

# Chapter 4

## Corporate Sustainability



**Keywords** Sustainable management · Levels of corporate sustainability · Technological change · Corporate values · Corporate social responsibility (CSR) · Sustainability reporting

### This Chapter's Learning Goals

- You know about the new paradigm of business administration.
- You know about the three levels of sustainability.
- You know how corporate sustainability builds and depends on corporate values.
- You know the relevance of sustainability reporting and are aware of different reporting standards.
- You know the concept of Corporate Social Responsibility

As we will discuss in this chapter, companies are an important steering parameter for sustainable development as they develop new, more sustainable products and services or improve the sustainability of their organizations and internal processes. However, companies will not be willing to make a substantial contribution to sustainable development if this does not also pay off economically. According to Hahn et al. (2018) “corporate sustainability thus represents a level-spanning concept that links organizational activities to outcomes at overarching societal and natural systems in that business firms are expected to improve the general welfare of society” (Hahn et al., 2018, p. 236). Current developments suggest that corporate sustainability is becoming increasingly important in both the field of sustainability policy and the field of management. Five reasons have been identified for these developments. First, there is societal pressure on companies to do their part for sustainable development, which will lead to stricter policies and shifts in demand. Second, many new business opportunities are emerging for companies, which also makes it attractive to profitably invest in this area. Third, companies should worry about the immediate impact of climate change on their operations. Fourth, there is a growing risk of litigation over climate change (The Economist, 2020a, b). Fifth, as

discussed in Sect. 6.2, the financial sector is also doing its part to increase the pressure on companies, in some cases banks are making harder for unsustainable companies to obtain credit. Rich Sorkin, head of Jupiter Intelligence, a consultancy, thus argues: “In ten years there won’t be a large entity anywhere on the planet that does not have a handle on its climate risk. Consumers, shareholders and employees won’t stand for it.” (The Economist, 2020a, b).

## **4.1 Sustainability as the New Management Paradigm in Business Administration**

For a long time the concept of Sustainability has been a mere add-on to business administration and management. In the recent years, Sustainability becomes an integrated management paradigm which is effecting all different management subjects. The three dimensions of sustainability (economic, ecological, and social) are embedded in innovative business concepts, strategic management as well as in a new business administration model which consists of various management disciplines (from finance to HR, and from marketing to supply chain management). Thereby the idea of sustainability is transformed from an add-on to an add-in approach in management and business administration. Let us have a look at the three examples of how sustainability enters into business thinking.

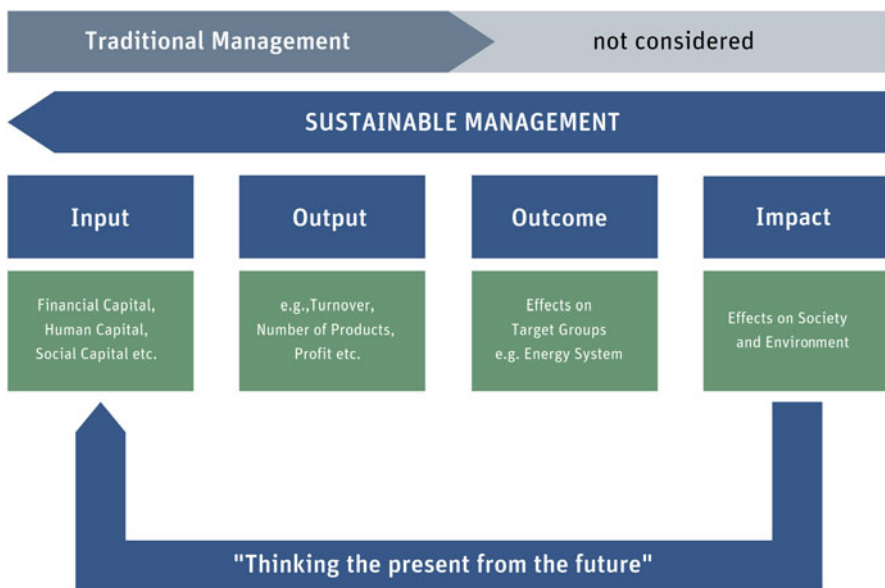
### ***4.1.1 Sustainability as Innovative Business Concept***

The current development of sustainability as an innovative business concept is leading to a reinvention of classical business administration and strategic management. Latest studies (e.g., Danso et al., 2019; Durand et al., 2019; or Hawn et al., 2018) show that sustainable management is not weakening the competitiveness of business, rather the opposite. Business models and strategies which integrate the material issues and dimensions of sustainability have a higher risk-adjusted return, are more attractive for employees and customers as well as are more resilient during crises. Entrepreneurs and managers alike are increasingly acting in their own interest when transforming their current business models, products, and services towards sustainability. To achieve this reorganization of business, general management knowledge needs to be developed further and a comprehensive understanding of sustainable management needs to be established. This has led to the emergence of new concepts and approaches in strategic management, finance, and human resources.

### 4.1.2 Strategic Management

Sustainability and profitability are no longer seen as opposing each other. In the current discussion on strategic management, the focus lies in identifying the sweet spot between the interests of business and the interests of society. Thus, managers need to identify the business interests and align these with the interests of society. In this strategic process, business formulates its purpose and defines frameworks, processes, and operational projects necessary to reach its objectives. In order to steer any management process the desired impact of the strategy needs to be clearly defined from the input to the impact (see Fig. 4.1).

Impact is understood as the long-term effect on the environment, society, and business of any strategic measure. The outcome is defined as intended changes at the systemic level (e.g., energy systems). For example, a new mobility system through car-sharing platforms and new driving systems, etc. Based on the intended impact and outcome the necessary output can be defined. The output can be calculated using standard financial KPIs plus non-financial KPIs. Through this process management is “thinking the present from the future.” It designs the overall strategic process from the long-term effects on broader society (impact), via its effects on the systems and stakeholders of the business surroundings to the output which is the direct measurable effect in terms of products and services. This comprehensive strategic process aims to create value based on both purpose and business interests.



**Fig. 4.1** Sustainable vs. traditional management thinking (source: own representation based on Bungard & Schmidpeter, 2022)

The final step in this planning process requires the management to define which resources are needed as input (human capital, financial capital, social capital) to achieve the goals of the process. Naturally the business will want to be as efficient as possible in all its processes. This means that as little input is used for the necessary output or to increase the output as much as possible using the available input. By being effective and efficient at the same time business aims to achieve the intended impact according to its purpose while maintaining economic efficiency. Sustainability has a major role in the definition of purpose, impact, and long-term goals of business. This way sustainability is fully integrated in the strategic management process and the derivation of business processes and functions.

### ***4.1.3 New Business Administration Model***

As discussed earlier, this new strategic alignment of business value and societal value leads to a new concept of business administration (see Fig. 4.2).

The new business administration models are based on the idea of fostering a strategic, innovative value creation in the organization. Thus, sustainability affects all business areas and functions and needs to be embedded in a wide range of management disciplines. Let us consider the case of HR management. To build an environment that enables creative strategy development and implementation, HR management needs to foster an open and transparent business culture which is based on shared values and fair working conditions. Another important HR management task is to develop the right kind of leadership skills among a diverse workforce. Diversity and inclusion plays an important role in creating an inspiring workplace, fostering creativity and promoting inclusive decision-making. Thus, HR management is not seen as a mere support function but is seen as playing a crucial role in the overall value creation process by contributing to inclusive strategy development and innovative working culture.

Studies also show that the customer increasingly appreciates sustainable products and services. Green products and production processes are becoming important in customer relationship management and developing new markets and brands. Integrating the broad perspective of different stakeholders is key to designing new products and developing innovative solutions for ever faster changing markets. Marketing can only succeed by thinking the present from the future, addressing the societal and environmental challenges as well as developing new business models which create value for both society and owners/shareholders. Innovative marketing concepts play an important role in permanently innovating the value creation process in the business accordance to the overall business strategy.

In order to continuously steer a business, controlling plays a major role. By translating the overall strategy into financial and non-financial KPIs the success and the state of a sustainable business transformation can be measured. Financial institutions and investors are more and more interested in sustainability performance as well as the impact of the business on its environment. Thus, their

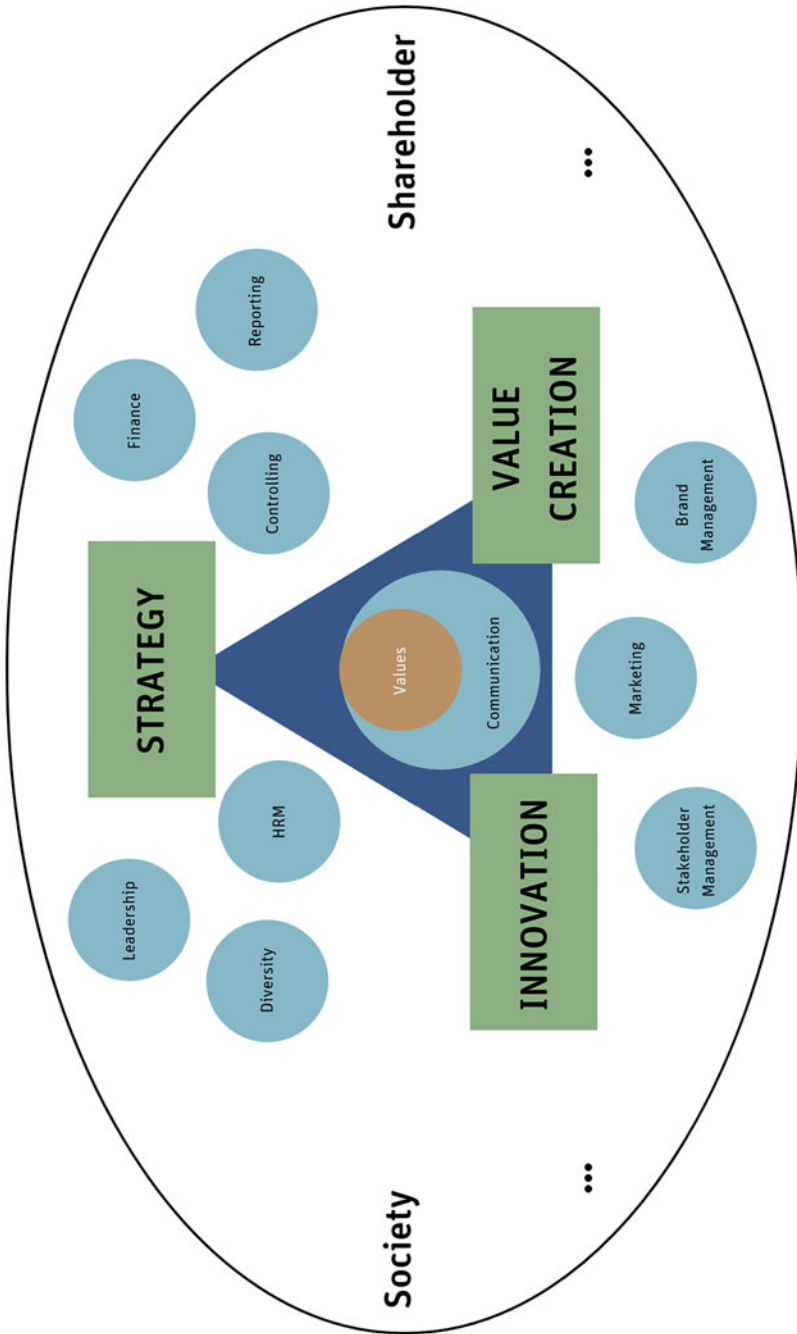


Fig. 4.2 New business administration approach (source: own representation)

controlling systems are changing rapidly. Investor relations and controlling communicate KPIs internally and externally and thereby making transparent the true value creation of the business for both the owners/shareholders as well as to the stakeholders. Through measuring and monitoring, the value creation process is linked to the strategy and vice versa. Meaning that integrative controlling plays an important part in sustainable management.

