consequences of their own actions. Specialized skills are also required, such as expertise in circular design or the management of shared resources.

Textbox 11: Circular Literacy[31]

them effectively. You can only raise awareness of the need for change, foster acceptance, and increase motivation for the successful implementation of circular economy measures when you have open and transparent corporate communication. Employees must understand the CE strategy to recognize its benefits.

Knowledge development is key. Identify which knowledge is needed in which areas and proactively promote skill-building among employees. This approach also strengthens a company culture of continuous learning and innovation—a fundamental component of organizational change, and the development and acceptance of new strategies. Individual employees can only contribute to strategy implementation in their respective roles with this knowledge, developing context-specific solutions where needed.

To further motivate and show appreciation for the employees, incentive systems can be introduced within the company. However, it is important to align these incentives with corporate circularity goals, ensuring that they contribute to these goals and reinforce department-specific or personal objectives.

3. Implementing data management, monitoring, and evaluation

Technical measures such as developing and maintaining a data management system are essential for efficient circular economy processes. Good data management can support CE strategy implementation by providing comprehensive insights into both internal processes (e.g., production) and external processes (e.g., value chain). Our recommendation is to introduce a data and process management system before starting to collect data.

31 Hans Sauer Foundation (2023); Roadmap to a Circular Society: A co-design project for the conceptual and organizational development towards a circular society.

Your data infrastructure should be developed based on your status quo analysis. This analysis provides a starting point for setting up your data infrastructure and serves as the foundation for monitoring. By implementing efficient, stable, and quality-assuring processes, you can ensure continuity, minimize internal time and cost efforts, and reduce error risks. A well-structured database also improves the conditions for reporting and helps meet future external requirements, such as the digital product passport (see text box).

DIGITAL PRODUCT PASSPORT

The European Union has mandated the introduction of a digital product passport (DPP) by 2027. This will be a data set containing key product information, including materials and components used. The DPP has two main objectives: On the one hand, it is intended to empower consumers to make informed purchasing decisions based on a product's environmental footprint. On the other hand, the DPP will make available information on repairability, spare parts, and disposal options.

By enhancing transparency, the DPP supports an effective circular economy. To protect trade and business secrets, the need-to-know principle is applied, ensuring that sensitive information is only shared with essential stakeholders. This approach balances the information needs of a circular economy while safeguarding intellectual property.[32]

Textbox 12: The digital product passport. Information exchange for a circular economy

Clear processes are required not only for data collection but also for an effective monitoring and evaluation (M&E) system. Monitoring your data—whether qualitative or quantitative—allows you to track and assess the progress of your circularity strategy, identify weaknesses, and make adjustments as needed. The impact of both the current business model and the newly introduced CE strategy can be measured. Therefore, monitoring is an important basis for external reporting and facilitates compliance with external requirements. The timing and structure of monitoring should be aligned with the company's strategic development phases and integrated accordingly.

Evaluation assesses monitoring data in terms of impact and verifies the relevance of goals, activities, and indicators. This creates a strong foundation for continuous improvements, which should be regularly incorporated into your CE approaches and roadmap.

32 Denter (2023); "Wertvoll für die Kreislaufwirtschaft, aber zu gut geschützt" *(Valuable for the circular economy, but too well protected)*

3 FURTHER RESOURCES

3.1 POLITICAL FRAMEWORK AND CIRCULAR ECONOMY LEGISLATION

Chapter 1.5 explains the various EU instruments, including strategies, action plans, directives, and regulations. A graphical overview of European and German legislation can be found on page 27.
Below is a selection of key regulations, strategies, and action plans for the EU and Germany (as of February 2025).

European regulations, strategies, and action plans are highlighted in **blue**, while German national laws, strategies, and programmes are highlighted in **green**.

