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# Control Systems for Managing Sustainability

## *Henkel Case Study*

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# TABLE OF CONTENTS

# INTRODUCTION

Public attention on sustainability has never been as high as today. Climate change, social inequalities and financial scandals have risen pressures from national and international regulations, and society in general, so that companies have been gradually pushed towards the integration of social and environmental responsibility within strategies, structures and management systems (Werbach, 2009). Although many of them have embraced the sustainability rhetoric in their external disclosure, reports may serve the sole purpose of reconstructing eroded legitimacy and reinforce corporate reputation and image. Many steps forward have been made for improving non-financial reporting quality, starting with the establishment of international standard-setting bodies such as Global Reporting Initiative (GRI) and International Integrated Reporting Council (IIRC). However, skepticism is still hovering since, as Bebbington (2007) observed, "if organizations are seeking to report on their contribution to sustainable development, one may expect that there are some internal mechanisms guiding activities towards this goal". Expectations do not always reflect reality. Very often, in fact, companies fail to implement proper control systems that support sustainability integration or rely too heavily on conventional financial-oriented Management Control Systems (MCSs), considered limited in incorporating the interests of stakeholders other than shareholders and in addressing environmental and social issues.

The objective of the thesis is hence to investigate which formal and informal mechanisms executives and top managers develop and use to ensure that employees' decisions and actions are consistent with the organization's sustainability goals and strategies (Gond et al., 2012) by classifying such systems, called *Sustainability Control Systems* (SCSs), according to the object-of-control framework developed by Merchant and Van der Stede (2007). The latter identifies three types of control (results, action and people) that focus on employees' behavioral influence on goals' achievement, hence providing a conceptually clear and consistent taxonomy for studying the elements of an organization's management control, or rather, in this case, sustainability control.

The thesis is organized in five chapters. Chapter 1 reviews MCSs as categorized by Merchant and Van der Stede (2007), starting from examining management control problems and the alternatives through which these can be addressed, to discussing in detail the three types of control mentioned above and the choices about their design and

implementation. Chapter 2 provides insights about the concept of sustainability, the related challenges and its evolution in business literature and companies' mindset. Moreover, non-financial information disclosure, including sustainability and integrated reporting, is tackled. These chapters paves the way to the core of the thesis, Chapter 3. The latter analyzes the SCSs identified by management control literature that companies can adopt, revised based on the object-of-control framework (Merchant and Van der Stede, 2007), alongside with considerations regarding the desired level of "formality" of the control systems' configuration and their integration with traditional MCSs. Chapter 4 describes the research methodology adopted with specifications on data collection techniques used for Henkel case study's analysis, a company that is internationally rated and ranked among the top 1 per cent of the most sustainable firms worldwide. In Chapter 5, after a brief introduction about Henkel, its history and structure and a description of its sustainability commitments and ambitions, the SCSs employed are indeed discussed. Finally, the conclusion outlines the key contributions from academic literature, along with considerations regarding findings and results and further recommendations for future research.

# CHAPTER 1

## 1. MANAGEMENT CONTROL SYSTEMS

In business literature, a common definition of "*organization*" has been provided by Allen (1958), who refers to the "set of processes of identifying and grouping work to be performed, defining and delegating responsibility and authority and establishing relationships for the purpose of enabling people to work most effectively together in accomplishing objectives". In other words, goals' achievement definitely depends on how resources and activities are directed and organized, whose "burden" falls to organization's management. According to Henri Fayol (1916), who is considered one of the founders of management theory, in order to ensure that the organization's activities are consistent with organization's general policies and objectives, management is called to exercise "controlling" (or monitoring, "contrôler" in French) function[1].

The word "control" has always been controversial and anything but clearly defined, owning the "serious shortcoming of having different meanings in different contexts" (Giglioni and Bedeian, 1974). In a general (mainly sociological and political) setting, it could be synonymous with holding power or wielding tyranny and oppression, but from an organizational perspective it has been described as a system or activity which helps influence an object's performance to produce the desired results (Reeves and Woodward, 1970).

Robinson (1925) was one of the first coiners of the term applied to the management function, identified as "that fundamental which comprises the means of providing the manager and the executives of an organization with continuous, prompt, and accurate information concerning the efficiency of operation, what the business is doing, what it has done in the past, and what it can be expected to do in the future. A system of control collects the details of operation, segregates them, combines them, and classifies them into a form suitable for use". From this definition, three principal elements of control could be extracted: (a) forecasting results, defining what is desired, (b) recording of results, and (c) the placing of responsibility for expected results with provision for corrective action. Such a process requires several steps, consisting of setting specific goals and objectives and the

[1] Henri Fayol was one of the first theorists to define functions of management in his 1916 book "*Administration Industrielle et Generale*". He identified five functions of management, which he labelled: planning, organizing, commanding, coordinating and controlling. The latter were considered universal, and every manager performed them in his daily work.

subsequent measure of how well those are achieved. This represents the starting point for management control literature.

Over the years, the latter has developed different frameworks on how management control can be addressed within organizations. The two most recognized have been provided by Simons (1995) and Merchant and Van der Stede (2007), respectively. While Simons focuses on business strategy implementation through the so-called "four levers of control" [2], presuming a central role for accounting and other formal controls in the pursuit of managerial cooperation and behavioral congruence, without adequately explaining informal controls' contribution[3], Merchant and Van der Stede's "object-of-control" framework emphasizes employees' behavioral influence on goals' achievement and how the alignment between the latter can be ensured.

As mentioned above, the thesis is based on the second one. The advantage of using this framework is that it allows to analyze the key management control problems that need to be addressed, the systems that can be used to deal with them, the most important situational factors that can induce management to choose one set of controls over another, and the outcomes that can be produced, be they positive or negative. Its behavioral orientation is not only embraced in recent management control literature, but it also has long been acknowledged by managers and controllers. However, object-of-control framework has also drawn criticisms among researchers, arguing that although it captures the richness of control practices, it lacks deepening in explaining the couplings between control elements, such applied as a "package" (Sandelin, 2008). Malmi and Brown (2008) do indeed highlight that, in order to understand if the company succeeds in realizing the benefits of control, the interrelation between specific control systems should be considered

[2] Simons' framework (1995) introduces the four key constructs that influence successful implementation of business strategy: core values, risks to be avoided, critical performance variables, and strategic uncertainties. Each construct is controlled by a different system, or lever, respectively: (1) beliefs systems, which are organizational definitions (e.g. credos and mission statements) used to encourage and direct employees; (2) boundary systems, used to set limits set for desirable actions; (3) diagnostic control systems, used to motivate, monitor, evaluate and reward achievement of specified objectives (e.g. profit plans or budgets); and (4) interactive control systems, used to spur organizational learning and the emergence of new ideas and strategies responding to new opportunities and threats. The power of these levers in implementing strategy lies in how the different systems complement each other when used together.

[3] *Formal controls* are framed by organization's management and consist of plans, rules, guidelines and procedures to be followed by employees, helping ensure goal's achievement. Instead, *informal controls* are unwritten and implicit. They arise from employees' behavioral aspects and are greatly influenced by the socio-cultural dimension, encouraging the willingness to serve organizational purposes and increasing the company's ability to make adaptive responses (Amigoni, 1978).

and the package studied as a whole, since they may have possibly been implemented for and by different interest groups.

Employees are considered the main actors inside the organization, who "make things happen", but sometimes they are unwilling or unable to act in its best interest. Managers must therefore intervene to guard against the occurrence, and particularly the persistence, of undesirable behaviors and to promote advisable ones. In other words, they should minimize the possibility that people will do something the organization does not want them to do or fail to do something they should do. This function is extremely crucial, since management control failures can lead to financial distress, reputational damage and even insolvency or organizational crisis.

Accordingly, *Management Control Systems* (MCSs) are defined as the devices and mechanisms (both formal and informal) assisting managers in ensuring that the employees' behaviors and decisions are consistent with the company's objectives and strategies (Merchant and Van der Stede, 2007). If properly designed, MCSs can influence these behaviors and decisions in desirable ways, increasing the goals' achievement probability. Therefore, management control plays a key role, being the third step of the management process (Merchant, 1985). The other two are represented by *objective setting* and *business strategy formulation*, respectively. Objectives (be they financial or non-financial) are a necessary requirement for MCSs' design, because employees need to know what the organization is trying to reach and hence, they should be elaborated before any MCSs is designed. In order to be effective, MCSs' application should guarantee the greatest possible goal congruence, such that employee's personal goals are in line with organizational ones (Anthony and Govindarajan, 2007). Instead, strategy has been defined in many ways. For instance, it has been described as a pattern of decisions about the organization's future (Mintzberg, 1978) which take on meaning when implemented through the organization's structure and processes (Miles & Snow, 1978). Strategy generally involves determining the necessary actions to meet firm's objectives and mobilizing the limited resources to execute these actions (Freedman, 2015). Therefore, it sets constraints on employees to focus activities on what the organization does best or areas where it has an advantage over competitors.

But are employees likely to behave appropriately, and hence implement the firm's business strategy as intended? Management control involves addressing such question. Having a clear, specific and formalized strategic vision facilitates the management task of

identifying the feasible management control alternatives and applying them effectively. Depending on what are the firm's critical success factors, such as new products' development, minimizing costs, increasing market share or the most banal profitability improvement, different management controls can be targeted.

In order to obtain higher probability of success, organizations must maintain good management control. As previously mentioned, if nothing is done to guard against the possible manifestation of undesirable employees' behavior or the omission of desirable ones caused by control problems, severe consequences may arise: if the control is inadequate, the outcome could be higher risk of poor performance; while if no control is performed at all, this may result in organizational failure. The latter scenarios are labeled as "out-of-control" situations (Merchant, 1982). At the opposite extreme, "perfect control", meaning a complete assurance that actual accomplishment will proceed according to plan, does not exist in practice (except for very unusual circumstances) since it would imply that all employees on whom the company must rely always behave in the best way possible. This represents a non-realistic expectation. Moreover, trying to implement enough MCSs to reach the perfect condition could be too costly. Therefore, having good control means that management can be reasonably confident that no major objectionable surprises will occur. Some features of this optimal state, useful for assessing its achievement, should be outlined. First, control should be "future-oriented", that is the main goal should be the absence of unpleasant situations in the future. Second, it should be "objectives-driven", since objectives constitute what the company seeks to attain. Third, better control is not always economically worthwhile, and hence cost-benefit analysis should be performed. If the costs outweigh expected benefits, more or tighter MCSs should not be implemented (Merchant and Van der Stede, 2007). However, assessing whether the desirable level of control has been reached is difficult, since judgments on MCSs adequacy should be based on measurements against a future that can be very hard to forecast.

In the following sections, the management control problems and the alternatives through which these can be addressed are examined. Moreover, the three types of control, namely results, action and people, and the choices about their design and implementation are discussed in detail.

## *1.1. Management control problems and alternatives*

As mentioned before, management control involves managers taking steps to help ensure that individuals inside the organization act in the best way in order to achieving its objectives. However, sometimes they are unwilling or unable to do so. Hence, managers should guard against undesirable actions and encourage desirable behaviors by implementing one or more types of controls, in order to reach the state of "good management control". In some specific cases, this is not necessary, since control problems could be avoided.

### *1.1.1. Why are controls needed?*

In order to comprehend why a certain type of control is implemented, it is necessary to understand why they are needed, and hence what makes employees choose among different behavioral options in decision-making. Economic approaches such as the "agency theory"[4] (Jensen and Meckling, 1976) and "transaction costs economics"[5] (Williamson, 1981) have strongly contributed to organizational literature, as March and Simon (1958) have from a behavioral perspective. The latter has been greatly emphasized in management control research by Merchant (1982, 1985), who identifies three specific problems to solve, in order to make individuals act in organization's best interest: lack of direction, motivational problems, and personal limitations. Assessing what are the causes of potential control issues is extremely worthwhile since the different types of control are not equally effective at addressing each of the them (Emmanuel et al., 1990).

*Lack of direction* refers to the situation where employees perform poorly simply because they do not know what they are expected to do. This problem may occur when information regarding the activities to be performed are not clearly communicated. Thus, management control should entail informing individuals as to how they can maximize their contributions to the fulfillment of organizational objectives.

Even though employees understand what the organization expects from them, some choose not to perform appropriately because of *motivational problems*. Why do people act

[4] Agency relationship (Jensen and Meckling, 1976) refers to a contract under which one or more principals engage another person as their agent to perform some services on their behalf, the performance of which requires the delegation of some decision-making authority. A subsequent issue arises, since the agent will not always act in the best interests of the principal.

[5] Transaction cost theory (Williamson 1979, 1986) states that the optimum organizational structure is one that achieves economic efficiency by minimizing the costs of exchange. The theory suggests that each type of transaction produces coordination costs of monitoring, controlling, and managing transactions.

in a certain way? What are the "forces" that guide their behavior in the organizational context? Answering these questions means identifying their motivation. The latter has been defined by Costa, Gubitta and Pittino (2014) as "a dynamic process that finalizes a person's activity towards an objective. It is an inner state of the individual who has an element of choice and push to carry out targeted actions".

As recognized by several social and organizational theories, people's behaviors are driven by different motivations and needs. Each individual has specific personal, physical, psychological and social characteristics which influence his contribution to the organization in different ways. While Maslow (1954) speculates that actions' motivation originates in the need sensation, understood as the lack of a desired "object", in such a way that the individual orients his behavior to achieve it and satisfy the related need[6], McClelland (1961) argues that, regardless of gender, culture, or age, people are driven by three "motivators" (namely achievement need, affiliation need, and power need), one of them considered dominant at a specific time and largely dependent on culture, personality and life experiences.

What "moves people to do something" has always been a controversial research topic. More recent literature (Gagné and Deci, 2005) distinguishes motivation between intrinsic and extrinsic. The latter were defined as follows:

"*Intrinsic motivation involves people doing an activity because they find it interesting and derive spontaneous satisfaction from the activity itself. Extrinsic motivation, in contrast, requires an instrumentality between the activity and some separable consequences such as tangible or verbal rewards, so satisfaction comes not from the activity itself but rather from the extrinsic consequences to which the activity leads*".

This distinction has been useful for understanding the effects that the different types of control can have on employees' motivation and the related performance. For instance, people control (personnel and cultural) could have a positive effect on intrinsic motivation, since it increases the likelihood that the work environment is perceived as supportive, while action and results control may have a negative impact, because they are mainly perceived as "monitoring" and may therefore crowd out intrinsic motivation. On the other hand, action and results control enhances extrinsic motivation, due to the clear direction

[6] Maslow (1954) categorizes needs in a hierarchy describing the pattern through which human motivations generally move. This hierarchy is organized in the following order (from the bottom basic to the top self-fulfillment needs): physiological needs, safety needs, belongingness and love needs, esteem needs, and self-actualization.

provided and the link with targets to be achieved, respectively (Van der Kolk et al., 2019). Therefore, in terms of creating and maintaining a proactive, innovative and gratifying workplace, managers should adopt an organizational design that fosters employees' motivation autonomously and in a controlled manner. The three types of control mentioned before will be discussed afterwards.

From an organizational perspective, according to Merchant and Van der Stede (2007), motivational problems are common because of two interrelated causes: lack of goal congruence between employees and the organization and employees' self-interested behaviors. Anthony and Govindarajan (2007) state that "in a goal congruent process, the actions people are led to take in accordance with their perceived self-interest are also in the best interest of the organization". They acknowledge that in most circumstances, since the world is not perfect, absolute goal congruence is impossible to achieve, but claim that MCSs should at least "not to encourage individuals to act against the best interests of the organization".

As you can easily note, goal congruence depends unequivocally on whether employees decide to hold a self-interested or organization-oriented conduct. Mismanaging, abusing, stealing and falsifying organizational resources represent the types of employees' self-interested, unfair and opportunistic behaviors prevalent in most organizations. Taken to the extreme, the latter can have severe and damaging consequences on the company, including impaired business relations, revenues' loss due to ruined reputations, deteriorated employee morale, fines and penalties from regulatory authorities, losses from falls in the stock price, and more (Merchant and Van der Stede, 2007). Furthermore, a particular form of "stealing" emerges when employees manipulate performance reports, either by falsifying data or by taking decisions that artificially boost performance, or when they exploit information asymmetry's opportunities in the budgeting negotiation with superiors, "gaming" the process by deliberately underestimating budgeted revenue or overestimating budgeted expenses that allows to have a much better chance of "making their numbers" (budgetary slack), and hence earning higher undeserved related performance appraisals and/or bonuses (Simons, 2014) .

Therefore, MCSs should be implemented with the purpose of avoiding or mitigating these "negative" behaviors, but also, even primarily, motivating "positive" behaviors, that is, encouraging employees to work steadily hard to achieve organizational objectives.

The final class of control issues against which MCSs should guard is *personal limitations*. Employees who know what the organization expects and are considerably motivated, sometimes are simply unable to perform well because of certain personal limitations (Merchant, 1982). The latter are mainly person-specific, and hence vary from individual to individual, stemming from the lack of some requisite ability, training, experience or knowledge for the job to be accomplished, e.g. when employees are promoted above their level of competence. However, personal limitations might be beyond the range of the specific employee, due to the inadequacy of information for proper decision-making, increasing the likelihood of costly mistakes. Moreover, in some circumstances, jobs are just not adequately designed and may lead even the most suitable individuals to on-the-job mishaps and decision errors. MCSs should be able to put in checks that would efficiently match jobs to employees based on their technical ability and grasp of the task ahead (Merchant and Van der Stede, 2007).

The three management control issues – lack of direction, motivational problems, and personal limitations – may obviously show up simultaneously and in any combination. Therefore, MCSs should be properly designed to avoid or at least mitigate these control issues, influencing employees' behaviors by informing them about what they are expected to do, motivating them to behave in the organization's best interest and finally providing them with the knowledge and tools needed to perform as expected.

### *1.1.2. Alternatives for achieving "good management control"*

As stated above, having a "good management control" is essential for the success of an organization, meaning that management expects that no major unpleasant surprises will occur in the future. This "state" can be reached by deploying two different alternatives: avoiding some behavioral problems, when feasible, and/or implementing one or more types of control to guard against the occurrence of the remaining problems (Merchant, 1985). In some situations, managers can stave off control problems, eliminating the possibility that some employees' improper behaviors might harm the organization. However, this does not completely preclude their persistence, but only reduces organization's exposure and the related potential loss arising from their occurrence. Control problem avoidance usually entails four strategies: activity elimination, automation, centralization and risk sharing (Merchant and Van der Stede, 2007).

*Activity elimination* involves outsourcing a business activity, and hence potential risks and associated profits, to a third party through, for instance, subcontracting, licensing, or divestment. In general, outsourcing refers to "a contractual relationship between an external vendor and an enterprise in which the vendor assumes responsibility for one or more business functions of the enterprise" (Baily et al., 1998). This practice has expanded rapidly from the 1980s onwards due to increased international competition that drove companies to seek more cost-effective ways of providing goods and services. Such trend has been proved by Gay and Essinger (2000)'s survey on the outsourcing practices of 500 organizations in the UK, which found that 73 per cent of the respondents outsourced activities, in particular those that were non-core to their business, such as IT services. The reason why managers are keen to carry out this business practice is not only the possibility to increase competitive advantage through cost reduction and flexibility, but also their potential inability to control certain activities, perhaps because they do not have a good understanding of the activity's processes, they do not have the required resources, or they face legal or structural limitations. For instance, InsuranceCo, an insurance broker providing specialist risk management, advisory, and other services to a wide range of corporate and institutional clients on a global basis, due to a rapid business growth in early 1990s, emphasized the commensurate need for a more reliable IT service. However, linking its world-wide network together was not only expensive but also difficult to manage. The inadequate investments in previous years both in its IT infrastructure and experienced personnel to develop and support its IT operations effectively led to the outsourcing decision (Burnes and Anastasiadis, 2003).

*Automation* represents a second avoidance alternative, increasingly implicated in management controls' implementation. Computers, robots, expert systems, and other means of automation can be used by managers to reduce their company's exposure to some control problems. These automated tools can be set to operate appropriately, that is as the organization desires, and they usually perform more consistently than human beings do. Emmanuel et al. (1990) state that "machines do not become bored, nor do they show any inclination to follow their own desires rather than pursuing organizational goals", and therefore they never have dishonest or disloyal behaviors, features of motivational problems. Furthermore, once programmed, and hence set to behave as required, these devices are more consistent and accurate than humans in their treatments of transactions (Merchant and Van der Stede, 2007).

An example could be the use of advanced technologies for automating internal reporting process, as described in Exhibit 1 (De Jong et al., 2019).

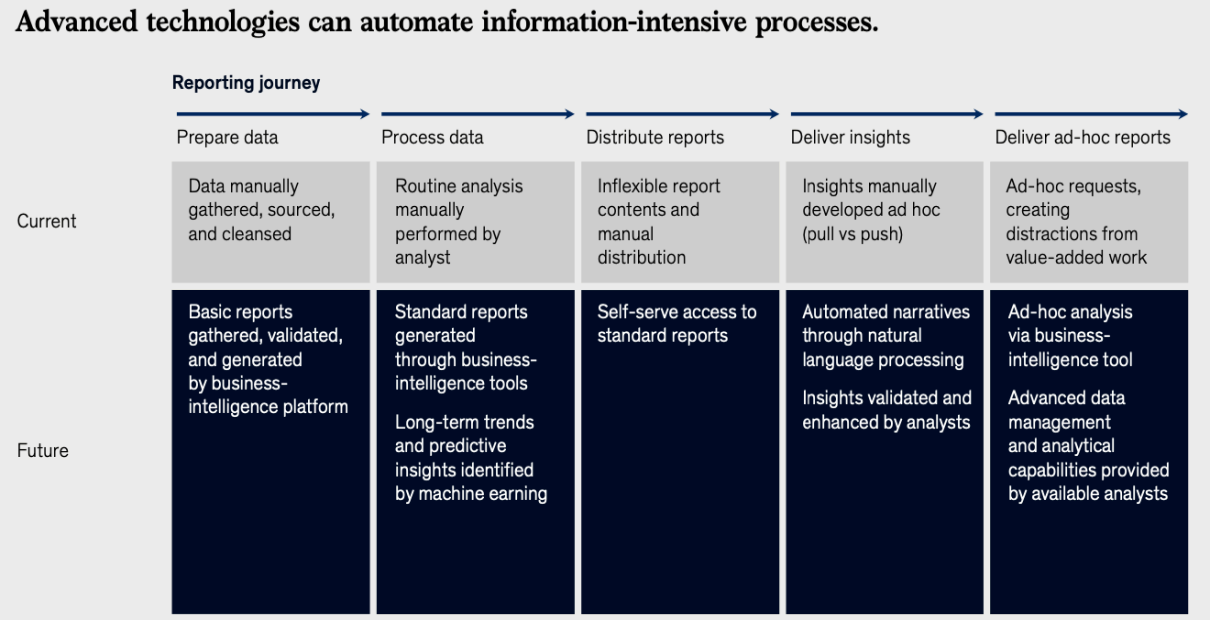


***Exhibit 1****: How to use advanced technologies for automating internal reporting process and improve information flow (Source: De Jong et al., 2019. Unlocking the full power of automation in industrials. McKingsey & Company).*

This approach to automation implies the substitution of human labor with machines, leading to the avoidance of onset control problems. On the other hand, as Brown et al. (2020) highlight, automation concept is outlined slightly differently within the information systems literature. Indeed, it is defined as a "device or system that accomplishes (partially or fully) a function that was previously, or conceivably could be, carried out (partially or fully) by a human operator" (Parasuraman et al., 2000). This definition substantially incorporates the potential for automation not only to replace (fully) but also to work alongside (partially) human labor, aiming at supporting employees in achieving organizational objectives. This perspective is also embraced by Adler and Borys (1996) who discuss two possible approaches to the design and use of automation: technology-centered versus user-centred. The former emphasizes that automated devices can be designed to be foolproof as to reducing reliance on workers, representing the source of problems to be eliminated, and is consistent with Merchant and Van de Stede's (2007) view of automation's role in management control to substitute human labor in order to eliminate dysfunctional behavior. However, the latter suggests that automation can be designed to enhance user capabilities and to exploit their skills and intelligence, upgrading performance. This "complementary role" is coherent with information systems literature.

Automation is not always the best control solution, though. Two limitations have been remarked both by Emmanuel et al. (1990) and Merchant and Van der Stede (2007). The first is feasibility. Automation might not represent the proper control problem avoidance answer for activities entailing complex actions or making sophisticated intuitive judgements and decisions that no machine can perform. The second limitation is the cost associated with automated devices' design (capital investments) and use (operation and maintenance). When the trade-off between the costs and benefits – improvements in productivity and control – is considered, automation may not be the best option in every segment of a company's value chain (Brown et al., 2020). Finally, while trying to avoid some control problems, automation may just replace them with others. For instance, complete reliance on computers may increase security risk, also related to the storage of information in a single location that might be subject to cyber-attacks.

A third avoidance possibility is *centralization of decision-making*, which could also represent a core element of companies' MCSs. The degree to which decision-making is centralized or decentralized (or delegated) is a key indicator of how an organization decides to allocate resources and determine objectives and policies (Andrews et al., 2009). They constitute two opposite "directions", each of them has its benefits and drawbacks, and the related decisions on which one to take can strongly influence firm's outcome, including capability development, growth and innovativeness. According to organizational theorists (Carter and Cullen, 1984), the level of centralization within a company depends on two main dimensions, namely the hierarchy of authority, referring to the extent to which the power to make decisions is exercised at the upper levels of the organizational hierarchy, and the degree of participation in decision-making, pertaining to employees' involvement in the determination of organizational objectives, policies and in resources allocation's decisions. Highly centralized companies will typically have a significant degree of hierarchical authority and poor participative decision-making with limit alternative perspectives, whereas the opposite is true for decentralized ones, where individuals may have more freedom to initiate new actions.

