



3

Crafting Corporate Sustainability Strategy From Integrated Thinking to Integrated Management

Markus Beckmann, Thomas Becker, and Oliver Zipse

3.1 Introduction

The aim of sustainability is to ensure that present and future generations can thrive within the ecological boundaries of our planet (Steffen et al., 2015). As the climate crisis illustrates, however, a linear economy that depletes our natural resources and contributes to global warming threatens to destroy the “safe operating space” (Rockström et al., 2009, p. 472) that allows humanity to thrive. Sustainable development thus requires a change in our current economic model. A different, circular, more equitable, and net-zero future is needed.

Since strategy “is about shaping the future” and “moving from where you are to where you want to be” (McKeown, 2016, pp. xxi, xviii), a sustainable future requires *Crafting Corporate Sustainability Strategy* in an effective way. On the Road to Net Zero outlined in this book, *strategy* is an important step that connects the previous Chap. 2 and the following Chap. 4 (cf. Fig. 1.1). Chapter 2 introduced the idea of *Science-Based Target Setting* as a means of translating the global challenge of combating climate change to the level of individual company contributions. Science-based targets provide a common

M. Beckmann (✉)
FAU Erlangen-Nürnberg, Nuremberg, Germany
e-mail: markus.beckmann@fau.de

T. Becker • O. Zipse
BMW AG, Munich, Germany

language for what it means for a company to be on a Paris-aligned Road to Net Zero. Nevertheless, the targets themselves do not tell a company what that journey looks like. Developing a specific road map and getting all business functions on board to embark on it is what strategy is all about.

The purpose of this chapter is to discuss how companies can craft this type of corporate strategy by systematically integrating sustainability into their strategic analysis, goals, processes, and learning. The chapter is structured in three sections. Section 3.2 starts with a short overview of the strategy concept in management and then considers the drivers that push or pull businesses to consider sustainability before it continues with different options for integrating sustainability. The remainder of that section then discusses the different steps of the strategy process and how sustainability interacts with it. Section 3.3 presents the expert conversation between Prof. Oliver Zipse, CEO of BMW Group, Dr Thomas Becker, VP Sustainability & Mobility at BMW, and Prof. Dr Markus Beckmann, FAU Chair for Corporate Sustainability Management. Section 3.4 then discusses an outlook on the future of integrated sustainability strategies before Section 3.5 concludes with a link to the next Chap. 4 on the *Future of Corporate Disclosure*.

3.2 Strategy Development and Sustainability: Past and Present

In everyday language, strategy describes a plan of action or policy designed to achieve desirable ends with available means. In business, strategy “can be defined as the determination of the basic long-term goals and objectives of an enterprise” (Chandler, 1962, p. 13). Traditionally, strategy research distinguishes between strategy content and the strategy process (Rajagopalan et al., 1993). A prominent approach to structuring the strategy process is to distinguish between its four phases: (1) environmental scanning, (2) strategy formulation, (3) implementation, and (4) evaluation of its performance (Wheelen et al., 2017) (similarly David, 2011, who integrates environmental scanning as a part of strategy formulation). Sustainability requires a systematic integration in each phase. We will discuss each step in more detail below.

Analytical tools, such as Porter’s (Porter, 1979, 2008) five forces or Barney’s (Barney, 1997) VRIO framework, serve to structure strategy development from a top-down perspective. By contrast, scholars such as Mintzberg and Waters (1985) argue that strategic plans rarely unfold as intended; rather, strategy patterns emerge from the bottom up through individual action and adaptation. While this idea of emergent strategy helps to understand the

complexity of strategic learning, for the sake of brevity, this chapter focuses on the planned and deliberate integration of sustainability into strategy.

To survive and thrive in the marketplace over the long term, a firm's strategy is to maximize competitive advantages and minimize competitive disadvantages. Wedding sustainability with a firm's strategy can occur at three hierarchical levels: corporate, business, and functional (Wheelen et al., 2017). Conventionally, a corporate strategy is related to the overall direction of the firm; therefore, it asks where to compete to achieve stability and growth, whereas business strategy focuses on the competitive positioning of products and services in the relevant markets, and functional strategy focuses on leveraging resource productivity by developing distinct competencies in specific functions such as production, marketing, or procurement. At all three levels, sustainability can influence the goals and constraints of a company's strategy.

Various drivers, which can be grouped in different ways, are available for companies to consider sustainability in their strategy (Engert et al., 2016; Meffert & Kirchgeorg, 1998; Oertwig et al., 2017; van Marrewijk & Werre, 2003). These include external/internal drivers, push/pull factors, market/non-market forces, direct/indirect drivers, or supportive/hindering factors (Engert et al., 2016), with some factors falling into several categories simultaneously. One familiar example is customer demand, which acts as an external driver, a market force, and a pull factor (representing an opportunity if realized). Regulation and legal compliance are other external drivers, but they represent non-market forces that act as push factors (posing a risk if ignored). A specific example is the EU's ban on the sale of new petrol and diesel cars from 2035, adopted by the EU Parliament in February 2023 (European Parliament, 2023), which will drastically change the business context for the automotive industry. Other external drivers include investor expectations, transparency requirements, and financial market pressures, which can act as both push and pull factors. Internal factors can include the potential for cost reduction through eco-efficiency gains, top management vision, or employee motivation for sustainability. Supportive internal factors include a responsible organizational culture, professional risk management, competence in quality management that seeks continuous improvement, and a strong capacity for innovation. Hindering internal factors include a lack of resources and competencies, short-termism, and weak leadership. Barriers can also be external, such as poor regulation or a lack of customer demand for sustainable offerings.

Because the specific combination of these sustainability drivers looks different in different contexts and for different businesses, companies have integrated sustainability in a variety of ways that reflect different levels or styles (Baumgartner & Ebner, 2010) or geographic approaches (Burritt et al., 2020).

For simplicity, this chapter distinguishes between three types of strategic sustainability considerations: stand-alone, complementary, and integrated. In a *stand-alone sustainability strategy*, a company addresses social and environmental issues in a way that is not linked to the firm's corporate or business strategy. Here, the company may address sustainability as an intrinsic add-on (for example, by philanthropic projects unrelated to its core business), or it may respond to generic external expectations that are irrelevant to its competitive strategy. In a *complementary sustainability strategy*, sustainability complements the creation of competitive advantage, yet without challenging the existing corporate and business strategy (for example, with eco-efficiency strategies that generate cost benefits but leave the company's product portfolio and overall mission untouched). Finally, *integrated sustainability strategies*, which use sustainability considerations to challenge and potentially redefine a company's corporate strategy (where to compete) and business strategy (how to gain competitive advantage), have the most profound leverage but also the highest level of complexity. In the automotive industry, this could include considerations about changing the powertrain technology portfolio, building secondary material ecosystems, or offering mobility as a service. Finally, within these integrated strategies, companies can integrate sustainability from a more instrumental perspective as "a strategic and profit-driven corporate response to environmental and social issues" (Salzmann et al., 2005, p. 27) or go further and define positive external impact as the purpose of their organization (Bansal & Roth, 2000; Van Zanten & Van Tulder, 2021). Strategy then becomes not only about long-term competitive advantage but also about the "why" and "how" of thriving in the marketplace.

While a list of sustainability drivers and strategy types paints a rather static picture, the idea of sustainability *maturity* or *stages* draws attention to the evolution of a sustainability strategy over time. Maturity models range from the simple distinction of two levels (e.g., laggard vs. leader, Hahn (2013)) to five-stage models (e.g., initial, managed, defined, quantitatively managed, and optimizing, as introduced by Verrier et al. (2016)). Despite these differences, the maturity perspective highlights the external and internal dynamics that influence sustainability strategies. From an external perspective, sustainability maturity reflects the constant evolution of external drivers of sustainability. Regulations change, new technologies emerge, competitive pressures shift, and new customer and investor expectations arise. This is especially true for sustainability drivers. On the one hand, the factual urgency of challenges, such as climate change, biodiversity loss, or resource depletion, is increasing. On the other hand, changes in stakeholder awareness of environmental and social issues drive the political salience and institutional regulation of

ecological and social issues. In the automotive industry, for example, increasingly strict regulations on fleet CO₂ emission or human rights due diligence illustrate how this evolution of external requirements demands a corresponding maturity of sustainability integration within the company.