This triangle of strategy, innovation, and value creation drives entrepreneurship and business transformation towards a new sustainable business paradigm. Only if the various dimensions of sustainability are integrated into all business disciplines and departments can business overcome the old trade-off thinking between profit and sustainability. This truly integrative management thinking is on the rise and changing all business disciplines rapidly. By mainstreaming sustainability as the new management thinking a new mindset among decision-makers emerges which is able to transfer sustainability risks into entrepreneurial opportunities. Thus, business is becoming the solution rather than the problem of a sustainable development. Current studies show that people believe in the power of business and see business as both competent and ethical in order to address our most pressing social and environmental challenges. To educate our students and business leaders accordingly is the goal of responsible education.

Thinking the present from the future and overcoming the old trade-off thinking between profit and sustainability are the base for developing new business administration approaches as well as a new sustainable mindset for management. Sustainable Leadership is based on a value-oriented education and ethical reflection as well as an entrepreneurial spirit which sees business not only as a profit maximizer, but also as a driver of the sustainable development of our society. By integrating sustainability in all functions and disciplines of management and business administration, business creates value for its shareholders and society at the same time. This new business goal is leading the academic and practical progress of management science.

## 4.2 Three Levels of Corporate Sustainability

In addition to the three approaches towards sustainable systems discussed in Sect. 2.3 (i.e., efficiency, consistency, and sufficiency), there are three levels on where a corporation can apply its sustainability measures: (1) **production**, (2) **product**, and (3) **organization**. Each of these levels can be addressed using the three approaches in order to optimize resource sustainability.

### 4.2.1 *Production Level*

The level of corporate sustainability most commonly addressed first is production. This level includes all processes and material flows that are part of manufacturing a

good or the provision of a service. Consequently, it varies not only from industry to industry but also between different firms within the same industry, as their processes and material flows seldom completely match. The more standardized the production process is, the easier is it to achieve universally applicable results, i.e. it is relatively straightforward to calculate the impact of highly standardized mass-production in comparison to heavily localized or customized activities. For a better overview of the different factors influencing sustainability on production level, it is recommended to analyze processes and material flows separately, even when at first glance, they appear to be inextricably intertwined.

### **Processes**

Production processes include all corporate processes involved in converting the raw material inputs into the final product. This includes the logistical processes that ensure that raw materials, production resources and the corresponding expertise are available where and when they are needed. In addition, production processes cover maintenance, repair, and replacement processes keeping technical problems at bay, while training processes keep staff up to date and ensure they are complying with the latest regulations, etc. All these processes can be analyzed from the environmental, social as well as economic perspective. As it is impossible to provide a comprehensive list of all industrial processes, a detailed analysis of the company-specific production environment and its production processes is necessary.

### **Material Flows**

A production process usually turns incoming material into outgoing material, and ideally in doing so creating value. If there are any elements of circular production implemented, they are to be analyzed within this category. Following the chronologic material flow of a generic production process, the analysis must at least include:

- The raw materials used—including energy and emissions involved in mining, growth, harvest, refining, production, transport, etc.
- The production materials used—including electricity, fuel, coolant, lubricant, catalysts, etc., needed to fabricate the product, but excluding the material included in the product itself.
- The emissions generated—referring to unwanted, possibly even unintended material outputs of the production process. This includes heat, noise, radioactivity, smells, exhaust gas, vibrations, liquid waste, waste materials, etc.
- The material wear caused—describing any material flow resulting from the need to operate means of production (e.g., spare parts, material abrasion/attrition, production upgrades, etc.)

### **4.2.2 Product Level**

The product level refers to the impact of the products and services while they are in use. The following bullet points cover some of the questions that need to be answered when considering use of the product.

#### Ecological Dimension

- What resources does the product consume? And how much of them?
- What emissions does the product cause during its life cycle?
- How much energy does the product need to operate?
- How long is the product's life cycle? Can it be recycled?
- etc.

#### Social Dimension

- Can the use of the product contribute to health issues or even endanger lives?
- Does the application of the product possibly expose its users to any dangers of addiction?
- How accessible (financially, but also based on training or equipment required) is the product across different social groups?
- What is the product's impact on somebody's social status and social mobility?
- etc.

#### Economic Dimension

- What is the product's loss in value during its life cycle?
- What are the product's operating costs?
- Can the product easily be modified to be reused for slightly different applications?
- Can the product be used independently of other products?
- etc.

### **4.2.3 Organizational Level**

The organizational level covers any aspect of the (product- or service-) producing corporation not already covered in one the previously analyzed levels and mainly concerns aspects of work organization, financial, legal, and social standards, work risks, social benefits, etc. Again, the sheer volume of topics subsumed at the organizational level renders a comprehensive list impossible. However, the following examples give an impression of the topics that should be considered:

- How does the median wage level for different employees and subcontractors compare to the national levels?
- What are the work-related health and accident risks?



- What are the social and insurance benefits for different employee groups (paid vacation, sick leave, paid maternity leave, etc.)?
- Can employees organize themselves in unions or the like?
- etc.

### 4.3 Technological Change: The Role of Green Innovation

In Sect. 2.3, we discussed the three approaches to a sustainable system: sufficiency, efficiency, and consistency. Sufficiency primarily refers to consumption activities and less to corporate behavior. However, the other two approaches are both relevant in terms of corporate innovation. Through process and product innovation, companies can contribute to both greater efficiency and consistency. This chapter on technological change primarily focuses on improvements in terms of efficiency. Adjustments that lead to more consistency are then discussed in Chap. 9 on the Circular Economy.

The literature generally distinguishes between technological change that addresses social sustainability (i.e., social or low-end innovation) and technological change that addresses environmental sustainability (i.e., green or eco-innovation). In this chapter, we will focus on technological change addressing environmental sustainability.

New technologies are needed to support the achievement of environmental goals. From a technical perspective, companies basically have two ways of reducing their environmental impact. At the production level of corporate sustainability, companies can make their internal production processes more efficient, i.e. carry out **process innovation**. This includes significant modifications to techniques, equipment, and/or software. At the product level of corporate sustainability, companies can make the products and services they sell on the market more sustainable—i.e., carry out **product innovation**—and thus contribute to more sustainable consumption. This includes significant improvements to the technical specifications, components and materials, software of the product, ease of use, or other functional features. Ultimately, both forms of innovation (i.e., product and process innovation) are closely linked, as companies usually need access to existing products and services in order to improve their production processes. In the following, both forms of innovation will be summarized under the term **green innovation**.

#### 4.3.1 *Where Is the Largest Impact Reduction Possible?*

As with consumption or production in general (see also Sect. 7.2.1), the areas with the largest environmental footprint are also the same for technological change: food, building/housing, and private mobility (for a current overview for Switzerland, see Spörri et al., 2022).

There is great potential in technological change that improves company **processes**, i.e. process innovation. In the **food** industry there are more and more efforts to reduce food waste, for example by reusing by-products such as whey or pomace, which are normally treated as waste. In addition, there is also enormous potential for resource efficiency in **agriculture**. In the **real estate** and **construction** sector, there are efforts to reduce resources consumption in buildings by using construction materials with a lower environmental impact, such as wood or recycled construction materials. These examples increase the efficiency of the industry's supply chain and can thus be categorized as process innovation activities.

Large **product** innovation potentials are expected in machinery, chemical, food, and automotive industry. In all these industries a large number of resource-saving products are developed. Unlike process innovation, however, the environmental impact of these innovations is not realized in the industry where the innovation is developed, but by the customers who ultimately use the technology. In the **machine** industry, for example, production systems are being developed that lead to a reduction in the use of resources and energy in the industrial manufacture of products (e.g., alternative clamping system for surface processing of metal sheets with reduced material waste). In the **chemical** industry, materials are being developed which contribute to a reduction in the use of resources and energy or lead to improved recyclability (e.g., development of lightweight plastics and composites for the automotive industry, new technologies for energy storage, or alternative products for cement). In the **food** industry, the focus is on the development of substitute products for conventional animal proteins (especially meat) for human consumption, such as alternative vegetable proteins (e.g., peas, lentils, soya), insects (also relevant for animal feed), and cultured meat. Finally, the potential in the **automotive** industry relates to the development of more efficient cars and alternative driving systems.

#### **Real-World Example: Bühler Group**

The Bühler Group is a Swiss company in the machinery industry with about 12,500 employees. Bühler's internal environmental impact is limited. According to Bühler's website "billions of people come into contact with Bühler technologies every day to cover their basic needs for food and mobility." Two billion people each day eat foods produced on Bühler equipment; and one billion people travel in vehicles manufactured with parts produced with Bühler machinery. Having this global relevance, Bühler is in a unique position to have a significant impact on global sustainable development.

Source: [www.buhlergroup.com](http://www.buhlergroup.com)

### 4.3.2 *The Speed of Technological Change*

Patent data can be used to track the diffusion of technological innovations. Patents are always assigned to specific patent classes (see red box in Fig. 4.3). In the example below, the patent has been assigned to class F02D41. For each patent class, there are specific classifications that assign patents to different technological fields. A specific classification developed by the OECD allows the identification of green technological fields (OECD, 2012). This classification shows that class F02D41 is assigned to the field “Emissions abatement and fuel efficiency in transportation,” which indicates that this patent is green technology. Similarly, all patents can be checked in an automated process and assigned either to green or non-green patents and, if necessary, to even more detailed sub-classes.