Strategies, action plans and programmes

Legal framework	Type	Status	Objective
EU Green Deal[33]	EU action package	Published 12/2019 angesetzt bis 2050	Strategic package and measures by the EU to achieve climate neutrality and resource conservation. Sets targets for greenhouse gas reduction and the circular economy. Aims to provide businesses with planning and legal certainty for sustainable investments.
Clean Industrial Deal[34]	EU action package	Published 02/2025	Strategy package aimed at enhancing the competitiveness of European industries while achieving decarbonization goals. It focuses on energy-intensive sectors and clean-tech industries. It has a special focus on circularity, including the reduction of waste and extending life of materials.
Circular Economy Action Plan (CEAP)[35]	EU strategy	Published 03/2020 Planning horizon until 2050	The new action plan announces initiatives along the entire life cycle of products. It targets how products are designed, promotes circular economy processes, promotes sustainable consumption and aims to ensure that waste is avoided and that the resources used are kept in the EU economy for as long as possible
Plastics Strategy[36]	EU strategy	Published 01/2018 Planning horizon until 2050	Strategy to reduce plastic waste and improve the design and recycling of plastic products. Businesses are expected to improve product design and recyclability, reduce single-use plastics, and expand circular processes and infrastructure (e.g., recycling).

33 EU Commission; bit.ly/EUgreendeal
34 EU Commission; https://bit.ly/cleanindustrialdeal
35 EU Commission; bit.ly/EUCEactionplan
36 EU Commission; bit.ly/Euplasticstrategy

Legal framework	Type	Status	Objective
EU Strategy for Sustainable and Circular Textiles[37]	EU strategy	Published 03/2022	The goal of the strategy is to make textile production more environmentally friendly by promoting durable and recyclable materials and minimizing the use of hazardous chemicals. It also strengthens consumer rights by requiring manufacturers to provide clear labeling and product information.
Green Deal Industrial Plan[38]	EU strategy	Published 02/2023	Action plan aimed at achieving a greenhouse gas-neutral industry, promoting investments in relevant technologies, and strengthening sustainable production methods. Serves as a strategic foundation for initiatives, including securing critical raw materials.
National Circular Economy Strategy (NCES)[39]	German national strategy	Adopted in 12/2024	Strategy to promote an absolute reduction in primary raw material demand in Germany through circular processes.
Raw Materials Strategy of the German Federal Government[40]	German national strategy	Adopted in 01/2020	Aims to ensure the sustainable and long-term supply of raw materials for the German economy, with a focus on sustainable raw material sourcing through recycling and the use of (mineral) secondary raw materials.
Bioeconomy Strategy[41]	German national strategy	Adopted in 01/2020	Provides the framework for the development and expansion of biological processes and systems. Through various measures (e.g., research funding), renewable raw materials are intended to replace finite resources and reduce their consumption.
Programme for Sustainable Consumption (NPNK)[42]	German national programme	Adopted in 05/2021	Fördert nachhaltige Konsummuster, indem es die Verbraucherbildung stärkt, nachhaltige Alternativen aufzeigt und den Zugang zu Informationen verbessert. Fokussiert v. a. Konsum von privaten Haushalten (Ernährung, Wohnen, Mobilität und Unterhaltung).
Waste Prevention Programme[43]	German national programme	Adopted in 07/2013 updated 2021	Encourages waste reduction by analyzing and improving processes throughout the product life cycle. Places special emphasis on CE strategies such as product design, reuse, and repair.

37 EU Commission; bit.ly/EUtextilesstrategy

38 EU Commission; bit.ly/greendealindustryplan

39 BMUV; bit.ly/NKWS

40 BMWK (2020); Raw Materials Strategy of the Federal Government: Securing a sustainable supply of non-energy mineral raw materials for Germany (Rohstoffstrategie der Bundesregierung: Sicherung einer nachhaltigen Rohstoffversorgung Deutschlands mit nichtenergetischen mineralischen Rohstoffen)