Extreme forms of centralization are common for many small and medium enterprises (SMEs), in particular family businesses, where decision-making authority usually lies in the hands of few founding members. Many family-owned businesses view centralization as an important strategic benefit, as it decreases transaction and informational costs, promotes more efficient and faster decision-making, and also permits families to keep their

best interests at heart in their business, allowing the ownership to provide a greater degree of control (Martin et al., 2016). On the other hand, there is no shortage of disadvantages. Centralization of decision-making may lower company's flexibility, especially if it operates in dynamic business environments, undermining its ability to pursue opportunities and stifling employees' motivation.

Centralization exists also in the parent-subsidiary relationship, depending on the nature and importance of the decision to make. Gates and Egelhoff (1986) and Bowman et al. (2000) study decision-making autonomy in multinational corporation subsidiaries, analyzing the extent to which parent companies gives them control over different class of decisions. For instance, their findings highlight that subsidiaries achieve greater autonomy over certain financial decisions, although they often operate within centrally determined financial targets, hence being subject to selective controls.

Anyway, centralization occurs to some extent at all the management levels, as managers tend to keep for themselves many of the most critical decisions identified in key risk areas.

The fourth possibility for partially mitigating control problems' exposure is *risk sharing*, similar to activity elimination solution explained before, with the difference that only part of the risk related to the business activity is outsourced. Sharing risks with outside entities can restrict possible losses from inappropriate employee behaviors. Common alternatives leading to risk sharing are the establishment of joint ventures and the purchase of insurance contracts. Joint ventures are separate entities owned jointly by two or more firms that, under a contractual agreement, pool resources with the aim to achieve a common goal (Johnson and Houston, 2000). This strategic "tool" provides the benefit of having exposure to problems, including control-related, spread among participating companies. Insurance contracts, instead, are regularly purchased by corporations, particularly with regard to employees in sensitive positions, passing at least part of the risk of losses and errors to the insurance providers (Merchant and Van der Stede, 2007).

These avoidance alternatives previously mentioned are often an effective partial solution to many of the control problems faced by managers. If management cannot, or choose not to, avoid control problems, adequate control mechanisms, MCSs, should be implemented. MCSs can vary considerably among organizations and among business units or areas of decisions within any single company. Some organizations focus MCSs on hiring people who best fit for specific jobs in order to make sure that the organization is well served, whereas others provide performance-based incentives on the accomplishment of targets

defined in terms of accounting numbers and/or other non-financial performance measures. Some organizations present a more formalized structure, composed by strict rules and procedures that employees are expected to follow, whereas others might offer more flexible solutions, allowing individuals to direct actions according to day-to-day activities. Some organizations rely on professional internal auditors performing internal control functions, while others do not. These are just example demonstrating how various management control alternatives can be.

Based on the *object-of-control* framework (Merchant, 1982, 1985; Merchant and Van der Stede, 2007), the following sections describe the three different types of control that management can enforce depending on what is the core focus: the results produced (results controls); the actions taken (action controls); or the types of people employed and their shared values and norms (personnel and cultural controls). Since different types of management controls are not equally effective at addressing each of the control problems, managers should pay particular attention to which combination to choose and the degree of controls' tightness. While on the one hand, the absence of adequate control can have many harmful implications, such as unsatisfied employees and customers, defective products, inability to compete successfully in the marketplace and weak coordination within the organization's hierarchical levels, on the other hand too much control can also lead to less efficient performance. Indeed, tight control may lower the organization's flexibility and innovation (Kanthi Herath, 2007). The latter topics will be discussed in section 1.5.

### *1.2. Results controls*

Results controls, also known as diagnostic control systems (Simons, 1995) or output controls (Ouchi, 1977), are the most commonly used formal control systems for monitoring employees' behaviors at many levels of the organization, especially if the latter presents a decentralized structure, where decision-making authority is delegated to responsibility centers' managers. Organizational structure, indeed, as Meer-Kooistra and Scapens (2008) highlight, should give employees the "freedom to improvise", enabling them to react effectively to a continuously changing environment. Therefore, it should not limit actions or possibilities, but instead promote flexibility and knowledge creation and sharing. This idea reflects the central challenge for decentralized companies – how to implement formal controls that ensure performance is controlled while decision makers' autonomy (and hence flexibility) is preserved (O'Grady, 2019). Holding individuals

accountable for certain results, giving discretion to choose how to adjust inputs and processes to reach them, can be the solution. However, as "agency theory" (Jensen and Meckling, 1976) suggests, managers may misuse the "freedom" received for their self-interest. Thus, in a results-control context, top management should make choices for decentralization together with the design of proper incentive systems, in order to avoid dysfunctional behaviors.

Results controls are not only employed in private organizations. The increase demand for results' accountability emphasized by the "new public management" (Hood, 1991), emerged in the 1980s as an attempt to make the public sector more businesslike, translated in the use of results control systems leading to greater efficiency and effectiveness in governmental subunit performance.

Considering management control problems described above, this type of control has preventive nature, enabling the addressing of each of them. In fact, if results are well-defined, they inform employees about what the organization expects, encouraging them to do as much they can to produce what is desired, hence alleviating a potential lack of direction. Moreover, through the implementation of compensation plans, they are particularly effective in motivating employees who, achieving organization's desired results, maximize personal rewards. Last, but not least, results controls can also address personal limitation problems. Promising considerable rewards for good performers, they can indeed help companies attract highly qualified employees and encourage those currently employed to develop their skills and capabilities in order to position themselves to earn higher results-dependent rewards (Merchant and Van der Stede, 2007).

Performance evaluation involved in results controls also provide "cybernetic" benefits. Instead of constantly monitoring a variety of internal processes, managers can periodically check, through reports provided by controllers, that everything is on track (variance analysis, that is comparing actual with standard performance). If this is not the case, and hence significant deviations are identified, they can intervene and bring performance back in line, applying proper corrective actions. This portrays the essence of management-by-exception approach (Simons, 2014).

When it comes to results controls, management accounting literature (Merchant and Van der Stede, 2007; Simons, 1995, 2014) usually refers to their financial orientation, comprising results defined in terms of accounting measures. Profits and cash flows are indeed the primary measures that actual and potential investors use to evaluate company's

performance. This particular attention for financial results control systems stems from their simplicity, wide applicability and relevance, especially for complex and diversified for-profit organizations, allowing top management to step in only when significant problems appear. Another key feature of financial performance measures is cost-related. Since organizations already routinely prepare and issue elaborate sets of accounting information to shareholders, creditors, government agencies and other stakeholders on a mandatory or voluntary basis (e.g. annual reports), this information can inexpensively be adapted for internal control purposes (Merchant and Van der Stede, 2007).

### *1.2.1. Responsibility centers and organizational structure*

The first step for results' control implementation entails defining the apportioning of accountability for financial results within the organization, that is establishing responsibility centers. The vast majority of companies draw an "organizational chart" for this specific scope, which is a useful visual reference tool that determines reporting relationships, facilitating organization's members understanding of how employees and resources are grouped and who is the manager responsible for directing activities and receiving related accountability. But organizational charts, although displaying what Simons (2014) calls the "span of control" – who is accountable to whom – do not tell us what they are accountable for, that is the "span of accountability"[7]. The latter concept describes the range of performance measures used to evaluate a manager's results achievement. In financial-results-control context, and at its most basic level, span of accountability defines the number of financial statement line items for which the manager can be held accountable.

Four principal types of responsibility centers can be identified: investment centers (IC), profit centers (PC), revenue centers (RC) and cost center (CC).

Accountability for *investment centers*' managers concerns the returns on the investment made to generate those returns. Typical performance measures can indeed be return on investment (ROI), return on equity (ROE) or return on capital employed (ROCE). The most basic example of this type of responsibility center is the corporation, where the top-level corporate managers, such as the chief executive officer (CEO), represent the investment center managers. *Profit centers*, instead, are responsibility centers whose managers are

[7] *Span of control* indicates how many (and which) resources – in terms of subordinates and functions – are directly under the control of a specific manager. *Span of accountability*, instead, describes the range of measures used to evaluate a manager's performance (Simons, 2014).

held accountable for profit, that is is the difference between the revenues generated and the costs related to those revenues. The border line between ICs and PCs is relatively thin. The conceptual distinction is that PCs' managers are not accountable for the investment. The critical aspect to consider in deciding whether or not a manager has PC responsibility is whether he can significantly influence both revenues and costs, for which trade-offs to achieve profit goals have to be made (Simons, 2014).

The third type of responsibility centers are *revenue centers*, where managers (e.g. sales and marketing) are only accountable for generating and maximizing revenues. Using revenues as performance measure allows and encourages managers to focus on attracting and retaining customers. However, most companies also charge to their RCs' managers some administrative costs, such as subordinates' salaries, commissions and travel, advertising, and promotional expenses. Finally, *cost centers* represent the narrowest span of accountability encountered in most firms. Their managers are held accountable only for their responsibility center's level of spending for resource consumed, on which performance is evaluated (Melumad et al., 1992). Two main categories of CCs can be distinguished: standard cost centers (also called engineered cost centers), such as manufacturing and production departments, where outputs are easy to measure, and hence control is usually exercised by comparing standard with actual costs; and discretionary cost centers, such as R&D, HR, purchasing or accounting and finance departments, where outputs produced are relatively difficult to value in monetary terms and thus control is based on the adherence to budgeted levels of expenditures and evaluations often have substantial subjective components.

As mentioned before, responsibility centers' managers are held accountable for one or more financial statement line items. For instance, RCs and CCs' managers are held accountable for only one, or sometimes a few, income statement line items, while PCs and ICs' managers for some revenues and some expenses line items and profits directly related to performance in areas reflected on the balance sheet, respectively (Merchant, 1998). The choice of the line items is extremely important because it influences managers' behavior concerning which measures they should focus on.

Companies' financial responsibility centers architecture is coincident with the managers' areas of authority, defined by the organizational policies and structure. The latter can be functional or divisional. In a typical functional company (see Exhibit 2), teams or groups are created based on common functions in a bottom-up manner. The result is a set of

functional units such as manufacturing, sales and marketing, finance, HR and R&D, which are specialized in a specific work process (input specialization) and are controlled and coordinated by the top-level management. None of the functions' managers has significant authority over both the revenues and costs' decisions, which are brought together in a profit measure only at the corporate level. On the other hand, in a typical divisionalized company (see Exhibit 3), teams are organized in divisions clustered by market focus (output specialization) and hence specialized by product, customer or geographic/regional business, depending on the organizational structure's decisions. Each division has its own set of functions and is completely self-contained. Divisions' managers are given decision-making authorities for all, or at least most, of the functional units that affect their division's success and hence they can be considered PCs' (or ICs) managers, accountable for multiple costs and revenues (Merchant and Van der Stede, 2007).

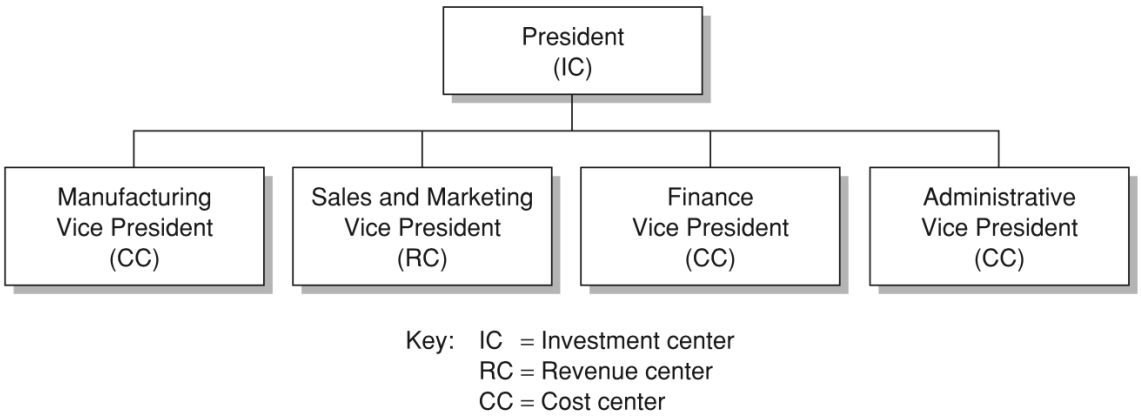


***Exhibit 2**: Typical responsibility centers' structure in a functional organization (Source: Merchant, K. A., 1998. Modern management control systems: text and cases. Prentice Hall).*

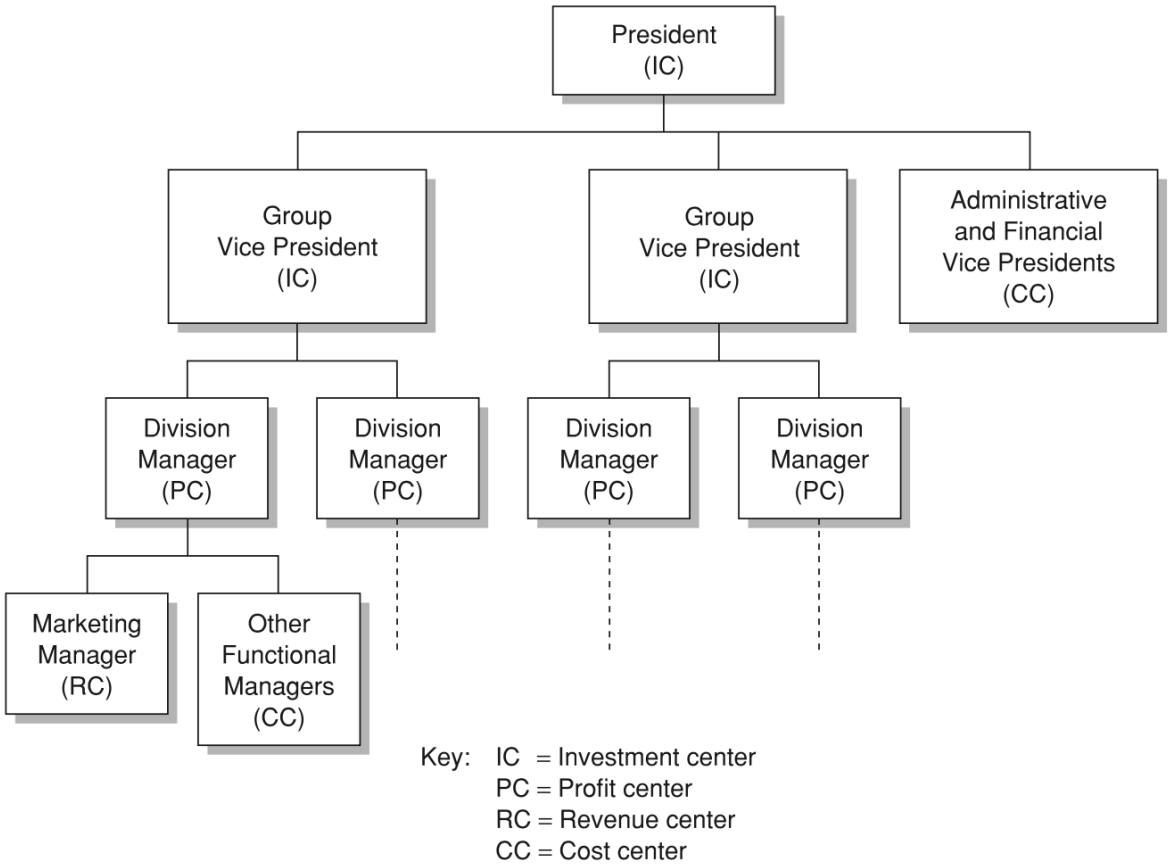


***Exhibit 3**: Typical responsibility centers' structure in a divisionalized organization (Source: Merchant, K. A., 1998. Modern management control systems: text and cases. Prentice Hall).*

The choice of which organizational structure to adopt usually comprises trade-offs between several benefits and costs. Grouping by work-process (functional) leads primarily to specialization's benefits: economies of scale and scope in production, R&D, and marketing and distribution, which can bring increased effectiveness and efficiencies, reflected in lower costs and/or quality improvements. The benefits of clustering by market (divisional, instead, derive from higher responsiveness to customers and competitors. Many consumer products' companies, such as P&G, are extremely responsive to changing market conditions and can launch new or re-launch existing products, adjusting pricing, promotion, and packaging rapidly to defend market share. Each of these choices – specialization and market responsiveness – has its drawbacks, which stem primarily from the information flow for coordination and control purposes. In functional organizations, specialization creates the need to integrate the highly interdependent processes. For instance, sales forecasts must be integrated with production plans, or marketing campaigns must be coordinated with stock levels to ensure that potential spikes in demand can be handled. Therefore, top management should ensure that MCSs

can effectively coordinate inputs and outputs between the different specialized units (Simons, 2014). Divisionalized structures' coordination and control costs, instead, are mainly associated to the administration of the internal transfer pricing system. Since PCs often supply products or services to other PCs within company's borders, specific mechanism for determining the prices of the transfers must be established. Prices of intra-firm transactions directly affect the revenues of the supplying PC, the costs for the receiving PC and, consequently, the profits of both entities, whose impact depends largely on the amount of internal transfers relative to the size of each entity. Sometimes transnational companies, having subsidiaries in different countries, view transfer pricing as a legitimate business opportunity, using this practice to misrepresent financial success and avoid or evade taxation, through profit shifting (Mehafdi, 2000).

### *1.2.2. Performance target-setting*

Another results controls' core element is performance targets' setting, used for evaluation and incentive purposes. Top managers employ *planning and budgeting systems* for this specific purpose. These systems provide written plans that clarify organization's goals, strategies and performance targets, indeed. Goals define where the firm would go, strategies translate how it plans to get there and performance targets determine what results employees are expected to produce. There are many ways to design effective planning and budgeting systems, which could vary considerably from company to company. These differences may entail, for instance, the degree of formalization, targets' amount of "challenge" and subordinates' participation and influence. Plans and budgets are effective motivational devices, stimulating employees' actions by providing conscious targets to strive for because linked to performance evaluation and, in turn, various incentives. While it would be nice to be able to tell them to "do the best they can", such vague encouragement is usually not optimally motivating. Even in the absence of explicit rewards, managers and employees can be highly motivated to achieve performance targets only to avoid having to explain to their superiors why they missed them. However, this is not the only purpose. These processes force individuals involved to think about the future and make decisions in advance. Planning processes, if effective, make controls proactive instead of reactive, which implies just responding to the conditions faced. In fact, they should drive managers to increase awareness of company's strengths and weaknesses, opportunities and threats, and the impact that strategic and operational decisions can have, reducing business risks

(Alexander, 2018). This would not be achieved without adequate coordination. Information sharing and communication between different organizational layers regarding organizational goals (top-down) and opportunities, resource needs and constraints (bottom-up). The final purpose of planning and budgeting systems concern facilitating top management oversight, enabling the implementation of management-by-exception approach. Negative variances between actual and standard (targeted) performance indeed provide an early warning of potential issues that require top management intervention.

Large companies usually employ three sequenced planning cycles, which are incrementally specific, detailed, short-term and involving more organizational levels: strategic planning, capital budgeting, and operational budgeting (Vancil and Lorange, 1975). *Strategic planning* includes the broad processes of designing firm's courses of action, developing corporate vision, mission and objectives, identifying the strategies it will use to compete in the marketplace and how it will organize its internal activities. This long-term oriented process involves both corporate and division (business unit) managers who are the most broadly informed. In general, strategic planning provides a framework for the more detailed planning that takes place in the following cycles (Blumentritt, 2006).

*Capital budgeting*, instead, involves the identification of specific action programs (or projects) to be implemented over the next few years and the decisions about resources' investments and allocation. This process usually starts with discussions between the division managers and their subordinates about the programs needed in the near future. Then, managers must inevitably review these programs and judge whether they are aligned with goals and strategies established during strategic planning and whether they should be modified or discontinued. Capital budgeting commonly involves calculation of each project's future accounting profit and cash flows by period, the present value of cash flows, the number of years it takes for a project's cash flows to pay back the initial investment, an assessment of risks, and various other factors (Simons, 2014).

The back end of the planning process is the operational budget – "*budgeting*" for short. The latter encompasses the preparation of financial short-term plans, usually for the next fiscal year. These plans match the organization's responsibility structure and provide revenue, expense, asset and liability line items' targets typically resulting from negotiations between controllers and managers, who agree to commit for their accomplishment. Budgeting is hence usually a bottom-up process that ends with the approval of an authority higher than the budgetee. Almost every organization performs the functions of each of the

three planning cycles. Smaller firms, particularly, may combine two, or sometimes all, of the cycles as part of a single and more informal process. However, as a company grows, more elaborate and formal planning and budgeting are desirable (Merchant and Van der Stede, 2007). During this last stage – budgeting – arise the most concrete *performance targets*. According to Latham and Locke (2006), "goals (or targets) directed action is an essential aspect of human life. Without goal directed action people cannot obtain the values that make their survival and happiness possible". In other words, in an organizational context, targets supply the necessary guidance regarding what the company seeks to attain and provide the self-fulfilling and monetary "values" that employees want to obtain, being linked to performance-related rewards.

Performance targets can be directly derived from quantitative models defining how performance is expected to be in the upcoming year, based on performance in prior periods (e.g. increase in profits by 5 per cent over last year), or the result of a negotiation process between subordinates and their superiors. In the common scenario, information asymmetry between the two parties comes out. While superiors have better knowledge about organization's preferences and resource constraints, subordinates usually exploit the information gap concerning operating links between inputs and outputs, opportunities, and risks. The "tennis match", as described by McCosh and Walsh (1989), generally involves a detailed exploration of the viability of the budget and the likelihood that targets would be achieved. The term "tennis match" is quite descriptive, as the first budget draft might "cross over the net" several times before a final version is defined. The value of the budget as a plan describing what is expected to happen in the near future, as a motivating device, and as a standard against which actual performance will be measured depends largely on whether and how skilfully this negotiation is conducted. Most companies allow subordinates to participate actively in establishing their budgets, but participation must be used carefully, since it may give rise to dysfunctional behaviors such as budget slacks, where subordinates try to keep targets as low as possible to increase the likelihood to obtain bonuses related to their achievement. Budgeting process participation and related issues will be discussed afterwards (Simons, 2014).

Furthermore, performance targets can be fixed, and hence managers are held accountable for their budgets regardless of the business conditions faced during the period, or flexible, varying, for instance, with changes in the activity volume, currency exchange rates, or interest rates. In most companies, the former holds, at least at PC and corporate levels.

Finally, the last distinction comprises internally and externally focused targets. In the first case, the target-setting process is based on period-over-period evaluations within the organization aimed at continuous improvement, while in the second the company benchmarks its performance and practices with those of competitors.

Results controls systems' effectiveness largely depends on the budgeting process, since targets, as mentioned before, are used as benchmark for performance evaluations and subsequent rewards. In order to prevent it from being jeopardized, two critical issues must be addressed. First, what is the optimal level of performance targets' challenge? In other words, how do subordinates respond to targets that are either easy or difficult? And second, who should be involved in targets' setting? How much influence are they then allowed to impart? To what extent should budgeting be a bottom-up versus top-down process? Different situations are examined.

The answer to the first questions depends on the planning or motivational purposes that top management want to emphasize. However, evidence suggests that most companies seek to fulfill both (Umapathy, 1987), and hence they must strive to find the opportune middle ground. On the one hand, for planning purposes, budget targets should equal expected performance, that is, with 50 per cent probability of success. On the other hand, the outcomes that best motivate employees are less defined. Low-level unchallenging targets diminish people's degree of aspiration because they are able to achieve them with minimal effort and hence might not be the desirable choice. Behavioral literature (Locke and Latham, 1990) suggests that creativity and innovation, rather than just incrementalism, is maximized when individuals are under some reasonable amount of pressure to perform; then remove the pressure, and they will run at a slower pace. However, excessively high-performance targets may have detrimental effects and lead to dysfunctional behaviors, since people approach the perceived limits of their ability, getting discouraged, losing their commitment and exerting less effort. The "reasonable compromise" is highlighted in Figure 1, that illustrates the relationship between motivation (and hence performance) and targets' achievability. When motivation reaches the highest level (point A), targets are labelled as "challenging but achievable" (Merchant and Van der Stede, 2007; Simons, 2014).