These patent data show that the development of such green technologies, after having increased relatively strongly worldwide between 2004 and 2011, has been declining again in almost all areas since 2011—in absolute terms, but also in relation to general patent activity (see Fig. 4.4 for the relative data). In 2018, the total share of green inventions in all inventions worldwide was 9.5%. Normalized by population size, Korea, Denmark, Japan, and Germany are the countries with the most green patents. Poland, Spain, Italy, Ireland, China, and Australia are among the worst performing countries. The so-called innovation champion Switzerland is just in the middle of the field (see Fig. 4.5).

If we look at innovation input (i.e., R&D) instead of innovation output (i.e., patents), the picture looks similar. R&D expenditure related to green innovation may account for only 4% of total R&D expenditure worldwide (The Economist, 2020a, b).


### 4.3.3 *What Hampers Green Innovation?*

Given the major environmental challenges, one would think that there would be a great deal of “green” patent activity and innovation. However, the data above suggests that this is not the case. There are various reasons why many of the existing potential has not yet been exploited.

A central reason is certainly the potential customers’ **low willingness to pay** for green innovation. On the one hand, this is driven by the fact that energy and other environmental costs are simply not very relevant for most companies and households. Energy costs, for example, account for around 10–20% of the total physical production costs in industry worldwide (UNIDO, 2010). Energy costs are even lower in Western countries, where fewer energy-intensive companies are located (EIA, 2016). According to representative company data for Germany, Austria, and Switzerland, the share of energy costs in sales on average for all companies is only 1.3% in Germany, 2.7% in Austria, and 1.4% in Switzerland (Stucki, 2019a). The cost savings to be expected from the use of new green technologies are thus

(19) 

Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11) **EP 0 979 940 B1**

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(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:  
**17.11.2004 Bulletin 2004/47**

(21) Application number: **99115753.8**

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(51) Int Cl.7: **F02M 59/44, F02M 59/36, F02M 63/02, F02M 39/00, F02D 41/06, F02D 41/38, F02M 69/34, F02M 39/02**

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(54) **Method and device for controlling fuel injection into an internal combustion engine**  
 Verfahren und Vorrichtung zum Steuern der Kraftstoffeinspritzung in einer Brennkraftmaschine  
 Procédé et dispositif de commande de l'injection de carburant dans un moteur à combustion interne

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| <p>(84) Designated Contracting States:<br/><b>DE ES FR GB IT SE</b></p> <p>(30) Priority: <b>11.08.1998 JP 22690898</b></p> <p>(43) Date of publication of application:<br/><b>16.02.2000 Bulletin 2000/07</b></p> <p>(73) Proprietor: <b>TOYOTA JIDOSHA KABUSHIKI KAISHA</b><br/><b>Aichi-ken 471-8571 (JP)</b></p> <p>(72) Inventors:<br/> <ul style="list-style-type: none"> <li>• <b>Koga, Nobuhiko, c/o Toyota Jidosha K. K. Toyota-shi, Aichi-ken, 471-8571 (JP)</b></li> <li>• <b>Kojima, Susumu, c/o Toyota Jidosha K. K. Toyota-shi, Aichi-ken, 471-8571 (JP)</b></li> <li>• <b>Takeda, Keiso, c/o Toyota Jidosha K. K. Toyota-shi, Aichi-ken, 471-8571 (JP)</b></li> </ul> </p> | <ul style="list-style-type: none"> <li>• <b>Suzui, Kosuke, c/o Toyota Jidosha K. K. Toyota-shi, Aichi-ken, 471-8571 (JP)</b></li> </ul> <p>(74) Representative:<br/><b>Leson, Thomas Johannes Alois, Dipl.-Ing. et al</b><br/><b>TBK-Patent,</b><br/><b>P.O. Box 20 19 18</b><br/><b>80019 München (DE)</b></p> <p>(56) References cited:<br/> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"><b>EP-A- 0 481 964</b></td> <td style="width: 50%;"><b>EP-A- 0 677 655</b></td> </tr> <tr> <td><b>US-A- 5 063 900</b></td> <td><b>US-A- 5 605 133</b></td> </tr> </table> <ul style="list-style-type: none"> <li>• <b>PATENT ABSTRACTS OF JAPAN vol. 1998, no. 01, 30 January 1998 (1998-01-30) &amp; JP 09 250426 A (TOYOTA MOTOR CORP), 22 September 1997 (1997-09-22)</b></li> </ul> </p> | <b>EP-A- 0 481 964</b> | <b>EP-A- 0 677 655</b> | <b>US-A- 5 063 900</b> | <b>US-A- 5 605 133</b> |
| <b>EP-A- 0 481 964</b>  | <b>EP-A- 0 677 655</b>  |                        |                        |                        |                        |
| <b>US-A- 5 063 900</b>  | <b>US-A- 5 605 133</b>  |                        |                        |                        |                        |

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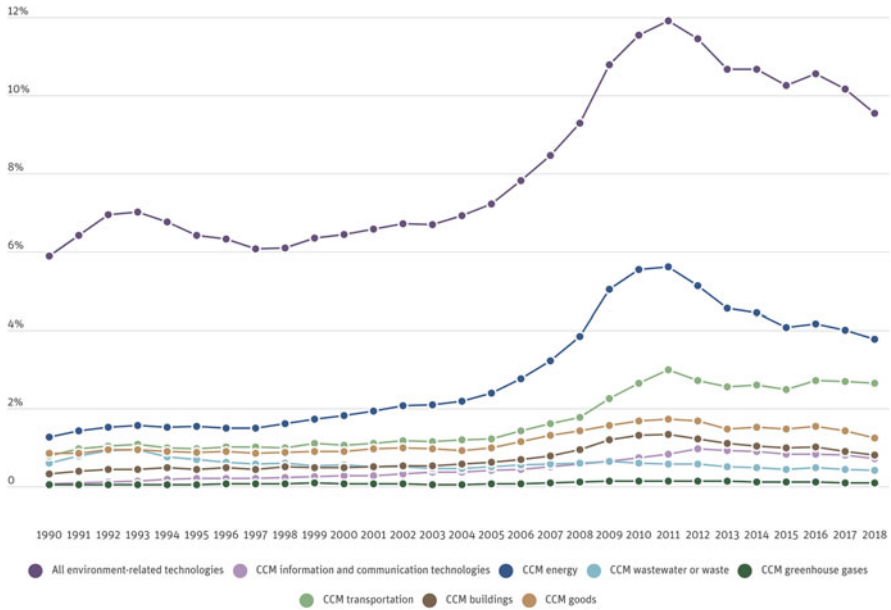
Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

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EP 0 979 940 B1

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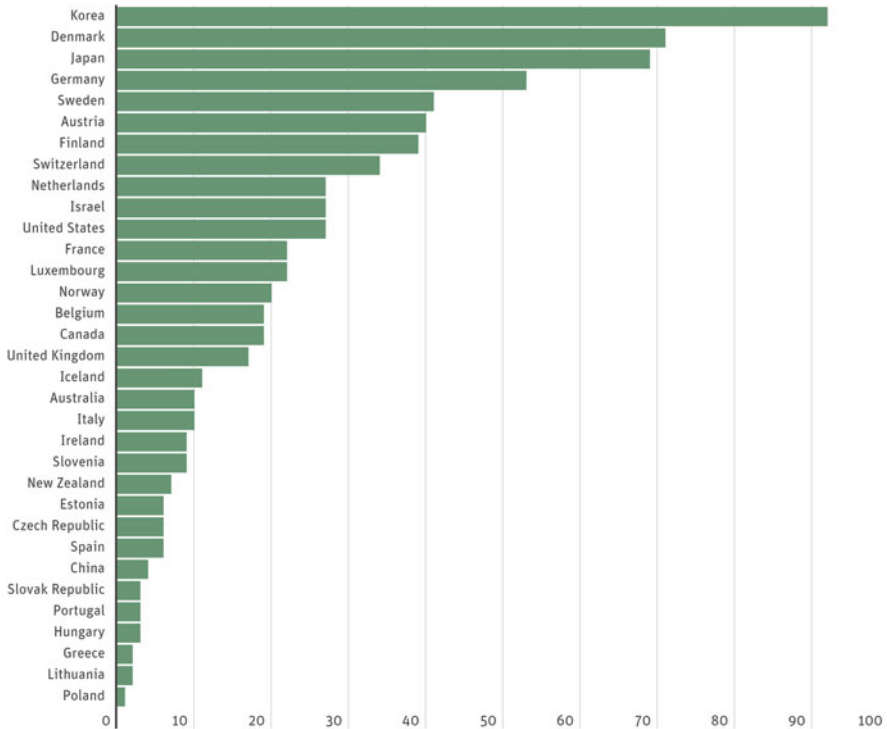
**Fig. 4.3** Front page and diagram for patent EP 0979940 B1 (Source: <https://worldwide.espacenet.com>)



**Fig. 4.4** Share of total number of patents, in terms of inventions, by area of green technologies worldwide. *CCM* climate change mitigation (source: own representation based on OECD, 2022a)

relatively small on average for all companies. So, if a company wants to increase its cost-efficiency, it is unlikely to focus on energy costs, but rather to optimize larger cost drivers such as wages or infrastructure costs. The situation looks similar for private households. The median value of the US energy burden, for example, is 3.5% of household income (ASE, 2018). Accordingly, most households primarily try to optimize their major cost drivers such as housing or health care instead of reducing energy costs. This argumentation is not limited to the energy sector alone but can be extended to most environmental issues, as the total environmental costs are unlikely to be very high for most companies and households either. It is therefore hardly surprising that, for example, the introduction of green energy-related technologies only pays off for companies with very high energy costs, but that no significant or even a significantly negative effect is observed for the majority of companies (Stucki, 2019a). Therefore, the use of green technologies seems to generate hardly any economic benefit for most companies and households, which is likely to result in a correspondingly low willingness to pay.

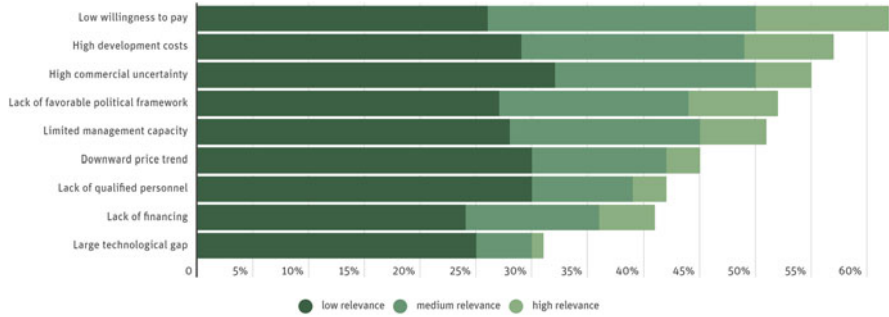
In addition to the low relevance of environmental costs, the customers' low willingness to pay for green technologies is accentuated by the fact that many green innovations are associated with high **up-front costs**. These investments may even pay off in the long run, but since many investors usually have a limited time horizon, many prefer to eschew these kinds of investment, which in turn results in a low willingness to pay.