41 BMBF; bit.ly/Nationalebioökonomiestrategie

42 BMUV; bit.ly/NatPNK

43 BMUV; bit.ly/abfallvermeidungsprogramm

EU directives and regulations and German national legislation

Legal framework	Type	Status	Objective
Directive Promoting the Repair of Goods[44]	EU Directive 2024/1799	Valid since 06/2024 Transposition into national law by 06/2026	Manufacturers must provide information on repair options and costs, as well as make spare parts and product manuals available. Amends Regulation 2017/2394, and Directives 2019/771 and 2020/1828.
Empowering Consumers for the Green Transition	EU Directive 2024/825	Valid since 03/2024 Transposition into national law by 03/2026	Aims to enable consumers to make more informed purchasing decisions regarding the environmental impact, durability, and repairability of products. Modifies and supplements the existing Unfair Commercial Practices Directive (2005/29/EC) and the Consumer Rights Directive (2011/83/EU).[45]
Green Claims Directive[46]	EU Directive COM(2023) 166	Proposed in 03/2023 Currently interinstitutional negotiations (trilogue procedure). Final text expected mid-2025	Companies must provide verifiable environmental claims regarding their products and services, ensuring transparency. Intended to complement EU Directive 2024/825, defining specific requirements for substantiating, verifying, and communicating environmental claims.
Critical Raw Materials Act[47]	EU Regulation 2024/1252	Valid since 05/2024	Regulates the sustainable supply of critical raw materials, requiring large companies to conduct supply chain audits every two years and strengthening resilience against supply disruptions. Promotes the expansion of recycling processes and the development of secondary raw material markets.
Ecodesign for Sustainable Products Regulation (ESPR)[48]	EU Regulation 2024/1781	Valid since 07/2024	Sets product design requirements for improved environmental compatibility, including durability and recyclability. Also regulates the introduction of a digital product passport, etc. Replaces the Ecodesign Directive 2009/125/EC.
Waste Framework Directive[49]	EU Regulation 2008/98	Valid since 12/2008 (EU) Last modification in 05/2018 (2018/851/EU)	Defines waste management based on a five-tier waste hierarchy: Prevention/avoidance, reuse, recycling, recovery, and disposal. Requires companies to prioritize recycling and reuse over disposal.

44 EU Commission: bit.ly/EUrepair
45 EU Commission: bit.ly/EUsustainableconsumption
46 EU Commission: bit.ly/eugreenclaims
47 EU Commission: bit.ly/EUcriticalrawmaterials
48 EU Commission: bit.ly/Euecodesign
49 EU Commission: bit.ly/EUwasteframe

Legal framework	Type	Status	Objective
Packaging and Packaging Waste Regulation (PPWR)[50]	EU Regulation 94/62/EC	Adopted in 02/2025 repealing directive 94/62/EC[51]	Regulations to reduce packaging waste, establish recycling requirements, and promote waste minimization programmes. By 2030, all packaging must be recyclable, and manufacturers must cover the costs of collection and recycling. The reuse quotas for industrial packaging are to be adjusted by means of delegated acts.
Packaging Act (VerpackG)[52]	German national legislation	Valid since 01/2019	Implements EU Directive 94/62/EC and defines product responsibility requirements for packaging under Section 23 of the German Circular Economy Act. Is to be adjusted to the PPWR by mid-2026.
Circular Economy Act (KrWG)[53]	German national legislation	Valid since 06/2012. Last modification in 09/2020	Promotes circular economy and resource conservation in the waste management sector. Companies are required to prevent waste, prioritize waste recovery, and comply with the waste hierarchy, including preparations for reuse, recycling, and other recovery measures.
Directive on End-of-Life Vehicles[54]	EU Directive 2000/53/EC	Valid since 10/2000 (EU). Proposal to repeal this Directive in 07/2023[55]	Regulates the material recovery of vehicles through recycling within the EU. Also includes restrictions on certain substances, such as heavy metals and cadmium. Manufacturers, importers, and distributors must establish take-back systems for end-of-life vehicles and used parts from repairs.
End-of-life vehicle law (AltfahrzeugG)[56]	German national legislation	Valid since 06/2002	UImplements EU Directive 2000/53/EC, governing the take-back of end-of-life vehicles. See also End-of-Life Vehicle Ordinance[57]
Batteries and Waste Batteries Regulation[58]	EU Regulation 2023/1542/EU	Valid since 02/2024	Aims to prevent the negative environmental impact of batteries. Manufacturers must comply with sustainability, safety, labeling, and information requirements for batteries.

50 EU Commission: bit.ly/EUpackagingwast
51 EU Commission; bit.ly/COM677
52 BMUV; bit.ly/NatVerpackungsG
53 BMUV (2022a); bit.ly/KrWG
54 EU Commission; bit.ly/Endoflifevehicles
55 EU Commission; bit.ly/COM541en
56 BMUV; bit.ly/AltfahrzeugG
57 BMUV; bit.ly/AltfahrzeugV
58 EU Commission: bit.ly/EUbatteries