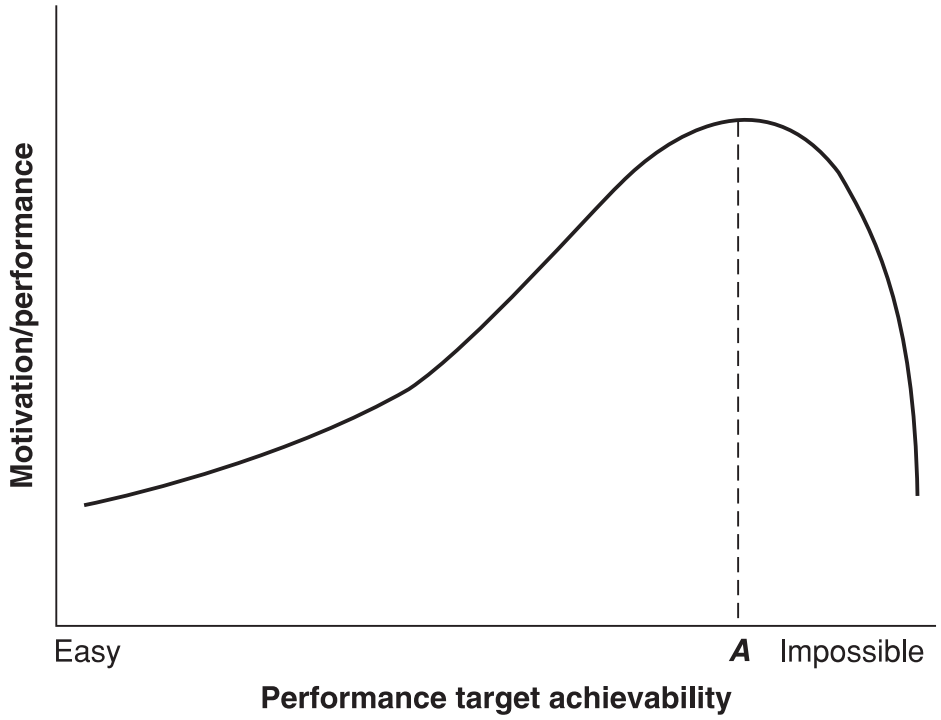


***Figure 1**: Non-linear relationship between motivation and targets' achievability (Source: Merchant, K. A., and Van der Stede, W. A., 2007. Management Control Systems: Performance Measurement, Evaluation and Incentives. Pearson Education).*

Most firms set their annual profit targets, both for corporate and PC managers, at levels that are challenging, but achievable by an effective management team with 80 to 90 per cent of likelihood. These targets' feature has several benefits. First, it protects the organization against the cost of optimistic forecasts, including sales and, in turn, production levels. Second, highly achievable targets make managers feel like winners, and hence boost intrinsic motivation. Third, they reduce the costs of superiors' interventions, facilitating management-by-exception philosophy. In fact, when targets are achievable 80 to 90 per cent of the times, top management attention is destined to the relatively few and most severe situations. Last, but maybe the most important, they reduce the risk of subordinates' gameplaying. The latter practice is common when managers, whose performance is linked to intrinsic or extrinsic rewards, are in danger of missing the budget and hence have incentives to "play games" with the numbers. This may involve deceptive accounting practices or costly operating decisions that boost short-term performance at the expense of the long run. For instance, Managers who run the risk of failing the targets will accelerate shipments and revenues from next year into current year and shift costs from current year to next year even though the two-year overall profits are reduced. And it is not unusual that gaming the numbers turns fraudulent (Jensen, 2003). Informix, an internet

software company, had to settle lawsuits for a total amount of $142 million, resulting from U.S. Securities and Exchange Commission (SEC) charges for fraudulently rising earnings by $295 million in the 1994–1997 period. According to SEC complaint (2000), Informix managers were attempting "to meet or exceed the company's internal revenue and earnings goals", for example, by moving revenues from one quarter to the previous by backdating sales agreements, recognizing revenues on transactions with customers that were not creditworthy or on disputed claims against customers.

Gaming does not only refer to targets' realization, but it is also a frequent issue in target-setting process, when negotiations between top managers (or controllers) and lower level mangers take place. The latter have an informational advantage over principals that are inclined to exploit, lying on targets' achievability, if these are linked to monetary or non-monetary incentives. Indeed, as Adizes (1999) stated, "the more people lie about how much they cannot do, the more they are rewarded". If budgets do not reflect the true business possibilities, the nullification of planning and coordination purposes will be the result. The role they play is critical in coordinating the various responsibility centers so that their managers' actions lead to harmonious interactions, high output, low cost, high quality, low inventories and satisfied customers (Jensen, 2003).

Companies should hence carefully decide the degree of participation and influence allowed in budgeting. Anyway, most, but not all, organizations rely on bottom-up target-setting processes. Allowing employees to be actively involved in, and to have influence on, the process of setting their performance targets allows them to better understand why the targets were set, increasing their commitment. Langevin and Mendoza (2014) suggest that participation and "voice", that is the opportunity to express opinions during decision-making, giving managers the feeling that they can exert some control over the process, enhance perceived procedural fairness and stimulates favorable behaviors. Furthermore, participative budgeting facilitates information sharing about business and operational opportunities and risks, while corporate managers can provide information about organization's priorities and constraints. Patagonia, for instance, since employees felt ignorant of the company's plans and other departments' activities and, generally, not in "control of their destiny", replaced formal planning and budgeting with the "Workbook Process" in 1995. This involved making every department's and the company's plans visible to all employees, making monthly department and corporate financial and operating reports visible to all employees, training employees in financial management so that they would have

understood the information made available, encouraging all employees to actively participate in the planning and operating review processes (Merchant and Van der Stede, 2007). Several situations nevertheless exist where not all subordinates should be involved in budgeting process, particularly during performance target-setting, and hence a top-down process may be desirable. The latter can be implemented when top-level management has superior, or at least sufficient, knowledge of operating activities, perhaps because they formerly ran the business, or when subordinates are not enough skilled in budgeting, common feature for small businesses' operational managers.

However, annual plans and budgets have been subject of criticism for years. Neely et al. survey (2003) underlines that 80 per cent of companies interviewed were dissatisfied with their planning and budgeting processes and CFOs ranked budgetary reform as their top priority. While substantial improvements have been made, most organizations do not extract the potential utility out of this very time-consuming and costly activity. Critics have mainly focused on managers' gameplaying practices, such as the reluctance to share key information so as to be able to create budgetary slack, and on budgets' rigidity, unsuitable in today's competitive and turbulent environment. According to Alexander (2018), budgets were indeed useful for a time, when business was more static. Their significance has declined considerably, resulting from the development of global economy, the accelerated rate of change, and critical geopolitical events that reshape markets frequently and dramatically. Furthermore, one of the biggest issues associated to budgeting is their inward-looking, short-termist orientation that undermine business strategy implementation and the creation of shareholder value over the medium and long term. These weaknesses, collectively, lead towards business underperformance.

Among the multiple suggestions made by practitioners, the two most common alternatives appear to be "better budgeting" and "beyond budgeting" practices. The former entails different approaches and techniques that can aid improved budgeting. An example could be the "rolling forecasts", which provide better targets' accuracy, overcoming the traditional budgeting time-lag problem. For instance, as the first quarter actual results are known, the forecast are extended to include the first quarter of the following year. This methodology allows managers to have a full-year future outlook on the financial results (Alexander, 2018). On the other hand, "beyond budgeting" involves elimination of traditional budgets altogether. The typical case cited in most literature (Neely et al., 2003; Jensen, 2003; Merchant and Van der Stede, 2007) is Svenska Handelsbanken, the largest bank

in Sweden, who eliminated budgets in the late 1970s. For more than 20 consecutive years, it has had the best ROE compared to direct competitors and also claims to be the most cost-efficient European bank in terms of both expenses as percentage of total assets and margins. Operational efficiency and effectiveness are tracked through performance ranking tables, that encourage internal competition. Internal culture and nature of the market in which Handelsbanken operates prevents this to become a problem. Excellent performance confirms the assertion of a company's executive: "We do not see any reason why we would need to create budgets" (Neely et al., 2003).

### *1.2.3. Performance measurement*

Before target-setting process, top management should define the dimensions on which results are desired (or not desired), that is determining the "critical performance variables" – the factors that must be accurately achieved or implemented for the intended business strategy to succeed (Simons, 2014). Managers must identify the critical performance variables for their particular business, which shape employees' view of what is important and represent the basis for subsequent performance measurement and evaluation and, in turn, related rewards. The primary objective of for-profit organizations is to maximize shareholder value, also called "economic income". The ideal would hence be to reward employees for increasing firm value. However, individuals' contributions to value creation is most of the time impossible to assess. Therefore, companies must look for alternative performance measures, that properly motivate and influence employees' decisions. These measures can be classified into three broad categories: market measures, accounting measures and combinations of measures (Merchant and Van der Stede, 2007). The first two include summary financial measures, which reflect the aggregate and bottom-line impacts of multiple performance areas of performance. For example, accounting profits reflect the combined effects of both revenue and cost-related decisions. Combinations of measures, instead, can involve either the use of both market and accounting plus non-financial measures (e.g. market share or customer satisfaction).

*Market measures* are based on changes in the firm's market value or, if dividends are considered, return to shareholders. The value created can be measured directly as the sum of the dividends granted to shareholders in the measurement period plus (or minus) the increase (or decrease) in company's stock price. Some managers, particularly at top levels, are held accountable for these performance measures, to which firms usually tie a

variety of stock-based compensation plans, such as stock option. If the changes in market value are assessed in terms of transaction prices, as is common, the market measures have several benefits. For listed firms, in fact, market values are available on a daily, or even more frequent, basis, they are accurate and usually objective, not manipulable by the managers whose performance is being evaluated. What is the problem, then? The feasibility constraint. Market measures are indeed promptly available only for publicly-traded companies and hence not applicable for privately held enterprises or subsidiaries. Furthermore, they present controllability issues[8], since they can be significantly influenced only by few top executives in the company, those who have the power to make major decisions. Therefore, if lower-level employees are not able to affect substantially stock prices, basing rewards on those will have no effect on the employees' behaviors.

A third issue with market measures is that market values do not always reflect realized performance, since they are often influenced by future expectations. For instance, in May 1997, the Boston Celtics Limited Partnership, which owned the Boston Celtics, an NBA basketball team, announced the hiring of Rick Pitino, a highly rated new head coach. The organization's shares were traded publicly on the New York Stock Exchange and, the day after Pitino was hired, the stock price increased by 7.4 per cent. Trading volume sharply rose to about 70 times the normal daily average, and after a month, the stock price kept growing until reaching 8.2 per cent. Unfortunately for the Celtics, the team's performance did not meet expectations. After Pitino's resignation, share price drop to previous levels (Brown and Hartzell, 2001).

*Accounting-based measures* constitute the second category of financial performance measures, which can be defined either in residual (e.g. net income, EBIT, EBITDA, residual income or EVA) or ratio terms (such as ROI, ROE, ROA, ROS, etc.). These measures are typically derived from accounting rules defined by standard-setting bodies, such as US Financial Accounting Standards Board (FASB) or International Accounting Standards Board (IASB), for financial reporting purposes. As market values for listed companies, accounting profits can be measured on a timely basis, relatively precisely and objectively. Specific, predetermined, short-range targets push individuals' performance more than vague encouragements such as "do your best", helping avoid inefficient decision-making.

[8] *Controllability principle* is one of the key conditions for results controls' effectiveness. In fact, accordingly, employees whose behaviors are being controlled must be able to have significant influence on the results for which they are being held accountable. The conditions will be discussed in section 1.2.5.

Accounting measures usually can be largely controlled by managers and, in general, employees, whose performance is being evaluated, at each organizational level. Finally, these measures are inexpensive, since they are already produced for financial reporting to external users, especially actual and potential investors and creditors. However, inherent shortcomings exist. First, they seem to be meaningless for certain firms, especially in the start-up phase, consisting in significant losses, which are just an artifact of conservative accounting rules that require the immediate recognition of long-term focused business investments, such as investments in research and development (R&D). Although development expenses can be capitalized under the International Financial Reporting Standards (IFRS; see IAS 38[9]), the total amount of investments usually outweigh profits, or rather losses, earned. In these cases, managers are not greatly concerned with short-term accounting measures. Instead, they tend to focus on reliable non-financial indicators.

Generally, companies create value for shareholders by investing cash now to generate more cash in the future. The amount of value they create is then equal to the difference between cash inflows and the cost of the investments made, adjusted to reflect the fact that future cash flows are worth less than today's because of the time value of money and their riskiness. This essentially embodies the concept of discounted cash flows (DCF). In other words, a firm will create value only if its return on capital invested (ROIC) is greater than its cost of capital (the opportunity cost for its investors), commonly intended as weighted average cost of capital (WACC), which considers both cost of debt and equity, and is used for discounting the cash flows mentioned before. However, many executives still treat accounting profits and value as one and the same, focusing almost obsessively on their improvement. While profits and cash flow are often correlated, the former do not tell the whole story of value creation, since they reflect the cost of borrowed capital (interest expenses) but ignores the cost of equity, typically the most expensive between the two. Focusing excessively on profits often leads companies to stray from a value-creating path (Goedhart et al., 2015). The divergence between accounting and economic income has caused several critics against the use of accounting performance measures. Most top managers, however, continue to use them, but should be aware that motivating subordinates to maximize accounting profits, rather than economic income, can create a number

[9] *IAS 38* sets out the criteria for recognising and measuring intangible assets, including R&D, and requires disclosures about them (IFRS Foundation, 2004). Development expenses can be capitalized under IFRS, but not under US GAAP.

of behavioral displacement issues, because they are relatively ‘‘easy to manipulate in ways that do not enhance the long term competitive position of the firm” (Kaplan, 1984). Among the opportunistic behaviors, myopia is probably the most potentially damaging. The extensive use of accounting measures for performance evaluation can drive individuals to act myopically when making decisions (Jacobsen and Aaker, 1993). Therefore, holding managers accountable for short-term profits induces them to reduce investments that promise payoffs in the long-term, even when those investments have a positive net present value (investment myopia), or to make operational decisions to purposely shift income across periods, even when harmful in future periods (operational myopia).

An option for overcoming myopic behaviors is to employ the third category of performance measures, namely combination of measures. The backward-looking and short-term orientation of accounting measures can hence be balanced by others more future-oriented, such as market valuations, described before, or non-financial drivers. Market share, customer satisfaction, product quality, R&D and new product development are often leading indicators of future financial performance. Proponents suggest that their employment may lead to benefits including improvements in organizational and individual productivity, as well as the enhancements of employees’ morale, loyalty, and satisfaction (Niven, 2002). Thus, integrating accounting measures with some combination of these value drivers can ensure that managers do not focus only on short-term profit maximization, but also on things they should worry about today in order to create value tomorrow. Perhaps, the most widely-known system characterized by combination of financial and non-financial measures is the balance scorecard (Kaplan and Norton, 1992). It translates company’s mission and strategy into short and long-term goals and measures, organized into the following four perspectives: financial, customer, internal business processes, and innovation and learning (see Exhibit 4). Using this tool, managers can measure their business units’ effectiveness in creating value for current and potential customers, building and enhancing internal capabilities, and investing in people, systems, and procedures necessary to improve future performance. Moreover, evaluating their performance basing on combination of measures forces them to make tradeoffs between short-term profits and the drivers of future profits (Simons, 2014).

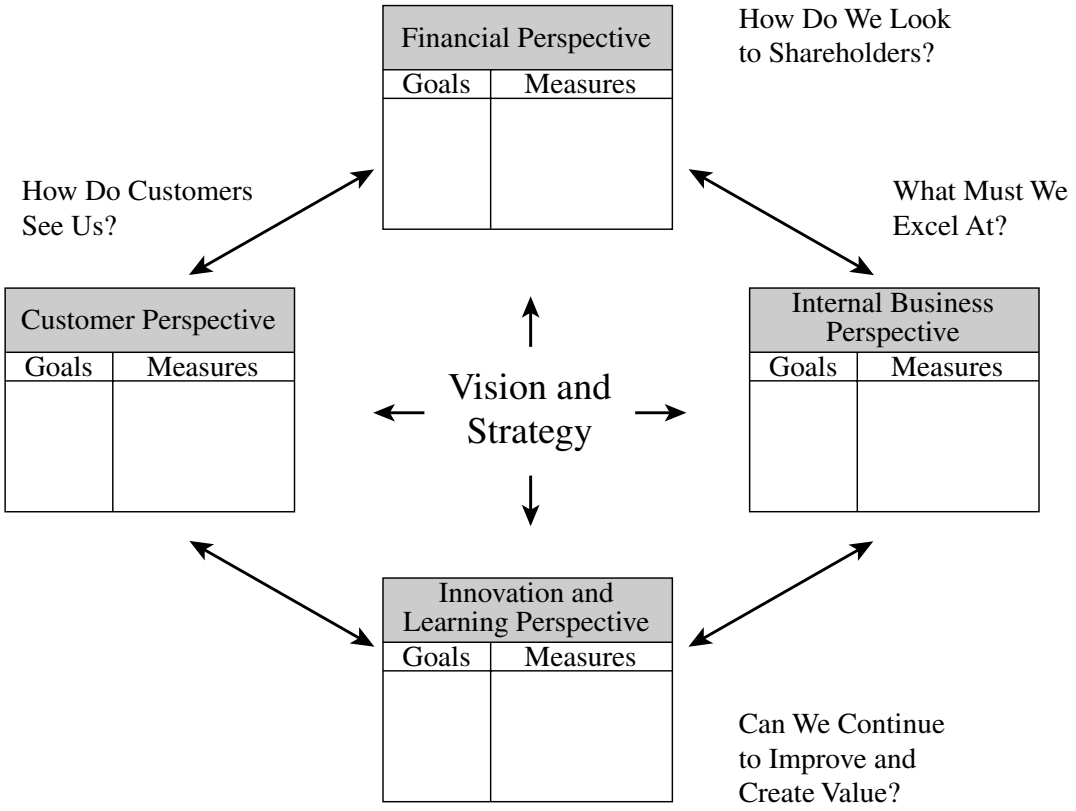


***Exhibit 4**: The four balance scorecard's perspectives (Source: Simons, R., 2014. Performance Measurement and Control Systems for Implementing Strategy. Pearson Education).*

### *1.2.4. Incentive contracts*

Providing rewards or incentives to encourage behaviors that will lead to the desired results represents the final important element of results control systems. The apparent belief seems indeed to be that "the key to getting things done is to find a way to pay people to do it" (Manzoni, 2010). Incentive systems tie positive or negative (punishments) rewards, that is what employees like and dislike, to targets' achievement. Sometimes punishments may manifest themselves through the absence of positive rewards, such as not being paid a bonus or not getting a promotion. Another common way to "punish" employees is public humiliation, known in an organizational context as "naming and shaming", which may entail, for instance, dividing in the office managers who met budget targets from managers that did not. This practice is usually highly effective and inexpensive. However, the most common form of rewards in organizations remains money.

*Monetary rewards* can be distinguished into three main categories: performance-based salary increases, short-term and long-term incentive plans (Kole, 1997).

All companies give salary increases to employees at all organizational levels. They typically represent a small proportion of an employee's salary but provide an annuity that generally persists for many years, since salaries are rarely reduced. For this reason, they have considerable value. Short-term incentives, instead, include annual bonuses, commissions, and piece-rate payments. The basic rationale for variable pay is to differentiate pay, characteristic also reflected in the term "incentive" itself, which implies that individuals are paid more when performance exceeds some base or threshold (Simons, 2014). In other words, higher performance and contribution to the company generates higher pay. Short-term incentives are usually paid out of a bonus pool – a pot of money that is reserved for pay-for-performance rewards – typically determined as a certain percentage of company's annual profits, and allocated to managers, and employees in general, basing on personal, business and/or corporate performance. The third category, long-term incentives, is based on performance measured over periods greater than a year and employed to increase individuals' commitment towards company's long-term value maximization. This type of rewards also aims to attract and retain key and talented employees by, for instance, encouraging employee ownership and tying bonus payouts to longer service periods. Lon-term plans mainly measure performance in terms of market-based variables, providing rewards according to changes in firm's stock value. Common examples are stock option plans, that give employees the right to purchase a set amount of company's shares a preset price (i.e. the exercise price) during a specified period of time; restricted stock plans, where eligible individuals do not have to spend cash to purchase the share, but selling it is restricted for a specified period of time, conditional on continued employment; or stock appreciation plans, similar to options, since employees benefit from the appreciation of company's stock price and can exercise the related right at any point during the term, with the difference that they do not have to spend cash to acquire the stock. These long-term incentive plans just described are usually offered only to managers at high organizational levels. Besides individual bonus plans, companies can also employ team-based rewards in order to attempt to increase cooperation. Group rewards are among the most important methods for shaping organizational culture, and thus effecting cultural controls. They will be discussed in section 1.4.2.

Although it is probably not wrong to assert that individuals universally value money, they are not the only thing they appraise. As a matter of facts, many positive incentives are *nonmonetary*. A typical example could be promotions, that involve increase in decisional power and recognition. Anyway, it is must be said that several nonmonetary rewards are usually associated with one or more forms of monetary payments. In fact, promotions typically include also salary increases and, mainly at higher managerial levels, inclusion in more incentive-compensation plans (Merchant and Van der Stede, 2007).

Organizations can derive motivational value from linking any of these rewards to results that employees can influence and for which their performance is evaluated, providing the proper "impetus" for aligning individuals' self-interest with organizational objectives. This purpose of incentives is also called as effort-inducing. In other words, employees usually need to receive a "shock" for performing as the organization desires, and that is rewards. Even though positive rewards have been more common in practice than penalty contracts, the latter seem to impart greater effort-inducing effect. Indeed, Hannan et al. (2005)'s study highlights that, despite stated preferences for bonuses, agents exert superior effort if subject to negative rewards and calls for further research on why they are scarcely employed by most companies. Moreover, performance-based compensation serves informative purposes. Rewards drive employees' attention towards the results areas to which top managers want to give major emphasis, helping employees decide how to direct their efforts. For this reason, this informational aspect is sometimes also referred to as the effort-directing purpose. The third benefit is personnel related. Some performance-dependent rewards are promised because the company wants to attract and retain higher quality employees by offering a superior package compared to direct competitors and, as mentioned before, by tying incentives to continued employment. Finally, these systems allow organizations to share with eligible individuals the risk of bad performance, since compensation is made more variable. This enables to decrease cash outflows when the company performs poorly and smoothing earnings – compensation-linked expense is lower when profits are lower.

Incentive contracts' appropriate *design* is another controversial topic. Usually, companies consider three design choices: the extent to which they are set formulaically (opposed to subjective evaluations), the shape of reward-result relationship, and the size of incentive payments. A common practice for most organizations is to tie incentives promised to a formula, which is specified in the related contract. This is normally the case for short-term

bonus plans at most organizational levels. However, superiors sometimes purposely leave contract terms completely or partially implicit, that is, results and related rewards are evaluated subjectively. Subjective evaluations are generally employed when top managers want to keep the contract flexible in case of a change in environmental or competitive conditions, or when they aim to encourage employees to "do the best they can" and not excessively focus on specific performance targets, which can, in turn, lead to the engagement in short-term manipulations and opportunistic behaviors (Gibbs et al., 2004).

When incentives are defined formulaically, the link between rewards and desired results is determined by an incentives-performance function. Jensen (2003) suggests that, in order to avoid gaming problems, the latter should be a straight line, and hence the actual bonus that a manager get is independent of where the budget target is set. In this scenario, they have no incentive to lie about what they can do in the target-setting process. Thus, this linear incentive schedule rewards employees "for what they actually do, and not what they do relative to what they say they can do" (Jensen, 2003). Since lower-level managers really believe it, top-level management will get unbiased measures of future performance, leading to an increase in planning and coordination quality. However, most companies' PC managers usually earn the bonuses promised only if they achieve all or a considerable portion of their budget targets, that is if they reach the lower cutoff or threshold (e.g. 80 per cent of the budget) the firm set; and then reward-results function increases linearly with performance up to a maximum, i.e. upper cutoff (e.g. 150 per cent) (see Figure 2). Companies usually set lower cutoffs because they clearly do not want to pay bonuses for poor performance. Upper cutoffs, instead, are mainly set to avoid paying rewards for underserved performance, for instance, in case of unforeseen good luck, to prevent myopic behaviors, i.e. excessive short-term orientation at the expense of the long-term, and to maintain vertical compensation equity (Merchant, 1989).

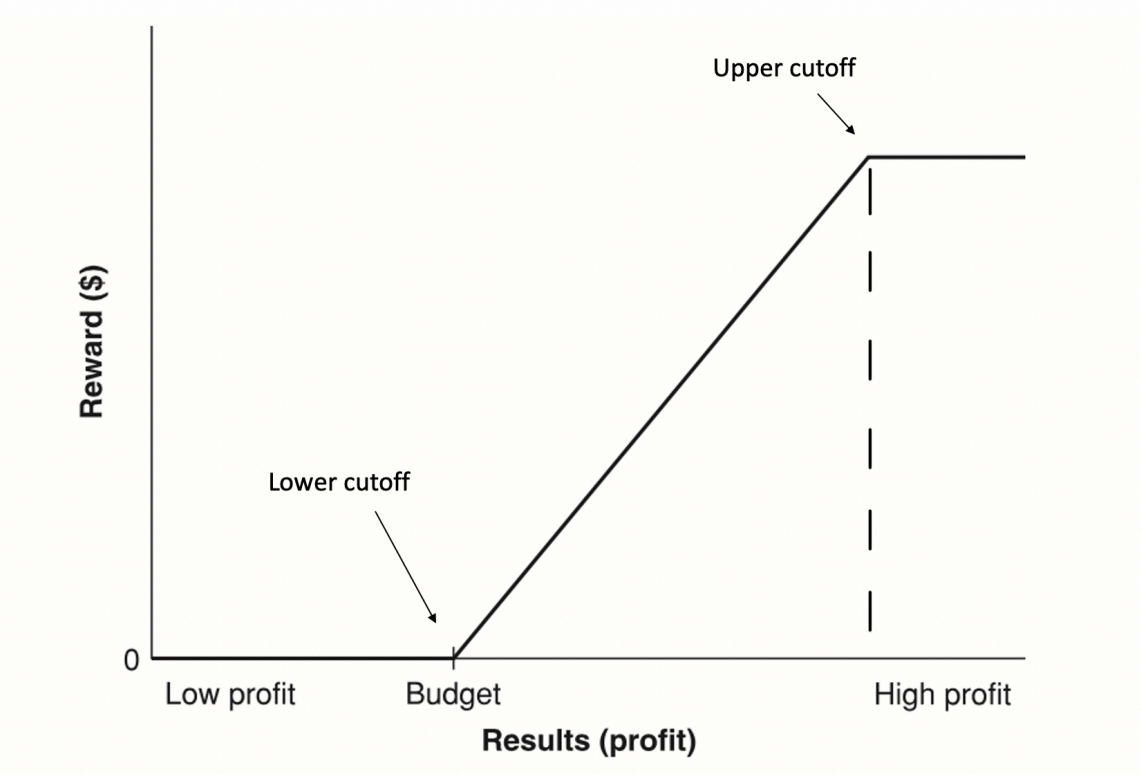


***Figure 2**: Typical incentive-performance function (Source: Merchant, K. A., 1998. Modern management control systems: text and cases. Prentice Hall).*

### *1.2.5. Results controls' effectiveness*

Although results control systems are the most employed and, perhaps, important form of control in many organizations, they are not always effective. In order to guarantee their feasibility, companies should be able to ensure the fulfilment of the three conditions. First, they must know the desired results in the areas being controlled and communicate them effectively to related employees. Results should be aligned with overall objectives and intended strategies that firms want to implement. For instance, a cost leadership strategy may aim at emphasizing cost reductions. If the wrong results areas are selected, or if the wrong importance weights are given, the incongruence in results measures will encourage employees to take the wrong actions. Second, individuals whose actions are being controlled must be able to exert significant influence on the results for which they are being held accountable. If results are totally uncontrollable, the related measures are meaningless for evaluating performance. In practice, managers face many uncontrollable factors influencing results, especially in dynamic and turbulent environments, which make top-managers and controllers' "life" more difficult. This is generally known as

*controllability principle*. Finally, organizations should be able to measure the results effectively. This is not directly linked to performance measurement practice, but instead to employees' behaviors that results measures for which they are held accountable evoke. In order to inspire desirable actions, these measures should be *precise*, enabling effective informational value transmission; *objective*, meaning free from biases, which can be ensured if measurement is performed by independent parties within the organizations, such as controllers or internal auditors; *timely*, referring to the gap between the individuals' performance and subsequent results' measurement, which increases motivation exerting short-term pressure and facilitates top management interventions if significant issues arise; and *understandable*, achieved by proper communication and training.