**Fig. 4.5** Development of environment-related technologies, inventions per capita 2016–2019 average (source: own representation based on OECD, 2022b)

On the supply side, green innovations are usually associated with high **implementation costs**. This is due to a number of factors. Stucki and Woerter (2017) find that little knowledge can be transferred from non-green technologies to green technologies, which points to the complexity of the switch between non-green and green innovation activities. Green innovation activities are often more complex than non-green innovation activities because they are usually outside the firms’ traditional technological fields of activity (Shrivastava, 1995). Consoli et al. (2016) observe that green jobs generally require more high-level cognitive and interpersonal skills than non-green jobs and also require more formal education, work experience, and “on the job training.”

And the complexity does not only refer to the pure innovation activity itself. The introduction of green innovation activities to a company usually requires a restructuring of the organization and includes measures along the entire value chain. Business processes and work routines must also be adapted or even newly developed (Danneels, 2002). Green innovations often involve actors from different companies and sectors, which makes the organizational implementation of such innovations rather difficult. Moreover, companies—and above all the existing



**Fig. 4.6** Companies’ assessments of the relevance of various barriers to green innovation (source: own representation based on Stucki, 2019b)

management—simply get stuck in their existing ways of thinking, which have often been built up over years and in which ecological aspects of products are often barely considered relevant. A fundamental change of mentality in companies is therefore usually a precondition for successfully addressing the technical and organizational challenges associated with greening a business’ activities. Besides technological and organizational challenges, there are marketing challenges. Once new technologies have been developed, they must be sold. Sales and marketing represent a major challenge for many companies, since increased focus on ecological aspects of their products often addresses completely new customer segments (see Spörri et al., 2022 for a broad discussion of such technological-organizational barriers).

A good example that illustrates the complexity of green innovation are electric cars. “Research and development [. . .] costs a fortune. Daimler says that it will spend 10bn € by 2025 on just ten battery-powered models. Restructuring is also expensive. For a century, carmakers have built factories, employed workers and developed and perfected knowledge and a supply chain around the internal combustion engine. In one scenario Morgan Stanley reckons that VW’s entire car business could make a loss between 2025 and 2028 as it transforms itself.” (The Economist, 2017)

The relevance of these barriers is confirmed empirically. Based on representative company data from Germany, Austria, and Switzerland, Stucki (2019b) finds that the biggest barriers to green innovation are low willingness to pay and high development costs (see Fig. 4.6). The great importance of high commercial uncertainty results from unstable markets caused by, amongst other things, frequently changing political conditions and major technological changes in these markets. This uncertainty makes it difficult for companies to plan long-term investments. In contrast, the study found that personnel factors, whether at management or staff level, are much less important. The availability of financial resources—normally one of the most important barriers to innovation activities—is also relatively unimportant for green innovation.

#### ***4.3.4 The Importance of Policy Instruments***

The previous discussion has shown that the economic potential of green innovation is currently relatively low, as the implementation costs for companies are usually high, and at the same time customers are not willing to pay much for these products and services. The low economic potential of green innovation is empirically confirmed. Empirical studies find that returns to investments in green technologies (at least currently) are often negative (Soltmann et al., 2015), and often lower than for traditional technologies (Marin, 2014) and other “new growth” technologies, such as information and communication technology or biotechnology (Stucki & Woerter, 2019).

Under these circumstances, it is unlikely that substantially more green technologies will be developed and offered in the future. For most companies it is simply not worthwhile investing in such technologies financially. It is thus clear that adjustments to the entire system and involving all steering parameters, such as private demand and the financial system, are needed to get the green innovation machine started. Especially relevant is an adjustment of the political framework conditions. As shown in Chap. 6, the internalization of external costs is central to this. If external costs are internalized, energy and general environmental costs automatically rise, which will also have a positive impact on consumers’ willingness to pay for green technologies. In the choice of policy instruments, market-based instruments such as CO<sub>2</sub>-taxes are generally preferred by economists. However, the literature also makes clear that ultimately a mix of different instruments is required to significantly increase green innovation activities (for a review of this literature, see Popp, 2019). Some evidence that the policy framework effectively influences the effects of green innovation is found by Dechezleprêtre et al. (2021). They investigate for the USA, whether clean innovation and innovation efficiency accord higher valuations on the stock market to those firms that engage in successful clean patenting activities. Only in the period 2006–2015, which saw sharp increases in environmental policy stringency, such a premium, was observed.

#### ***4.3.5 Green Innovation in a Spatial Context***

How companies gain access to relevant knowledge and well-trained employees that help make their products or services more sustainable, depends also on where a company is located and how it is connected to the rest of the world. Place matters for innovation—even in a globalized world, where everything seems independent of place due to modern communication technologies and rapid transportation systems. Globalization has even amplified the concentration of economic activity in big cities and large urban areas and has led to the situation that “only few regions truly matter in today’s global economy” (Florida, 2005, p. 48).



**Agglomeration economies** are one explanation for the urban domination in innovation and economic growth. Agglomeration economies reflect the phenomena that high concentrations of people and firms are more productive and innovative. This is in part because it is easier to find talented employees; clients and suppliers are more numerous and in general exchange between people with different ideas and knowledge occurs spontaneously. Hence, it is more likely that green innovations emerge in urban areas.

However, today you could argue that the Internet allows access to the knowledge necessary to develop green products and services. This is true for the so-called explicit knowledge—the knowledge, that can be written down on a sheet of paper and given access to everyone. However, the **tacit knowledge**—the knowledge that depends on personal interaction—which is key to the development of green innovations—is person and place dependent. A common knowledge base, trust, and geographical proximity between the knowledge holders all play a decisive role in tacit knowledge sharing (Boschma, 2005).

The combination of these two types of knowledge, as well as the social and creative experimentation process, is central to green innovation. However, firms do not only exchange knowledge and innovate within their own organizations but may also exchange knowledge with research institutions, partners, and other firms. This strategy is called “**open innovation**” (Chesborough, 2003). Depending on where a firm is located, it faces different opportunities and obstacles regarding open innovation.

A theoretical framework that depicts the important parts of such innovation dynamics is the “**Regional Innovation System**” (RIS) approach (see Fig. 4.7). An RIS illustrates the networks and flows of knowledge and resources necessary for innovation in a region. It comprises three different subsystems: (1) Those actors who exploit and apply knowledge to generate innovations, such as firms; (2) Those who generate and diffuse knowledge, such as universities; and finally (3) Factors that support the innovation process, such as policies or development agencies. Socio-institutional and cultural factors also play a role. Laws, regulations, value systems, and routines influence the behavior of actors and their relationship with each other. An RIS mostly relates to a locally defined functional space, and is connected to other national and international innovation systems (Trippel, 2006).

However, the preconditions for the development of a functioning RIS differ between regions. Peripheral areas often suffer from weak knowledge generation, diffusion, exploitation, and application. Networks to other innovation systems are also often weak. Regions with traditional industries are likely to experience a **lock-in**. This means, that the existing knowledge generation and diffusion subsystem as well as the firms and suppliers are highly specialized and there is no inflow of new ideas or knowledge. Finally, the lack of networks and flows within and between different actors can lead to weak innovation performance in urban areas (Tödtling & Trippel, 2005). The knowledge diffused and exploited in a RIS is mostly path dependent. Meaning it is generated based on the existing regional knowledge and institutions (Hassink et al., 2019).

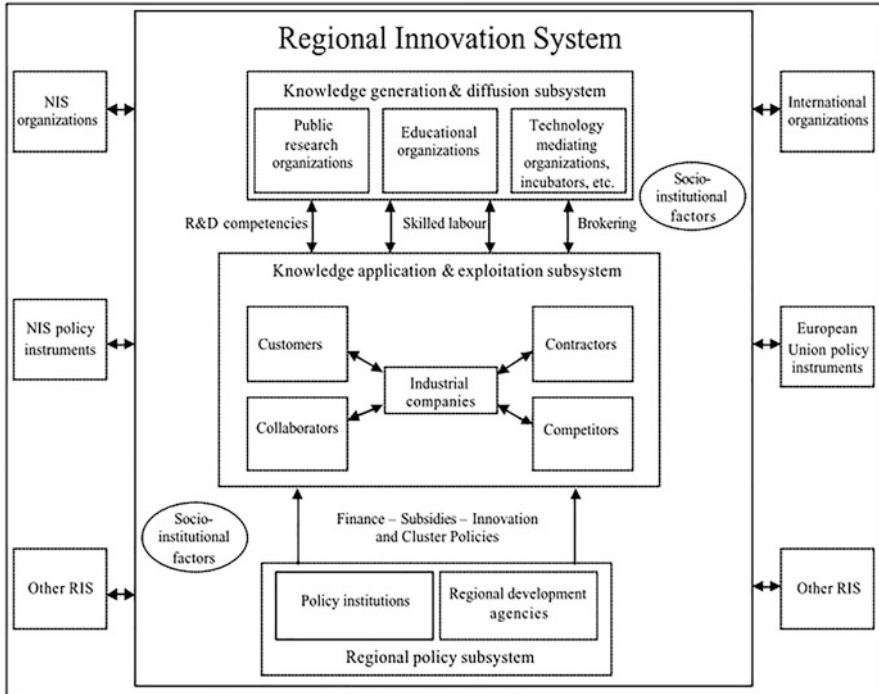


Fig. 4.7 Key elements of regional innovation systems (source: Trippel, 2006 based on Autio, 1998)

Recent studies on RIS broaden the perspective of the approach from an exclusive focus on economic growth to a broader view on societal challenges (Asheim et al., 2019). The so-called **challenge-oriented RIS** (CoRIS) includes a broader range of actors (civil society, public sector actors, users, etc.) that coordinate their innovation activities, create new networks, and also seek to induce institutional change to create innovations that benefit the environment and society. Hence, challenge-oriented innovation not only happens in companies, but also in the public sector and in communities (Tödtling et al., 2021). The further development of the RIS approach helps us to better understand the development of green innovations and the underlying dynamics in a spatial context.

**Real-World Example: Regional Innovation Systems (RISs) in Switzerland**

As part of the State Secretariat for Economic Affairs’ (SECO) regional policy, a total of six RIS have been launched in Switzerland (see Fig. 4.8). Due to the economic power of the metropolitan Region of Zurich, no RIS has been launched in this region. These RIS organizations seek to promote regional

(continued)

innovation by offering support through networking, coaching, and assistance in finding funding for innovation projects. Moreover, they attempt to foster cooperation between universities and companies.