Similarly, an internal perspective on sustainability maturity emphasizes the importance of organizational competencies and their development over time (Dyllick et al., 1997). In the past, in the early stages, many companies responded to sustainability challenges or external criticism with rather limited and often defensive strategies (Meffert & Kirchgeorg, 1998) because they lacked the knowledge and resources to address the issues. However, by investing in early-stage practices, such as environmental compliance, companies gain knowledge, expand their capabilities, and can use them to implement eco-efficiency gains or eventually develop new products and even new markets.

In corporate practice, the idea of sustainability maturity can describe how the focus and scope of sustainability management have changed over the past decades. To illustrate, consider the automotive industry and its evolving focus from cleaner production via cleaner products to sustainable value chains. In 1973, when BMW became the first automotive company ever to appoint an environmental officer, one of BMW's motivations was to respond to the challenge that its manufacturing processes created vibrations that affected the neighboring community. Consequently, the initial focus of sustainability management was local, rather reactive, and focused on the company's own manufacturing operations. Nevertheless, establishing systematic environmental management led to significant improvements in *cleaner production* and created valuable eco-efficiency capabilities. In the ensuing decades, BMW has consistently continued to reduce its manufacturing emissions and improve resource efficiency, and it now bases its sustainability strategy on the "LEAN. GREEN. DIGITAL." principle for all of its plants. To reap the sustainability benefits of these competencies, BMW plans to have its Debrecen, Hungary, plant operational by 2025 as the company's first carbon-neutral factory.

While cleaner production initially focused on local emissions and employee safety in a company's own operations, the *cleaner product* perspective has since shifted the focus to the environmental performance of a product during its use. For the automotive industry, customer expectations and regulatory requirements have demanded significant improvements in fuel efficiency and on-road emissions. This includes both CO₂ emissions, which contribute to global warming, and pollutants, such as particulate matter or nitrogen oxides, that affect local communities. In response, companies have invested in cleaner and more efficient drivetrain technologies, including improvements to internal combustion engines and the development of new powertrain

technologies, such as plug-in-hybrids, battery electric vehicles, and hydrogen-powered cars. These new products and product portfolios reflect how deeply sustainability considerations are now being integrated into business strategy. To remain competitive, lead in terms of sustainability, and meet future regulatory demands, companies are formulating strategic targets for their own products. In the case of BMW, the company committed to reducing CO₂ emissions per car and kilometer driven by at least half of the 2019 levels by 2030 (BMW, 2021).

In addition to taking responsibility for a company's production and products, mature sustainability strategies today also manage the company's responsibility for its value chain. Creating a *sustainable value chain* further extends the scope of the sustainability strategy from internal processes to the entire life cycle. This includes environmental and social issues, including human rights, both upstream (such as labor and environmental questions in the extraction of raw materials) and downstream (disposal and recycling). Companies are embracing value chain responsibility (Baier et al., 2020) for the ethical sourcing of critical resources, and they are responding to external drivers, such as customer expectations and increasing regulation (e.g., the German or EU supply chain due diligence regulation).

In the automotive industry, a strategic approach to sustainable value chains is also needed to meet the ambitions of a net zero future. To date, emissions targets have mostly focused on tailpipe emissions; that is, the direct CO₂ emissions of a car on the road. The transition to electric or hydrogen mobility can eliminate these emissions during the use phase, but it shifts the focus to emissions at other stages of the life cycle. These include the energy and emissions of battery production, the sourcing conditions (including human rights impacts) for critical battery and drivetrain materials, such as lithium, cobalt, nickel, and rare earth elements (Schmid, 2020), the sourcing of electricity for car usage, and the recycling of batteries.

A value chain-oriented sustainability strategy goes hand in hand with the idea of circularity (Ellen MacArthur Foundation, 2013). Closing the loop (for example, through the use of secondary materials) is critical to reducing emissions and securing the availability of scarce resources. While a value chain-oriented approach can increase the sustainability impact and business benefits, it also increases complexity. This type of holistic sustainability strategy must involve all related corporate functions (e.g., production, R&D, procurement, logistics, and marketing), collaborate with partners along and across the value chains (e.g., suppliers, data providers, and auditors), and allow partnering with non-market stakeholders (e.g., the charging infrastructure for electric mobility) (Beckmann & Schaltegger, 2021). Against this background,

sustainability has implications for virtually all aspects of management, thereby requiring a much more integrated approach to strategy. Indeed, sustainability requires a systematic integration of all steps of the strategy process: (1) environmental scanning, (2) strategy formulation, (3) implementation, and (4) evaluation of its performance (David, 2011; Wheelen et al., 2017).

In the first step, *environmental scanning* gathers information about the relevant external environment (such as natural resources, regulation, and industry analysis) and internal environment (such as the organization's current capabilities). The case of climate change illustrates the importance of systematically including sustainability aspects at this stage. For companies, climate change poses a variety of risks, ranging from regulatory risks (e.g., bans on internal combustion engines) and supply chain risks (e.g., water scarcity in raw material production) to physical risks (e.g., the impacts of extreme temperatures on the operability of battery electric vehicles). Therefore, a thorough and, where possible, scientifically based understanding of the climate system is key to subsequent strategy development. An example of an increasingly critical environmental parameter is the remaining carbon budget, which humanity must not exceed to limit global warming, as agreed upon in the Paris Agreement. For many companies, non-market actors, such as the Intergovernmental Panel on Climate Change (IPCC), are now becoming relevant stakeholders.

Since climate change is not the only sustainability challenge, environmental scanning is needed to capture the full range of social and ecological issues of strategic relevance. Moreover, companies cannot address all issues simultaneously and with equal emphasis. In fact, any strategy requires the prioritization of what matters most. Materiality analysis is a relevant tool for this type of prioritization (Whitehead, 2017). In the field of sustainability, materiality analysis is often based on the combination of a company's internal perspective (what matters to the company) and the external assessment of its stakeholders (what matters to the world). While win-win issues (such as eco-efficiency) may have direct financial materiality, "tensioned topics" that (still) lack a business case but have a societal impact (Garst et al., 2022) may have strategic business relevance in the medium and long terms. This idea of "dynamic materiality" (Kuh et al., 2020) highlights that the environmental scanning phase requires a more systematic interaction with diverse stakeholders, including both market stakeholders, such as customers, investors, and suppliers, and non-market stakeholders, such as scientists, NGOs, and regulators.

The second phase of the strategy process, *strategy formulation*, consists of several steps. First, a company clarifies its mission (Wheelen et al., 2017) to consider where sustainability considerations can significantly shape its

understanding of why it exists and operates in the market. For the sake of brevity, however, we focus on the two steps of formulating *strategic objectives* and the *strategic plans* needed to achieve them.

In the context of sustainability, current integrated approaches to strategic objectives increasingly use the formulation of *Science-Based Targets* (SBTs). In the case of the climate debate, SBTs offer an emerging approach to align corporate emissions with the temperature target of the Paris Agreement (Bjørn et al., 2022). SBTs are gaining in importance for several reasons. For the overall goal of combating climate change, the appropriate allocation of the remaining carbon budget to individual sectors and companies is important. Appropriately identified SBTs could thus help promote global emission reductions. For companies, however, having reliable targets that allow them to plan and that are respected by external stakeholders is important. The more robust SBTs and their underlying methodology, the better companies can use them to quantify sustainability goals and track their implementation. While SBTs for climate change have received the most attention to date, the basic idea is also relevant to other sustainability issues, such as biodiversity. In any case, the formulation of specific SBTs requires intensive stakeholder engagement to translate global system goals to the corporate level (Andersen et al., 2021).