### *1.3. Action controls*

Results control systems described in the previous section are not the only form of controls that an organization can employ. Indeed, they are usually supplemented by other control types serving the same purpose; that is, making sure that employees' behaviors are consistent with organization's objectives. One of the integrative solutions is action controls, that, according to Merchant (1982), involves "ensuring that employees perform (or do not perform) certain actions known to be beneficial (or harmful) to the organization", and, since they act on individuals' actions, are considered the most direct form of control.

More than fifty years ago, Barnard (1968), realized that setting limits on actions was a necessary prerequisite for achieving effective organizational decision making. He stated that "the power of choice is paralyzed in human beings if the number of equal opportunities is large. Limitation of possibilities is necessary to choice. Finding a reason why something should not be done is a common method of deciding what should be done. The processes of decision, as we shall see, are largely techniques for narrowing choice". Historically, action controls could be deemed the first descendants of "bureaucratic management theory" basic ideas developed by the German sociologist Max Weber (1905), founded on the concept of formalization. The key benefit lays in their role in preventing irregular and inappropriate behaviors, and, if effective, lead to the removal of each related cost.

### *1.3.1. Basic forms of action control*

Organizations can employ four different forms of action controls: behavioral constraints, preaction reviews, action accountability, and redundancy (Merchant and Van der Stede, 2007). Top management can limit the incidence of some types of undesirable activities by implementing *behavioral constraints*, a negative form of control, which render their occurrence impossible, or at least more difficult. These constraints can be applied physically or administratively. Company usually employ multiple forms of physical constraints, including computer passwords, locks on desks, and access limitations to protect information and resources against unauthorized disclosure and unauthorized or improper modifications, while at the same time ensure their availability to legitimate users (Samarati and De Vimercati, 2000). However, some of these devices are technically sophisticated and often expensive. The other way to place limits on individuals' actions is by using administrative constraints, which can manifest through the restriction of decision-making authority, minimizing the risk that uninformed employees will make harmful mistakes, or the separation of duties, involving dividing the tasks for the accomplishment of certain sensitive activities, thus making it unlikely for one person to carry out a specific task alone. Behavioural constraints are primarily effective in eliminating motivational problems, preventing the engagement in inappropriate behaviors by individuals who might be tempted to do so.

The second type of action control is *preaction reviews*, which involve "observing the work of others before the activity is complete" (Merchant, 1982). Reviewers can decide to approve or disapprove the proposed actions or ask for modifications. A typical example takes place during budgeting process, where plans are reviewed by multiple and subsequent organizational levels. They can help address lack of direction, because they often involve top-down communications about what the organization desires. They can also provide motivation, as the "fear" that reviewers will not accept or ask for significant modification of the action proposed (e.g. budgets) usually spurs more careful preparation. Finally, preaction reviews can also alleviate the effects of the personal limitations, since a good reviewer can add expertise if needed.

Another type of action control that can address all three of the control problems is *action accountability*. It involves holding individuals accountable for the actions they take. To be effectively implemented, action accountability controls require, in primis, defining the limits of acceptable behavior and communicating them to employees, through company's

work rules, policies, procedures and codes of conduct. The latter inevitably limit freedom of action. However, according to a Harvard Business Review survey (Brenner and Molander, 1977), while some employees may not want to be constrained by such rules, many actually prefer to have codes of conduct in place. When these codes align with personal standards of conduct, they can serve as a defense measure against inappropriate pressure from superiors to engage in conduct that violates the personal standards. Communication is not sufficient to make these controls effective. Indeed, actions should be accurately observed and tracked by means of direct supervision, periodic tracking or examining evidence of their completion, and rewarded if good or punished if they deviate from acceptable limits (Simons, 1995). Managers have little motive to reward employees for not violating stated boundaries. If boundaries are clear and communicated effectively, most organizational individuals will not contravene defined policies. Rewarding for their conformance would incur high costs without any increase in performance. For this reason, most companies usually link action defined to punitive and credible sanctions, even though some authors, such as Gatewood and Carroll (1991), have called for control systems that reward those who behave ethically. These punishments (or rewards) help provide motivation to employees.

The last form of action control is *redundancy*, that entails the assignment of more employees to a specific task than is strictly necessary, or at least having backup employees available, helping mitigate motivational and personal limitation problems, and hence increasing the probability of their accomplishment according to organization's desires. This practice, due to its high cost of implementation, is exclusively used in areas regarded as critical (Merchant and Van der Stede, 2007).

### *1.3.2. Action controls' effectiveness*

Action controls are not effective in every situation. They can be effectively implemented only if the company can define what actions are desirable or not and ensure that the (un) desirable actions (do not) occur (Merchant, 1982).

The knowledge regarding desirable actions is often hard to obtain completely and precisely, especially in highly dynamic and complex environments, representing a constraint that limits the use of action controls. This knowledge can usually be acquired in either two basic ways. First, organizations can analyze over time the set of actions that led to

determined results in specific or similar situations in order to understand and document which are desirable, i.e. those producing the best results. Second, they may be informed by external parties, such as consultants who have detailed knowledge of best practices.
However, good control cannot be ensured by solely knowing what actions are desirable. Indeed, companies should be able to make sure that employees take desired actions. Behavioral constraints and preaction reviews' effectiveness directly depends on how reliable the physical devices or administrative procedures in place are. Action tracking and evidence examination, core activities for action accountability controls to be effective, provide a significant challenge and often rely upon company's internal controls. The latter, as defined by the CoSo Report[10] (1992), involves the processes that aim at providing reasonable assurance of organizational objectives' achievement in operational effectiveness and efficiency, reliable financial reporting and compliance with laws, regulations and policies (both internal and external). Within the organization, the last listed task is performed by internal auditors, often referred to as "the eyes and ears of management", who must examine business processes and employees' actions and make judgments as to whether these meet predefined standards, hence having a significant role in ensuring that desirable actions are taken. In order to perform this activity, internal auditors should be independent and objective (IIA, 2015).
As for results control systems, it is quite difficult to make action control systems near-perfect, since they are effective mainly for "routine" jobs and may discourage creativity, innovation and adaptation and cause sloppiness and negative attitudes. Moreover, they are sometimes too costly to be implemented. As a consequence, companies employ people controls (personnel and cultural) to help fill in some gaps.

[10] "CoSo" is the acronym for "Committee of Sponsoring Organizations of the Treadway Commission", established in 1985 to support the National Commission on Fraudulent Financial Reporting, an independent initiative to analyze the conditions that can lead to financial fraud hidden in false social communications. Over time, this body has acquired the role of primary representative for internal controls' expertise.

## *1.4. People controls*

Formal control systems, as results and action controls, are not the only way to ensure that employees act congruently with objectives and strategy. In fact, companies usually employ personnel and cultural controls, sometimes referred to as social or soft controls or belief systems (Simons, 1995), to encourage self and mutual monitoring, respectively. These types of control have acquired major importance in recent years, when organizations, instead of focusing heavily on elaborate hierarchies and bureaucratic structures, have embraced systems aiming at empowering employees and shaping a shared organizational culture, driving behaviors towards organization's best interest.

### *1.4.1. Personnel controls*

Whether they are called "people", "human capital", "human resources", "intellectual capital", or some other terms, employees, and how they are organized, are increasingly recognized as critical to companies' strategic success and competitive advantage. Finding the right people to perform a particular activity and giving them a proper work environment, the necessary resources and the opportunity to improve their skills certainly help organizations achieve the aforementioned objectives. These just described are usually labeled as personnel controls. They generally build on individuals' natural tendencies to control themselves, i.e. self-monitoring. The latter measures the extent to which people observe, regulate, and control the appearances of self displayed in public settings and interpersonal relationships (Snyder, 1979). They have a conscience that leads them to do what is right and find self-satisfaction when doing a good job and seeing their company succeed, hence pushing them to be naturally committed. Additionally, personnel controls help top management clarify expectations, ensuring that each employee understands what they have been hired for and that they have all the capabilities and resources needed to perform an activity at their best. The methods organizations use for implementing personnel controls are mainly three: selection and placement, training, and job design and provision of necessary resources (Merchant and Van der Stede, 2007).
Controls implemented after employees are hired (i.e. results and action controls) often serve as a reference point to guide them to work toward the firm's intended goals, enhancing their awareness of the relationship between their efforts and those outcomes. However, when objectives cannot be easily measured, post-hire controls may have a

limited ability to direct behaviors. Moreover, a weak relationship between efforts and results may lead to lack of motivation or even misconduct. Controls implemented before hiring may help overcome these issues and identify candidates with desired traits, skills and goals (Liu et al., 2019). For this reason, organizations usually devote considerable efforts to *employee selection and placement*. Although these practices are sometimes expensive in terms of time and money, their cost is far less than those associated with hiring somebody who is a "poor fit".

Another common way to help ensure that employees do a job properly is through *training*. Over the last centuries, business processes and practices' evolution across companies has emphasized the need for modification in "skills required to be possessed". These changes has led to a redefinition of training objectives from improving tasks' efficiency to providing employees with relevant skills and knowledge and enhancing their abilities to perform assigned activities in complex and dynamic environments (Ford et al., 2017), hence facilitating the alleviation of lack of direction and personal limitations problems. Furthermore, this also has positive motivational effects because employees are usually more committed in task's performance if they understand it better, feeling an increased "sense of professionalism". Their training and development, that now occur on demand, start with the assessment of the training needs and follow a structured and complex approach toward designing and scheduling proper programs that can be lengthy and time-consuming. However, the advent of artificial intelligence makes HR professionals' life easier. For instance, algorithms allow to identify correct profiles, eliminating biases of gender or race, automatically schedule interviews and provide real time and ad hoc feedback (Maity, 2019). Training can also be carried out informally, such as through employee mentoring. The importance mentors' role has been highlighted by Jerry Reinsdorf, chairman of both NBA's Chicago Bulls and MLB's Chicago White Sox, who in 1983 stated: "my management style is to hire good people and develop a relationship with them so that 95 per cent of the time they'll know what decision I'd make and go ahead without asking me" (Merchant and Van der Stede, 2007).

Finally, another method for implementing personnel controls is to accurately *design jobs* and *provide necessary resources* to allow motivated and qualified employees a good chance to succeed. There is wide consensus among researchers and practitioners that well-designed jobs can lead to increased well-being and job satisfaction, and, in turn, to behaviors coherent with organization's interest.

### *1.4.2. Cultural controls*

As mentioned before, whenever possible, companies attempt to measure results (or outputs). However, the latter cannot be always effectively measured, for instance when activities are nonroutine and unpredictable, dominated by situations that require initiative, flexibility, and innovation. A way to overcome this problem and likewise coordinate employees' efforts toward the attainment of organizational goals is through cultural control. While some scholars (Flamholtz et al., 1985) consider organizational culture solely as a "contextual variable" facilitating MCSs' implementation, Merchant and Van der Stede (2007) treat it as a fully-fledged form of social control. Schwartz and Davis (1981) provide a practical definition of organizational culture as "a pattern of beliefs and expectations shared by the organization's members. These beliefs and expectations produce norms that powerfully shape the behavior of individuals and groups". They are referring to culture as written and unwritten norms that characterize a company, which, in turn, are expectations about what attitudes and behaviors are appropriate or inappropriate within organizational boundaries. In other words, they could be seen as socially created standards that help interpret and evaluate employees' actions (O'Reilly, 1989).

Unlike formal systems, cultural controls can be much more finely tuned and can operate more extensively. When people care about those they work with and have a common set of expectations, they could be considered "under control" whenever they are in their presence. This type of "group pressure" is defined peer or mutual monitoring. Interestingly, employees' respond to being monitored by formal and social control systems differently. With formal systems the binding and unsatisfying sense of external constraint usually prevails. Instead, with social controls, they feel greater autonomy, even though paradoxically they are conforming much more.

Top managers try to create and shape organizational culture in many ways, both in words and by example. The most common practice is to set *explicit codes and definitions*, including codes of conduct, codes of ethics, statements of mission, vision or management philosophy, or organizational credos, formally communicated to provide basic values, purpose and direction for organizational conduct. Each of these is designed to help individuals understand how they are expected to behave, even if specific rule or principle are missing. These statements usually attempt to convey information about core values, including messages regarding commitment to quality or customer satisfaction, safe and inclusive work environment, fair treatment of suppliers, innovation and adherence to ethical

principles. Moreover, they should be broad enough to allow all employees to commit to values and purpose on their own terms. For example, a mission statement should appeal to a salesman, a manager and a manufacturing worker at the same time (Simons, 1995).
However, other approaches exist to promote and shape organizational culture. First, *intraorganizational transfers* (or employee rotation within the company) help culture's transmission by improving the socialization among employees throughout the organization, that facilitates the internalization of values and goal congruence. Transfers also potentially alleviate the likelihood of opportunistic behaviors, such as fraud, by avoiding that employees become "too" familiar with certain activities. Second, culture may be shaped through the use of *physical arrangements*, such as office layout and architecture, and *social arrangements*, such as dress codes. For instance, open office arrangements usually deliver important messages about employee equality. Third, another mechanism commonly seen in strong culture organizations is the "*role model"-like behavior of top managers* in support of cultural values. In order to make employees understand what attitudes are appropriate or not, managers should be a good example and behave consistently with their statement, demonstrating integrity (O'Reilly, 1989).
A final method to encourage cultural control involves incentive systems, described before among the core elements of results controls. Considering the fact that individual extrinsic incentives have limited impact on shaping organizational culture, companies have to find alternative solutions. One of these is *nonmonetary rewards*. Indeed, recognition and approval, which can be given more frequently because less costly, can be much more potent in shaping behaviors, since they focus on intrinsic motivation and a sense of belonging to the organization. Alternatively, firms can provide *group rewards*, namely plans based on collective achievement, such as bonus or profit-sharing based on corporate or team performance. The latter could be considered a cultural control because, unlike rewards given for individual accomplishment, the link between each employee's efforts and the results being rewarded is very weak. Thus, they are not directly motivated to get the reward, but instead to interact and cooperate with the other members of the group, inducing mutual monitoring. Much of the work within companies is carried out by groups of employees, for example in production processes, service and products' development and managing operations. As one manager stated: "We think everything worth doing is done by groups, not by individuals" (Ladley et al., 2015). However, developing cooperative attitudes is not so trivial because conflicts between individual and group

interests may arise. This is the case, for instance, when groups comprise employees with different backgrounds, expertise and incentives that are not willing to share information or to learn from each other (Gratton and Erickson, 2007).

### *1.4.3. People controls' effectiveness*

Adaptability represents the key advantage of personnel and cultural controls, compared to formal control systems. In fact, the reason why most companies rely on them is that they are usable to some extent in almost every setting. Moreover, they reduce the likelihood of negative side effects and often involve relatively low out-of-pocket costs. However, the degree to which people controls are effective vary significantly across individuals, groups, and societies. Some issues may arise, for example, when companies want to expand the business internationally, establishing subsidiaries in the target country. As evidence suggest (Hofstede et al., 2005), the perceptions of differences in norms and behaviors that come with different national cultures usually predominate over organizational culture. Accordingly, Kranias (2000) studied the relationship and control that Japanese parent multinational companies, widely known to make extensive use of cultural controls, exercise on the subsidiaries in the UK. Results point out that over time, as subsidiaries become more mature and their autonomy increases, social controls appear to adapt to local mentality.

Both of these types of control might dominate a company's control systems. For personnel controls, for instance, this is the case when top managers consider hiring the smartest, most inspired people and provide them with the necessary resources as the core decision. Cultural controls can also, by themselves, be dominant. However, the best opportunity to create a strong organizational culture seems to be in the early stages, when the founder can imbue distinctive traits (Schein, 1983). Later on, the addition of strong management policies can also have an impact. Regardless of the difficulty of their implementation, cultural controls should serve positive purposes in every company.

In general, it is rare that people controls, by themselves, are sufficient for reaching a state of "good management control", hence, in most cases, it is necessary to supplement them with action controls and results controls.

## *1.5. MCSs' design and implementation*

In order to design and implement new or improve existing MCSs, top management should ensure that employees understand what are the actions and results that the organization want them to take and achieve. In this regard, objectives and strategies' specificity plays a key role in driving behaviors, especially if tight control is the desired outcome. Telling employees to reach a 60 per cent gross profit margin or less than 1 per cent customer complaints definitely provide better guidance than vague statements such as "improve profitability" or "improve customer satisfaction".

There are mainly two ways to understand what must be controlled: identifying (1) key actions and (2) key results. *Key actions* can be defined as those actions that should be performed in order to provide the best chances of succeeding and vary considerably among companies and different organizational roles. For example, they can be well understood for highly routinized and bottom-line jobs, such as manufacturing activities, but most concerns arise higher-level positions, where key actions usually require substantial professional judgment. *Key results*, instead, represent the selected key areas where "things must go right" (or cannot go wrong) for the business to flourish. Key results may sometimes be unsteady, but they can be reassessed and adapted to environmental conditions.

After understanding "what is desired", effective MCSs' implementation requires top management's knowledge about "what is likely", that is what actions and results employees are able or motivate to perform and produce. This process usually starts with an investigation of the potentials for each of the control problems described before. In practice, likely actions and results rarely match what the organization desires, and this discrepancy determines the choice and the tightness of the MCSs (Merchant and Van der Stede, 2007).

### *1.5.1. Design choices*

The design of a corporate control system often depends on the feasibility of the various types of management controls. In fact, they are not equally successful at addressing each of the control problems. Top managers should hence select, after a cost-befit analysis, those that provide the greatest probability of success considering related out-of-pocket, behavioral displacement, gamesmanship and negative attitudes' costs. *Out-of-pocket costs* refer to the direct monetary costs of the investment for MCSs' implementation, including

for example the cost of cash bonuses, internal audit staffs and the time spent in planning and budgeting activities. Sometimes these costs are difficult to measure accurately and are therefore estimated. *Behavioral displacements* are indirect costs occurring whenever the MCSs encourage employees' behaviors that are inconsistent with the organization's objectives, usually stemming from results and action accountability controls. Another harmful side effect related to these types of controls is *gamesmanship*. The latter generally relates to the actions taken to improve short-term performance that produce negative long-term effects for the company. It usually occurs in the forms of slack creation, involving an excess of resources' consumption than strictly required, and data manipulation, an effort of the employees being controlled to show good results, eluding the control indicators by falsifying reported data and information. Finally, *negative attitudes* can arise from job tension, frustration, resistance and conflict. They are important because they may cause any of the negative and unintended behavioral effects described above. As you can notice, control function represents a very complex and challenging job for top managers and controllers, who should be conscious that perfect control is impossible to achieve, and some harmful side effects will always be present. However, this does not mean that the MCS in place is poor. MCSs only try to reduce the probability of unsatisfactory performance, and not to eliminate it (Merchant and Van der Stede, 2007).

In deciding among the different management control alternatives, *people controls* deserve the first consideration, since they are relatively inexpensive and have the potential to lower the indirect control costs. Moreover, companies have to rely upon them no matter what other management control's type is employed. These informal systems are important because formal, cybernetic controls may not always be appropriate, especially when, according to Hofstede (1981), (1) the objectives are ambiguous, (2) the measures of the outputs are by nature very imperfect, (3) there is imperfect knowledge of cause-effect relationships between management interventions and results and (4) some activities are not repetitive. But although people controls may be totally effective in some situations, such as small businesses, they provide little warning of failure, being bound by the occurrence of all the following four conditions: employees' understanding of required actions, ability and motivation to perform well and support of proper organizational structures. However, these conditions are rarely simultaneously satisfied and hence people control cannot be considered, by themselves, sufficient. For this reason, in most cases, it is necessary to supplement them with action or results controls, or both (Merchant,

1982). *Action controls* are perhaps the most significant type among the three, because of the direct link between control and actions, indeed. They encourage the production of documentation of knowledge regarding the best actions that employees should take, for instance through policies and procedures, and its transfer within the organization, and facilitate coordination, increasing actions' predictability and hence reducing the information flow needed to perform a certain activity. As discussed in section 1.3.2, action controls nevertheless present important drawbacks. Despite the fact that comprehensive knowledge of desired actions exists only for highly routinized jobs, most action controls may also stifle creativity and innovation, causing failures in exploiting profitable opportunities, and induce sloppiness and negative attitudes, since they reduce possibilities for achievement and self-actualization. Where the knowledge of what actions are desirable is lacking, that is the typical situation for most companies, *results controls* can be the appropriate solution. However, this is not the only reason why they are so heavily used. In fact, they have relatively low out-of-pocket costs, because financial measures are usually collected for external reporting, and allow employees to have a higher degree of autonomy, particularly desirable for positions requiring creativity, increasing their commitment and motivation. For control over results, the most serious constraint is the ability to measure the desired results effectively. As mentioned in section 1.2.5, performance measurements should assess the correct performance areas, be precise, timely, understandable and objective. The lack of one or more of these conditions may undermine goal congruence between employees and the organization, hence causing dysfunctional behaviors, including gamesmanship. Common examples are budget slacks, that is the practice to negotiate lower performance targets than forecasted to gain protection against unforeseen factors and improve the likelihood of achieving the budget targets and receiving the related performance-dependent reward; and data management, involving actions to change reported results, such as when managers take a "big bath", manipulating results to make them look worse in bad times in order to make future results appear better (Simons, 2014). The famous Enron scandal in 2001, where executives engaged in earnings misrepresentation and balance sheet modification to show favorable performance, lead to a change in accounting regulation with the *Sarbanes-Oxley Act*[11] (2002), requiring increased scrutiny to protect investors from fraudulent financial reporting.

[11] The Sarbanes-Oxley Act, or better known as SOX, is a law passed by the United States Congress in 2002 to protect shareholders and the general public from accounting errors and fraudulent representations in

Apart from the choice of control types, another major management decision entails *how tightly they should be implemented*, affecting the degree of "assurance" that employees' behaviors will be coherent with organization's interests (Van der Stede, 2001). Tight control, involving the application of severe limits to employees' freedom, has been primarily discussed in a results-control context. Accordingly, Anthony and Govindarajan (2007) describe a tight system as "one in which a manager's performance is evaluated primarily on his ability to attain budgetary objectives during each reporting period" and define it as *tight budgetary control*. In line with this philosophy, budget targets are considered to be the organization's commitment against which employees are evaluated. Each reporting period, actual and budgeted performance is compared and related variances, if any, are discussed. If the latter are rated as critical, corrective actions will directly follow. However, this approach represents only a small part of what Merchant (1998) regards as a tight results control system. Indeed, besides this "monitoring" feature, he adds other three attributes: (1) the definition of goals in such a way they are more specific, complete and congruent with organizational objectives; (2) the effective, timely and frequent communication of these goals in order to increase employees' understanding of what the company desires to achieve; and (3) rewards, highly valued by the employees involved, directly and definitely linked to the accomplishment of the desired results.

But, as Merchant (1985) recognizes, there are many other ways to affect tight control. Most companies indeed employ reinforcing combinations of results, action and people controls, each of them more or less tightly. Top management, in order to implement tight systems effectively, should have a specific degree of knowledge about how the control objects relate to the overall organization's objectives. However, this does not mean "the more the better". In fact, tightness can emphasize or generate the harmful side effects linked to each control type. For instance, tight action controls may induce behavioral displacement and stifle creativity, while tight results controls may cause issues in setting challenging targets and measuring performance adequately, especially in rapidly changing environments.

As mentioned before, no control system can be completely fool-proof. Top management search for a "perfect" system can be considered a "Nirvana fallacy", whereby a system is

corporate financial statements. It was a legislative response to a number of corporate scandals, including Enron and WorldCom, that sent shockwaves through the world financial markets. The aim of SOX is to strengthen corporate oversight and improve companies' internal control.