### 4.4 Sustainability and Corporate Values

In the same way, as sustainability is a value-based concept, corporate sustainability builds and depends on corporate values. However, while it is relatively clear and widely accepted that values are guiding principles that lead to certain behaviors, it is less clear when addressing corporate values. If we look at individual values, it is normally the case that the person expresses their values and then lives by those values. However, this cannot be assumed at all when talking about corporate values. A corporation (i.e., a corporate agent) does not have any values, but expresses them by acting in a certain way. This means that in contrast to a person, who can have values without currently acting on them, a corporate agent only acts according to the values some individuals (the value declarators) have previously formulated. If there is no perceivable action by the corporate agent, its corporate values become dysfunctional, which makes their continued existence a much harder task.

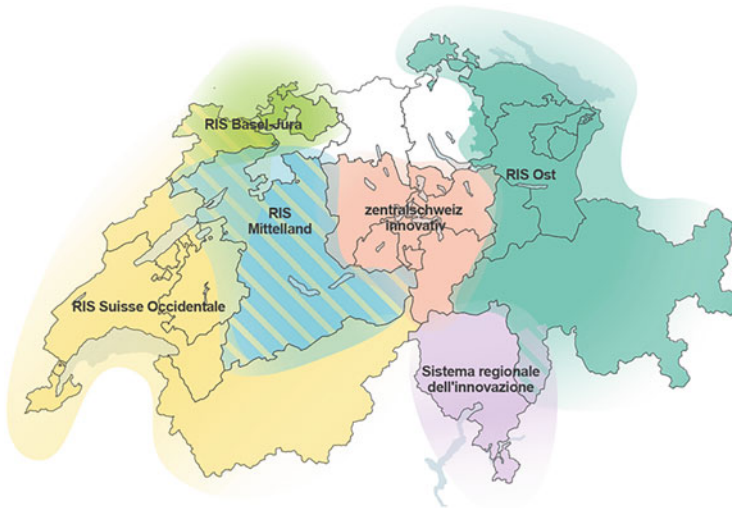
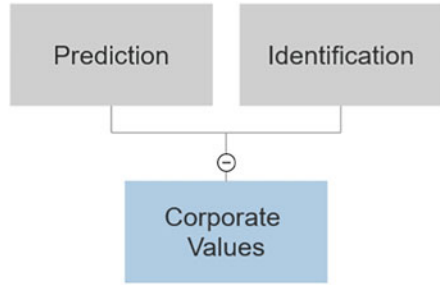


Fig. 4.8 Key Regional Innovation Systems in Switzerland (Source: SECO, 2022)

**Fig. 4.9** Social functions of corporate values (depiction by author)



#### ***4.4.1 Functions of Corporate Values***

In human society, values exert two main functions: foundation for predictions and foundation for identification. To be equivalent to the function values have in society, corporate values have to reliably exert the same functions as their individual counterparts, that is the foundation for predictions and identification, respectively (see Fig. 4.9).

##### **Foundation for Predictions**

A corporation, like any human being, can consider different alternatives and their consequences and then decide whatever seems best in a particular situation. Some of these decisions are quite evident to an observer, the observer can predict these decisions correctly based on their own cultural background and their interpretation of the situation. Other decisions, however, might surprise an observer because they do not have the necessary information to have foreseen this decision. The more experience and information the observer has regarding the corporation in question, the better their ability to predict future actions. Consequently, functional corporate values should provide a strong foundation for correct predictions of corporate behavior. Predictions of future actions implicitly rely on the assumption of continuity of action. Should the corporate agent suddenly base future actions on different, conflicting values, the entire accumulated experience used to predict corporate actions turns out to be worthless and the observer thereby helplessly unable to predict the company's behavior. The lower the ratio of seemingly unpredictable corporate actions to predictable actions, the less irritated and confused the observer will be. Correspondingly, the observer's confidence to correctly predict the actions of the corporate agent diminishes when inexplicable behavior makes them question their existing mental models of the company's values. The more significant the parts now in question are for the observer's ability to predict corporate behavior, the more extensive the damage to the corporate value's functionality.

### Foundation for Identification

While it is not necessary for an observer to identify with a company before making predictions<sup>1</sup> about its behavior, prediction is easier if the observer identifies with the company in question. Identification provides the observer with additional information with which to make predictions. The empathetic bonding between the corporate agent and the observer is the strongest if the observer can identify with all basic steps of a corporate action.<sup>2</sup> However, not all these steps are needed for a certain degree of identification or “bonding” and can therefore remain unknown or even incompatible without totally preventing identification. The stronger the identification, the stronger the feeling that the observer and the corporation belong to the same ideological group, are like-minded, which in turn generates trust and lends credibility for future statements. Thus, a declaration of corporate values must provide enough information concerning the motivations and goals of corporate activity to allow informed identification with the corporate agent.

#### 4.4.2 Scope of Application

Finally, corporate values must specifically identify the groups involved in value implementation, the translation of those value in actions, and their roles. This concerns two groups in particular:

1. **The groups responsible for value implementation.** By knowing the identities and roles of the groups tasked with value implementation, stakeholders know who is expected to implement what aspect of the declared value(s) and to thereby maintain the credibility of corporate values. Furthermore, information about the groups responsible for value implementation can provide insight concerning the groups’ ability and resources to carry out this task. Today’s corporations can feature extensive and complicated chains of supply and sophisticated networks of subcontractors and cooperations. Therefore, the question of who can be expected to actually implement a particular corporate value is important.
2. **The groups supposed to benefit from value implementation.** Additionally, it is equally important to disclose, for the same reasons, who benefits from the implementation of those corporate values, i.e. what good they do to whom. This enables observers to assess the efficacy of the corporation’s efforts to benefit

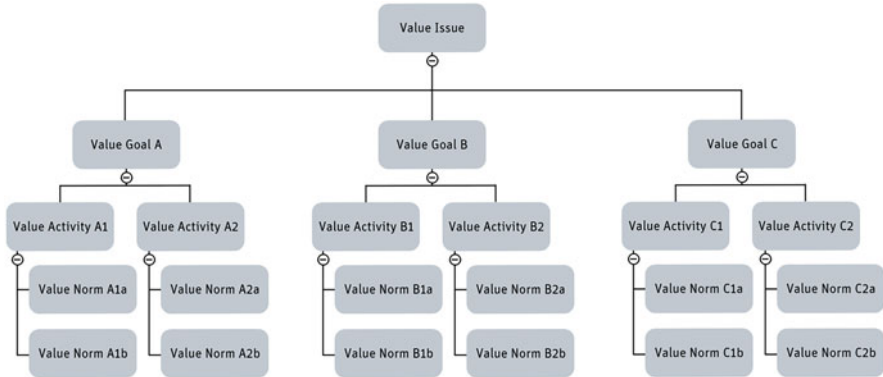
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<sup>1</sup>Prediction can only be made before the fact, based on the interpretation and projection of experiences, while identification happens during or after the fact based on the judgment of current or past experiences. Prediction focuses on anticipating actions, while identification concentrates on bonding with actions, which does not merely include the mode of the action itself, but also the action’s context, the steps before and thereafter.

<sup>2</sup>Motivation: What drives the performance of this action?

Mode: In which manner is this action performed?

Intent: To what end is this action performed?



**Fig. 4.10** Example hierarchy of value issues, goals, activities, and norms (depiction by author)

the recipients by addressing the declared beneficiaries and inquire whether and to what extent the objectives have been achieved. Where beneficiaries of corporate values are either not of age or non-human (e.g., forests, lakes, animal populations, the global climate, etc.), a group of advocates, responsible for representing the interests of the beneficiaries who measure value achievement, needs to be identified.

### 4.4.3 *Vision, Mission, and Corporate Values*

Corporate values do not exist in a vacuum but are supposed to be part of a corporation's identity. In the same way as the corporate vision provides an ideal the entire corporation is striving for and the corporate mission is a specific, achievable embodiment of the corporate vision, corporate values represent a declaration of how the corporate mission is supposed to be achieved. This, in turn, means that the corporation should be able to characterize each corporate value on the following four levels (see Fig. 4.10):

1. The **value issue** describes the motivation driving the specific corporate value and addresses the question of a value's importance and the corporation's stance on it. The value issue should be derived from the corporate vision and mission, otherwise there is a dangerous disconnect in the coherence of the corporate identity. A corporation producing affordable glasses could, e.g., operate with the value issue of a world where everybody needing glasses has access to them, since this is the corporation's vision.
2. The **value goal** describes what goals the corporation plans to achieve by introducing a given corporate value in order to support the value issues defined in the preceding step. Therefore, this goal needs to be achievable and concludable within a finite time frame. In addition, it must be clear how the value goal supports the previously formulated value issue. For the exemplary corporation

mentioned above, a valid value goal could be to produce on-site in as many countries as possible to keep the production cost in line with the local purchasing power, a strategy also described in the corporation's mission.

3. **Value activities** incorporate all activities that are to be performed in order to reach the value goals determined previously. They embody corporate values and are not just the code calling for them. They are therefore the often-neglected heart of corporate value implementation. As value activities are supposed to lead towards a goal, they must be functionally linked to the value goal they are expected to advance.

For the corporation in this example, possible value activities would be the hiring of local personnel or the strict localization of end product prices.

4. **Value norms** are used to determine whether a value activity can be deemed as satisfactorily completed or not. Obviously, such value activities have to be pre-determined and must not be changed during value implementation, as this would amount to a form of evidence tampering. For the exemplary corporation, a minimal percentage for local workers or a maximal percentage for cross-border sales would be possible valid value norms.

This hierarchy ensures the functionality of corporate values, their functional implementation in everyday corporate life, by relating all elements to each other and connecting them to the corporate mission, vision and thus identity.

#### ***4.4.4 Definition of Corporate Values***

The following definition of corporate values will subsequently be broken down into its elements and commented to create an understanding of functional essence of corporate values (see Table 4.1):

A corporate value is a stable, comprehensive, explicitly declared, long-term conception of the desirable, distinctive of a corporation, addressing the collectivity of all stakeholders equally, which decisively influences the selection made by all corporations within the value-defining corporation's sphere of influence from available modes, means, and ends of action and expects this selection to yield positive effects for the corporation in a pre-specified form within a predefined time frame, a corporation's ability to coherently express such a conception in actions of corporate individuals and overall corporate behavior.

Such a comprehensive and elaborate definition of corporate values ensures their functionality but obviously. However, it does also increase the amount of work that has to be invested in formulating and evolving them. What is more it takes time to read them and develop an understanding. Therefore, it might make sense to have a short and a comprehensive version of each corporate value, depending on the information depth the stakeholders are looking for.