Legal framework	Type	Status	Objective
Battery law (BattG2)[59]	German national legislation	Valid from 09/2020 to 08/2025	Includes obligations for manufacturers under the Extended Producer Responsibility (EPR) framework to establish take-back systems and the recycling of used batteries, as well as consumer responsibilities. Implements EU Directive 2006/66/EC and must be aligned with EU Regulation 2023/1542 by August 2025.
Battery Law Implementation Act (BattDG)[60]	German national legislation	Valid from 08/2025	Intended to replace the BattG2. Expands disposal measures to additional battery types and broadens consumer return options.
Waste from Electrical and Electronic Equipment (WEEE) Directive[61]	EU Directive 2012/19/EU	Valid since 08/2012. Revision by end of 2026	Sets regulations for the disposal of waste electrical and electronic equipment under the Extended Producer Responsibility (EPR) framework. Manufacturers are responsible beyond the end of a product's lifecycle and must ensure the separate collection of electronic waste. The collected waste must be kept apart from residual waste and collection must be free of charge for end consumers.
Electrical and Electronic Equipment Act (ElektroG)[62]	German national legislation	Valid since 10/2015	Regulates the placing on the market, take-back, and environmentally sound disposal of electrical appliances. Implements EU Directive 2012/19/EU (WEEE) into German law.
Directive on the Landfill of Waste[63]	EU Directive 1999/31/EG	Valid since 07/1999 (EU). Modified by 2018/850/EU in May 2018	Establishes standards to prevent the negative impact of landfills, including reducing biodegradable waste. Companies are required to recycle valuable materials instead of disposing of them in landfills to facilitate resource recovery.
Ordinance on Landfills and Long-Term Storage (DepV)[64]	German national legislation	Valid since 04/2009	Regulates landfill requirements, including site selection, construction, operation, closure, and post-closure management.
Directive on Single-Use Plastics[65]	EU Directive 2019/904/EU	Valid since 07/2021	Promotes the use of reusable or alternative materials as well as national circular economy goals. Introduces bans and restrictions on single-use plastics, including product design requirements, labeling obligations, and measures under the Extended Producer Responsibility (EPR) framework.

59 BMUV: bit.ly/BattG
60 BMUV; bit.ly/EntwurfBattG
61 EU Commission; bit.ly/WEEEdirective
62 BMUV; bit.ly/ElektrogeräteG
63 European Union; bit.ly/EUlandfill
64 BMUV; bit.ly/DeponieV
65 EU Commission; bit.ly/EUsingleuseplastics

Reporting obligations

Legal framework	Type	Status	Objective
Corporate Sustainability Reporting Directive (CSRD)[66]	EU Directive 2022/24267/EU	Valid since 01/2023. Transposition into national law is still pending.[67]	Defines corporate sustainability reporting requirements, including disclosure obligations on both the environmental impact of business activities and the impact of environmental factors on companies. The accompanying European Sustainability Reporting Standard (ESRS) E5 establishes the circular economy as a key component of a low-carbon economy.
EU Taxonomy[68]	EU Regulation 2020/852/EU	Valid since 07/2020. Applicable since 01/2022	Establishes a classification system for corporate sustainability across industries, aiming to redirect investment flows toward sustainable activities. Companies must ensure transparency regarding their sustainability practices.
Corporate Sustainablity Due Diligence Directive (CSDDD)[69]	EU Directive 2024/1760/EU	Valid since 06/2024. Transposition into national law by 07/2026[70]	Requires European companies to comply with and disclose environmental and human rights standards in their supply chains.
Sustainable Finance Disclosure Regulation (SFDR)[71]	EU Regulation 2019/2088/EU	Valid since 12/2019. Applicable since 03/2021	Requires financial market participants to disclose how they incorporate sustainability risks and impacts into their investment decisions. Supplemented by 2022/1288/EU, which provides specific guidelines for financial service providers

66 EU Commission; bit.ly/EU_csrd

67 As of October 2024.

68 EU Commission; bit.ly/EU_Taxonomie

69 EU Commission; bit.ly/EUcsddd

70 finance.ec.europa.eu/publications/commission-simplifies-rules-sustainability-and-eu-investments-delivering-over-eu6-billion_en

71 Official Journal of the European Union (2019); Regulation (EU) 2019/2088 of the EU Commission: bit.ly/EUsfdr

3.2 SUPPORT PROGRAMMES FOR COMPANIES ON THE ROAD TO CIRCULARITY

Below, you will find additional resources and tools that can support you in the practical implementation and further development of the circular economy. Please note that this is only an illustrative selection.