"discarded or revamped if it allows any minor managerial opportunism, no matter how minor, in favor of the unachievable perfect system" (Brickley et al., 2003). Therefore, each alternative and degree of tightness they choose will allow (at least) some "minor" opportunistic behaviors. But then a crucial question naturally arises: how "minor" is "minor"? And how can top management judge whether something is "minor"? If the amount at stake is high, any "minor" chance to induce opportunism may become "major". In light of these considerations, tradeoffs between benefits and both direct and, in particular, indirect costs must be made to reach, at least, good control in order to ensure that the organization will have a greater probability of success.

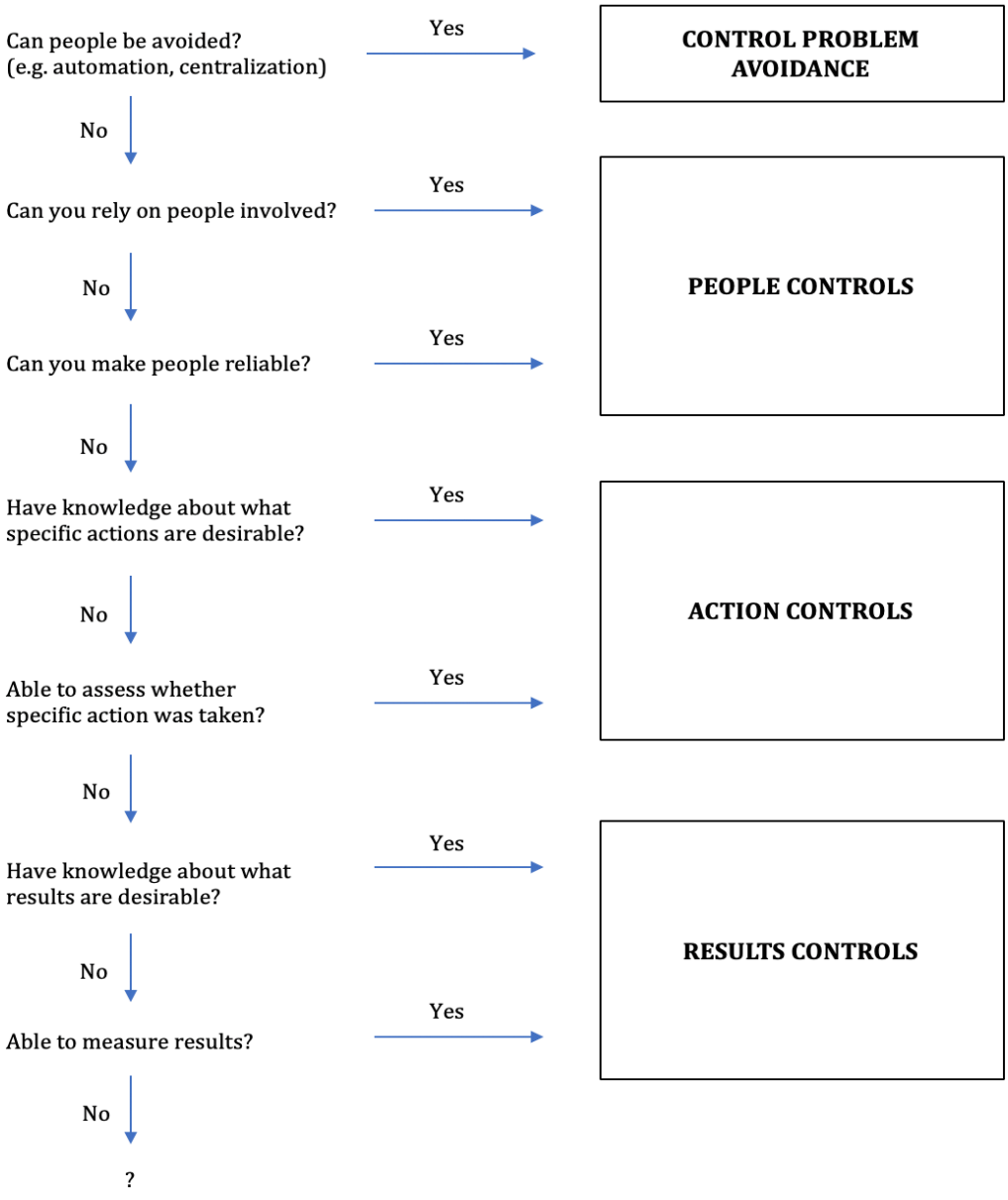


***Exhibit 5**: Questions to ask when assessing the feasibility of control types (Source: Merchant, K. A., 1982. The control function of management. Sloan Management Review).*

Good control can often be achieved in several different ways. In some circumstances, the control problems can be avoided, for example, by centralizing or automating certain decisions. If they cannot be avoided, people, action and results control should necessarily be implemented. However, as described above and shown in Exhibit 5, they are not always feasible.

### *1.5.2. The role of controller*

A central role in companies' management control function is played by controllers. They are usually responsible for a wide range of tasks focused on providing support to firm's (or business unit) management, including reporting and documenting information about activities, leading and coordinating budgeting processes, measuring and analyzing business performance, cost management, performing investment analysis, participating in strategic planning and consulting in decision-making. Managers, whose decisions must be enforced and employees properly motivated and directed towards the accomplishment of organizational objectives, heavily rely on controllers' assistance as their right-hand men (Charifzadeh and Taschner, 2017).

As you can see from the tasks listed above, the controller is no longer the "*scorekeeper*" or "*corporate policeman*", traditional roles to which he has been affiliated in past years, but has become a full-fledged "*business partner*", highly involved in management decision-making processes (Zoni and Merchant, 2007). This role's transformation seems to be consistent with normative recommendations given to practitioners by several accounting institutions. For instance, the Institute of Management Accountants (IMA) in 1999 recognized that "organizations need the finance function to become more involved in influencing business outcomes. This new mandate requires finance professionals to expand their competencies and move from simply managing financial data to helping key internal stakeholders apply it to strategic decision-making". In support to the latter statement, in 2001 the International Federation of Accountants (IFAC) conducted a detailed study concerning the evolution of accounting-related professions in companies settled in six countries, documenting a significant trend in shifting away from the performance solely of narrow accounting activities toward greater involvement in management functions.

However, high involvement in management decision-making can cause the deterioration of controllers' fiduciary responsibility to ensure the reliability of information reported and the internal control systems' appropriateness and management oversight

responsibility to inform superiors if individuals demonstrate dysfunctional attitudes. For example, it is often claimed that business unit controllers can develop stronger relationship with the decentralized team and, if they are included in reward plans linked to business unit performance, they might have an incentive to play games, reporting inflated results measures. Thus, how can organizations ensure that controllers fulfill their responsibilities, and hence maintain the requisite degree of independence? Audit committees and internal auditors can certainly represent the first option to oversee the controller function. Otherwise, companies can directly intervene at the root, hiring for these positions individuals who have strong professional ethic and integrity.

Within organizational boundaries, controllers can be found in management control (or controlling) departments, typically headed by a chief controller who directly reports to the Chief Financial Officer (CFO), and usually incorporated in an overall accounting department (see Exhibit 6). However, controllers are not only settled in company's headquarters (corporate controlling). Since they support managers in strategy implementation and decision-making, they can be placed in all organizational levels and, in particular in divisionalized corporations, in all the decentralized operating divisions or PCs.

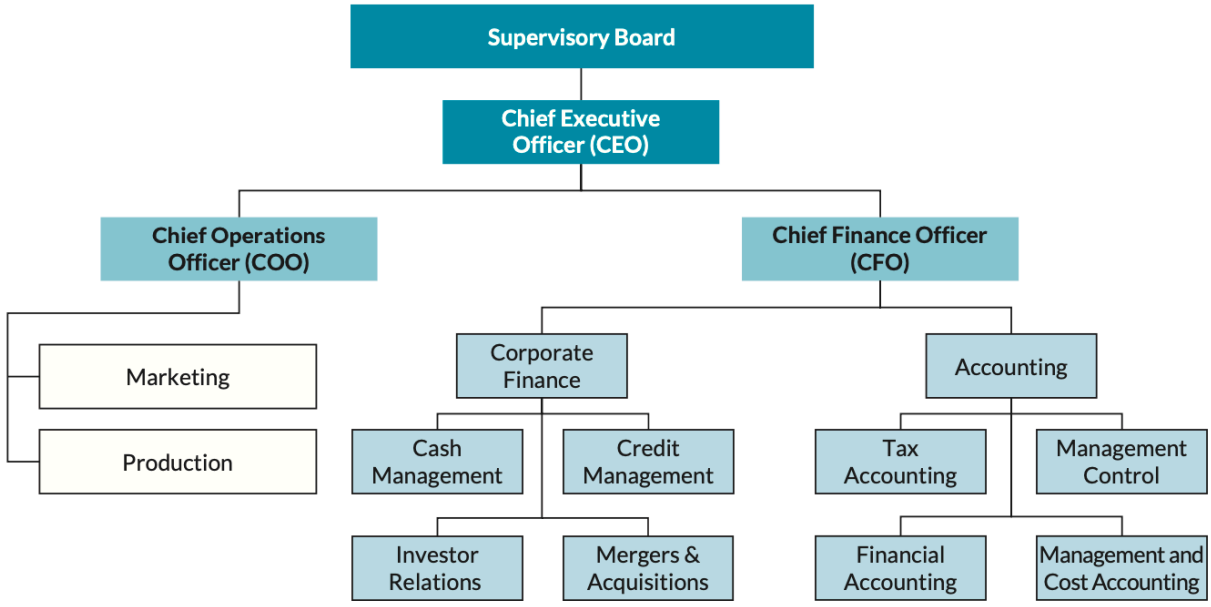


***Exhibit 6**: Typical placement of management control function in a large corporation (Source: Charifzadeh, M., and Taschner, A., 2017. Management Accounting and Control: Tools and Concepts in a Central European Context. John Wiley & Sons).*

# CHAPTER 2

# 2. CORPORATE SUSTAINABILITY

Over the past decades, the growing concerns for climate change, social inequalities and financial scandals have risen the attention to environmental and social sustainability.

In response to the increasing pressures coming from national and international regulations, and society in general, companies have been gradually pushed towards the adoption of principles of both social and environmental responsibility within their strategies, structures and management systems (Werbach, 2009). This integration, namely *Corporate Social Responsibility* (CSR), has rendered business management more complex as a result of, for instance, handling the tradeoffs among various financial and non-financial goals and decisions, addressing impacts on the society and environment, as well as settling conflicting stakeholders' interests (Garcia et al., 2016). The main tool companies use to communicate how this responsibility is managed, and hence fulfill public accountability, is sustainability reporting, through which they disclose what are the organization's impacts on the environment, society and the economy, helping them set goals, measure performance, and manage change in order to make their operational activities more sustainable (GRI, 2013). This recurring trend highlights how companies are combining short-termism of financial reporting with the long-term value creation embodied through non-financial information disclosure. The latter concept represents the core of what could be deemed sustainability reporting "evolution", namely integrated reporting. According to the International Integrated Reporting Council (IIRC, 2013), the integrated report is a "concise communication about how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term".

Over the years, corporate non-financial information disclosure has always been considered a voluntary practice. However, this reporting landscape has been decisively shaped by the European Union (EU), particularly with the introduction of the Directive on the disclosure of non-financial and diversity information by certain large undertakings and groups (Directive 2014/95/EU, also known as the Non-Financial Reporting Directive (NFRD)), including listed companies, banks and insurance companies. This Directive is effective from January 1st, 2018 and charters a clear course towards greater business

transparency and accountability on social and environmental issues (Venturelli et al., 2017).

In the following sections, the concept of sustainability, the related challenges and its evolution in business literature and companies' mindset will be described. Moreover, non-financial information disclosure, including sustainability and integrated reporting, will be discussed.

## *2.1. Idea and meaning of sustainability*

Sustainability is a hot topic nowadays. Media is giving extensive coverage on issues such as climate change and human rights, politicians are engaged in the global debate around environmental and social challenges, CEOs of major corporations present themselves as sustainability ambassadors and even Hollywood stars take actions by launching their own foundation to support environmental issues. Consumers are also increasingly interested as they want to know what sustainability means for them in the products they buy and expect companies to take responsibility for society and the environment. For instance, products labeled as organic fair trade or safer are getting more popular. However, this is not just a short-lived hype and fashion trend.

### *2.1.1. Milestones for sustainable development*

Etymologically, the word *sustainability* means enduring into the long-term future, referring to systems and processes that are able to operate and persist on their own over long periods of time. It comes from the Latin verb *sustinēre*, "to maintain, sustain, support, endure", made from the roots *sub*, "up from below", and *tenēre*, "to hold". The German equivalent, *Nachhaltigkeit*, first appeared in the forestry book Sylvicultura Oeconomica written by Hans Carl von Carlowitz (1713), who can be considered the father of *sustainable development* concept: "you shall only cut down as much trees as can be replaced through sewing implanting". With this simple instruction to his local community, Carlowitz pointed out the overall idea that people should only consume as much natural resources as can be replaced by their own actions. Roughly 300 years later, this idea is just as relevant as it was back then. Only by taking care of natural resources, economies and businesses that produce products which contribute to a better quality of life can be sustained.

Sustainable development has been defined in many ways over the years, but the most frequently quoted definition was introduced by Our Common Future, also known as the Brundtland Report, publication released in 1987 by the World Commission on Environment and Development (WCED), an international group of environmental experts, politicians, and civil servants convened by United Nations General Assembly and chaired by Norwegian Prime Minister Gro Harlem Brundtland, established in 1983 with the aim of exploring the causes of environmental degradation, attempting to understand the interconnections between social equity, economic growth, and environmental problems, and developing policy solutions that integrated all three areas. The Brundtland Report outlined sustainable development as "*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*", positing that the only truly sustainable form of progress is that which simultaneously addresses the interlinked aspects of economy, environment and social well-being (Johnston et al., 2007). Furthermore, the report laid the foundations for the United Nations Conference on Environment and Development (UNCED), the first global sustainability summit, also known as Earth Summit, held in Rio de Janeiro in 1992, where 178 states agreed on Agenda 21, a comprehensive action plan to be applied globally, nationally and locally by organizations, governments or other major groups in every area in which human impacts on the environment. This ultimately led to the creation of the Commission on Sustainable Development (CSD) that same year, in order to monitor and report on the implementation of the agreements at any aforementioned level (UN DESA[12], n.d.).

More than two decades later, in 2015, another important milestone was the Paris Agreement on climate change signed at the United Nations climate conference by all 195 member states, which therewith committed themselves to limit dangerous global warming to well below 2 degrees Celsius. The global support and partnership demonstrated also translated in the adoption of the 2030 Agenda for Sustainable Development and, at its heart, the 17 Sustainable Development Goals (SDGs). The latter recognize that ending poverty and other deprivations must go hand-in-hand with strategies aimed at improving health and education, reducing inequality, and spurring economic growth; all while tackling climate change and working to preserve oceans and forests. As pointed out by the

[12] UN DESA stands for United Nations Department of Economic and Social Affairs and represents the interface between global policies and national actions in the economic, social and environmental spheres. Guided by the 2030 Agenda for Sustainable Development and other global agreements, UN DESA responds to the needs and priorities of the global community.

UN DESA (n.d.), as a next step, national governments should develop action plans in order to facilitate SDGs' implementation into businesses, who will be approached for their contribution. All these initiatives in commitments are based on two key ideas. First, the need to find ways how to meet today's needs without compromising future generations and, second, the call to take a holistic approach and understand how the so-called triple bottom line components, namely economy, society and environment are linked (Elkington, 1999).

### *2.1.2. Sustainability-related challenges*

The fact that the world's population is expected to grow further, and especially the middle class will intensify its consumption patterns, is fairly certain. More raw materials, fossil fuels and water will be consumed, natural resources continue to diminish, more waste will be generated and the increase in emissions, such as $CO_2$ greenhouse gases, will further drive climate change. If the path would continue this way, the resources of five planets will be required until 2050 to provide a good quality of life for nine billion people. Therefore, to prevent this scenario, economic growth and life quality need to be decoupled from resource consumption. In other words, the latter should be lowered in industrialized countries – without decreasing the quality of life – and, at the same time, developing countries should be enabled to improve their quality of life without increasing their ecological footprint. These insights were first articulated by the World Business Council for Sustainable Development (WBCSD[13], 2010) with the release of *Vision 2050*, a landmark piece of work that indeed laid out a pathway to a world in which nine billion people are able to live well, within the limits of the planet by mid-century.

In this environment of resources depletion and climate change, there is an increased public interest in the issue of sustainability. Modern communication technology has created an unprecedented level of transparency in new communication channels, such as the social networks Facebook, YouTube and Twitter, spreading information in real time. Expectations towards companies are rising more and more and stakeholders are looking closely how they deal with the environmental and social challenges faced in operations. The most urgent environmental challenge is *climate change*. Carbon dioxide emissions

[13] WBCSD is a global organization of over 200 leading businesses working together to accelerate the transition to a sustainable world and helping make member companies more successful and sustainable by focusing on the maximum positive impact for shareholders, the environment and societies.

and other greenhouse gases from human activities are among the main drivers of global warming. Although the global carbon budget is limited, emissions continue to rise. This is already showing first impacts, including rising sea levels, extreme weather events, such as storms, flooding and droughts, which are able to disrupt entire national economies. To prevent climate change, the ambition and commitment of all UN member states to prevent global warming to well below 2 degrees Celsius have never been clearer. This means that businesses need to significantly reduce emissions, improve energy efficiency and make increased use of renewable energy (UN DESA, 2019).

However, sustainability is not just about safeguarding the environment. Two social challenges are closely linked and equally important. First, and and the basis to all other ambitions, is the *protection of human rights*. In 1948, the global community has agreed on a set of fundamental human rights as the foundation for freedom, justice and peace in the world. The United Nations General Assembly objective was to promote social progress and better living conditions by respecting human rights, the dignity of the individual and gender equality (Morsink, 1999). The primary responsibility of states is therefore to promote these rights and freedoms and protect against abuse within their territory. However, companies and their supply chains, who have become larger and more global than ever before, also have a role to play. It is their responsibility to respect human rights and provide access to remedy in case of violations, implementing codes of conducts and social standards applicable to all employees and stakeholders in the supply chain, whose compliance is usually ensured through audits and assessments. But can businesses do more than respecting basic rights to contribute to *life quality*? Living well means that people need a positive perspective for the future and, for many, this starts with ending poverty. The first Sustainable Development Goal hence aims to “end poverty in all its forms everywhere”. Since 1990, 1 billion people have already risen out of extreme poverty. However, the perspective not to suffer hunger is not enough. People worldwide want the chance to participate in prosperity and strive for higher living standards (UN DESA, n.d.). All these three major topics discussed above are central to the SDGs, set by the UN as an action plan for 2030 to protect the planet and ensure prosperity.

## *2.2. Evolution of sustainability conceptualization*

There is today growing awareness among organizations that sustainable business success and shareholder value cannot be achieved solely through short-term profit maximization but, instead, through market-oriented yet responsible behavior. Companies recognize that their contribution to sustainable development is feasible by managing their operations in such a way as to raise competitiveness and enhance economic growth whilst ensuring environment protection and promoting social responsibility (Fontaine, 2013). However, over time, "being sustainable" has not always had the same meaning within companies' boundaries, moving towards full integration with strategic management and corporate governance.

### *2.2.1. Sustainability as Corporate Philanthropy*

Corporate philanthropy may be defined as the direct contribution by a corporation to a charity or cause, usually in the form of grants, donations or in-kind services and could be deemed as the first form of sustainable approach that corporations have had (Kotler and Lee, 2005). According to management historian Wren (2005), the first sign of these initiatives dates back to the second half of 19th century, when business leaders such as John D. Rockefeller, an American business magnate operating in petroleum industry who is widely considered the richest person in modern history with, at its peak, a net worth of 1.5 per cent of the country's total annual economic output, the equivalent of about $280 billion today, dedicated unprecedented resources to charitable causes due to moral sense and religious convictions. However, it is difficult to determine whether these activities were individual or business philanthropy. Few decades later, the social problems and economic challenges that urbanization caused provided a context for corporations' involvement, contributing with grants to areas in which they would directly and indirectly benefit, and representing the first social activities held by any companies (Sharfman, 1994). In the same years, Carnegie (1889) published "*Gospel of Wealth*", an article describing the responsibility of philanthropy by the new upper class of self-made rich, including businessmen, and proposing that the best way of dealing with the new phenomenon of wealth inequality was for those who accumulated great wealth to utilize their surplus means in a responsible manner, that is in such ways that best benefit society.

However, the rise of formal corporate philanthropic programs took hold in the 1920s with the Community Chest movement, commonly referred as the United Way, where community trusts or foundations pooled endowment funds for the purpose of charitable giving, and reached the "golden age" after the Second World War in the United States, thanks to the American economic expansion that fueled the establishment of major corporations, including Ford Motor Company in 1949, AT&T's Western Electric (later the AT&T Foundation) in 1953, and Philip Morris's (later Altria's) in 1956. For business executives at the time, giving back to communities where their employees lived was considered the "right thing to do" as pointed out in 1958 by a survey held by Fortune magazine aimed at understanding their social responsibilities (Carroll, 2008).

Even if corporate philanthropy continued as the most noticeable manifestation of social attitudes during the mid-century period, change was in the air. In fact, it was during the 1950s that the notion of specifically defining what companies' social obligations were was first addressed in business literature and can be deemed as the beginning of the modern definitional construct of CSR (Agudelo et al., 2019).

### *2.2.2. Sustainability as CSR*

The most remarkable example of the changing attitude towards responsible corporate behavior stemmed from Bowen (1953) with the publication of his landmark book "*Social Responsibility of the Businessman*". He firmly believed that the several large companies at the time were vital core of power and, since their actions had substantial effects on society, their decision making had to include considerations of this impact. As a result of this belief, he identified a set of principles that corporations should implement to fulfill their social responsibilities, defining the latter as "the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society" (Bowen, 1953).

Businessmen's responsibility should hence not be limited to the profit maximization but range to a wider scope that needs to be defined both in terms of objectives and values for the society in which they operate. For his completely new approach to management aimed at integrating social problems in businesses' decisions and improving their response to impacts produced, Bowen was considered ahead of his time and, for the definition cited above, the "Father of Corporate Social Responsibility" (Carroll, 2008). Social responsibility for the first time was presented not as panacea but rather as a "*social consciousness*"

that must guide businesses in the future. The decade of the 1950s was indeed characterized more by 'talk' than 'action' with respect to CSR, with companies' executives learning to get comfortable with these talks. Over the years, the number of definitions has expanded and none of these can be viewed as a single universally accepted solution, but rather different perspectives and spheres of action and implementation have been covered.

The 1960s gave a significant contribution to CSR's topic evolution, approached by several scholars as a response to the modern society's problems and needs. This period was marked by the work of Davis (1960), one of the first authors who tried to formalize the meaning of CSR, relating social responsibility to the businessmen's decisions taken for reasons *partially* beyond the company's direct economic interest, and asserting that it could be linked to potential economic returns in the long run. Another major contributor of the time was McGuire (1963) who argued that "the idea of social responsibility supposes that the corporations has not only economic and legal obligations but also certain responsibilities to society which extend beyond these obligations". Therefore, in order to fulfill these responsibilities, companies should take interests in politics, the education and "happiness" of its employees (working conditions, industrial relations, personnel policies), and the social welfare of the community. This is still a modern debate, and was embedded in the renowned *stakeholder theory* by Freeman (1984), an organizational management and business ethics' approach that stresses the interconnected relationships between a company and its stakeholders, including suppliers, customers, investors, employees, communities and others who have an interest in the organization, and argues that a company should create value for all of them and not just aim at maximizing gains.

Although the concept of CSR was created and developed during the 1950s and 1960s, it was in the 1970s that it truly began to take flight in the United States, when companies' behavior aimed at supporting society started to be linked to profit maximization. In the same year in which Johnson (1971) anticipated Freeman presenting the "*conventional wisdom*", a socially responsible corporation whose management has to balances multiple stakeholders' interests, the idea of "*social contract*" between businesses and society was

introduced by the Committee for Economic Development[14] (CED, 1971) in its publication "Social Responsibilities of Business Corporations". The latter stated that "business is being asked to assume broader responsibilities than ever before and to serve a wider range of human values (...). Inasmuch as business exists to serve society, its future will depend on the quality of management's response to the changing expectations of the public", highlighting and bringing forward the idea that companies function and exist because of public consent and, therefore, have the obligation to contribute to the needs of society. What was particularly influential about the CED's statements about CSR was that the organization was composed of businesspeople and educators and thus reflected these practitioners' view regarding businesses' newly emerging social responsibilities.

The 1970s are important years because they officially open the debate around CSR and on whether businesses should really be held responsible for social issues. The most famous and quoted critique comes from Friedman, a renowned economist and later a Nobel laurate in Economics (1976), who in 1970 published the article "The Social Responsibility of Business is to Increase its Profits", in which he sees CSR activities as an inappropriate and unjustifiable use of firm's resources. Accordingly, he viewed shareholders as the only group to which the company is socially responsible and, as such, its ultimate goal should be to maximize profits. Furthermore, he argued that the shareholders are able decide for themselves what social initiatives to take part in, rather than have executives, appointed specifically for business purposes, make those decisions for them. Friedman "doctrine", better known as the *shareholder theory*, is commonly opposed to the stakeholder theory mentioned before.