**Table 4.1** Elements of a corporate value

| Definition elements  | Comments   |
|--|--|
| A corporate value is a declaration   | Undeclared corporate values are dysfunctional, as they cannot ensure any foundation for prediction or identification   |
| stable, comprehensive, explicit, and long-term   | Quickly changing or only partially or implicitly declared values do not allow for reliable prediction or identification, nor do they reliably identify the scope of application  |
| a conception of something desirable  | A value is something perceived as positive or beneficial   |
| together with other corporate values distinctive of a corporation  | Corporate values form the perception of the corporate agent's character. If this character is identical with the character of other corporations, the target of identification becomes arbitrary   |
| addressing the collectivity of all stakeholders equally  | If corporate values are directed towards certain stakeholders only and remain hidden from the others, prediction of the corporation's behavior and identification with the corporation is in danger  |
| expected to have decisive influence on corporate decisions made by all corporations within the value-defining corporation's sphere of influence regarding modes, means, and ends of action | If corporate values do not exert strong influence on corporate decisions, they become dysfunctional and thereby worthless<br>Corporate values that are not implemented by all entities in the supply chain are unreliable and thus dysfunctional<br>The main area of corporate value implementation focuses on the ways the corporation acts, their choice of tools and proceedings, as well as their choice of goals  |
| ... is expected to yield positive effects for the corporation in a pre-specified form within a predefined time frame   | Without specific goals and an "achieve-by" date the processes of prediction and identification are heavily impaired  |
| ... dependent on a corporation's ability to coherently express such its values in actions of corporate individuals and overall corporate behavior  | Corporate values do not just influence the selection and formulation of goals but also their everyday expression.<br>Actions taken by individuals on behalf of the corporation must be covered by corporate values, otherwise the processes of prediction and identification are practically impossible.<br>However, not only actions taken in the name of the corporation but also the result of the sum of all these actions must be subject to corporate values |

Source: Frecè (2019, p. 98)



However, merely providing buzzwords or single-sentence statements as corporate values does not meet the standard required for fully functional values and consequently leaves the company with vacuous marketing slogans devoid of value.

## **4.5 Sustainability Reporting**

### ***4.5.1 Why Sustainability Reporting?***

Increasingly, companies are publishing sustainability reports in order to give a clear picture to stakeholders of the company's efforts to become more sustainable. Today, a sustainability report is expected of corporations of almost any size and industry. This chapter illustrates why corporations should consider joining this trend and what the advantages of the sometimes laborious and complex task of sustainability reporting are.

#### **Risk and Resilience Management**

Although in this chapter risk and resilience management are discussed together, the difference between the two should be made clear beforehand.

The management of risk concentrates on two main tasks: risk identification and assessment as well as creation of risk mitigation strategies. Successful risk management is able to identify all relevant risks, assess them correctly, and come up with plans on how to react in the case of one or several of these risks occurring. The overall goal is to be prepared in case anything makes reality deviate from the project or business plans and to take appropriate measures to make plan and reality match again.

While resilience management encompasses risk management, its goals reach further. In contrast to the ambition of risk management measures to bring reality back to its previous, planned state, resilience measures aim to bring the project or corporation back to a stable state, regardless of whether this matches a previously planned state or not. This presupposes, however, that the leadership has a clear picture of what the aims and purposes of its project or corporation are and how stable states beyond the planned ones could look or in other words: it presupposes a deeper understanding of the project or corporate strategy beyond the relative narrow perspective of one specific plan.

Having well-formed sustainability reporting in place is a good indicator that the leadership has a clear vision in mind what their corporation stands for, what its values are, and how this is translated into daily actions. Compiling all relevant data and getting all necessary insights to meet and convey the complexity of functional corporate values as well as a consistent corporate character are an excellent foundation to base a resilient corporation on. A corporation which is able to weather unforeseen situations because it has a clear picture of itself and can therefore more easily reinvent itself and adapt to new situations. Without having invested time and

effort in forming this clear self-conception, consistent corporate reactions must remain limited to pre-made reactions to foreseeable situations.

### **Operational Efficiency**

In most cases, the first steps towards making a corporation more sustainable are measures related to enhanced efficiency, which generally means better use of raw materials as well as energy and reduction of waste material to be disposed of. Both aspects—less incoming resources and less outgoing waste products—have direct positive financial impacts and are therefore important indicators for investors looking to find highly optimized corporations which do not use more (expensive) resources and do not create more (again expensive) waste than absolutely necessary. Resource prices are expected to keep rising in the years to come, caused by resource scarcity and an ever-growing demand almost across the board. At the same time, prices for waste disposal and taxes or levies on emissions in general are also expected to rise as there is a broad consensus that they have been too low in the past to have the impact they were intended to have. This outlook makes thorough reporting on how a corporation handles its resources, its resource-processing, and, finally its waste and emission management an increasingly important tool for their communication towards all sorts of stakeholders. A well-structured sustainability report is an ideal vehicle for such a reporting endeavor.

### **Better Insight into Value Creation**

Much of the value creation leading up to a product is not visible by looking at the product itself. E.g., a shirt made by 8-year-olds in a corporate structure taking advantage of forced labor does not look or feel different from one made by adults paid and treated well. Nevertheless, for many customers knowing that they do not support child labor and forced labor is an added value to the product they are willing to pay for. Depending on their individual values, customers are also willing to pay a higher price if they know that their purchase does not foster animal cruelty or environmental destruction. In the same vein, even more customers are probably willing to spend more money on a product not containing toxic chemicals which not only endangers the health of the workers but also the customers' long-term well-being. However, most of the additional characteristics customers are willing to spend more on cannot be perceived by looking at the end product alone and an unperceived characteristic is effectively useless. Sustainability reports offer corporations a way to be distinct from their competition and demonstrate to their stakeholders what additional value their products contain, exclusively because they have been fabricated or provided by a corporation that operates based on functional corporate values. To put it briefly, sustainability reporting offers corporation to do good and talk about it.

### **Customer and Employee Retention**

For an increasing number of industries and corporations, employees (including sub-contracted employees) with their skills and knowledge are their most valuable assets and therefore their greatest vulnerability. While the credo that everyone is replaceable is still in many managers' heads, the risks, effort, and costs related to

such a replacement often are not. Well-made sustainability reports demonstrate a corporate leadership's awareness of the importance of not only well-trained but also well-treated employees. They provides insight into how a company handles its employees and thereby shows they are valuable. This can take the form of many indicators, e.g. relative compensation, retention rates, career opportunities, diversity, etc. It is obvious that when trying to recruit sought-after talents, having trustworthy, attractive sustainability reports can be an important factor to gain an edge over the competition. However, the consequences of well-implemented social sustainability strategies go beyond that. According to a decade-long study entitled "The Happiness Advantage (see literature list at the end of this chapter)," employee happiness raises sales by 37%, productivity by 31%, and accuracy on tasks by 19% in comparison to employees not experiencing happiness in the workplace. This is not only important for the employees themselves but also for the customers. Happier employees get better results, so it is only natural to take one's business to a corporation where employees are happier in order to get better results. Better customer retention and recruitment in turn leads to more business and higher revenue, which is turn makes getting investors interested in the corporation much easier.

### ***4.5.2 Sustainability Reporting Standards***

For a few years now, companies based in the EU and with more than 500 employees have been obliged to report on their sustainability efforts. The EU's Corporate Sustainability Reporting Directive defines the guidelines for this. In Switzerland, similar proposals have been discussed in the wake of the Corporate Responsibility Initiative.

There are several sustainability reporting approaches. The most popular framework is the Global Reporting Initiatives (GRIs). However, there are several alternatives, for example the UN Global Compact, the Common Good Balance Sheet developed by the social movement [Economy for the Common Good \(GWÖ\)](#), the OECD Guidelines for Multinational Enterprises, [The Sustainability Code](#) (Deutscher Nachhaltigkeitskodex), the ISO 26000 Guidance on social responsibility, or the IIRC International Framework. In the rest of this section, we will briefly describe the GRI and some of these other common standards.

#### **Global Reporting Initiative (GRI)**

The Global Reporting Initiative (GRI) is a non-governmental organization striving to standardize organizational sustainability reports with two main goals:

1. Implement a structure for organizational sustainability reports providing guidance through this complex, multi-topical subject area, allowing not only large organizations, with the financial means to hire a team of reporting experts, to produce high-quality reports.
2. Provide all stakeholders of the reporting organization with an orientation where to find the specific information they are looking for. By familiarizing themselves

with the design of their reports, stakeholders can more easily assess whether the statements they are looking for are included in a sustainability report and what their extent is.

The GRI Framework is revised on a regular basis. Rather than being monolithic, GRI standards use a modular structure which allows some flexibility in reporting. It starts with three universal Standards (GRI 1–3) followed by Sector Standards (currently GRI 11–18) and Topic Standards (GRI 200–4xx) (see Fig. 4.11). The **Sector Standards** provide information for organizations about their likely material topics depending on the industry it operates in. The organization uses the Sector Standards that apply to its sectors when determining its material topics, and when determining what information to report for the material topics. The **Topic Standards** contain disclosures for the organization to report information about its impacts in relation to particular topics. They cover a wide range of topics. The organization uses the Topic Standards according to the list of material topics.

An organization preparing a report in accordance with the GRI Standards can—depending on the degree to which the GRI Standards have been applied—choose one of two options: Core (only selected number of disclosures from the Topic Standards) or Comprehensive (disclosure of all GRI Topic Standards). For each option, there is a corresponding claim, or statement of use, that the organization is required to include in the report.

