

Circular Business Assessment

Pilot Case Study: BASF

Executive Summary

Transitioning to a circular economy can address ecological issues while providing benefits to businesses, economy, and people. The circular transformation is an essential building block of the journey towards One Planet Business.

To guide companies towards circularity, WWF together with Taival Advisory has developed the Circular Business Assessment (CBA) as a special focus module to the WWF One Planet Business Framework. The CBA analyses ten essential change levers from risk management, strategies and targets to corporate culture and reporting. It is carried out through a guided process with WWF and Taival circular economy experts.

In 2022 we piloted the CBA with several companies. BASF participated in the pilot-phase to assess the company's circular performance, as well as to test the framework's structure and design. The findings of the pilot are presented in this case study. The framework is now ready for use to a wide range of companies.

"Working with WWF and Taival has really helped us think deeply about how we can embed circular business into our core processes, strategies, and targets. We used the framework as a reference point for strategic planning, as well as a performance benchmark."

Talke Schaffrannek, Director Circular Economy, BASF

Context

For businesses, eco-social crises are materializing in real threats to financial stability and growth. Companies are confronted with supply chain disruptions, more volatile material prices, and increased costs due to a wave of sustainability regulation. To support businesses in driving change towards true sustainability and long-term success in this new context, WWF has created the One Planet Business Framework (OPBF). It defines sustainability's environmental (climate; freshwater, biodiversity) and social (human rights) themes and delineates clearly what it means for businesses to reach a One Planet maturity in each of them. The framework is structured around a five-step process, comprising eleven transformational levers. These lev-



WWF One Planet Business Framework

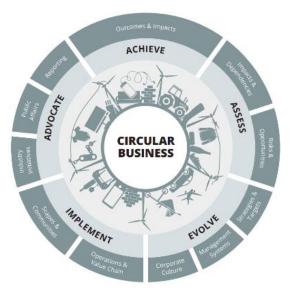
ers target different aspects of a company's roadmap towards One Planet Business, ranging from risk and impact assessments, corporate culture, to setting and achieving impact targets.

Looking at the main drivers and causes of the negative impacts businesses have on the environment, the linear way in which products, components, and materials are designed, used, and managed in our economy stands out. We currently use too many resources, and in an ineffective way. And the rate of extraction and usage of resources is going up, while

the circularity of our globalized economy is decreasing. This mismanagement and overuse lead to climate change, biodiversity loss, and freshwater stress. Transitioning to a circular economy can address these ecological issues while simultaneously and consequently providing many benefits to our businesses, economy, and people. To support companies in their circular transition, the WWF has collaborated with Taival Advisory to develop a special focus module to the OPBF, putting circularity front and center: the Circular Business Assessment (CBA).

Circular Business Assessment

The CBA is used to assess and evaluate a company's circular performance. The assessment provides companies with a clear understanding of their current position, as well as a roadmap for improvement. By leveraging the assessment, we can offer customized support to help companies develop effective strategies and impactful measures to drive their circular transformation.



WWF Circular Business Assessment

The Circular Business Assessment is comprehensive: it employs ten change levers covering topics such as risk management, strategies and targets, corporate culture, implementation within operations and value chain, and reporting. It is detailed and specific, outlining multiple levels of maturity that showcase good management practices and leadership. It is management-oriented, laying the foundation for a tailored, individual transformation roadmap. And it is derived from the highest level of ambition, defining clearly what circularity leadership means in practice.

Furthermore, the framework is designed from a perspective of what is necessary to create the conditions for One Planet Business, a company that is

operating within the planetary boundaries. This means taking a long-term, science-based view on the transformation towards sustainability, not simply asking what is possible and achievable today. And the framework can be used as a basis for continuous improvement, as the defined performance levels count in the foreseeable future. Iterations will be minor in scope, giving companies the opportunity to take a long-term, development-oriented approach towards sustainability and circularity.

BASF pilot process

From March to May 2022 BASF participated in the pilot phase of the Circular Business Assessment. The pilot's objective was to test and further evolve the framework and assessment process itself. At the same time, the pilot functioned as a detailed and thorough assessment of BASF's circular performance.

A core team of stakeholders from all involved parties was set-up to manage the pilot process. Information was gathered through a questionnaire, in-depth interviews with employees from various BASF functions and business units, and a series of workshops.