As a critical next step in strategy formulation, companies develop *strategic plans* (Wheelen et al., 2017) that outline how the mission and strategic objectives will be achieved. For an integrated sustainability strategy, this step is characterized by additional complexity due to the assumption of responsibility for the entire value chain. In the case of a climate strategy that formulates SBTs, companies need to consider emissions along the entire value chain. This requires disaggregating total emissions into Scope 1 emissions (arising from the company's own operations), Scope 2 emissions (arising during the production of energy procured by the company), and Scope 3 emissions (arising in the value chain) (Kaplan & Ramanna, 2021). For strategic planning, a significant difference exists in terms of the actions taken to reduce these emissions. For Scope 1, companies need to understand and change their own operations; for Scope 2, they can change their energy procurement; and for Scope 3, they need to engage with their suppliers and incentivize or actively help them to decarbonize their processes. To illustrate, BMW has already contractually agreed with more than 400 suppliers to use 100% green electricity by 2022. Similarly, pilot projects are pioneering the production of CO₂-reduced steel, as this production replaces coal with natural gas, hydrogen, or green electricity (BMW, 2022). Strategic planning for sustainability therefore requires a much deeper interaction with suppliers and other stakeholders.

Stakeholder engagement can be used to identify the biggest levers for CO₂ reductions and to analyze the feasibility of measures outside a company's organizational boundaries.

In the third phase, *strategy implementation*, strategic plans are put into action. In traditional business strategy, this phase involves implementing programs and tactics, allocating budgets, and carrying out the procedures to get the job done (Wheelen et al., 2017). While this is also true for sustainability, an integrated sustainability strategy adds complexity and requires an even more integrated management approach. Because sustainability has multiple dimensions that interact and cannot be managed in silos, it requires the alignment of different departments and the organization of cross-functional collaboration (Baier et al., 2020). To do this, companies need adequate data and information. An integrated management approach to sustainability therefore relies on appropriate indicators that are measured, shared, analyzed, and made available throughout the organization, and even to value chain partners. In addition, an integrated approach to management allocates resources and incentives in a way that is aligned with long-term sustainability goals. To ensure that improvements in one sustainability dimension are not incurred at the expense of other sustainability or business objectives, integrated management is needed to identify potential trade-offs and to provide guidance on how to address them (Baumgartner & Ebner, 2010). Since sustainability measures are often investments in future benefits, an integrated management approach is also needed to align individual budgets and incentives with these long-term goals. Measurable sustainability indicators then become performance criteria for management compensation.

The final phase of the conventional strategy process is the *evaluation and control* phase, which monitors performance. At the same time, the evaluation phase does not end the strategy process; rather, it provides feedback for an iterative engagement with all previous phases (Wheelen et al., 2017). This feedback and control is an important internal function for the company. In the case of an integrated sustainability strategy, the evaluation phase also generates information for reporting a company's sustainability performance to an external audience. Over the past few decades, sustainability reporting has evolved from a voluntary practice to a de facto standard and subsequently to a regulatory requirement for most multinational companies. However, until recently, most companies reported their ESG indicators in separate reports, which did not give the indicators the same prominence and assurance as financial data. However, in an integrated sustainability strategy that aligns different stakeholders and sustainability dimensions with business strategy, aligning these different perspectives by marrying sustainability and financial

reporting becomes important. This is what integrated reporting is all about (Churet & Eccles, 2014). For investors, integrated reporting is about providing the transparency needed to make sustainable investment decisions. For companies, its aim is to overcome internal silos and strengthen an integrated approach to strategy and management (Higgins et al., 2019). So far, however, integrated reporting has not yet become the new reporting norm. When BMW combined its Annual Report and Sustainable Value Report for the first time in an integrated BMW Group Report in 2021, it became the first premium automotive company worldwide to do so. Given the dynamic developments in sustainability reporting standards and regulations, it still remains to be seen which specific frameworks and reporting approaches will evolve. Crafting corporate sustainability strategy for the future will therefore interact with the future of corporate disclosure (see Chap. 4).

3.3 Expert Conversation on Integrating Sustainability into Corporate Strategy

What Are the Drivers for Integrating Sustainability into Corporate Strategy?

Beckmann: When I took a tour of the BMW plant 10 years ago, I learned that BMW was the first automaker to appoint an environment officer in 1973. At the time, one of the drivers for the new role was that the heavy machinery at the plant was causing vibrations that were a concern to the plant's neighbors. The Environment Officer took up these local community issues and helped translate them into improvements at the plant. In 1973, BMW's sustainability management began with one specific driver. Fast forward to today, and BMW has a much more sophisticated sustainability management system in place and is striving to be the most sustainable premium provider of individual mobility. What are the key factors driving you toward this goal today?

Zipse: Sustainability is a moving target. When we introduced the Environment Officer some 40 years ago, it was a separate role that took care of sustainability alongside the core business. This has changed radically, and I would identify four main drivers of sustainability.

Beckmann: What are these four drivers?

Zipse: First, society is changing. Environmental issues are constantly changing, and society has a different awareness of them today than it did 40 years ago. The second point is policy and regulations. Regulatory policies are

changing and getting much harder for the industry. The third point is that our financial system is much more targeted toward ecological and sustainable performance. That's a new aspect and a quickly accelerating one.

Beckmann: What is the fourth key driver of sustainability?

Zipse: Last but not least, the fourth sustainability driver is changing customer behavior. Our customers' desire to buy a product, to spend money, is very much linked to a sustainable image and a sustainable product substance. Therefore, all four of these drivers make us rethink, or forward think, how we develop our corporate strategy. As the essence of all these four points, we are putting sustainability right into the core of our corporate strategy.

Beckmann: Can you give an example?

Zipse: Sure. Take our transition to integrated reporting. As of 2021, we no longer issue separate reports. Therefore, we no longer have one report for the business and financial community and another report for NGOs and society. There is only one report. Having an integrated report is also a disciplinary tool. Whatever we do and communicate must be verifiable, measurable, and true. In the automotive industry, we are the first company to combine the sustainability report with our regular BMW Group report into a single report. This is a significant step for us—and it also shows that sustainability is not a fixed target but constantly moving.

An Integrative Approach: How Does It Affect Management?

Beckmann: Integrated reporting addresses the diverse stakeholders you have: not only your financial investors but also your regulators, customers, NGOs, etc. Integrated reporting is about addressing these different external views together. When integrated reporting was first introduced, another idea behind it was to break down the silos that companies have internally—sustainability department, finance department, reporting department, and so forth. Do you see this internal integration reflected in the way you approach your sustainability strategy?

Zipse: The integrated report reflects what we do internally. The best solution is that every stakeholder—our employees, our shareholders, and our management—is integrated into our decision-making processes. The time when sustainability was seen as an extra is over. Instead, we are and must be intrinsically motivated to build sustainability right into the product.

Beckmann: Why is that relevant?

Zipse: Every decision we make today will affect the market for the next 12 years. The products we configure now, in 2021, will not come to market until 2025 at the earliest. However, the same architecture usually lasts for

two consecutive products, which brings us to 2040. So, whatever we do today has to be market ready for the entire product life cycle. That is why leapfrogging into the future is so important now.

Beckmann: You take a long-term perspective because the development time and the life cycle make it important to put sustainability considerations at the beginning of the development process, not at the end. Can you give concrete examples of how developing this long-term approach differs now compared to the early 2000s, especially concerning this integrative management approach?

Becker: The critical issue we face in the coming years is to look beyond production, which was the beginning of sustainability as a function. We also need to look beyond the product, which was the issue around emissions and electrification. Instead, we need to look deeper into the value chain. This creates a twofold challenge. One is to integrate the right objectives into product planning right from the outset, using the right mechanisms. We are already doing this intensively for our future products by asking: How can we reduce the CO₂ footprint of inputs such as steel, aluminum, or high-voltage storage devices? To achieve this goal, the first step is to negotiate with our suppliers to source the right energy.