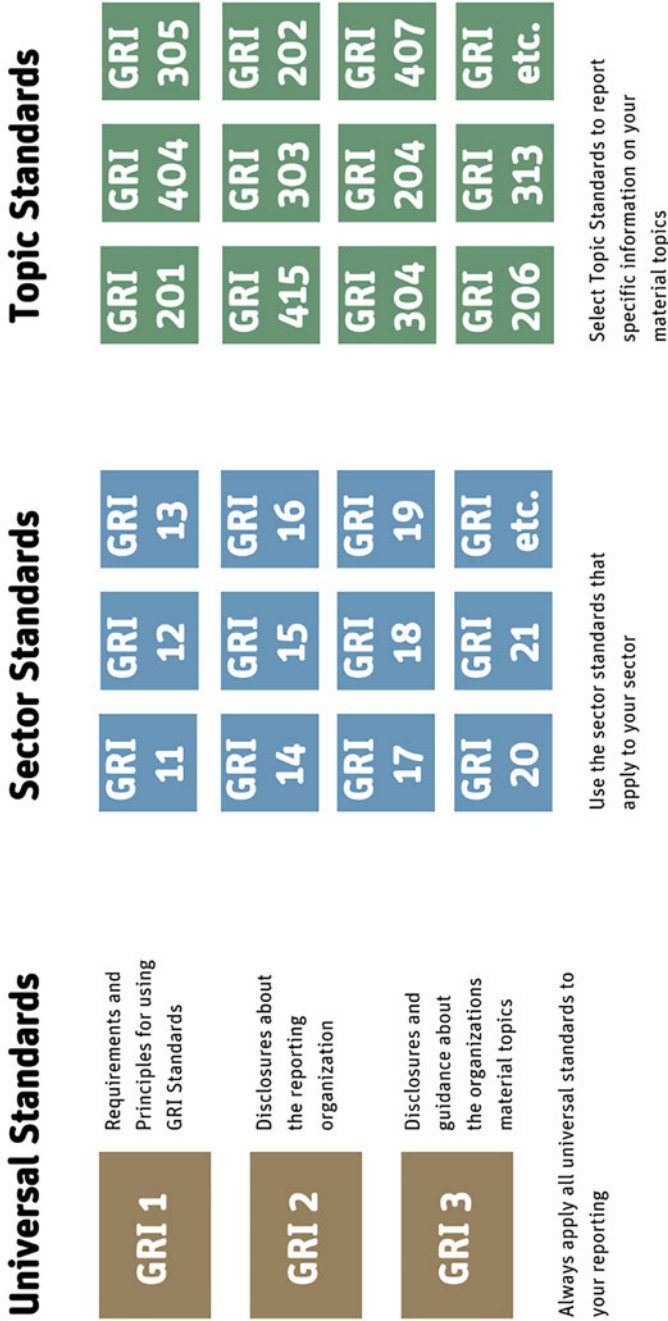
Although very widespread in its usage, GRI has also received some criticism: Its continuous evolution makes it hard to compare and rate reports over the period of several years. Furthermore, GRI is providing little or little accessible instructions on how to report sustainability performance. And third, deciding to report according to GRI guidelines can have unintended impacts on management practices and goals.

### **International Organization for Standardization (ISO) 9000, 14000, & 26000**

Out of the thousands of standards defined and managed by the International Organization for Standardization (ISO) a few are widely used for assessing and reporting a corporation's sustainability. ISO 9000 was the first to be used when the topic of sustainability came into public awareness in the early 1990s and, subsequently, the need for some kind of standardized sustainability assessment arose. While ISO 9000 has been quite popular in the early years of corporate sustainability standardization efforts, it lost its appeal with the appearance of the ISO 14000 and ISO 26000 standards and is therefore less and less used with regard to sustainability assessments. The ISO 14000 standards—first released in 1996—follow the path laid out by the ISO 9000 standards, however with an exclusive focus on environmental aspects.

In 2010, ISO 26000 was established to expand the focus of ISO standards (that up to date only acknowledged the economic and ecological dimension) to also include the social one. While ISO 9000 and ISO 14000 are certification standards that can indeed be certified, ISO 26000 is merely meant to function as a guidance. Nevertheless, this does not prevent quite a few corporations claiming to be ISO 26000-certified.

# GRI Reporting Standard Structure



**Fig. 4.11** GRI standards overview (source: own representation based on <https://www.globalreporting.org/>)

### **United Nations Global Compact**

The United Nations Global Compact is a non-binding league of corporations declaring to respect and implement the ten principles covering, among other things, human rights, child labor, freedom of association, discrimination, corruption, and environmental responsibility.

The United Nations Global Compact is not a certifiable standard, and neither is it a regulatory body, tracking and verifying claims made by their member organizations. As such, it factually amounts to little more than a declaration of intent and an expression of interest in the topics of sustainability.

### **Sustainability Accounting Standards Board (SASB)**

Reporting adhering to the standards of the Sustainability Accounting Standards Board (SASB) focused on the financial impacts of sustainability. It provides an industry-specific tool with the aim of helping businesses identify and manage their sustainability issues and opportunities. It provides other players in the market with a standardized, transparent way to obtain sustainability-related information. The reporting scheme is based on 77 industry-specific reporting approaches across 11 sectors, grouping industries according to a Sustainability Industry Classification System (SICS) and thereby companies by their sustainability risks and opportunities. In July 2020, GRI and SASB announced that they plan a closer collaboration.

### **World Business Council for Sustainable Development (WBCSD)**

The World Business Council for Sustainable Development (WBCSD) is the result of the merger of its two predecessors, the Business Council for Sustainable Development (BCSD) and the World Industry Council for the Environment (WICE). Membership in the WBCSD, however, is quite exclusive with less than 200 members worldwide (among them Nestlé, Royal Dutch Shell, DuPont, and BP).

Despite the organization's declared goal to support the worldwide process of sustainable development, a lot of criticism has been brought up not only by Non-Government Organizations (NGO) like Corporate Watch or Greenpeace but also by members of the scientific community. These organizations have accused WBCSD of greenwashing rather than being concerned about sustainability.

### **Integrated Reporting Approach**

Sustainability reporting takes two forms:

- All data, statements, and topics relating to sustainability are reported in a separate sustainability report as part of the general report. As some data are also relevant in other contexts, it might additionally show up outside the separate sustainability report.
- The information relating to sustainability is integrated in the general report. It is not grouped together but can rather be found across the chapters of the general reports, merely adding an additional perspective to topics like human resources or resource usage.

Although there is not one superior reporting approach, the different approaches have distinct advantages and disadvantages for both the corporation compiling the

report and the reader attempting to evaluate the company's sustainability effort. In general, the more advanced the implementation of sustainability in the corporate structure and strategy is, the more likely an integrated approach is the appropriate way to demonstrate this inclusion and embedding of sustainability.

## 4.6 Corporate Social Responsibility (CSR)<sup>3</sup>

Corporate Social Responsibility (CSR) is a highly contested managerial concept. To this day, researchers, politicians, managers, civil society representatives, and the media have not found an agreement on what CSR entails. At the same time, however, CSR has evolved from a marginal to a mainstream phenomenon. CSR is now at the center of management and academic discourse and is accorded high strategic relevance in the boardrooms of most companies worldwide. Three developments have led to the recent mainstreaming of CSR (see Risi, 2017, p. 37):

- *First*, during globalization, the political influence of nation states vis-à-vis companies has diminished. Today, national governments have limited control over globally active companies and are therefore not always in a position to secure the welfare of citizens.
- *Second*, civil society has become more environmentally and socially conscious. This novel awareness often comes from campaigns of civil society representatives. Such political campaigns offer an efficient way to address socio-ecological matters, for example, discrimination or climate change.
- *Third*, the higher relevance of financial markets for economic success and the increased mobility of companies have caused an economic shift. For example, companies will often relocate their headquarters to countries considered tax havens to avoid high taxes.

These three developments, reinforced by the media and information technology, have led to a broad-based demand that companies assume greater environmental, social, and ethical responsibilities. Many, including company representatives (e.g., WBCSD, 2021), politicians (e.g., State Secretariat for Economic Affairs of Switzerland, 2020), and academics (e.g., Matten & Moon, 2020), thereby regard CSR as *the* blueprint for companies to fulfill this very responsibility.

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<sup>3</sup>This section widely draws on the chapters “1 What is Corporate Social Responsibility (CSR)? Scope, Issues and Definitional Clarity” and “2 Why Would Business Firms Engage in CSR? Motives and Drivers Beyond the Business Case” from Wickert and Risi (2019a, p. 1–43).

### 4.6.1 *The Business Case for CSR*

The debate surrounding CSR revolves around “doing well by doing good.” The idea here is that social or environmental commitment finally pays off financially and thereby adds to a company’s competitiveness. Wickert and Risi (2019a, 2019b, p. 28) point to a set of factors that can help us understand why CSR contributes to long-term business returns.

- *First*, in terms of internal stakeholders, CSR helps attract talent and increase employee motivation, positively contributing to a company’s productivity. For example, CSR is the top reason young people choose their employer.
- *Second*, in terms of external audiences, CSR can increase consumer and investor confidence and support in products and brands. This enables the creation of a favorable reputation, higher sales, and the possibility of charging a price premium for ethically, environmentally, and socially sustainable products.
- *Third*, in terms of operations, CSR can support the reduction of costs. For example, implementing eco-efficiency measures potentially results in energy savings.
- *Fourth*, CSR can serve to increase the efficiency of managing social and environmental risks. For example, commitment to a voluntary CSR initiative, such as the United Nations Global Company (UNGC), can preempt legislation and safeguard a company’s independence from the government.

Many studies have addressed the CSR business case, focusing on the relationship between CSR and financial performance theoretically (why should CSR pay off?) or empirically (what contribution do CSR activities actually make to economic performance?). In each case, the studies focused on the relationship between CSR activities and financial performance (meta-analyses include, for example, Wang et al., 2016). However, the results are inconsistent. Some have uncovered a positive linear relationship, where CSR is understood as a means to increase corporate competitiveness. Other studies found a linear negative relationship, where CSR is more of a disadvantage associated with potentially not profitable costs for a company in the long run.

These inconsistent results suggest that a clear causal relationship between CSR and financial performance has not yet been demonstrated. As Barnett (2007, p. 794) puts it: “...after more than thirty years of research, we cannot clearly conclude whether a one-dollar investment in social initiatives returns more or less than one dollar in benefit to the shareholder.” One possible explanation is the methodological problem that arises with measuring CSR. We have seen how difficult it is to find a single definition of CSR, as there is still no agreement on the scope and content of CSR. Apart from these methodological issues associated with the business case for CSR, Wickert and Risi (2019a, 2019b) point out two critical fallacies of the business case for CSR, which they label “ethical fallacy” and “managerial fallacy.”



### ***4.6.2 The Ethical Fallacy of the Business Case for CSR***

CSR geared towards making a profit rather than a positive socioenvironmental contribution refers to the “ethical fallacy,” reflecting the normative deficiency of the business case for CSR (Wickert & Risi, 2019a, 2019b, p. 31). This deficiency does not do justice to CSR, being an inherently normative concept based on moral value considerations about “the right thing to do” (e.g., Risi, 2022; Risi et al., 2022a). From this ethical perspective, Scherer and Palazzo (2007) refer to the normative deficiency as reducing CSR to nothing more than another “success factor,” empty of intrinsic moral value or consideration for less powerful stakeholders. This deficiency might promote opportunistic corporate behavior as companies only engage in CSR if a business case exists.