Public funding

Funding Database (German Federal Government, the German Federal States, and the EU) bit.ly/die_foerderdatenbank	Provides an up-to-date overview of funding programmes at the international, European, national, and regional levels.
European Circular Economy Initiative (KfW) bit.ly/JointInitiativeonCircularEconomy	Supports projects promoting the circular economy in Europe, particularly by financing sustainable and resource-efficient initiatives.
EU Innovation Fund bit.ly/innovation_fund_eu	Provides funding for innovative projects that contribute to reducing greenhouse gas emissions and implementing the circular economy.
Circular Economy & Quality of LIFE bit.ly/LIFE_EU_Commission	An EU funding programme supporting projects that facilitate the transition to a circular economy and improve quality of life.
Environmental Innovation Programme bit.ly/umweltinnovationsprogramm_UIP	A funding programme by the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety, and Consumer Protection (BMUV). Supports innovative environmental projects that contribute to the circular economy, particularly through resource efficiency and waste prevention.
Energy Research program: Call for proposals on resource efficiency and circular economy bit.ly/FörderaufrufRessourceneffizienz_CE	A funding programme by the German Federal Ministry for Economic Affairs and Climate Action (BMWK). Supports research projects focused on resource efficiency and circular economy to develop sustainable energy solutions.
German Federal Environmental Foundation www.dbu.de	One of Europe's largest environmental foundations, funding innovative circular economy and resource conservation projects, particularly for SMEs and research institutions.

Standards & certifications

Cradle2Cradle (product certification) www.c2ccertified.org	Voluntary certification for products designed according to circular economy principles.
DIN Standardization Roadmap bit.ly/normungsroadmap	A roadmap for developing standards for the circular economy.
ESRS E5 bit.ly/Nachhaltigkeitsberichterstattung_ESRS	Standard for corporate reporting on circular economy measures.
ISO 59004:2024 bit.ly/ISO59004	Guidelines for resource efficiency and material reuse. Defines key concepts and principles of the circular economy.
ISO 59010:2024 bit.ly/ISO59010	Guidelines for transitioning business models and creating value networks.
ISO 59020:2024 bit.ly/ISO59020_2024	Defines requirements and guidelines for organizations to measure and assess their circular performance within specific economic systems.

Studies, reports, and case studies

Circular Economy Hub (CE HUB) bit.ly/CEhubpublications	Provides an extensive collection of case studies, showcasing successful circular economy implementations across various sectors. Also includes a library of tools and guides.
Circular Economy Status Report https://statusbericht-kreislaufwirtschaft.de/inhalte_2024	Analysis and evaluation of the current state of the circular economy in Germany, including progress made and future challenges.
Circular Economy Transformation Report (Federal Government) bit.ly/TransformationsberichtCE	A comprehensive report by the German Federal Government, outlining the necessary steps and strategies to transition the German economy towards a circular model.
Model Germany Circular Economy bit.ly/MGCE_wwf	Provides policymakers and businesses with a detailed overview of effective measures, including impact depth and policy instruments to promote the circular economy in Germany.
Ellen McArthur Foundation (Library) bit.ly/Bibmacarthur	Provides policymakers and businesses with a detailed overview of effective measures, including impact depth and policy instruments to promote the circular economy in Germany.
SITRA The Finnish Innovation Fund (library) www.sitra.fi	Library of guides, corporate case studies, and additional circular economy resources.
Circularity Gap Report bit.ly/CGRi_home	Annual report analyzing the global material footprint of production systems, identifying key policy, financial, and human resource requirements for enabling a circular economy.

Databases and tools

Ecoinvent (Environmental Impact Data) bit.ly/ecoinvent_data	A life cycle inventory database supporting the circular economy through environmental impact assessments.
GaBi (life cycle assessment database) bit.ly/LCA_sphera	A life cycle assessment (LCA) database designed to optimize the environmental impact of products.
Circular Transition Indicators bit.ly/CTI_WBCSD	A tool for measuring and improving circularity at the corporate level.
Material Circularity Indicator bit.ly/MCIcalculator	An Excel-based tool for measuring the circularity of material flows in a product or product portfolio, including the evaluation of inputs and outputs.