Beckmann: What is the second step?

Becker: The next one will be to source much higher percentages of secondary materials, which will give us an additional option to reduce our footprint, not only in terms of CO₂ but also in terms of the resources needed.

Beckmann: So the principles of circularity are important.

Becker: Absolutely. All of this is good, and we need to do it. But to credibly demonstrate what we have achieved, we now need to build up the reporting, target setting, and steering mechanisms so that we can subject our environmental footprint numbers to the same level of scrutiny as our financial numbers with our certified account. This is why integrated reporting is so essential. An integrated approach to sustainability is a massive challenge, because it goes far beyond our own organization. It extends into our supply chain. This is something we are actively tackling at the moment.

What Value Does Sustainability Deliver as an Overarching Corporate Strategy?

Zipse: From an academic perspective, where do you see the value for companies in integrating sustainability into their strategy?

Beckmann: There is a short and simple answer and a long and complex answer to this question.

Zipse: What is the short and simple answer?

Beckmann: The quick response is that you have the business benefits of managing the risks, costs, revenues, and license to operate. As you just described, companies need to respond to changing regulations to maintain their license to operate in the marketplace. Regarding risk management, ignoring sustainability can lead to litigation risks, operational risks, reputational risks, and so on. Then, you can manage costs. When you reduce waste, you conserve sources. After all, waste is, by definition, wasteful. In manufacturing, material and energy efficiency can save money and go hand in hand with lean management. Finally, you can be more attractive to the stakeholders you want to work with, such as employees, investors, and, of course, consumers. Products with greater sustainability can help attract consumers, drive innovation, and create new market opportunities.

Zipse: How is the long answer different?

Beckmann: These sustainability drivers are the classics, but they are also quite generic. When it comes to concrete strategy, the answer is more complex. What matters here are the specific company and the context-specific causal pathways that can translate a particular sustainability issue into one of your performance drivers. The impact logic may vary depending on the respective industry, the position within the industry, or the maturity of the sustainability strategy.

Zipse: Can you illustrate what that means?

Beckmann: Take the example of material and energy efficiency in manufacturing. BMW's Green.Lean.Digital production has come a long way in this regard. By contrast, for other companies that are sustainability beginners, this is still low-hanging fruit with a relatively short causal chain. If you have an energy-intensive production, you can do an eco-efficiency analysis, implement more efficient solutions, such as heat recovery, and save emissions and costs. This yields quite straightforward, simple, and measurable results in the short term.

Zipse: I see. What would be an example of a more complex situation?

Beckmann: When developing a strategy for future scenarios with high levels of complexity and uncertainty, the pathways that link sustainability to business success are much more intricate. For example, when planning the Road to Net Zero, achieving carbon neutrality with business benefits is anything but straightforward, simple, or easy to implement with certain short-term results. On the sustainability side, effective decarbonization is complex. Where do your emissions occur over the life cycle, and where are the best places to reduce CO₂? How can you collaborate with others? On the business side, how do you translate those CO₂ savings into business

benefits? How can you compare or even put a price tag on different options, given the uncertainties of future regulation, charging infrastructure, or market demand?

Zipse: These are indeed more complex questions.

Beckmann: And they interact. Because multiple factors, such as future government, customer, employee, or investment behaviors, play a relevant role, different sustainability drivers interact in multiple ways. Strategy then becomes an issue of understanding, selecting, and creating favorable causal relationships between sustainability and business success and raises questions such as the following: Given your current position, what configurations allow you to align sustainability and business success? Can you influence external parameters, such as future regulations or industry standards, or do you have to take them for granted? Given your competencies, can you innovate new technological solutions or create market demand? The answers to these questions will differ for different companies at different stages of their sustainability maturity.

Zipse: Do you know of any good examples—perhaps even outside the automotive industry—where this integration into corporate strategy and philosophy has been successful?

Beckmann: There are many inspiring examples in different contexts. Let's take a look, for example, at a sustainability pioneer in the textile industry: Patagonia. They have always been sustainable. They have a sustainable customer base. They have a sustainable story. But they operate in a niche. Therefore, it is challenging to use Patagonia as a role model for a company with a mass market position or a broad customer base.

Zipse: If sustainability has always been at the core of a company's business model, the transformation path will likely be faster. What are some examples of companies in other industries that have undergone a more fundamental change?

Beckmann: When incumbents in traditional markets transform their business models, some react to disruptive change, such as in the case of scandals. Others anticipate change proactively. For instance, in the food industry, I like the example of "Rügenwalder Mühle," a family-owned company. Without a crisis forcing them to do so, they are currently disrupting their meat-only business and are developing plant-based products as a second, alternative business model.

Zipse: I know this example. It is indeed interesting.

Beckmann: I agree. With more and more people wanting to go vegetarian or even vegan, this strategy makes the company fit for the future. It is also helping to transform the market. Its significant growth in plant-based

products gives consumers more choices of tasty and sustainable products. At the same time, the company continues to offer meat-based products, but aims at higher standards by focusing on more animal welfare-oriented production. In this way, the company is developing valuable options for success in the food market of the future. In a way, this is what sustainability is all about: acting in ways that increase our options for the future. For companies, this may mean disrupting their current business models.

How Can We Close the Gap Between Intentions and Behavior When It Comes to Sustainability?

Beckmann: One of the conceptual challenges within sustainability is that we often say—and rightly so—that sustainability takes a comprehensive, holistic perspective. But if everything matters, then strategy lacks focus. How do you prioritize your sustainability goals? How do your priorities change over time?

Zipse: Whatever you do, you must have a comprehensive or 360-degree approach to strategy. It is easy to pick a specific product, a specific market, or a specific drivetrain and run a prototyping exercise on it. I think we are beyond that. We launched the BMW i3, for example, in 2013. Now, almost 10 years later, it is all about learning how the world—the customers—respond to the product and then very quickly integrating that into your strategy. There is a big difference between what people say and what they do—a big difference between people’s statements about sustainability and their actual buying behavior.

Beckmann: In academia, we call this the intention–behavior gap. I always try to teach this to my students.

Zipse: I assume that this academic description is somewhat consistent with our observations in real life. At the end of the day, a company like BMW must also be financially successful. This is not just a sustainability issue. It is about understanding the buying behavior of your customers. We now see that sustainability is becoming what you call the “license to operate.” People will not buy individual mobility that is not sustainable. And that is changing rapidly. But, at the same time, the market does not change overnight. There is a very long transformation period.

Beckmann: That sounds like a balancing act.

Zipse: Indeed. The tricky part is to balance the fact that every year, every month, and every week that there is both conventional and progressive customer behavior. We serve young people and older people. There are digital natives and people who do not care about digital functions in the

car. So, the trick is to understand, acknowledge, and serve these different needs simultaneously. Our answer is that your product development, your production strategy, and your marketing strategy have to be flexible. We serve 196 markets, and it will come as no surprise that each market behaves differently. Even within one market—say the European market—we find huge differences in buying or customer behavior. Customers in Oslo typically behave differently than those in Sicily. However, we serve them as the same company. Flexibility in all your processes and the ability to react quickly to market changes are key.

To What Extent Do Different Stakeholder Needs Change Sustainability Goals?

Beckmann: Customer behavior is constantly feeding back into your strategy. Your customers are different from other OEM [Original Equipment Manufacturer; here: car makers] customers. Do their expectations—and, more importantly, the specific competencies that distinguish BMW—influence your sustainability strategy? How does your sustainability strategy differ from that of your competitors?