These years saw the birth of some of today's most renowned companies in the area of social responsibility. This is the case of the Body Shop, created in 1976 in the United Kingdom, and Ben & Jerry's, founded in 1978 in the United States. Whether it is a response to new social expectations, a new regulatory framework, or a "first-mover" strategy, these are two examples of companies that have begun to formulate and integrate policies that address social and public issues of the time and, consequently, the 1970s entered what Carroll (1979) called the decade of the "management approach to CSR". This has meant

[14] The CED is an American non-profit organization, founded by a group of business leaders, that carries out in-depth analysis and tries to find solution to the nation's most critical issues to promote economic growth and development.

that the notion became more and more popular, causing its use in many different contexts, to the point that its meaning began to take on little clarity.

The surrounding uncertainty lasted until 1979, when Carroll proposed what is probably the first unified definition of social responsibility of business which, accordingly, "encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time". His approach to CSR, that proved to be in line with the debates on corporate behavior of the time, was mainly driven by the social movements of the 1960s and the new legislation in the US. Its relevance is based on the fact that its definition relies on the work of other scholars (including the CED) in order to provide a clear and concise conceptualization that could be applicable in any context.

A further relevant contribution to Carroll's understanding of CSR is that economic and social objectives are not intended as incompatible compromises, but rather as an integral part of total corporate social responsibility framework.

By the 1980s, early CSR continued to evolve as more organizations began incorporating social interests in their business practices while becoming more responsive to stakeholders. Unlike the previous decade, characterized by increasing regulations concerning social issues, during those years the Reagan and Thatcher administrations brought a new line of thinking into politics, focused on decreasing pressure on businesses with the aim of reducing the high levels of inflation that the US and UK were facing. According to their approach, the growth and strength of their countries' economies depended on their ability to maintain a free market environment with as little government intervention as possible (Pillay, 2015). As a consequence of the reduction of governments' role in regulating companies' behavior, executives faced the need to respond to different interest groups, still expecting companies to meet social expectations. In particular, the reduced regulatory framework has led scholars to consider corporate ethics and CSR's operationalization as a response to groups such as shareholders, employees and consumers. The term "stakeholder" was becoming more and more recurrent.

In 1980, Jones is the first author to consider CSR as a decision-making process that influences corporate behavior. His contribution opened the way to a new area of debate around CSR, focused more on its operationalization than on the concept itself. This resulted in the creation of new frameworks, models and methods aimed at evaluating CSR from an operational perspective. Probably the best way to understand this recurring approach is to recognize the several social concerns of the time. In particular, the latter can

be observed in a series of events that reflected the attitudes of the international community towards sustainable development and, to some extent, towards corporate behavior, including the establishment of the World Commission on Environment and Development (WCED) chaired by the Norwegian Prime Minister Gro Harlem Brundtland (1983), the Chernobyl nuclear disaster (1986) and the publication of the Our Common Future report presented by the Brundtland Commission, which, as mentioned above, provided a definition of sustainable development (1987).

The creation of these international organizations and the adoption of international agreements have represented a worldwide commitment to the definition of higher standards with regard to climate-related issues and, indirectly, companies' behavior.

The 1990s and 2000s were no exception to the growing interest in CSR, and indeed it was in this decade that the concept gained international appeal, perhaps as a result of the international approach to sustainable development in combination with the globalization process underway. According to Carroll (2008), the latter has increased the operations of multinational corporations that faced different business environments, some of them with weak regulatory frameworks. However, new opportunities for these companies went hand in hand with the growing global competition for new markets, increased reputation risk due to expanding global visibility, and conflicting pressures, demands and expectations from home and host countries. Many multinationals understood that being socially responsible could represent a safe path to balance the challenges and opportunities of the globalization process they were experiencing and, consequently, the institutionalization of CSR has strengthened. The most striking example of the institutionalization of CSR was the founding in 1992 of the Business for Social Responsibility (BSR) association, a global organization that "helps member companies achieve commercial success in ways that respect ethical values, people, communities and the environment, achieving viable, sustainable growth that benefits stakeholders through socially responsible business policies and practices" (Carroll, 2008).

### *2.2.3. Sustainability as Creating Shared Value*

In the first years of 2000s, CSR begun to take on a strategic trait, becoming part of the company's management plans for generating profits. This involved engaging in socially responsible activities only if they result in financial returns and not necessarily to fulfill a more holistic purpose such as the triple bottom line (Agudelo et al., 2019). Thus, strategic

CSR has proved to go beyond best practices and being a good corporate citizen. Through the latter concept, Porter and Kramer (2006) introduced for the first time the notion that companies can reach a competitive advantage through a strategic approach that leads to the creation of shared value in terms of benefits for society while improving competitiveness. Few years later, the term *Creating Shared Value* (CSV) was further developed by the same authors in 2011 in the article "How to reinvent capitalism – and unleash a wave of innovation and growth", classified under the category Big Ideas of the Harvard Business Review, and was formally defined as: "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates. Shared value creation focuses on identifying and expanding the connections between societal and economic progress".

Perhaps Porter and Kramer's (2011) major contribution comes from the claim that "the purpose of the corporation must be redefined as creating shared value" and by pointing out companies should embrace a long-term perspective on how they operate within external society and environment, identifying and focusing only on the social needs, as well as the benefits or harms, they can serve through core business activities since "no business can solve all the society's problems or bear the cost of doing so", in a way that creates value for both the company and the stakeholders at the same time. Accordingly, the authors established three ways through which companies can create shared value: by reconceiving products and markets, by redefining the productivity along the value chain and by creating supportive local clusters. Furthermore, in order to forsake short-termism in relation to corporate social efforts, the authors argued that CSV should supersede and replace CSR, considered as an outdated and limited concept emerged as a way for improving company's reputation and citizenship's role that does not place social needs' resolution at the center of core business and profit maximization. The latter assertions opened a significant debate in the business community on this topic (Agudelo et al., 2019).


***Figure 3**: How CSV differs from CSR (Source: Porter, M. E., and Kramer, M. R., 2011. Creating Shared Value: How to Reinvent Capitalism – and Unleash a Wave of Innovation and Growth. Harvard Business Review).*

In Figure 3, the key differences between CSR and CSV are summarized, according to Porter and Kramer's (2011) perspective. The only feature that remains constant for both the approaches to face social issues is the compliance with law and ethical standards. The different focus of CSV with respect to CSR represents a shift from short-term to the long-term perspective in guiding a company's investments in the communities. While CSR is widely perceived as a "cost center", CSV is about new business opportunities that create new markets, improve profitability and strengthen competitive positioning. Certainly, the phrase "doing well by doing good" covers both CSV initiatives and more traditional CSR activities, such as GRI reporting, that responsible companies accept as a cost of doing business. However, they represent very different strategic and management decisions. In fact, considering this strategic focus, the authors critically assert that the difference between the two approaches can be identified as the difference between *doing the right thing* or *doing the things right*.

The biggest credit attributed to the CSV conceptualization is its inclusion in the European Strategy for CSR. "A Renewed EU strategy 2011-2014 for Corporate Social Responsibility" was published in 2011 by the European Commission to highlight the need to strategically

integrate CSR into corporations' business model in the best interest of both companies and society as a whole. The European Commission had previously defined CSR as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with the stakeholder on a voluntary basis". With the formulation of the renewed EU strategy for CSR, the strategic link between corporate socially responsible behavior's policies and the society has been further developed. Companies should have proper processes in place to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in collaboration with their stakeholders, with the aim, according to European Commission and CSV concept, of "*maximizing the creation of shared value for their owners/shareholders and for their other stakeholder and society at large*".

What is certain is the fact is that management behavior regarding the social impact of business at many leading global companies has dramatically. Whether called a "new form of CSR" or "creating shared value", it is fundamentally different than the CSR activities of previous decades.

### *2.3. Corporate non-financial reporting*

In the late 1990s and early 2000s, with the advent of Enron, WorldCom, and Arthur Anderson financial scandals, which led to the introduction of the Sarbanes-Oxley Act (SOX), and the growing concerns for environmental damage and social inequalities, non-financial reporting became companies' response to public opinion expectations of higher standards of corporate conduct and behavior (Fontaine, 2013). Nowadays, engaging in non-financial information disclosure represents a central way of demonstrating how companies perform in the sustainability arena, be that through incorporations in annuals reports or standalone sustainability and integrated reports.

Even though public pressure was the main force driving companies to undertake socially responsible activities and the related reporting, the latter was deemed a voluntary practice, until the introduction of the EU Directive 2014/95/EU, also called the non-financial reporting directive (NFRD). The Directive led to a radical change in the reporting landscape, mandating large public-interest entities, including listed companies, banks, insurance companies and other firms designated by national authorities as public-interest entities, to disclose certain information on the way they operate and manage social and environmental challenges from financial year 2017. Therefore, the companies mentioned

above have to publish reports on the policies they implement in relation to environmental protection, social responsibility and treatment of employees, respect for human rights, anti-corruption and bribery and diversity on company Boards (in terms of age, gender, educational and professional background). This definitely helps investors, policy makers, consumers and other stakeholders evaluate large companies' sustainability performance, encouraging them to develop a responsible approach to business (Arvidsson, 2019).

Over the years, the value relevance of non-financial information as well as the relationship between its reporting and financial performance has attracted research attention. For instance, Qureshi et al. (2020) investigated what impacts sustainability reporting and Board gender diversity have on the value of firms in environmentally sensitive industries. The authors, by supporting stakeholder theory, found out that sustainability disclosure is value relevant and has a positive relationship with stock prices, highlighting the beneficial role that acting responsibly plays on the expectations of a broader network of stakeholders who are equally essential for a firm's success, thereby leading to more favorable contracting and opening new avenues of growth. These results also align with Elkington's (1994) "*triple bottom line*" framework, which denotes that companies create value through engaging in sustainable activities: a win-win-win strategy.

Reviewing academic research and debates on this topic, the arguments for which companies provide non-financial reporting turned out to be primarily three: *gaining, maintaining and/or restoring legitimacy*; *improving stakeholder relations*; and *decreasing information asymmetry*. Most companies consider vital to obtain legitimacy, in the form of a social contract or a social license, in order to operate. The underlying idea of legitimacy theory, deemed by Hooghiemstra (2000) as the dominant response to why they report sustainability matters, is that a firm's success or even its survival in business society is dependent on the extent to which it operates complying with social norms and on the stakeholders' perceptions of the company and its operations.

Furthermore, according to stakeholder theory (Freeman, 1984), a company needs not only to take into account stakeholders' expectations, but also how these can change over time. In order to keep track of shifted perspective and expectations and improve relations' management, companies continuously analyze their stakeholders and inform them about the socially responsible activities they engage in through non-financial reporting. This is also emphasized by the Global Reporting Initiative (GRI) Standards, including a set of principles for defining report content and ensuring the quality of the information

disclosed that focus on stakeholder engagement and dialogue. The latter will be discussed in the next section.

The third reason why non-financial reporting is getting increasing attention is that pre-actively disclosing sustainability-related activities might be an efficient way for reducing information asymmetry (Montiel et al., 2012), whose concept, introduced by the Nobel Laureate Akerlof (1970), entails situations where there is an asymmetric distribution of information between the parties involved, the company and its stakeholders in this case. Although the main purposes for which such information is disclosed to external users might be similar for all companies, this could be not true for the way it is reported. Whilst some of these include few aspects of their social and environmental performance into annual reports, some others prepare ad-hoc and standalone documents, called *sustainability* (or CSR) *reports*. However, the former have limited usefulness in predicting the long-term performance, being backward-oriented and reporting companies' past financial performance, and lack of information about how operations are managed; and the latter exhibit low reliability and confidence from investors, absence of connectivity with financial performance and *greenwashing* practices, where organizations disclose selected information. To overcome these shortcomings, the International Integrated Reporting Council (IIRC) introduced in 2013 the concept of the *integrated report*. Integrating reporting, together with sustainability reporting, will be discussed in the next sections.

### *2.3.1. Sustainability reporting*

The sections before portrayed the picture of a transformation towards more sustainable businesses, which was claimed extremely vital when Our Common Future, also known as the Brundtland Report, was published in 1987. Nowadays, entities worldwide are joining forces to support a more sustainable development. When companies increase investments in sustainability activities, they need to provide their stakeholders with information on sustainability performance. This clearly leads to the development of new types of corporate disclosures alongside traditional financial reporting, posing more efforts to both businesses that provide this information and stakeholders who will try to comprehend, assess and compare it. Unfortunately, its low quality and reliability have been object of skepticism and critique. As a response, over the years many initiatives contributed to an improvement of sustainability-reporting practices, which tried to address

the several related challenges, including the need to enhance value relevance, credibility and comparability of the sustainability information.

Probably, the most iconic is the Global Reporting Initiative (GRI), an international independent organization founded in 1997, that helps businesses and other organizations take responsibility for their impacts on sustainability matters, by providing them with global common and comprehensive standards on how to report those impacts. The latter standards are developed in collaboration with businesses, policymakers, civil society, labor organizations' representatives and other experts, promoting their adoption around the world and constitutes the main reference for companies disclosing sustainability information.

According to GRI (2013), *sustainability reporting* represents the tool through which companies can publicly communicate how their corporate responsibility is managed, transparently disclosing what are the organization's impacts on the environment, society and the economy and helping them set goals, measure performance, and manage change in order to make their operational activities more sustainable. Furthermore, these reports represent an indispensable tool for benchmarking and assessing the level of sustainability, especially with respect to the reference legislation, demonstrate how the company is influencing or is influenced by expectations relating to sustainable development and allow to make performance comparisons over time within a single organization or between different organizations. Today, most of the companies, both compulsorily and voluntarily, disclose their sustainability performance and impacts. For instance, according to The KPMG Survey of Corporate Responsibility Reporting (2013), 93 per cent of the world's 250 largest corporations engage in sustainability reporting.

In order to make it a standard practice and to offer support to organizations, GRI published in 2013 a set of Guidelines (G4[15] Sustainability Reporting Guidelines) for information disclosure that proposed a globally and universally-applicable relevant framework to support a standardized approach to such reporting, encouraging consistency and transparency, required to make information useful and trustworthy to stakeholders. The Guidelines consisted of Reporting Principles for defining report content and ensuring the quality of the information reported, Standard Disclosures consisting of Performance Indicators and other disclosure items, and an Implementation Manual containing

[15] GRI Sustainability Reporting Guidelines has been periodically reviewed in order to provide up-to-date guidance for effective sustainability reporting. G4 is the fourth of such update.

explanations of how to apply the Reporting Principles, how the information to be disclosed should be prepared, and how to interpret the various concepts in the Guidelines. In 2016, the latter have been replaced with the issuance of the GRI Sustainability Reporting Standards that introduced a new modular structure without adding any new content. The Standards are composed of three main universal standards (GRI 101, 102 and 103) and 33 topic-specific standards (GRI series 200, 300 and 400) and are effective for reports or other materials published on or after July 1st, 2018.

GRI 101 – Foundation represents the starting point for a company to report about economic, environmental, and social impacts using the GRI Standards, setting out the Reporting Principles, also indicated in the Guidelines, and the requirements for preparing a disclosure in accordance with the Standards and identifying and reporting on material topics. The Reporting Principles are divided into two groups: principles for defining report content and principles for defining report quality. The former are fundamental to helping a company decide what information to include in a sustainability report, involving the consideration of organization's activities, impacts, and expectations and interests of its stakeholders, while the latter help ensure high quality of the information disclosed, facilitating stakeholders' assessments and decision-making.

The *principles for defining report content* are the following:

**Stakeholder Inclusiveness**: it is the process by which an organization identifies its stakeholders, defined as entities or individuals that can be significantly influenced by the organization's activities or can affect its ability to implement strategies and achieve objectives. Stakeholders can include employees, shareholders, suppliers, customers, local communities, regulatory authorities or other organizations. If properly performed, systematic stakeholder engagement can lead to ongoing learning within the company, as well as greater accountability. The latter strengthens trust between the organization and its stakeholders. Trust, in turn, enhances the credibility of the relationship. The reasonable expectations and interests of stakeholders are a key reference point for several decisions in the preparation of the sustainability report.

**Sustainability Context**: information on a company's performance should be placed in the broader context of sustainability, conducting in-depth analyses on how it contributes to economic, environmental, and social conditions at different levels. The relationship between sustainability and organizational strategy should be clarified in the report, as well as the context to which the information is related.

**Materiality**: the sustainability report should include all the aspects that reflect the organization's significant impacts on economic, environmental and social dimensions, or substantively influence stakeholders' assessments and decision making. In fact, materiality is the principle that determines what are the relevant topics to be disclosed in the report. Companies usually make use of a materiality matrix for their identification. Anyhow, it is important that the company could explain the process by which it determined the topics' priority.

**Completeness**: the sustainability report should cover all the aspects whose economic, environmental and social impact is defined as material and their boundaries and enable stakeholders to assess the company's performance in the specific reporting period. Completeness hence encompasses the dimensions of scope, boundary, and time.

Instead, the *principles for defining report quality* include:

**Accuracy**: the information disclosed should be sufficiently detailed to allow stakeholders' assessment on organization's performance.

**Balance**: the sustainability report should provide an unbiased picture of company's performance, reflecting both positive and negative aspects in order to enable a reasoned assessment.

**Clarity**: information availability should be ensured in a manner that is comprehensible and accessible to report's users.

**Comparability**: the organization should report information in a manner that allows stakeholders to analyze performance over time and against other organizations.

**Reliability**: the company should gather, record, analyze and disclose information and processes used in the sustainability report's preparation in a way that they can be subject to examination. In this regard, stakeholders should be confident that the report can be checked to establish information's truthfulness and the extent to which Reporting Principles have been properly applied.

**Timeliness**: the organization should provide information in time for enabling stakeholders to make informed decisions.

The second universal standard GRI 102 – General Disclosures is used to disclose contextual information about a company and its sustainability reporting practices. This includes the following:

- *Organizational profile*, consisting in an overview of an organization's scale, ownership, geographic location, market and activities, useful for understanding the nature and its economic, environmental and social impacts.
- *Sustainability strategy*, including a statement by the CEO, the risks to which the company is subject, as well as the opportunities created through investments in sustainability, useful to provide context for subsequent, more detailed disclosure using other GRI Standards.
- *Ethics and integrity*, comprising values, principles and norms of behavior that orient employees' conduct.
- *Governance*, giving an overview of company's structure, the competencies, performance evaluation and remuneration and incentives of the highest governance bodies and their members as well as their role in setting strategy, risk management, sustainability reporting and evaluating economic, environmental and social performance.
- *Stakeholder engagement practices*, including a description of the stakeholder engagement process through both the identification and mapping of stakeholders and the definition of the relevance scales based on their attributes.
- *Reporting process*, explaining the process that a company has followed to define the content of its sustainability report, including the methods used to determine material topics.

The last universal standard GRI 103 – Management Approach is used to disclose information about how an organization manages each material topic in the sustainability report, including those covered by the topic-specific GRI Standards (series 200, 300 and 400) and other material aspects and allowing to provide a narrative explanation of why a specific topic is material, where the impacts occur (the topic Boundary), and how it is managed by the organization.

The 200, 300, and 400 series include various topic-specific Standards, which are used to report information on a company's impacts related to economic, environmental, and social topics, respectively (e.g., Indirect Economic Impacts, Water, or Employment). These sets of Standards cover and rule the same aspects publicized by the Sustainable Development Goals.

Organizations usually engage in external independent assurance, verification or certification on sustainability management processes and final disclosure that is intended to enhance the robustness, accuracy and trustworthiness of sustainability performance

information and provide both external users and internal managers with increased confidence in its quality, enabling informed decision-making.

### *2.3.2. Integrated reporting*

The growing trend of combining financial reporting's short-term approach with the long-term value creation embodied through non-financial information disclosure reaches the highest level with the introduction of what could be deemed sustainability reporting "evolution", namely *integrated reporting*. The latter is defined as a "concise communication about how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term" (IIRC, 2013). This definition shows how this type of reporting goes hand in hand with CSV concept.

The call for a report that fuses financial with social and environmental performance and hence promote communication about value creation came in 2009, when the Prince of Wales convened a high-level meeting with investors, standard-setting bodies, companies, accounting regulators and UN representatives including The Prince's Accounting for Sustainability Project (A4S), the International Federation of Accountants (IFAC), and the Global Reporting Initiative (GRI), to establish the International Integrated Reporting Council (IIRC), a body in charge of overseeing the creation of a globally accepted principle-based Integrated Reporting framework, that was then published in 2013.

Integrated reporting aims to "improve the quality of information available to providers of financial capital to enable a more efficient and productive allocation of capital". Integral to integrated reporting is *integrated thinking*, intended as the attitude by which an organization actively considers the relationships between its operating and functional units and the capitals used or affected, which is essential since the IIRC's (2013) "long term vision is a world in which integrated thinking is embedded within mainstream business practice in the public and private sectors, facilitated by integrated reporting framework as the corporate reporting norm". Thus, integrated reporting's success relies on embedding integrated thinking into organizations' activities, leading to higher connectivity of information flow into management reporting, analysis and decision-making, with an integrated report being the final output of the process, constituting communication rather than compliance (La Torre et al., 2019).

According to the IIRC (2013), Integrated reporting is founded on three fundamental concepts: the six capitals, the business model and the value creation process.

The ***six capitals*** (see Figure 4) represent the resources and the relationships used and affected by the organization and are categorized as follows:

a) *Financial capital*, including funds obtained through debt or equity financing, or generated within the company, which are available for use in the production of goods or the provision of services;
b) *Manufactured capital*, the physical assets available and used by the company in the production of goods or the provision of services (e.g. buildings, equipment, infrastructure);
c) *Intellectual capital*, organizational, knowledge-based intangible assets (e.g. patents, copyrights, tacit knowledge, systems and procedures);
d) *Human capital*, comprising people's capabilities, skills and experience together with their motivations to innovate;
e) *Social and relationship capital*, that is the organization's relationships within and between several groups of stakeholders, including communities and other networks, and its ability to share information in order to promote both individual and collective well-being (e.g. shared norms, values and behaviors, trusting relationships with key stakeholders);
f) *Natural capital*, including all the environmental resources and processes that provide goods or services and support organization's prosperity (e.g. air, water, land, minerals and forests, biodiversity and eco-system health).

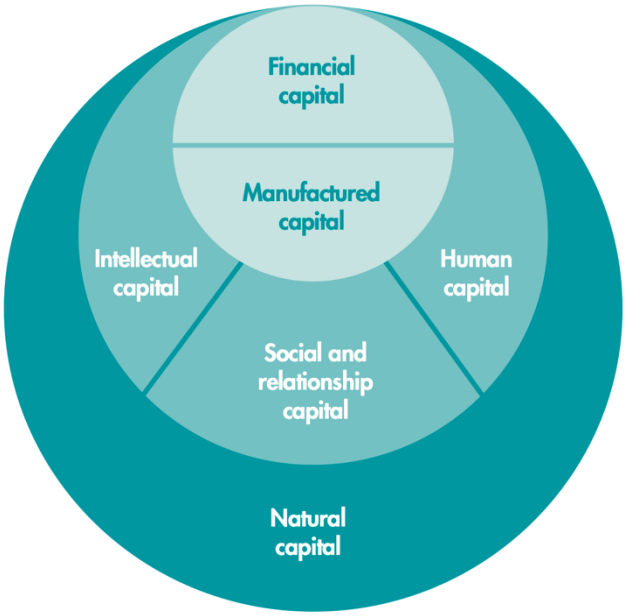


***Figure 4**: The six capitals (Source: International Integrated Reporting Council (IIRC), 2013. Capitals: Background Paper for <IR>).*

Not all capitals are equally relevant or applicable to all organizations. The choice whether to include a type of capital usually depends on the intensity of the interactions. Companies most commonly report on financial and manufactured capitals, which are the base of annual reports. Through disclosing information adopting an integrated report, they can take a broader view by considering the whole set of capital that contribute to value creation. The concept of capitals' connectivity derives from recognizing that value cannot be created for different stakeholders and over different time horizons solely through the maximization of one capital while disregarding the others. On the contrary, organizations should emphasize all the possible relationships and links between these capitals.

Another fundamental concept highlighted in the International Integrated Reported Framework is the ***business model***. The latter describes the rationale of how an organization implements its strategy and creates, delivers, and captures value in economic, social, environmental or other contexts, over the short, medium and long term. More specifically, the business model consists of *inputs*, the resources used for company's operations; *business activities*, that can include planning, design and manufacture of products or the deployment of specialized skills and knowledge in the provision of services, and are the means of conversion of inputs to outputs; *outputs*, key products and services, but also waste and by-products such as pollution; and *outcomes*, that are the positive or negative, internal and external consequences on capitals generated by activities and outputs.

Last but not least, the ***value creation process***, depicted in Figure 5.