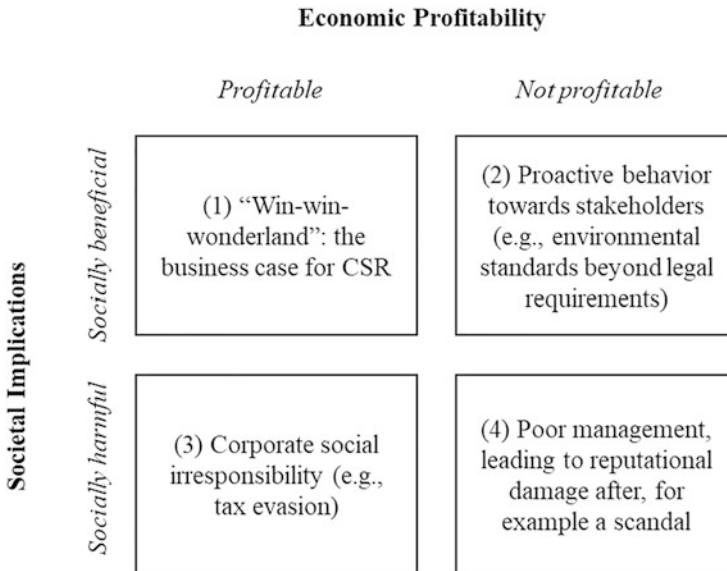
The ethical fallacy arises from the following moral tension: What if something is ethically desirable but does not create financial profits for the company? What if something is morally wrong but brings significant profits for the company? The business case for CSR does not address what happens when the consideration of stakeholder interests leads to outcomes that misalign with profit motives of a company’s shareholders. The business case for CSR suggests prioritizing profits over some social benefit, whereby the latter only matters when it aligns with profit interests. The ethical fallacy of the business case is that it reduces the assumption of moral responsibility to an instrument to create value rather than to solve or avoid ethical problems.

### ***4.6.3 The Managerial Fallacy of the Business Case for CSR***

The managerial fallacy with the business case for CSR stems from the fact that CSR is no longer a competitive advantage but a competitive necessity. The reason for this lies in the transformation of CSR into a mainstream concept.

Today, nearly all companies, from small to larger corporations, are engaged in CSR. In a situation where “everyone is doing it,” and many companies are pursuing somewhat similar paths of CSR, justifying the CSR business case becomes difficult. With more companies engaging in CSR, the ability to create a convincing business case erodes. This leads to the following dilemma: “the more societal and competitive pressure there is to engage in CSR, the more difficult it becomes to create a unique CSR profile that allows a firm to ‘stand out’ and thus generate a sustainable competitive advantage from CSR engagement. Thus, the more firms engage in CSR because they see a business case for it, the more complicated it is to sustain exactly that business case.” (Wickert & Risi, 2019a, 2019b, p. 33).

So, to explain the reasons behind corporate engagement in CSR, we need to draw on different aspects that go well beyond business case arguments.



**Fig. 4.12** Economic profitability and societal implications (own illustration after Wickert & Risi, 2019a, 2019b)

#### **4.6.4 Overcoming Business Case Thinking: Extending CSR**

The ethical and managerial fallacies of the business case for CSR suggest that economic profit-making considerations are insufficient to fully capture the rationale for corporate CSR engagement. Consequently, we must ask which other factors are relevant for such an engagement.

To approach the question of why companies engage in CSR, we begin to reflect on the following matrix, consisting of four boxes. Each box represents a constellation that is either socially harmful or beneficial and either unprofitable or profitable (see Fig. 4.12; see Karpoff, 2014).

The first box (1) indicates the constellation suggested by the business case. This approach mirrors the “win-win-wonderland,” assuming environmental, ethical, and social matters pay off financially for a company. The second box (2) expands the scope and content of CSR further towards more complex stakeholder expectations, going beyond the mere consideration of shareholders. This stands for a situation where a business practice is not profitable but socially beneficial—for example, high environmental standards, which are correspondingly costly and exceed legal requirements, or wages above the legally required minimum wage. A business practice that is not profitable but socially beneficial mirrors proactive behavior towards stakeholders, as their expectations are systematically incorporated into business conduct. The third box (3) stands for business conduct that is profitable but socially harmful, i.e. corporate social irresponsibility. This involves disregarding stakeholder

expectations, as in the case of companies that commit tax evasion, environmental pollution, or consumer fraud. An exemplary case of corporate social irresponsibility is the practice of CSR decoupling, in which companies overvalue their CSR performance in their public relations to increase their recognition among stakeholders (Risi et al., 2022a, b). The fourth box (4) represents business conduct that is neither profitable nor socially desirable. Ultimately, this is weak management, leading to reputational damage, for example, after a boycott or scandal.

This two-by-two matrix presents a robust framework as it takes into account that the business case applies in some scenarios. It, however, also depicts that the business case approach ignores trade-offs and only mirrors situations where CSR pays off economically. As mentioned by the second and third boxes, situations where tensions between financial profits and CSR arise remain unreflected in the business case approach. Hence, the matrix presents a useful “analytical tool to examine why the ‘market for virtue’ is not big enough to make it in the interest of all companies to be socially responsible” (Wickert & Risi, 2019a, 2019b, p. 32). In fact, the second and third boxes have gained relevance because of the growing demands from societal stakeholders. Many firms engage in CSR because of external stakeholders rather than because of financial calculations. Consequently, to fully understand CSR, we need to know about the different actors that influence and direct what CSR entails and what companies must do to consider CSR.

#### 4.6.5 *The CSR Arena and Its Various Players*

In addition to companies, different actors influence what exactly CSR encompasses and how companies should deal with CSR. These actors each pursue their own interests and actively represent their ideas around CSR, thus influencing corporate practice accordingly. There are six kinds of actors: international organizations, civil society organizations, company-driven self-regulatory initiatives, cross-industry multi-stakeholder initiatives, governments (Wickert & Risi, 2019a, 2019b), and CSR professionals (Risi, 2016, 2017; Risi et al., 2022a, b; Risi & Wickert, 2017).

- *International organizations*, including the International Labour Organization (ILO), the Organization for Economic Co-operation and Development (OECD), the United Nations (UN), and the World Bank, are all highly relevant actors. They have proposed and successfully established ideas and policies encompassing CSR rules for companies worldwide. These rules are called soft law because they are voluntary and non-binding. The United Nations Global Compact (UNGC) is the most popular soft law.
- *Civil society organizations* push companies to engage in CSR activities. Locally or globally active non-governmental organizations (NGOs) strive to exert influence over companies where governments fail. A well-known example is the NGO Greenpeace, whose goal is to protect nature and raise awareness for ecological matters such as deforestation and how companies should address this matter.

Another famous NGO is Amnesty International that advocates for human rights around the world.

- *Company-driven self-regulatory initiatives* tackle various CSR challenges, allowing the private sector to take on a quasi-governmental role. Such initiatives develop soft laws to regulate working conditions. Popular examples are the World Business Council for Sustainable Development (WBCSD) and the Business Social Compliance Initiative (BSCI). For example, the WBCSD is an initiative led by CEOs of around 200 multinational companies to promote knowledge about how businesses may successfully engage with sustainable development.
- *Cross-industry multi-stakeholder initiatives* (MSIs) overlap in their objectives with corporate self-regulatory initiatives. However, they not merely draw on private sector members but also include civil society representatives. Compared to self-regulatory initiatives, MSIs are thus more democratic and much more participatory. The Forest Stewardship Council (FSC) is among the most well-known initiatives, addressing the regulatory gap of protecting forests on a global scale by fighting deforestation and furthering sustainable management of forests. The FSC includes renowned companies such as IKEA, NGOs like Greenpeace, and various minor human rights activists and representatives of Indigenous peoples.
- *Governments* have an essential role in CSR. For example, in 2001, the European Commission published its first CSR definition, conceptualizing it as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.” To emphasize the relevance of CSR, in 2011, the European Commission removed voluntariness from the definition, referring to CSR as “a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders.” Likewise, governments are coming back into the game by realizing laws and regulations because many market-based initiatives failed or were inefficient. Consequently, we can observe a trend from “soft law” (i.e., non-binding and voluntary) to “hard law” (i.e., binding and not voluntary).
- *CSR professionals* are experts who have acquired relevant expertise in the field of corporate responsibility and earn a living by applying their specialist knowledge. They work as CSR consultants, analysts, or managers, for example. CSR managers have an impact on how companies deal with environmental, social, and ethical responsibility by applying a range of influencing strategies to drive the implementation of CSR within the company (see, e.g., Wickert & Risi, 2019a, 2019b). In each case, they work closely with the various corporate departments (human resources, procurement, accounting, etc.) and support each of them in the specialist implementation of social, environmental, and ethical concerns.

### 4.6.6 *Towards a Comprehensive Definition of CSR*

Because of the complexity and dynamics of social, environmental, and ethical issues and the high number of actors in the CSR arena, it seems impossible to find an appropriate definition of CSR. Matten and Moon (2008) indicated three reasons underlying this difficulty: First, CSR is understood and applied differently depending on the group of people and the context. Second, there is an overlap between CSR and other related concepts, such as business ethics or corporate sustainability. Third, CSR as a management concept is extremely dynamic. Even though these three reasons make a uniform conceptualization of CSR difficult, a comprehensive CSR definition is nevertheless central. Here, we draw on Wickert and Risi (2019a, 2019b, p. 22):

- Corporate Social Responsibility (CSR) is an umbrella term to describe how business firms, small and large, integrate social, environmental, and ethical responsibilities to which they are connected into their core business strategies, structures, and procedures within and across divisions, functions as well as value chains in collaboration with relevant stakeholders.

This CSR definition reflects that there is still no unanimous opinion on what this responsibility encompasses, how it is to be exercised, and what role companies ultimately assume and should assume in society. According to Wickert and Risi (2019a, 2019b), this definition nevertheless captures some key characteristics of CSR.

- *First*, the definition does not emphasize the voluntary nature of CSR. While many prominent definitions, such as those formulated by the European Commission, refer to the voluntary nature of CSR in terms of actions outside the law, CSR has become a de facto requirement in the global business environment, and new regulations on CSR have emerged. Also, CSR has become an integral part of doing business and a precondition for ensuring the “license to operate.”
- *Second*, a variety of actors and interest groups determine what CSR is. Companies must therefore respond to what these different groups bring to the table and consider their various interests in their approach to CSR.
- *Third*, the definition does not use “corporation” but “business firms, large and small.” This makes it clear that CSR concerns not just large multinational companies but also small and medium-sized enterprises.
- *Fourth*, CSR is conceptualized as multidimensional. While the definition includes “social,” CSR incorporates also environmental and ethical responsibilities. This recognizes that the commitment that companies have to society encompasses four key issues: Human Rights (see the Universal Declaration of Human Rights), Labor Rights (see the ILO Declaration on Fundamental Principles and Rights at Work), Environmental Principles (see the Rio Declaration on Environment and Development), and Anti-Corruption (see the UN Convention against Corruption).

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