Becker: We take a close look at the differences between the markets. The notion of sustainability in Beijing is very different from that in Copenhagen or Los Angeles. While there are things that we obviously need to do across the entire spectrum of our products and that need to be deeply rooted in the entire organization and the processes, the actual customer expectation doesn't necessarily have to be the same. For example, we need to be able to give to every customer, wherever they are, accurate information about the footprint of our product. However, the way this is valued or demanded differs. While sustainability in Europe is very much about demonstrating that a product is safe in every respect, the Chinese perception is much more about personal experience, entertainment, and the direct benefit to the customer. We have to take that into account.

Beckmann: So, it's a lot about what you do, how you communicate it, and how you integrate the voices of different stakeholders?

Zipse: Transforming into a truly sustainable company starts with the right collaboration. We know that an automotive company cannot do it alone. You depend on the charging infrastructure. You depend on city operators. You need all your suppliers. You depend on digital companies. What is your experience there? What are the big stumbling blocks in this “need to collaborate?”

Beckmann: When we look at collaboration for sustainability, one stakeholder group that I am particularly interested in is a company's competitors. Many

sustainability issues are systemic in nature. They are not specific to one company but relate to the industry as a whole. From a strategic perspective, many of these issues have a pre-competitive character. They are relevant to the industry as a whole but are not necessarily a source of individual competitive advantage. Few customers understand or care about the details when it comes to technical issues, such as the banning of certain hazardous substances or adoption of specific technology standards. However, customers do care when a major scandal occurs in the industry. In extreme cases, the entire industry gets a bad name, such as in the Dieselsegate scandal. There is a need to work together on industry-wide solutions, such as shared standards.

Zipse: Let me make a quick comment. We don't talk about Dieselsegate. It was a 'gate' involving a particular company. It was not a 'gate' of the technology.

Beckmann: I am not questioning that from your internal perspective. However, the impact on the public perception of the technology was severe. What happened to one company affected other companies.

Zipse: I just wanted to reiterate that we were not part of the primary root cause. But, yes, it affected the entire industry, and it affected us, too. But let me go back to your initial point about collaboration. What are your thoughts on that?

Beckmann: When you look at sustainability issues in the value chain where competitors are sourcing from the same or similar suppliers, common standards can help everyone increase transparency, reduce complexity, and lower transaction costs. However, when competitors cooperate, one of the challenges is to respect antitrust regulations. The idea is not to restrict competition but to create a level playing field. Once the rules of the game include appropriate sustainability standards, companies can compete on how best to innovate from there. Therefore, considerable potential exists for competitors to work together and to include suppliers, NGOs, and intermediaries to drive the sustainability transformation of the entire industry and its ecosystem. Ideally, this collaboration across the ecosystem contributes to sustainability and makes the industry fit for the future.

Would an Ecosystem Approach Be a Strategy for Rapid Technological Development?

Beckmann: You talked about infrastructure for charging, city management, parking, and traffic management. If you try to create solutions here, you are operating and innovating in an ecosystem. What role does cooperation play here?

Zipse: In the current technological development picture, the cost factor is becoming more and more critical. Today, you can build almost everything into a car: autonomous driving, driverless vehicles, etc. These features are no longer a question of technical feasibility, but of commercial viability. What kind of technology do you put into the car so that you still have a product that is viable in the market and generates a positive margin?

Beckmann: How does this focus on creating viable products relate to the ecosystem and partnership perspective?

Zipse: The reason is that scaling becomes critical to the cost of the vehicle. When you get into new technologies, you are well advised to find a partner who can help you scale—not only in your own product range, but also to reduce costs across different car manufacturers. Then, you have the need for a battery cell. You have the same issue with cameras for automotive autonomous driving functions in the car or anything that has to do with connectivity in the car. Then, of course, you have to find the right partners. What you find out now is that these are often not the traditional OEM suppliers—the so-called first tiers. Instead, they are new entrants to the industry.

Beckmann: For example?

Zipse: Take the battery cell. Our major battery cell manufacturer, CATL, did not even exist 10 years ago. In this dynamically changing ecosystem, partnerships are essential to get the right technologies and have them at the right cost base.

Becker: If you look at the sustainability leaders in other industries and at how they position their product, almost none of them are going to tell an “I’m so fantastic, I did it all” story. In many cases, credibility also comes from working with others, pooling competencies, organizing value chains properly, and engaging your suppliers. Keeping this in mind can be highly relevant to sustainability success.

How Can Corporate Sustainability Goals Contribute to Society?

Beckmann: You just talked about the importance of working across the entire value chain with your new technologies. You need to work with your value chain partners to manage the cost, complexity, and life-cycle impacts of new technologies. But when we discussed sustainability drivers earlier, the first one you mentioned was changing societal attitudes. Stakeholders representing this shift are NGOs, social movements, and think tanks. Do you see a difference in the way you work with those partners—not just talking to or listening to them, but incorporating their ideas, opening up the innovation process, and piloting solutions—compared to the way you work

with the traditional customer or first, second, or third tier suppliers in the value chain?

Zipse: For many years, we have gone far beyond defending our business model against those who do not understand or support it. We listen to all the stakeholders around us. We talk to customers, of course. We talk to our suppliers, we talk to parliamentarians, we talk to NGOs, we talk to politicians, and we take all that knowledge and put it into our strategy. At the end of the day, we will not meet everyone's taste. However, we increase the likelihood that our products will fit into society. That is important. Of course, what the outside world cannot see is that we have to build this on a functioning business model where you have a contribution margin, price tags on your products, and production costs. But we would not take the easy way out and use that as the only argument for bringing a product to the world. It is also about our contribution to society. In the broadest sense, creating value is a core mission of any large company, not just making a profit.

Beckmann: I fully agree. The primary contribution of companies to society is to create value. They do that by addressing societal needs and improving our ability to meet those needs. To do that, you want to be responsive, you want to see what kind of value is needed, and you want to align your operations with that. However, very often, you cannot do it alone because you need resources and the participation of others. How do you get that input from different stakeholders?

Becker: Coming back to the value chain: You could potentially reduce the CO₂ footprint of a ton of aluminum by 80% if you use secondary materials. It seems obvious to do this as soon as possible. The problems, unfortunately, are the technical performance and quality requirements. For automotive applications, the copper contamination in aluminum must be less than 2%. Can you find suppliers of scrap aluminum that meet this requirement? Is the sorting technology powerful enough to remove the copper? Not yet. However, as soon as you say, "We want more of the high-quality stuff," the question will come back to you because a critical barrier to adequate recycling is the way metal components are currently built into cars.

Beckmann: Can you give us a specific example?

Becker: Take the wiring harness, which is mostly copper. How do we need to install it so that it can easily be removed before the vehicle is scrapped and gets shredded into tiny particle size? To move this agenda forward, you need to find the right solutions with different value chain partners and across industries. Finally, there is an important systemic factor. All decar-

bonization efforts would benefit greatly if CO₂ prices were predictable and would reliably change the price ratio between primary and secondary materials. As you can see, these things are very much intertwined. We have to understand this and accept that not everything is certain and predictable today. Our task is to maintain our ability to steer economically and efficiently as we move forward.

Zipse: Our products are a collection of 16,000 parts from more than 4000 suppliers—and we are responsible for them. The Supply Chain Act has put that into legal terms. Consequently, if a problem emerges, everybody has the right to say, “You are the aggregator of this car. I’m holding you responsible for the supply chain behind it.” Suddenly, the aggregator, as the seller of that car, has to figure out how to organize responsibility across the entire supply chain.

Does a Common Language for the Entire Industry Help?

Beckmann: That makes sense. To aggregate data and orchestrate change across complex value chains, you need a common language to communicate sustainability requirements, measure performance, share data, and drive improvements. For example, having the right metrics in place could give you and others more mileage and more leverage for sustainability. How do you develop this type of common language at the value chain or industry level? How do you organize accountability for the social and behavioral frameworks with your suppliers?