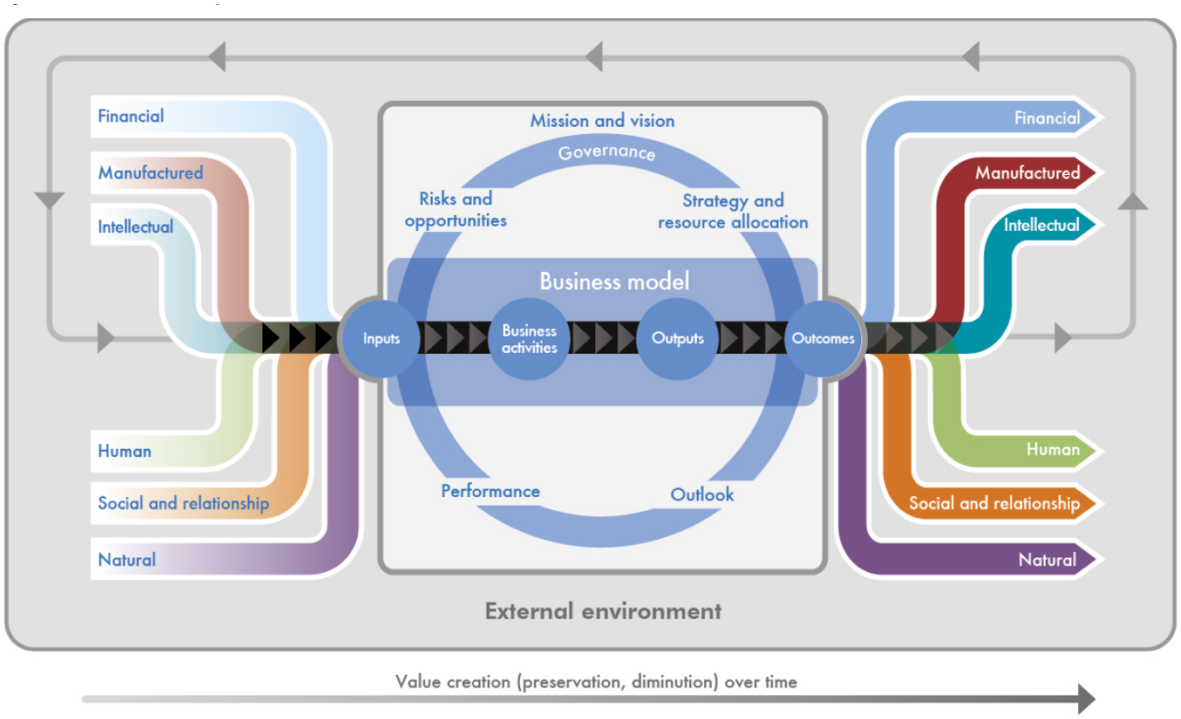


***Figure 5**: The value creation process identified by IIRC (Source: International Integrated Reporting Council (IIRC), 2013. The International Integrated Reporting Framework).*

The whole process is surrounded by the *external environment*, which sets the context within which the organization operates, including economic conditions, technological change and social and environmental challenges. The *mission* and *vision* encompass the whole company, identifying clearly and concisely its purpose and intention. Those charged with *governance* are responsible for developing a proper oversight structure to support the organization during the value creation process. At the heart of the company is its *business model*, which employs various capitals as inputs and, through its business activities, transform them into outputs. Activities and outputs lead to outcomes, in terms of effects on the capitals. Business model's ability to adapt to changes (e.g. in the availability and quality of inputs) can determine and affect the company's long-term viability.

The International Integrated Reported Framework also list and describes a series of Principles that guide organizations in the preparation and presentation of an integrated report, including fundamental characteristics such as the strategic focus and future orientation, the connectivity of information, the stakeholder relationships, materiality concept, conciseness, reliability and completeness' requirements, consistency and comparability. Furthermore, in addition to such principles, eight Content Elements are embedded and should be included in the final disclosure: organizational overview and external environment, governance, business model, risks and opportunities, strategy and

resource allocation, performance, general outlook and the basis of preparation and presentation. As you can notice, most of these elements are core to value creation process.

# CHAPTER 3

# 3. SUSTAINABILITY CONTROL SYSTEMS

There is growing awareness that "... there's no alternative to sustainable development" (Nidumolu et al., 2009). Companies are increasingly recognizing the importance their role can play in solving significant social and environmental issues. Although many of them have embraced the sustainability rhetoric in their external disclosure, these reports may serve the sole purpose of reconstructing eroded legitimacy and reinforce corporate reputation and image, hence not being evidence of their true socially responsible commitment (Banerjee, 2008). However, as mentioned in the previous chapter, many steps forward have been made for improving non-financial reporting quality, starting with the establishment of international bodies such as GRI and IIRC, setting standards on how to enhance the valuable information disclosed in the reports.

Anyhow, skepticism remains and is nurtured by the fact that for sustainability principles to become effective, a complete shift involving corporate strategy as well as company's processes, activities, and management systems should take place. In fact, according to Epstein (2004), "if current activities are intended to be more than external reporting for public relations purposes, then they must be part of a comprehensive sustainability strategy that is driven through the organization". In order to translate this strategy into practice and to engage in an institutionalised approach to corporate sustainability and the related decision making, Ackerman and Bauer (1976) suggested that top management should design proper control systems that will promote social responsibility principles holistically within the organization. In this regard, more recently, Bebbington (2007) observed that "if organizations are seeking to report on their contribution to sustainable development, one may expect that there are some internal mechanisms which guide activities towards this goal". Moreover, as previous research has clearly shown, sustainability, if effectively incorporated, measured and communicated, has a positive correlation with higher profitability, lower risk and better returns on the capital market (Herremans et al., 1993).

As a consequence, a recent stream of literature has started to explore how firms implement these explicit strategies which, together with organizations rethinking their focus from conventional financial-oriented MCSs to effectively support sustainability decision-making as they are seen to be limited in incorporating the interests of a broad range of

stakeholders other than shareholders and in addressing environmental and social issues, leads to the identification of *Sustainability Control Systems* (SCSs). Based on traditional MCSs' definition, SCSs include all those formal and informal devices and systems that managers develop and use to ensure that employees' behaviors and decisions are consistent with the organization's sustainability objectives and strategies (Gond et al., 2012).

Although the issue of control could represent a contradiction to what are the key values of sustainability, SCSs assert this in a positive manner, oriented to guide employees towards the embodiment of the related principles in day-to-day activities in such a way as to align their behavior with the company's sustainability goals. For this purpose, processes and mechanisms of planning and control, of compensation and evaluation, of incentive and rewarding, as well as policies, procedures, codes of conduct and ethics and training programs should be properly designed and implemented. The latter systems can help companies go beyond compliance with regulation, reaching eco- and socio-efficiency. Accordingly, based on the object-of-control framework (Merchant, 1982, 1985; Merchant and Van der Stede, 2007) discussed in the first chapter, the following sections analyze what are the SCSs identified by management control literature that companies can adopt alongside their design and implementation. Such systems are indeed classified into results, action and people (personnel and cultural) controls. An important strength of using this control framework lies in its distinction between these three types on the basis of the objects they aim to control focusing on employees' behavioral influence on goals' achievement, hence providing a conceptually clear and consistent taxonomy for studying the elements of an organization's management control, or rather, in this case, sustainability control (Van der Kolk et al., 2019). Even though far more studies were conducted on an economic and environmental than a social dimension, the chapter tries to cover the whole sustainability domain.

### *3.1. Results controls for sustainability*

Results controls, as indicated in section 1.2, represent the most commonly employed formal control systems for monitoring employees' behaviors at many organizational levels, holding them accountable for certain results and hence giving discretion to choose how to adjust inputs and processes for their achievement. The high popularity of this type of controls might implicate it is the most important for sustainability. However, the majority

of contributions acknowledge that it should be accompanied by further control systems, namely action and people controls, in order for the comprehensive SCS to become effective (Ball and Milne, 2005).

After discussing how companies can implement an organizational structure towards sustainability, considered the initial step for results controls' adoption, this section describes the systems suggested by sustainability and management control literature. The latter comprise sustainability planning and budgeting (Epstein and Roy, 2001; Burritt and Schaltegger, 2001; Bonacchi and Rinaldi, 2007; Roth, 2008; WBSCD et al., 2015; Lueg and Radlach, 2016); sustainability performance measurement systems, including material flow accounting (Wagner and Enzler, 2006; Herzig et al., 2012; Christ and Burritt, 2016), sustainable value added (Figge and Hahn, 2004), sustainability cost accounting (Schaltegger et al., 2003; Roth, 2008) and sustainability balance scorecard (Epstein and Wisner, 2001; Figge et al., 2002; Dias-Sardinha et al., 2002; Van Der Woerd and Van Den Brink, 2004; Roth, 2008; Hubbard 2009; Hansen and Schaltegger, 2018); and compound compensation systems (Holmstrom and Milgrom, 1991; Lothe et al., 1999; Ramus, 2002; Lothe and Myrtveit, 2003; Merriman and Sen, 2012).

### *3.1.1. Arranging a sustainability organizational structure*

The first stage for sustainability results controls' implementation entails arranging the proper organizational structure in order to facilitate the integration of social and environmental goals and strategies into daily activities across all company's levels (Petrini and Pozzebon, 2010). Few publications have tackled the issues of sustainability organizational structure (Atkinson et al., 2000; Aldama et al., 2009; Asif et al., 2013; Lock and Seele, 2016), illustrating the gap between theory and practice. However, research on the structures and systems of implementing sustainability within organizations, in the form of CSR at the time, began in the 1970s. In that period, CSR figures in executive Boards were a new phenomenon: "the position itself represents a departure from past corporate activities, and there are no guides as to where it should fit in the organization hierarchy" (Eilbirt and Parket, 1973). Others instead stated that "there are hopeful signs that large corporations are developing processes for converting the rhetoric of corporate responsibility into meaningful action" (Ackermann, 1973). Indeed, over the years, sustainability has become progressively formally organized within companies' boundaries. For instance, a survey

conducted in 2013 by the Boston College Center for Corporate Citizenship[16] highlighted that 60 per cent of its member organizations had an officer inside the Board responsible for sustainability, whilst 14 per cent installed a stand-alone Sustainability Department, with numbers rising steadily as compared to 2009. Furthermore, according to Aldama et al. (2009), sustainability structure can be a driver of organizational change and the larger the company, the more likely its implementation.

Lock and Seele (2016) distinguish two different level of sustainability's integration into organizational structure: *vertical* (governance) and *horizontal* (operational).

Beginning at the top of the firm, in line with corporate governance, defined as "the systems by which companies are directed and controlled" (Cadbury, 2000), involving not only structures at the top management level but also reporting lines and formal organization, "sustainability governance" refers to the vertical integration and control of sustainability strategy within the firm, such that "elements of organizational strategy cascade down to all levels and, thus, create a fit among organizational objectives, targets, and processes" (Asif et al., 2013). This is also emphasized by Matten and Crane (2005), who argue that, in order to take on their corporate responsibilities that affect global environmental and social issues, companies should have proper internal control systems in place that govern these activities. Nowadays, sustainability is becoming progressively "infused and embedded" in corporate governance structures.

In addition to vertical integration, the horizontal alignment of sustainability within the organization is equally critical. Coordination among the departments at the operational level represents the key to ensuring fluent processes and a systematic pursuit of the company's objectives to efficiently use both skills and resources. Firms are hence expected to strategically align sustainability with other areas of corporate conduct, both vertically, from the top corporate levels downward, and horizontally, between departments. This can be best achieved, for instance, by introducing a stand-alone Sustainability Department, a symbol of social and environmental concerns' institutionalization within the company (Schultz and Wehmeier, 2010). In order to emphasize the role sustainability function can play, recent studies suggest its placement at the highest level of the organization, as it has significant strategic value and needs top management support, enabling a better

[16] Boston College Center for Corporate Citizenship is a membership-supported organization dedicated to helping companies align corporate citizenship objectives and business goals with the aim to create a more sustainable and prosperous future.

inclusion of stakeholders' expectation, and busting the myth that directors traditionally have a duty toward shareholders only (Morgan et al., 2009).

According to Lock and Seele's (2016) study[17], 92.7 per cent of the sampled companies have governance structures for sustainability in place, with a related governance board or committee installed having strategy formulation and oversight's responsibilities. While 39.4 per cent of them report directly to the Board of Directors, 27.3 per cent report to the Supervisory Board before reaching the Board of Directors. Furthermore, the authors found out that, operationally, 82.9 per cent of the sample has a separate department for sustainability, mainly concerned with strategy implementation. They hence suggest two different typologies of organizational chart: a *single-headed* and a *two-headed* type of sustainability (or CSR) structure. The former (see Exhibit 7) shows a CSR Governance Body, having strategy and policy formulation and oversight's obligations, reporting directly to the Board of Management, as does the functional CSR Department, primarily concerned with implementing and managing sustainability.

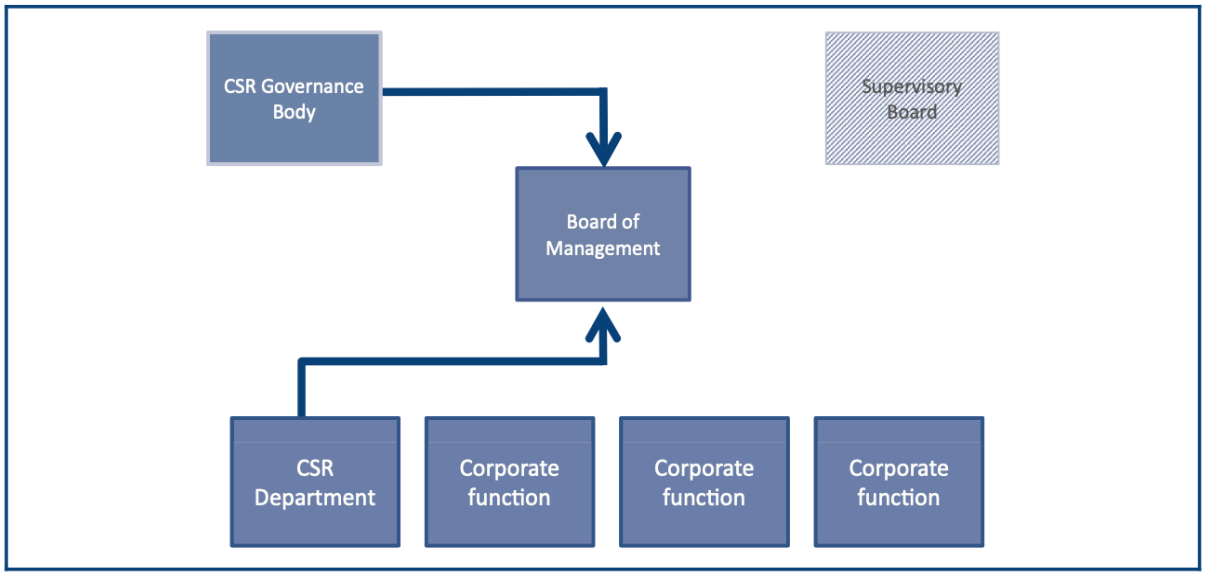


***Exhibit 7**: The single-headed type of CSR structure (Source: Lock, I., and Seele, P., 2016. CSR Governance and Departmental Organization: A Typology of Best Practices. Corporate Governance: The International Journal of Business in Society).*

The latter (see Exhibit 8), instead, still presents a dedicated governance body as the "head" of CSR; however, this reports to the Supervisory Board, whose task is to control the Board of Management. The responsibilities of the body remain the same, but the direct

[17] Data in Lock and Seele's (2016) study have been sampled from the list of sustainability sector leaders established by the Robecosam Sector Leaders Ranking 2013. Each company named industry leader is "considered to be the company within its industry that is best prepared to seize the opportunities and manage the risks deriving from economic, environmental and social developments" (RobecoSAM, 2013).

link to the executive Board is missing. At the operational level, the functional CSR Department is informed about the sustainability strategy by the Board of Management, to whom it reports key performance indicators, which in turn receives the information from the Supervisory Board, informed by the CSR Governance Body.

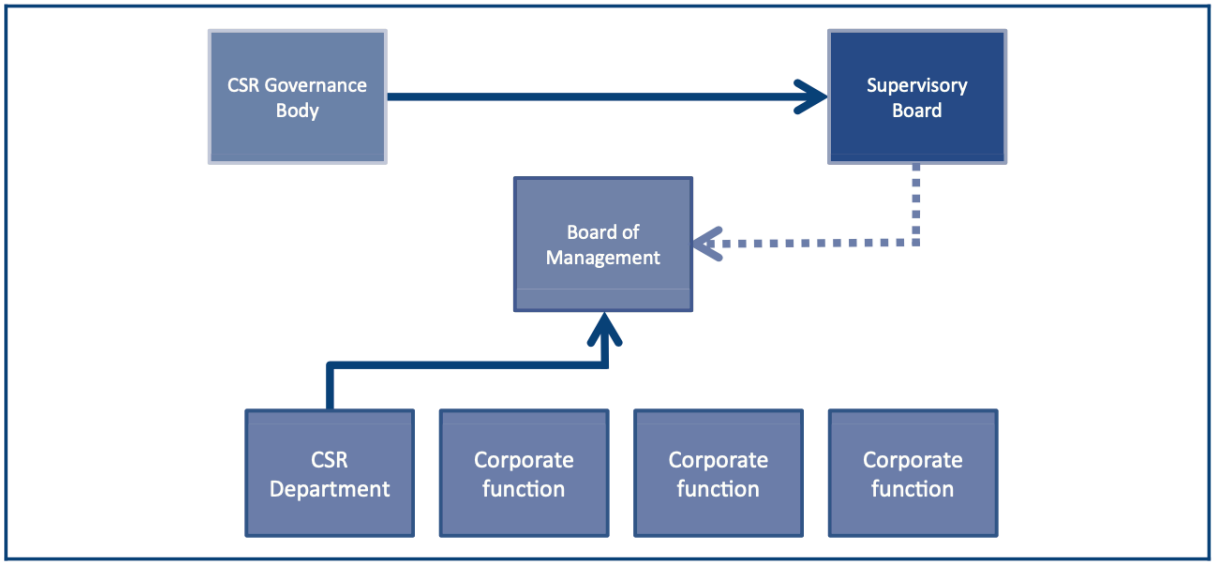


***Exhibit 8**: The single-headed type of CSR structure (Source: Lock, I., and Seele, P., 2016. CSR Governance and Departmental Organization: A Typology of Best Practices. Corporate Governance: The International Journal of Business in Society).*

### *3.1.2. Sustainability planning and budgeting*

Another core element of sustainability results controls, as well as for financial ones, is performance targets' setting, involving both *sustainability planning and budgeting*. As mentioned in section 1.2.2, while planning entails the identification of long-term goals, defining where the firm should go, and the formulation of strategies, translating how to get there, short-term plan and budgets set the performance targets determining what results employees are expected to produce, hence being effective motivational devices because linked to performance evaluation and incentives systems.

In order to integrate sustainability at the heart of companies' planning and strategic thinking, in 2015 the World Business Council for Sustainable Development (WBCSD), in collaboration with the GRI and the UN Global Compact, published the SDG Compass, providing guidance for business actions towards the Sustainable Development Goals (SDGs) (see Figure 6). The latter define the global sustainable development priorities and aspirations for 2030 and seek to gather efforts worldwide around a common set of goals and targets, calling on all businesses to apply creativity and innovation to solve the related challenges.


***Figure 6**: The Sustainable Development Goals (Source: WBCSD, GRI, and the UN Global Compact, 2015. SDG Compass: The Guide for Business Action on the SDGs).*

Companies can use the SDGs as a common framework to shape, drive, communicate and report their goals, strategies, targets and activities, allowing them to identify future business opportunities, enhance the value of corporate sustainability, strengthen stakeholder relations and keep the pace with regulatory developments, stabilize societies and markets and, finally, adopt a common language and shared purpose.

According to The Responsible Business Trends Report 2019, that featured feedback from 1,051 business professionals from across the globe, including corporations, investors, NGOs, governmental representatives and academic professors, the SDGs are increasingly being adopted by businesses to inform future strategies and shape current impacts (71 per cent of the respondents, 2 percentage points more than the previous year and 11 more than two years before).

In order to benefit from environmental and social opportunities and challenges, the starting point is defining what are the company's priorities, since not all the 17 SDGs can be equally relevant. The approach suggested by SDG Compass involves conducting assessments, audits and subsequent high-level mapping of the positive and negative, current and potential impacts that business activities may have on sustainability across the entire value chain – from the supply base and inbound logistics, across production and operations, to the final products' distribution, use and end-of-life (see Exhibit 9). This

mapping does not entail a detailed assessment of each SDG at each stage, but rather a high-profile scanning of the areas where impacts can be expected to be greatest.

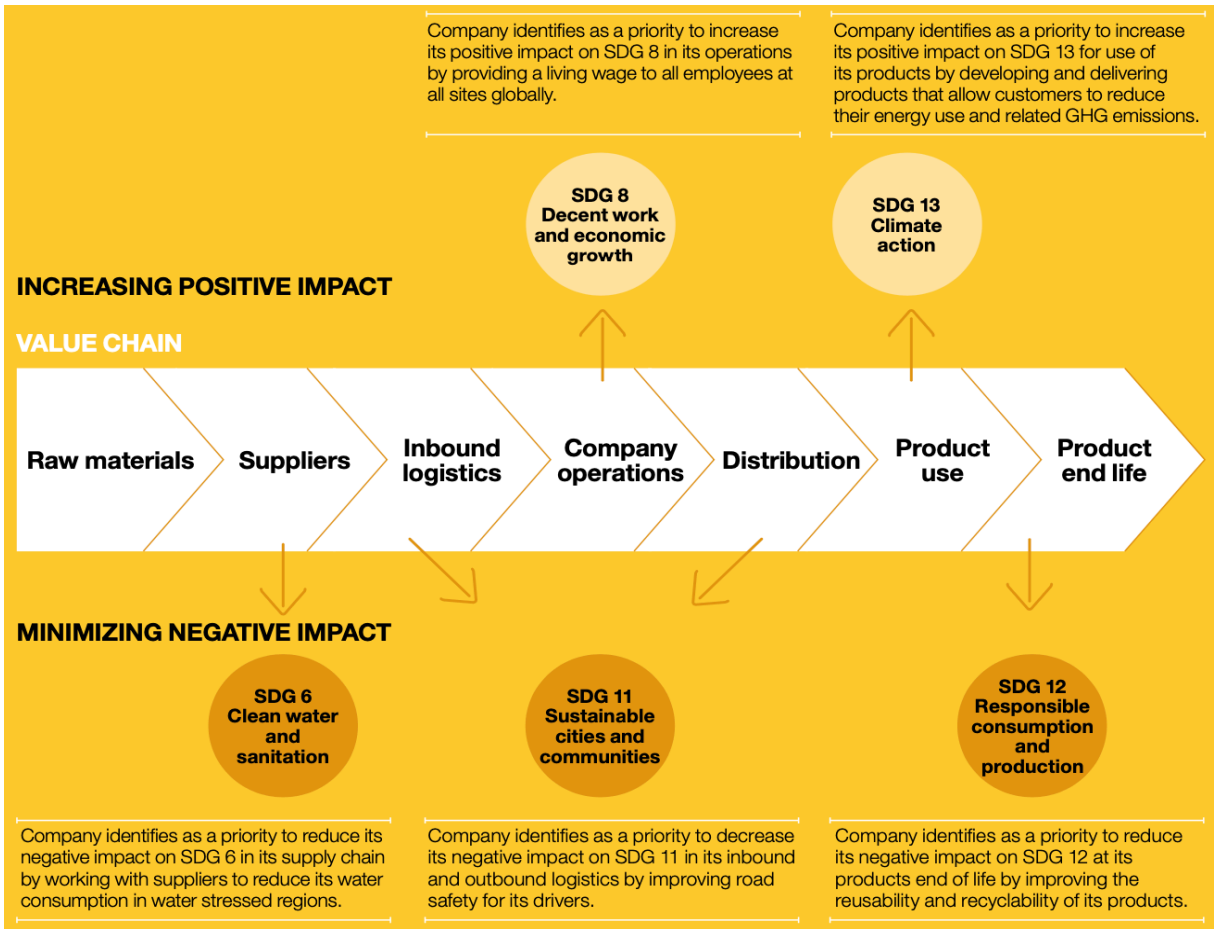


***Exhibit 9**: Example of the SDGs' mapping across the value chain (Source: WBCSD, GRI, and the UN Global Compact, 2015. SDG Compass: The Guide for Business Action on the SDGs).*

During the mapping process, companies should take the local context into account. For instance, if a firm has labor-intensive operations or supply chains in geographical regions with low wages and poor labor rights and standards' enforcement, this will likely define an area of potential high impact. Furthermore, engagement with external stakeholders is key in the mapping process in order to identify views and concerns which relate to social and environmental current or potential impacts.

Guided by impacts' assessment and prioritization are sustainability long-term goals setting and strategy formulation, core activities in the *sustainability planning* process. They are critical to business success and help achieve better performance across the organization (Epstein and Roy, 2001). Companies can align them with the SDGs, demonstrating their commitment to sustainable development. For years, although many organizations have defined long-term goals and strategies related to environmental issues such as carbon emissions as well as the use of water and other natural resources, the social

dimensions of sustainable development, including for instance poverty eradication and anti-corruption, has had less consideration, mainly because such issues may be more challenging to measure and monitor. Companies should hence advance their methodologies, since covering all the identified priorities across the aspects of sustainability is fundamental for establishing well-structured and consistent strategies (Lueg and Radlach, 2016). Adopting company-wide key performance indicators (KPIs) addressing social and environmental impacts can be particularly important as a basis for driving, monitoring, and communicating progress on the organization's sustainability performance. The selection of the specific KPIs used to measure short-term performance will be discuss later in this section.

For each sustainability long-term goal, it is important to define the baseline, which can be tied to a particular point in time (e.g. increase the number of women on the Board by 30 per cent at the end of 2023 relative baseline defined at the end of 2018) or a particular period of time (e.g. decrease carbon emissions in the five-year period from 2020-2025 by 40 per cent compared to the average carbon emissions across 2015-2020). How companies define the baseline may significantly impact the likelihood of reaching the related long-term goal. The latter can fall into one of two categories: absolute goals, which best express the expected impact on society, considering only the KPI (e.g. reduce the number of health and safety related incidents by 40 per cent by 2025 from 2020) and relative (or intensity) goals, which compare the KPI to a unit of output (e.g. reduce greenhouse gas emissions per unit of sales by 20 per cent by 2023 from 2019), enabling more accurate measurements of the company's performance per unit of output (WBSCD et al., 2015).