BASF had already set a high ambition level of becoming a leader in circularity. Key findings of the assessment against BASF's circular structures, strategies, and measures show:

- BASF has put in place many of the fundamentals for a successful transformation towards circularity. For example, by developing a *Corporate Culture* and *Management Systems* oriented towards sustainability and circularity.
- Mechanisms for identifying *Impacts, Risks and Opportunities* have been implemented. This lays the foundation for driving circularity across the organization.
- While circularity is integrated into BASF's strategy, further operationalizing and fully translating the topic into BASF's core values bears great potential.
- BASF has been active in driving the industry transformation towards circularity. For example, BASF fosters the integration of circular economy into the "Portfolio Segmentation Group (PSA)" of World Business Council for Sustainable Development.
- BASF has integrated circular criteria in its *Reporting* practices by stating relevant data (e.g., renewable materials, waste, water) according to GRI in its annual report.
- While targets have been set by BASF for most areas including *Circular Inputs*, *Zero Waste Production*, and *Circular Products*, there is potential to further improve its performance by increasing the ambition level of its targets.

BASF Assessment Showcase

The CBA is comprised of a total of 43 criterions, structured within 10 levers. Within each of the criterions, the CBA defines multiple (3-5) consecutive levels of maturity, from low to high performance. Some topics do not follow a consecutive logic, as several pathways and options exist for performing well. In these topics, the criterions are designed as multiple-choice questions. The assessment is excel-based. The questionnaire is supported by an extensive guidance document, which explains the purpose and benefit of each criterion, and supplies definitions of termini used in the maturity levels.

The BASF pilot was initiated by a self-assessment against each criterion. Using the proof points provided by BASF and a series of in-depth interviews, WWF and Taival then reviewed the maturity levels, adjusted scoring if necessary, and gave extensive strategic recommendations for improvements. The following examples showcase the assessment mechanism, high-level recommendations, and serve as exemplary results:

Showcase 1

Criterion: 3.1.2 "Strategic Goal"

This lever is integrated within the "Evolve" phase of the assessment. This phase is focused on levers that assess how well different structural elements (strategies, targets, management systems, corporate culture) are set-up and designed within the company. The reason for assessing the maturity of these structural elements lies within their importance for circular achievements: the more integrated and well defined and ambitious these elements are, the more likely it is that the company achieves a high degree of circularity.

Lever	(3) Strategies & Targets
Category	(3.1) Corporate Strategy
Score	40%: "Circular Economy is mentioned as strategic priority. A set of CE crite- ria are integrated into the strategic process."
Reason	BASF has defined two concrete targets for circularity, an input target for re- cycled-based raw materials and an output target for circular sales. This tar- get is integrated into the portfolio segmentation according to sustainability criteria which is carried out for all 45,000 products regularly. The targets have been broken down to the respective business units that thus have the transparency to steer their portfolio towards more circularity.

Recommendations:

- Define more ambitious CE targets.
- Link circularity more explicitly to innovation strategy.
- Prioritize which solutions are most impactful regarding eco-social factors.

E V O L V E		(3.1) Corporate Strategy (3.1.2) Strategic Goal		Top Level: A 'One Planet Circular Business' bases its <i>strategic process</i> on a <i>definition of the circular economy</i> which aims to leave a <i>positive ecological and social handprint</i> , rather than aiming only to minimize negative effects.	
				Level 4: The company bases its <i>strategic process</i> on a communicated <i>definition</i> of the circular economy to all levels and functions. This definition is derived from an analysis of which circular strategies are most impactful regarding eco-social factors in the company's sector(s). Circularity is explicitly linked to the business	
			and the second	Level 3: A set of ' <i>CE criteria</i> ' are analyzed in regards to their effectiveness to reach eco-social targets in the company's sector, are integrated into the strategic process, and <i>considered equally</i> when setting the strategic focus.	40
			Level 2: Circularity is mentioned as a <i>strategic priority</i> . A set of ' <i>CE criteria</i> ' are integrated into the strategic process.		
				Level 1: The company reacts <i>tactically</i> to upcoming legislative changes or external stakeholder demands, but circularity is not a strategic priority.	

Showcase 2

Criterion: 3.1.3 "Business Models"

This lever is integrated within the "Evolve" phase of the assessment. This phase is focused on levers that assess how well different structural elements (strategies, targets, management systems, corporate culture) are set-up and designed within the company. The reason for assessing the maturity of these structural elements lies within their importance for circular achievements: the more integrated and well defined and ambitious these elements are, the more likely it is that the company achieves a high degree of circularity.