GLOSSARY

EU Critical Raw Materials Act	The European Critical Raw Materials Act aims to ensure a resilient and sustainable supply of critical raw materials by strengthening value chains, diversifying imports, and improving monitoring and circularity.
EU Taxonomy	The EU Taxonomy is a classification system for sustainable economic activities that has guided investors since June 2021. It helps direct capital towards the green transformation of energy and industry and enhances the transparency of corporate environmental impact.[72]
Extended producer responsibility; EPR	The responsibility of companies for the recycling and proper disposal of their products. This is based on the polluter pays principle, meaning that producers, importers, distributors, and retailers are held accountable for the waste management of their products, including packaging.
Business model pattern	Defined by the Circular Economy Initiative Germany, these 22 business model patterns categorize how companies contribute to circular value creation based on their role in the value chain and their circular strategy (R strategies).
Business model variant	Based on the service orientation of a company's business model pattern (product, use, or result-oriented), the Circular Economy Initiative Germany defines various business model variants.
Impact	The influence or effect that a measure or process has on the environment, society, or economy, particularly in the circular economy context, to promote sustainability and resource conservation.
Circular ecosystem	A network of companies, organizations, and stakeholders collaborating in a way that ensures that materials and resources are preserved, reused, and recycled within the system.
Peer learning	A learning approach among professionals in similar roles and responsibilities, fostering knowledge exchange.
Planetary boundaries	The nine biophysical systems that regulate Earth's stability, setting safe environmental thresholds to ensure a stable state for human development.[73]
R strategies	The R strategies consist of 10 principles aimed at minimizing primary raw material use and promoting secondary raw materials throughout a product's lifecycle: Refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, recycle, and recover.
Science Based Targets Network (SBTN)	The Science Based Targets Network provides companies with a scientific framework to assess and prioritize their environmental impact on water, land, oceans, biodiversity, and climate, complementing the climate goals of the Science Based Targets Initiative (SBTi).[74]

72 EU Commission; bit.ly/EU_Taxonomie

73 Stockholm Resilience Centre; bit.ly/SRCplanetaryboundries

74 SBTN; bit.ly/sbts

Sharing economy	A subset of the circular economy, referring to the shared use of goods through sharing, exchanging, borrowing, renting, or gifting, as well as the facilitation of service-based transactions.[75]
Transformation	A comprehensive change and fundamental restructuring of systems, processes, or structures to achieve significant improvements and innovation.
Transitory risks	Risks faced by businesses due to the shift toward a low-carbon economy, arising from changing political frameworks, technological advancements, evolving markets, and shifting expectations.
Circular business model (CBM)	A business approach focused on preserving the economic value of products after use and leveraging it for the creation of new products.[76]

LIST OF ABBREVIATIONS

BMUV	German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety, and Consumer Protection
BMWK	German Federal Ministry for Economic Affairs and Climate Action
CBAM	Carbon Border Adjustment Mechanism
CBM	Circular Business Model
CE	Circular Economy
CEAP	Circular Economy Action Plan
CSDDD	Corporate Sustainability Due Diligence Directive
CSR	Corporate Social Responsibility
CSRD	Corporate Sustainability Reporting Directive
DPP	Digital Product Passport
EPR	Extended Producers Responsibility
ESPR	Ecodesign for Sustainable Products Regulation
ESRS	European Sustainability Reporting Standards
EU	European Union
R&D	Research and Development
FTE	Full-Time Equivalent
IoT	Internet of Things
IRP	International Resource Panel

75 WWF (2023); WWF (2023): Circular Economy Model Germany. A Comprehensive Circular Economy For Germany in 2045

76 Circular Economy Initiative (2021); Circular Economy Roadmap for Germany

SMEs	Small and Medium-sized Enterprises
KrWG	Circular Economy Act
KPI	Key Performance Indicator
LCA	Life Cycle Assessment
NGO	Non-Governmental Organization
NKWS	National Circular Economy Strategy
PaaS	Product-as-a-Service
RFID chip	Radio-Frequency Identification Chip
SBTi	Science Based Targets Initiative
SBTN	Science Based Target Network
SDG	Sustainable Development Goals
SFDR	Sustainable Finance Disclosure Regulation
GHG emissions	Greenhouse Gas Emissions
UN GCD	UN Global Compact Network Germany
UNEP	United Nations Environment Programme
WWF	World Wide Fund for Nature

The goal of the **Circular Strategy Guide** is to provide you with a practical framework for implementing a **comprehensive circular economy approach** within your company. It offers specific and practical information, approaches, and tools to help you establish an impact-oriented and circular business model step by step.

This guide is designed for companies of all sizes and experience levels, regardless of their prior knowledge of the circular economy.

www.globalcompact.de
www.wwf.de/nachhaltiges-wirtschaften/circular-economy