Zipse: You need collaboration to organize upstream and downstream value chain responsibility. You cannot do it alone. Putting it in a contract is not enough. You have to create some kind of transparency. We have brought together 20 German companies—around SAP, Bosch, and other OEMs like Mercedes—to form an automotive alliance that is building a digital transparency chain across many companies. This makes it easier to document, for example, the carbon footprint or quality issues in your supply chain. Involving partners in your business model is crucial.

Becker: You also need to ensure the acceptance and credibility of your products and processes, which we discuss in detail in our annual report. For instance, the aggregation of CO₂ over forty steps in our value chain must produce a correct result. Again, we need to work with others.

Zipse: An essential aspect of being “responsible”—and what makes it so difficult at times—is staying profitable. Profitability is part of our responsibility. Suppose you are running a company in a financially irresponsible way. In that case, you are making a big mistake: You are taking away all your

freedom to actively develop the company and actively manage other factors. In order to secure this freedom to act, the company must remain profitable at all times. You cannot take a break for 3 or 4 years. Only with profit responsibility do you have the strength to put resources into innovation and the next step of sustainability.

Is Integrated Reporting the Key to a Unified Strategy?

Beckmann: Ideally, investing resources in innovation and sustainability is also a good investment in future profits. However, when you look at ambitious sustainability goals like a net-zero future, the implementation is a marathon, not a sprint. First, you have to invest in new technologies, knowledge, management systems, relationships, infrastructure, and so on. And you have to take a long-term view. A common criticism of publicly traded companies that respond to stock market expectations is that they focus only on the next quarter's results. How do you reconcile that with a long-term sustainability strategy?

Zipse: What is happening now is that different stakeholder interests are merging. We no longer have a financial stakeholder view that is isolated from an NGO view. These views are merging. Large investment companies are bound to invest in sustainable companies. To do that, they need proof that we are sustainable. NGOs are demanding the same thing. When we still had separate reporting, addressing these different stakeholders with different data was a barrier to aligning stakeholder interests. Therefore, we have now moved to integrated reporting.

Beckmann: What is needed to make this integrated view successful?

Zipse: The trick to aligning stakeholder expectations with a long-term strategy is always to put customers first. They are the lever that keeps your business profitable and provides the foundation for everything else. Your strategy discussions must never lose sight of the customer. For this reason, product development and marketing efforts are essential for understanding your customers in every part of the world, not just through your domestic lens. We see a trend toward diverging product demands: A Chinese customer wants something different—much more digital—than the average German or Central European customer would request. And the American customer has different expectations yet again. This is a critical point. Key sustainability expectations are converging. Customer needs are diverging. Bringing both aspects together in a single corporate approach is the art of strategy.

Beckmann: Sounds like a fascinating journey. Thank you for bringing all these different threads together and giving us the opportunity to discuss them.

3.4 The Future of Integrated Strategies: Challenges, Opportunities, and Key Questions

Integrating sustainability into strategy has important implications for all steps of the strategy process. Sustainability raises additional questions for a company's situational assessment, strategy formulation, strategy implementation, and strategy evaluation and control. This integration goes hand in hand with new opportunities, challenges, and future questions that arise at the intersection of sustainability and other megatrends.

Challenges of Integrated Sustainability Strategies

Sustainability highlights additional social and environmental realities, their systemic interdependencies, and the role of the diverse—and often conflicting and changing—stakeholder expectations related to them. Against this background, the integration of sustainability into strategy can be discussed in light of the challenges of strategizing in a world characterized by the features of volatility, uncertainty, complexity, and ambiguity (VUCA) (Bennett & Lemoine, 2014).

Volatility mirrors the fact that sustainability is a moving target. Social issues, such as human rights concerns in the deep value chain or the massively burgeoning issue of biodiversity conservation, are emerging as material issues that were not as apparent on the radar screen a few years ago. In the area of sustainability, volatility is driven by both rapid changes in the physical environment (as the effects of climate change and ecosystem degradation reach local and global tipping points) and disruptions in the social environment (as customer expectations shift, regulations change rapidly, or new environmental activist groups emerge). In recent years, the pace of change has accelerated, not slowed, thereby increasing the volatility of sustainability issues.

Uncertainty refers to how easily (or not) we can predict the future. Sustainability increases the difficulty of predicting the future with confidence because of its multiple systemic interdependencies, which often behave in nonlinear and surprising ways, including displaying irreversibility. A highly relevant example is the current and future changes in our climate system. Many companies have committed to a climate strategy in line with the Paris Agreement by pledging to reduce emissions in line with the 2 or 1.5 °C target. As discussed above, a fully integrated sustainability strategy benefits from SBTs that translate the remaining global carbon budget to the company level. However, as global warming brings us closer to critical tipping points (such as

the thawing of permafrost or the dieback of the Amazon rainforest), climate dynamics may change significantly. In fact, each IPCC report updates the remaining carbon budget by incorporating the latest physical science and other aspects, such as economic growth and the degree of decarbonization achieved. This multifaceted uncertainty creates difficulties for companies today in setting a robust SBT that allows for long-term planning while recognizing the uncertainty associated with the climate and its future evolution. Given the difficulty of accurately predicting long-term systemic interdependencies, sustainability therefore adds to the uncertainty that strategy must address.

Complexity reflects the number of factors that strategy must consider, their breadth and diversity, and their interactions. As complexity increases, comprehensive analysis of the environment and understanding the big picture become more difficult. In the context of sustainability, one reason for complexity is the multidimensional nature of sustainability. To illustrate, consider the United Nations Sustainable Development Goals (SDGs). The SDGs include 17 goals and 169 more specific targets. To measure the achievement of these targets, the UN has defined 231 unique indicators (United Nations Statistics Division, 2022). Complexity arises from the challenge of generating, collecting, and sharing these comprehensive types of data—and, more importantly, analyzing how the different factors relate and interact. By highlighting additional factors, sustainability increases the complexity of strategy development.

Ambiguity can be defined as a lack of clarity about how to interpret a situation. Ambiguity arises when competing interpretations are possible. It occurs when information is incomplete, fuzzy, or contradictory. In the context of sustainability, ambiguity often emerges when companies deal with different stakeholders who have different interpretations of the same issue and whose expectations go in opposite directions. Ambiguity also arises in the aforementioned intention–behavior gap, where customers demand sustainable products but do not actually purchase them. An integrated strategy must make sense of this type of conflicting information. More importantly, it must reconcile conflicting stakeholder views in a way that overcomes perceived trade-offs through innovation (Beckmann et al., 2014). Because the multi-stakeholder orientation and multi-dimensionality of sustainability increase the likelihood of incomplete and conflicting information, sustainability can add ambiguity to an integrated strategy.

Opportunities for Integrated Sustainability Strategies

While the discussion of the VUCA world often focuses on its challenges, the idea of strategy is to play an active role in shaping a company's future context in a way that unlocks new opportunities. Sustainability can create opportunities across all VUCA dimensions. Volatility means that rapidly changing stakeholder expectations and emerging sustainability issues create new search fields for innovation. Moreover, management research has long embraced the notion that uncertainty creates opportunities for leadership and entrepreneurship as both represent practices of uncertainty absorption (Bylund & McCaffrey, 2017; Waldman et al., 2001). According to this logic, sustainability leadership and sustainable intra- and entrepreneurship can provide companies with a competitive advantage in navigating the VUCA world. Companies with authentic and credible sustainable purposes will have an easier time mobilizing this potential. Complexity emphasizes that companies can combine a broader set of factors in their innovation process, allowing the companies to rethink inputs, processes, and outputs in new ways. Finally, the ambiguity that arises from conflicting stakeholder views and incomplete information can represent an opportunity to build novel business models and stakeholder networks that actively align previously competing interests.