Lever	(3) Strategies & Targets					
Category	(3.1) Corporate Strategy					
Score	40%: "Based on a definition of circular business models (), the company implements circular business model pilots."					
Reason	BASF has established the "CoFunding Program" for CE projects that is cur- rently incubating more than 45 pilots. These activities are supported both on a corporate and at the business unit level and include recycling of plastics, matrasses, and battery materials. For selected projects BASF has also de- veloped roadmaps to increase their scale. As a result, various projects have been transferred into the business organization.					

Recommendations:

- Develop a more systematic approach to defining new business models.
- Define and extend the roadmaps to scale pilots with specific procedures.
- Implement circular business models and principles of CE in more solutions.

E V O L V E	(3) (3.1) Strategies & Corporate Targets Strategy	Corporate (3.1.3) Business Models		Top Level : With the aim to leaving a <i>positive ecological and social handprint</i> , the company pursues its <i>circular business model</i> definition and <i>archtypes / patterns</i> in all of its products and services. The definition and <i>archtypes / patterns</i> are in alignment with the <i>principles of the circular economy</i> .	
				Level 4: The company uses its <i>circular business model</i> definition and <i>archtypes</i> / <i>pattern</i> s in a relevant share of its products and services. The definition and archetypes / patterns are in alignment with <i>the principles of the circular economy</i> .	
			Level 3: In addition to having specified a <i>circular business model</i> definition and business model <i>archetypes / patterns,</i> and running specific pilots, roadmaps and plans are defined (and communicated internally) to scale <i>circular business models</i> in the company. These processes are documented in procedures (e.g.		
			Level 2: Based on a definition or <i>circular business models</i> and a list of business model <i>archetypes / patterns</i> , the company implements circular business model pilots.	×	
		Level 1: The company understands what a <i>circular business model</i> entaid defines business model <i>archetypes / patterns</i> to work towards.	Level 1: The company understands what a <i>circular business model</i> entails, and defines business model <i>archetypes / patterns</i> to work towards.		

Showcase 3

Criterion: 7.1 "Transformative Initiatives"

This criterion sits within the "Advocate" phase. The purpose of the category "(7.1) Transformative Initiatives" is to "*engage in initiatives with other partners, rather than working on circularity challenges on their own*" to achieve "*collective impact*", facilitate "*knowledge sharing*", achieve "*increase credibility*", "*reduce costs*", and "*build relationships*" (excerpts from the assessment handbook). Within this category, which only has one criterion, there are three levels of maturity.

Lever	(7) Industry Initiatives						
	(7) Industry Initiatives						
Category	-						
Score	66%: "The company actively contributes to initiatives related to the circular economy in its sector and beyond."						
Reason	The company showcased participation in circular economy working groups at ISO, the World Business Council for Sustainable Development, the Ellen Mac- Arthur Foundation, the Alliance to end Plastic Waste, and others.						
Recommendations:							

• Further existing engagement by taking a leading role in initiatives to push circular transition into the industry and the economy.

AD			Top Level: The company initiates and / or takes a leading role in initiatives related to the circular transition in its sector and beyond.		
o c	(7) Industry Initiatives	(7.1) Transformative Initiatives	Level 2: The company actively contributes to initiatives related to the circular transition in its sector and beyond.	V	66
A T E			Level 1: The company is aware of initiatives related to the cirular transition in its sector and beyond.		

Outlook

The assessment has created a basis for BASF to further develop its circular ambitions and actions, as the company now has a concise picture of where it is performing well, and where it needs to focus its attention to improve further. The conclusion of the pilot phase and framework iteration mean we are ready to use the CBA tool to support companies in their circular transition.

WWF's international umbrella organization, WWF International, is the world's largest independent conservation organization and is represented in more than 100 countries through its national and associated organizations or program or project offices. WWF is committed to sustainably protecting and preserving the natural foundations for life.

Taival is a new type of advisory company working at the intersection of strategy, data & technology, ecosystems, and circular economy. With agile methods and co-creation at their core, Taival helps customers identify, plan, and execute initiatives that drive real sustainable success.

BASF. Around 111,000 employees in the BASF Group contribute to the success of our customers in nearly all sectors and almost every country in the world. The portfolio comprises six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €78.6 billion in 2021.

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