Based on a proactive response to the VUCA world, an integrated sustainability strategy can deliver the multiple business benefits discussed at the beginning of this chapter. An integrated sustainability strategy can lead to technology and process optimizations that result in cost savings, improved performance, and increased resilience. By responding to future customer needs, sustainability can add a price premium to a product, increase customer loyalty, and open up new markets. Similarly, an integrated sustainability strategy can serve to improve employee appeal, attract sustainable financial investments, and increase supply chain resilience. At the corporate level, sustainability can secure a company's license to operate and strengthen its competitiveness. At the industry level, driving more sustainable value creation secures the license to operate across the entire ecosystem. To achieve these benefits, the integration of sustainability into strategy must be based on intensive learning, innovation, and change management. An added benefit of a successful integrated strategy is therefore the improvement of organizational agility and adaptability.

Future Questions for the Alignment of Integrated Sustainability Strategies

Integrated strategies focus on the long-term alignment of sustainability and business objectives. This type of alignment raises several follow-up questions related to both sustainability-specific aspects and other megatrends in business.

How Can Sustainability Strategy Be Aligned with Different Time Horizons?

Sustainability requires a long-term perspective. An integrated sustainability strategy requires aligning this long-term view with more short term-oriented decisions and structures. This raises questions such as: How can long-term sustainability goals be aligned with short-term incentives? What are the appropriate governance structures to promote long-term thinking? What kind of reporting can align quarterly disclosures and financial markets with the necessary investments in sustainability transformation? How can path dependencies be broken (e.g., when retrofitting existing infrastructure, such as old factories) while ensuring profitability? What kind of change management is needed to align the transformation of business models, corporate processes, and individual competencies?

How Do You Align an Integrated Sustainability Strategy Across Fragmented Markets?

While many sustainability challenges are global in nature, market expectations and the regulatory requirements to address them differ from region to region. At the same time, multinational companies that operate in some or all of these regions face the challenge of formulating an integrated strategy that addresses this diversity while maintaining internal consistency. This raises questions such as: How will external sustainability requirements diverge or converge over time? How can companies align a global strategy with a fragmented regulatory and market landscape? How can the diversity of different strategy contexts be used as a source of experimentation, innovation, and scaling?

How Do You Align Your Sustainability Strategy with Your Value Chain and Other Business Actors?

Sustainability is a race that no company can win alone. For example, decarbonizing a product footprint requires collaboration across the entire value chain. Similarly, improving the working conditions of raw material suppliers, such as in the case of cobalt mines, is a challenge that transcends a single industry and benefits from the cooperation of different actors. In this context, integrating sustainability into strategy often requires working with other firms, including competitors, to engage in “co-opetition” (Brandenburger & Nalebuff, 2021). This raises questions such as: How can companies collaborate with competitors on pre-competitive sustainability issues? How can collaborative strategies be reconciled with the need to respect antitrust rules? How can novel forms of antitrust policies foster sustainability cooperation?

How can pre-competitive strategies be aligned with companies' search for individual competitive advantage? How can collaboration with non-industry partners foster competitive advantage? What are appropriate criteria for measuring and monitoring the success of sustainability partnerships?

How Do You Align Sustainability Strategy with Digital Transformation?

Digital transformation is a megatrend with enormous relevance for an integrated sustainability strategy. Sustainability requires the generation and analysis of new types of data, such as real-time carbon product footprints. In addition, to drive sustainability across the entire value chain, data must be shared across business partners. This raises questions such as: How can digitization increase the transparency and reliability of environmental and social performance data? What forms of data exchange are appropriate to make information accessible across the value chain? What are the incentives for data sharing while addressing security and privacy concerns? What role can digital industry data platforms play in reducing transaction costs and improving data quality? How can digitization engage previously silent stakeholders (e.g., by giving voice to workers or communities) in the supply chain? How can companies create a competitive advantage through digital platform solutions for sustainability?

3.5 Conclusion

Integrating sustainability into strategy creates significant opportunities to transform companies into change agents for a decarbonized, circular, resilient, and more socially just economy. This integration offers ample opportunities for businesses and their future market success. Realizing this potential requires a systemic integration of sustainability throughout the strategy process. In this endeavor, sustainability is a moving target. Consequently, integrating sustainability into strategy is not a one-time decision. It is the first step on a continuous journey.

How can sustainability be integrated into corporate strategy? We would like to highlight five takeaways from this chapter that invite further discussion:

1. To survive and thrive in the marketplace over the long term, companies need to move from stand-alone sustainability strategies to integrated sustainability strategies that redefine a company's corporate strategy (where to compete) and business strategy (how to achieve competitive advantage).

2. The development of an integrated sustainability strategy can follow a four-step process: (1) environmental scanning to analyze the external and internal environment; (2) strategy formulation as a multi-stage process with the formulation of strategic goals and strategic plans as core aspects; (3) implementation through cross-functional collaboration; and (4) evaluation with an integrated reporting approach.
3. The primary contribution of companies to society is to create value for their stakeholders. Here, customers are the lever that keeps a company profitable and serves as the foundation for everything else. Therefore, a company's strategy discussion must never lose sight of the customer.
4. Sustainability is a race that cannot be won alone. For this reason, becoming a truly sustainable business starts with proper internal and external collaboration, as *The Road to Net Zero* requires changes in a whole ecosystem.
5. Based on a proactive response to the VUCA world, an integrated sustainability strategy can deliver multiple business benefits and lead to technology and process optimizations that result in cost savings, improved performance, and increased resilience.

On the Road to Net Zero, however, a company's strategy journey matters not only to the firm and its investors, but also to other stakeholders, including nature and future generations. Therefore, creating transparency about a company's sustainability ambitions becomes increasingly important, as do the results achieved. For this reason, the next chapter, Chap. 4, focuses on *The Future of Corporate Disclosure*.

References

- Andersen, I., Ishii, N., Brooks, T., Cummis, C., Fonseca, G., Hillers, A., Macfarlane, N., Nakicenovic, N., Moss, K., Rockström, J., Steer, A., Waughray, D., & Zimm, C. (2021). Defining 'science-based targets'. *National Science Review*, 8(7), nwaa186. <https://doi.org/10.1093/nsr/nwaa186>
- Baier, C., Beckmann, M., & Heidingsfelder, J. (2020). Hidden allies for value chain responsibility? A system theory perspective on aligning sustainable supply chain management and trade compliance. *International Journal of Physical Distribution & Logistics Management*, 50(4), 439–456. <https://doi.org/10.1108/IJPDLM-02-2019-0037>
- Bansal, P., & Roth, K. (2000). Why companies go green: A model of ecological responsiveness. *Academy of Management Journal*, 43(4), 717–736. <https://doi.org/10.2307/1556363>

- Barney, J. B. (1997). *Gaining and sustaining competitive advantage*. Addison-Wesley.
- Baumgartner, R. J., & Ebner, D. (2010). Corporate sustainability strategies: sustainability profiles and maturity levels. *Sustainable Development*, 18(2), 76–89. <https://doi.org/10.1002/sd.447>
- Beckmann, M., Hielscher, S., & Pies, I. (2014). Commitment strategies for sustainability: How business firms can transform trade-offs into win–win outcomes. *Business Strategy and the Environment*, 23(1), 18–37.
- Beckmann, M., & Schaltegger, S. (2021). Sustainability in business: Integrated management of value creation and disvalue mitigation. In R. J. Aldag (Ed.), *Oxford research encyclopedia of business and management*. Oxford University Press. <https://doi.org/10.1093/acrefore/9780190224851.013.322>
- Bennett, N., & Lemoine, J. (2014). What VUCA really means for you. *Harvard Business Review*, 92(1/2) <https://hbr.org/2014/01/what-vuca-really-means-for-you>
- Bjørn, A., Tilsted, J. P., Addas, A., & Lloyd, S. M. (2022). Can science-based targets make the private sector Paris-aligned? A review of the emerging evidence. *Current Climate Change Reports*, 8(2), 53–69. <https://doi.org/10.1007/s40641-022-00182-w>
- BMW. (2021). How the BMW Group is increasing the pace to combat climate change. Retrieved April 20, 2023, from <https://www.bmwgroup.com/en/news/general/2021/bmwgroup-sustainability.html>
- BMW. (2022). The BMW Group sustainability strategy rests on these six pillars. Retrieved April 20, 2023, from <https://www.bmwgroup.com/en/news/general/2022/Sustainability360.html>
- Brandenburger, A., & Nalebuff, B. (2021). The rules of co-opetition. *Harvard Business Review*, 99(1), 48–57.
- Burritt, R. L., Christ, K. L., Rammal, H. G., & Schaltegger, S. (2020). Multinational enterprise strategies for addressing sustainability: the need for consolidation. *Journal of Business Ethics*, 164(2), 389–410. <https://doi.org/10.1007/s10551-018-4066-0>
- Bylund, P. L., & McCaffrey, M. (2017). A theory of entrepreneurship and institutional uncertainty. *Journal of Business Venturing*, 32(5), 461–475. <https://doi.org/10.1016/j.jbusvent.2017.05.006>
- Chandler, A. D. (1962). *Strategy and structure: Chapters in the history of the industrial enterprise*. MIT Press.
- Churet, C., & Eccles, R. G. (2014). Integrated reporting, quality of management, and financial performance. *Journal of Applied Corporate Finance*, 26(1), 56–64. <https://doi.org/10.1111/jacf.12054>
- David, F. R. (2011). *Strategic management: Concepts and cases*. Pearson.
- Dyllick, T., Belz, F., & Schneidewind, U. (1997). *Ökologie und Wettbewerbsfähigkeit*. Verl. Neue Zürcher Zeitung; Hanser.
- Ellen MacArthur Foundation. (2013). Towards the circular economy: Economic and business rationale for an accelerated transition. Retrieved May 23, 2023, from

<https://ellenmacarthurfoundation.org/towards-the-circular-economy-vol-1-an-economic-and-business-rationale-for-an>

- Engert, S., Rauter, R., & Baumgartner, R. J. (2016). Exploring the integration of corporate sustainability into strategic management: a literature review. *Journal of Cleaner Production*, 112, 2833–2850. <https://doi.org/10.1016/j.jclepro.2015.08.031>
- European Parliament. (2023). EU ban on sale of new petrol and diesel cars from 2035 explained. Retrieved April 21, 2023, from <https://www.europarl.europa.eu/news/en/headlines/economy/20221019STO44572/eu-ban-on-sale-of-new-petrol-and-diesel-cars-from-2035-explained>
- Garst, J., Maas, K., & Suijs, J. (2022). Materiality assessment is an art, not a science: Selecting ESG topics for sustainability reports. *California Management Review*, 65(1), 64–90. <https://doi.org/10.1177/00081256221120692>
- Hahn, R. (2013). ISO 26000 and the standardization of strategic management processes for sustainability and corporate social responsibility. *Business Strategy and the Environment*, 22(7), 442–455. <https://doi.org/10.1002/bse.1751>
- Higgins, C., Stubbs, W., Tweedie, D., & McCallum, G. (2019). Journey or toolbox? Integrated reporting and processes of organisational change. *Accounting, Auditing & Accountability Journal*, 32(6), 1662–1689. <https://doi.org/10.1108/AAAJ-10-2018-3696>
- Kaplan, R. S., & Ramanna, K. (2021). Accounting for climate change. *Harvard Business Review*, 99(6), 120–131.
- Kuh, T., Shepley, A., Bala, G., & Flowers, M. (2020). Dynamic materiality: measuring what matters. Retrieved April 27, 2023, from <https://doi.org/10.2139/ssrn.3521035>
- Mckeown, M. (2016). *The strategy book* (2nd ed.). Pearson.
- Meffert, H., & Kirchgeorg, M. (1998). *Marktorientiertes Umweltmanagement: Grundlagen und Fallstudien*. C. E. Poeschel.
- Mintzberg, H., & Waters, J. A. (1985). Of strategies, deliberate and emergent. *Strategic Management Journal*, 6(3), 257–272. <https://doi.org/10.1002/smj.4250060306>
- Oertwig, N., Galeitzke, M., Schmiege, H.-G., Kohl, H., Jochem, R., Orth, R., & Knothe, T. (2017). Integration of sustainability into the corporate strategy. In R. Stark, G. Seliger, & J. Bonvoisin (Eds.), *Sustainable manufacturing* (pp. 175–200). Springer. https://doi.org/10.1007/978-3-319-48514-0_12
- Porter, M. E. (1979). How competitive forces shape strategy. *Harvard Business Review*, 57(2), 137–145.
- Porter, M. E. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, 86(1), 78–93.
- Rajagopalan, N., Rasheed, A. M. A., & Datta, D. K. (1993). Strategic decision processes: critical review and future directions. *Journal of Management*, 19(2), 349–384. <https://doi.org/10.1177/014920639301900207>

- Rockström, J., Steffen, W., Noone, K., Persson, A., Chapin, F. S., Lambin, E. F., Lenton, T. M., Scheffer, M., Folke, C., Schellnhuber, H. J., Nykvist, B., de Wit, C. A., Hughes, T., van der Leeuw, S., Rodhe, H., Sörlin, S., Snyder, P. K., Costanza, R., Svedin, U., ... Foley, J. A. (2009). A safe operating space for humanity. *Nature*, *461*(7263), 472–475. <https://doi.org/10.1038/461472a>
- Salzmann, O., Ionescu-somers, A., & Steger, U. (2005). The business case for corporate sustainability. *European Management Journal*, *23*(1), 27–36. <https://doi.org/10.1016/j.emj.2004.12.007>
- Schmid, M. (2020). Challenges to the European automotive industry in securing critical raw materials for electric mobility: the case of rare earths. *Mineralogical Magazine*, *84*(1), 5–17. <https://doi.org/10.1180/mgm.2020.9>
- Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., Biggs, R., Carpenter, S. R., de Vries, W., de Wit, C. A., Folke, C., Gerten, D., Heinke, J., Mace, G. M., Persson, L. M., Ramanathan, V., Reyers, B., & Sörlin, S. (2015). Sustainability. Planetary boundaries: guiding human development on a changing planet. *Science*, *347*(6223), 1259855. <https://doi.org/10.1126/science.1259855>
- United Nations Statistics Division. (2022). SDG Indicators: Global indicator framework for the sustainable development goals and targets of the 2030 Agenda for Sustainable Development. Retrieved April 21, 2023, from <https://unstats.un.org/sdgs/indicators/indicators-list/>
- van Marrewijk, M., & Werre, M. (2003). Multiple levels of corporate sustainability. *Journal of Business Ethics*, *44*(2), 107–119. <https://doi.org/10.1023/A:1023383229086>
- Van Zanten, J. A., & Van Tulder, R. (2021). Analyzing companies' interactions with the Sustainable Development Goals through network analysis: Four corporate sustainability imperatives. *Business Strategy and the Environment*, *30*(5), 2396–2420. <https://doi.org/10.1002/bse.2753>
- Verrier, B., Rose, B., & Caillaud, E. (2016). Lean and Green strategy: the Lean and Green House and maturity deployment model. *Journal of Cleaner Production*, *116*, 150–156. <https://doi.org/10.1016/j.jclepro.2015.12.022>
- Waldman, D. A., Ramirez, G. G., House, R. J., & Puranam, P. (2001). Does leadership matter? CEO leadership attributes and profitability under conditions of perceived environmental uncertainty. *Academy of Management Journal*, *44*(1), 134–143. <https://doi.org/10.2307/3069341>
- Wheelen, T. L., Hunger, J. D., Hoffman, A. N., & Bamford, C. E. (2017). *Strategic management and business policy: Globalization, innovation, and sustainability* (15th ed.). Pearson.
- Whitehead, J. (2017). Prioritizing sustainability indicators: Using materiality analysis to guide sustainability assessment and strategy. *Business Strategy and the Environment*, *26*(3), 399–412. <https://doi.org/10.1002/bse.1928>

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