The level of ambition is also a significant aspect to take into account when defining long-term objectives. Setting the bar remarkably above the performance that is projected relative to the baseline may encourage and incentivize behaviors oriented towards creativity and innovation within the company. This decision can entail reputational concerns and put pressures on the industry competitors to keep up. For instance, if a company commits to higher wages for all employees, others in the same sector will have to follow suit or be left behind. Traditionally, companies decide their level of ambition basing on current and historical performance evaluations, projecting trends and different scenarios, and benchmarking with competitors in the same industry. However, this "inside-out" approach is not enough to fully address the global social and environmental concerns faced worldwide. In consideration of this, leading organizations have recently

started to look at what is needed externally from a global perspective and setting objectives accordingly (that is "outside-in"), bridging the gap between current and required performance (see Exhibit 10), which is politically recognized to be represented by the SDGs. Aligning the company's long-term goals with SDGs may hence well help establish corporate sustainability leadership in the years ahead.

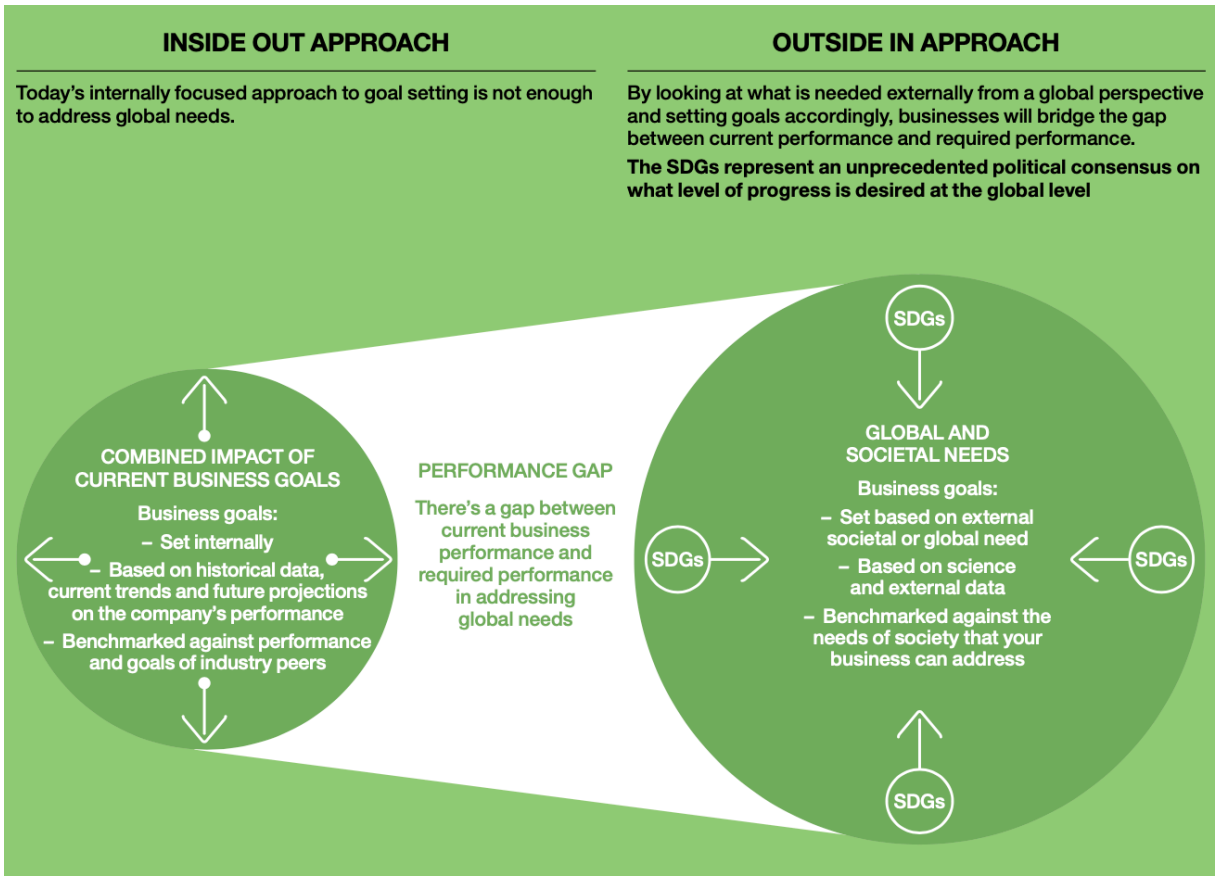


***Exhibit 10**: Adopting an "outside-in" goal-setting approach (Source: WBCSD, GRI, and the UN Global Compact, 2015. SDG Compass: The Guide for Business Action on the SDGs).*

Deciding ambitions is fundamentally linked to establishing the timeframe for the goals. There is a strong argument that making the timeline sufficiently long will enable companies within the same industry to better communicate how to improve future environmental and social conditions (WBSCD et al., 2015). However, the longer the horizon, the lower the accountability to deliver. Thus, organizations necessarily need to define proper short-term and more specific targets underlying the long-term objectives that enable sustainability integration across all the business units. The process through which these targets are set is called *sustainability budgeting* (Roth, 2008). To be more specific, the latter is based on past and contemporary social and environmental information and is used to plan the company's future as well as to check whether planned objectives are achieved. This tool can be valuable not only for emphasizing sustainability concepts to all levels of

management and employees promoting coordination and communication, but also for motivating managers to accomplish the defined targets, assessing their performance and showing accountability. Furthermore, comparisons between expected and actual sustainability measures is needed if feedback is to be used to promote change.

To be most effective and to add value to the business, short-term sustainability targets should be an integral part of the traditional financial budgetary control mechanisms. This integration involves specific gains including the anticipation of potential environmentally and socially induced financial impacts on the company (potential environmental and social costs) and the requirements of the sustainable development concept to establish proactive management of processes which influence future business periods (Burritt and Schaltegger, 2001). Roth (2008) suggests that one way to include economic, environmental and social dimensions would be to create a triple-column budget. The latter approach would encourage managers to consider all three components in developing the budget rather than focusing only on the economic impacts of the organization's activities. For instance, while environmental column can include activities that benefit (e.g. fuel and water resources' conservation, reduction of emissions and recycling of materials, water, and other resources) or harm (e.g. pollution, consumption of natural resources, and waste) the environment; social column can comprise related benefits (e.g. desirable products, employment, donations, and tax payments to the government) and costs (e.g. cost of depletion of nonrenewable natural resources, negative consequences of unsafe products, industrial accidents and public health problems).

One of the frameworks for planning and control sustainability most cited by management control literature has been the one developed by Bonacchi and Rinaldi (2007). The authors suggest this system not as a replacement of existing managerial instruments, but instead as an evolution in practice, since management control tools have to be modified as circumstances change (Kennerley and Neelly, 2002). The framework is constructed in the three following phases:

(1) *input identification*, involving the definition of the organization's fundamental aims (including mission and vision) with regard to sustainability, the path to their fulfilment and the specific actions to achieve tangible results;

(2) *identification of objects to be measured*, in which the sustainability targets used to measure performance are defined coherently with the corresponding input; and

(3) *output identification*, in which the company employs different systems to measure each identified object that allow managers to make consistent short, medium and long term decisions.

According to Bonacchi and Rinaldi (2007), a planning and control framework built in this way can significantly facilitate top management decision making in the pursuit of sustainability, offering support to feedforward, current and feedback control. In particular, while such systems assist the former through the provision of preliminary assessments of the extent to which the intended strategies will contribute to sustainability, the verification that the required actions to reach sustainability have been taken and that the hypotheses put forth in the relationship between actions and strategies is a reasonable support for current and feedback controls, respectively.

### *3.1.3. Sustainability performance measurement systems*

As highlighted in the model above, top management should select the adequate systems to measure, evaluate and manage sustainability performance at all levels of the organization. Schaltegger and Wagner (2006) suggest that social and environmental concerns should be integrated with traditional financial and economic goals, developing multidimensional performance measurement systems that allow performance to be analyzed and evaluated in a holistic, systematic and balanced way. Anyhow, in order for sustainability targets to become an effective and valid motivating influence, management should decide the proper specific economic, social and environmental measures for each business unit or function, which shape employees' behaviors, guiding them towards results' achievement, and represent the basis for subsequent performance measurement and evaluation and related compensation. The topic-specific GRI Standards (series 200, 300 and 400), mentioned in section 2.3.1, help companies identify these measures by providing KPIs referred to economic performance (financial results, market presence and indirect economic impacts), environmental performance (materials, energy, water, waste, biodiversity, emissions, products and services' impacts, compliance, transportation and supplier environmental assessment) and social performance (employment, labor conditions, occupational health and safety, training and education, diversity and equal opportunity, non-discrimination, human rights, local communities and supplier social assessment).

Management control literature suggests several *performance measurement systems* that companies can adopt: material flow accounting, sustainable value added, sustainability cost accounting and sustainability balance scorecard.

ISO 14051:2011[18] defines material flow cost accounting (MFCA) as a "management tool for quantifying the flows and stocks of materials (including energy and water) in processes or production lines in both physical and monetary units", assisting organizations to better understand the potential environmental and financial consequences of their material and energy practices by assessing the physical material flows and assigning adequate related costs (Christ and Burritt, 2016). The resulting information can act both as a motivator for organizations to seek opportunities to simultaneously generate financial benefits and reduce environmental impacts and as a system for measuring and assessing management performance. This tool can also assist sustainability decision-making by providing detailed information that budgeting is not able to accommodate (Wagner and Enzler, 2006; Herzig et al., 2012).

Figge and Hahn (2004), instead, propose a different approach to measure an entity's (be it a department, a business unit or the whole company) contribution to sustainability, the Sustainable Value Added. The latter, since it shows the amount of value created while ensuring a constant level of environmental and social performance, is based on the so-called paradigm of "strong sustainability". In other words, by taking into account opportunity cost, it represents in monetary terms the extra value created by an entity adjusted for changes in eco- and social effectiveness.

Among the most commonly used methods, there are the sustainability cost accounting tools that organizations can use to manage, measure and control sustainability-related operations. For instance, Roth (2008) argues that the concept underlying variance analysis can also be applied in environmental and social performance measurement. In fact, if budget targets are considered to be standard values for activities, then a flexible budget approach could be employed to compare actual with budgeted performance. On the other hand, Schaltegger et al. (2003) suggest activity-based analysis as the tool companies should use in the measurement of sustainability efforts. The latter examines activities to identify their underlying drivers, evaluate whether the activities contribute

[18] ISO 14051 is part of the ISO 14000 set of standards relating to environmental management codified by the International Organization for Standardization (ISO). ISO 14051:2011's objective is to provide a general framework that facilitate companies' adoption of material flow cost accounting.

to value creation, using performance measures focused on the economic, environmental and social dimensions. This approach allows the management to assess employees' performance based on the activities they carry out.

However, the most cited performance measurement system in the literature has been the Sustainability Balance Scorecard (SBSC). Accordingly, over the years, many authors have suggested the use of this multidimensional tool to manage and measure sustainability performance (Epstein and Wisner, 2001; Figge et al., 2002; Dias-Sardinha et al., 2002; Van Der Woerd and Van Den Brink, 2004; Roth, 2008; Hubbard 2009; Hansen and Schaltegger, 2018). Traditionally, the BSC involves a top-down approach, both in its contents and in its development as a management system, that claims to identify the relevant business issues and depict the causal contribution of those issues to a successful achievement of a firm's objectives and strategies, by balancing financial and non-financial, short-term and long-term, qualitative and quantitative performance measures (Kaplan and Norton, 1992). The effectiveness of the BSC to translate sustainability into a concrete practice stays in its ability to integrate the management of the three dimensions (environmental, social and economic) into mainstream business activities.

Depending on how the relationship between business and sustainability strategy is considered, different design choices for embedding sustainability in the BSC have been proposed (Gond et al., 2012). Firstly, if sustainability strategy and objectives are considered instrumental and subordinated to the business strategy, the conventional Kaplan and Norton's framework (1992) is expected to be used, by integrating environmental and social aspects into the four perspectives through respective performance drivers for which lagging and leading indicators as well as targets and measures are formulated. Secondly, if sustainability goals stand alongside the company's business ones, but without a complete integration, and, as a consequence, social strategy is considered to be separate from business strategy, two different design choices have been proposed. The first has been pointed out by Figge et al. (2002), who suggest a completely new performance area, the so-called "non-market perspective", to the traditional BSC model, since environmental and social aspects and scarcities are not yet entirely incorporated in market exchange processes and coordination mechanisms through the assignment of market prices, representing externalities. Having these specific characteristics in mind, the traditional BSC only reflecting the market system is not applicable. Adding a new perspective may hence be the solution. The second alternative, instead, develops a SBSC as a

separate tool (Epstein and Wisner, 2001). For instance, the multinational pharmaceutical company Bristol-Myers Squibb uses a balanced, comprehensive and focused approach to measure and manage sustainability performance, identifying a variety of metrics as KPIs for social and environmental responsibility (see Exhibit 11).

| Learning and Growth Perspective | Internal Business Process Perspective | Customer Perspective | Financial Perspective |
|---|---|---|---|
| Employee Practices<br>• training hours<br>• ergonomic reviews<br>• diversity<br><br>Transfer of Best Practices<br>• # ISO 14001 certifications<br>• # Product Life Cycle reviews | Environmental Performance<br>• water use<br>• packaging reduction<br>• % solvents recycled<br>• energy use<br>• hazardous waste generated<br>• # supplier reviews<br>• # fines<br>• worker exposure<br><br>Employee Performance<br>• # lost workdays<br>• # work-related injuries or illnesses | External Customer Support<br>• product safety<br>• post-consumer waste recycled<br>• consumer education<br>• # product safety brochures distributed<br><br>Good Citizenship<br>• # awards<br>• philanthropic $<br>• product donations | Cost Savings<br>• $ saved from accident reduction<br>• $ saved from PLC reviews<br><br>Investments<br>• $ spent on EH&S capital projects<br>• remediation costs<br>• preventative costs<br>• community improvements<br><br>Revenues<br>• sales of socially and environmentally positioned products |

• Measures

***Exhibit 11****: The SBSC used by Bristol-Myers Squibb to manage and measure sustainability performance (Source: Epstein, M. J., and Wisner, P. S., 2001. Using a Balanced Scorecard to Implement Sustainability. Environmental Quality Management).*

### *3.1.4. Compound compensation systems*

An effective way to to encourage behaviors towards both short and long-term, profit and sustainability goals and, at the same time, ensure accountability is to provide *compound incentives* (Ramus, 2002). This represents the final important element of sustainability results control systems.

As highlighted in the first chapter, firm's owners (principals) face agency problems, where managers (agents), to whom decision-making authority is delegated, have not only the interest to maximize firm profits but also to improve his private benefits, such as salary, fringe entitlements and leisure (Jensen and Meckling, 1976). If a fixed income is paid to managers, proper monitoring is needed to ensure that actions are directed towards the company's best interest. However, this is usually costly and hard to accomplish. As a result, to overcome this issue, compensation systems have become increasingly popular. Managers are provided with incentives and rewards such that their effort will maximize owners' "wealth". While theoretical models assume that it is possible to create proper performance measures that fully link to managerial efforts and firm performance, in practice this is quite difficult to establish, and managers may be rewarded based on imperfect measures. Introducing performance-based incentive systems therefore

exposes companies to an unwanted risk that could mine strategy implementation and objectives' achievement, be they business or sustainability-related (Lothe and Myrtveit, 2003). Furthermore, when the firm introduces a sustainability strategy in addition to the already existing business strategy, managers' effort may only be devoted to creating profits instead of achieving social and environmental targets (Merriman and Sen, 2012). For instance, directing efforts to produce a product with less pollution might be in conflict with directing efforts to produce a product at a competitive cost. Without a goal-congruent compensation scheme, firms hence risk falling within the so-called "sunset management", where there is a strong concern for profits but a weak concern for sustainability (Dodge, 1997).

In order to mitigate this risk, Holmstrom and Milgrom (1991) propose a multidimensional model where the principal expects the agent to exert efforts on distinct and separate tasks as part of its job responsibility, as it is for profit-oriented and sustainability-oriented strategies, suggesting two alternatives depending on the availability of suitable environmental and social KPIs. If the latter are not available, a fixed salary approach can be more efficient than incentive-based compensation that may attract efforts solely in the direction of profits. On the other hand, if proper KPIs exist, that is the most common situation nowadays, compensation systems should not be separated between profit and sustainability targets' achievement, since managers may ignore one dimension (usually sustainability) over the other and still receive the related bonuses. To overcome the issue related to rewarding efforts devoted to multiple tasks, companies should hence introduce a compound compensation plan involving a "multiplier" that forces managers to concentrate on all company's objectives. In this way, the manager's bonus is contingent on environmental and social performance outcomes, giving strong incentives to balance efforts to both tasks. If sustainability targets are not met, the bonus becomes zero (Lothe et al., 1999).

### *3.2. Action controls for sustainability*

As for traditional MCSs, results control systems are not the single form of controls that an organization can employ to guide employees' behavior. Another solution that top management can opt for is action controls, involving indeed setting limits to individuals' actions. Their key benefit lays in their role in preventing irregular and inappropriate

behaviors, that, if effective, leads to the removal of each related cost (Merchant and Van der Stede, 2007).

When it comes to sustainability, three of the four forms of action controls mentioned in section 1.3, namely behavioral constraints, preaction reviews and redundancy, can be referred to the traditional control structure. The only action control that is specifically adaptable for environmental and social concerns is *action accountability*. The latter involves holding individuals accountable for the actions they take and, to ensure its implementation, it requires the proper definition and communication of the limits of acceptable behavior through company-specific policies, procedures and codes of conduct and ethics. Even though the concept of "limiting freedom of action" may go against the core principles of sustainability, this type of control can be particularly effective in spreading a positive social and environmental culture and hence in helping employees to embrace behaviors consistent with the corporate sustainability objectives.

Be they integrated in existing codes of conduct or codes of ethics or included in new specific disclosures such as "Codes of Social and Environmental Conduct" or "Codes of Corporate Responsibility", sustainability principles and standards are adopted by most of the companies worldwide (Haugh and Talwar, 2010). The latter serve as behavioral guidelines to which employees have to comply with in daily activities involving all the other stakeholder groups. For instance, BayernLB, a German publicly regulated bank, has introduced specific sections in its code of conduct for social responsibility, sustainability and ethics and individual rights protection from discrimination.

Besides their definition, firms also have to strive for effective communication and implementation. Employees should hence be both aware of these standards and committed to achieving them. Indeed, successful implementation has been found to be positively correlated with their active involvement in the design of corporate codes of conduct (Van Tulder et al., 2009). Usually, the figures responsible for ensuring sustainability principles and standards' application are the Board of Directors and top management, who, in particular, serve as role models ("tone at the top") by espousing them in their actions and communication and, in doing so, help their fostering and improvement. However, communication is not sufficient to make these controls effective. Indeed, as mentioned in the previous section, top managers have to design the proper structures and policies that embody the principles of economic, social, and environmental sustainability, deciding with whom, where, and how this responsibility will be managed

(Bansal, 2002), accompanying them with aligned SCSs. In practice, this might mean taking special care to review the objectives and performance targets of managers responsible for the business areas exposed, as well as seeking to give managers and employees the right incentives, be it reward or punishment.

For example, Mackenzie's (2007) study explores the causes of corporate responsibility standards' breaches and the related Board of Directors' activities aimed for their resolution. In particular, holding discussions with a divisional director of a large UK bank about his division's apparent non-compliance with the bank's new sustainability policy, he discovered that while the Board issued the latter policy prohibiting certain behaviors related to product transparency and unfair treatment of customers, it had also issued objectives and performance targets relating to the sale of insurance products that were not consistent with its compliance. Thus, given the choice between meeting the targets and complying with the policy, the divisional director argued that he should meet the former because they specified his role at the company, and were the basis for his performance appraisal and rewards. Furthermore, the board's failure to change his performance objectives led him to doubt the seriousness of the policy's introduction. This case shows the importance of the alignment of other SCSs to sustainability policies and procedures, principles and standards' introduction.

Another important element for ensuring sustainability action controls' effectiveness is the monitoring activity, usually in the hands of internal auditors and/or specific compliance committees. Internal audit is defined by the IIA (2013) as "an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes". With regard to sustainability, as you can deduct from the above definition, the internal auditors should not only provide independent assurance about the adequacy of sustainability-related internal controls, including ensuring compliance with policies, procedures and standards, but should also assess their effectiveness and advise top management on their improvement, having an active role in their design and implementation. Moreover, internal audit provides assurance that all material sustainability risks have been identified and are being managed within the organization's risk appetite or are being effectively mitigated, simultaneously improving operations by evaluating the efficiency and effectiveness of sustainability-related

processes, while ensuring that company sustainability-related decisions are based on credible information (Ackers, 2016).

### *3.3. People controls for sustainability*

Although formal control systems show employees "the right path", when it comes to sustainability informal controls are considered much more effective (Ghosh et al., 2019). In line with these thoughts, there is a growing body of evidence that suggests that if top management wants employees to make a significant effort to achieve social and environmental goals, then they should be put first. After all, there is a reason why the famous triple bottom line includes "People" in the three P's (the other two are Planet and Profits). In other words, the main idea is that if a company's management hires capable people and treats them well, these will be more inclined to take better care of the planet and contribute to financial development. Accordingly, the Green Paper on Promoting a European Framework for Corporate Social Responsibility from the European Commission (2001) stresses the importance of involving and consulting employees, suggesting that the ''social dialogue needs to be widened to cover issues and instruments for improving companies' social and environmental performance''. Engaging employees is recognized as a widespread practice among sustainable organizations, since it drives behavioral changes: as soon as employees are confident that their contribution benefits both society and the environment, they require fewer other controls (Eccles et al., 2012).
Within companies' boundaries, these issues are commonly managed by the HR departments, which can play a significant role in the creation of a strong sustainability culture (Liebowitz, 2010).

#### *3.3.1. Turning HR activities sustainable*

Still far too little mention is granted to the contribution that HR departments can make to help the company achieve sustainability objectives. If acting proactively, finding the right people, giving them a proper work environment, the necessary resources and the opportunity to improve their knowledge might all be drivers for improving social and environmental performance (Wirtenberg et al., 2007).
The first way to show how firms care about their employees is to recruit internally before looking externally. Management should have career plans in place for their people, who

need enough time to train and develop in order to transit to their new roles, be they lateral transfers or vertical promotions. Only when there are no internal employees ready to move into new positions, the company should look to recruit externally to find those with the desired competence. HR recruiters can screen applicants carefully giving more attention to those possessing "soft" skills such as collaboration and the ability to work in team, those with a desire to making a difference with regard to sustainability, and those who are adaptable to change. Furthermore, companies should proactively select potential candidates from different cultures that can enable the establishment of a diverse workforce, as it is widely agreed that diversity within organizational boundaries leads to greater innovation and creativity (Liebowitz, 2010). Behavioral interviewing questions should hence be developed to facilitate the assessment of applicants' values and people skills. Nowadays, there is growing indication that the younger generations (X and Y) increasingly prefer to work for firms that include a focus on social and environmental concerns among their core values (Jabbour, 2011).

Even though selection and recruitment processes may have a significant impact because acting upstream, what is considered the key for a company to become a sustainability leader is the implementation of proper *education and awareness training programs*. Their importance as control mechanisms has been well established in the literature. For instance, when discussing environmental change, Bernstein (1992) writes that ''managing [change] is impossible without employee participation. Participation is impossible without understanding''. In the company, participation that leads to superior sustainability performance relies upon the application of knowledge. Since all the actions and decisions that the organizational members make in day-to-day activities, however small, can drive to large improvements in the social and environmental dimensions, they should be brought to understand how they can contribute to the company's efforts towards sustainability (Perron et al., 2006). Accordingly, The National Round Table on the Environment and the Economy[19] (1991) suggested that education and communication are vital in helping managers and employees understand their role and responsibilities in promoting and implementing sustainable development in an organization.

[19] The National Round Table on the Environment and the Economy was an independent policy advisory agency to the Government of Canada, in charge for 25 years and disbanded in 2013. Its mandate was to raise awareness about the challenges of sustainable development, releasing reports on priority issues such as climate change, deforestation, energy and water consumption and more.

In order to facilitate companies' task to integrate sustainability into training programs, in 2006 the WBCSD developed Chronos®, a sustainability education tool that addresses the business case for sustainable development. The latter can be used to increase employee awareness of the social and environmental issues faced by their organization while encouraging them to consider their role and potential contribution. In fact, beyond their traditional work responsibilities, employees should be provided with the proper information that enable them to recognize sustainability issues and situations, make the right decisions, and take appropriate action (Bansal and Hoffman, 2012). Additionally, Worley (1994), referring to environmental performance, argues that ''true environmental success comes only when environmental responsibility is embraced as part of every employee's job''.

Sustainability education and awareness training programs are therefore important drivers for changing the way companies conduct their business. However, even carefully designed, programs may not generate the desired and required behavioral changes. A core concept around the implementation of these training programs is lasting knowledge. As is widely known, little benefit may stem from an educational effort that fades quickly over time, such as a "one-time shot". Madsen and Ulhøi's (2001) study of corporate sustainability trainings in the European Union reports that only 41 per cent of the managers and employees interviewed know the specific substance of their company's sustainability policy. Therefore, in the spirit of "what gets measured gets done", all the trainings and educational contents should be accompanied by an evaluation of the related outcomes in order to ensure that the information has been transferred to and retained by the employees (Martin, 2001).

In the work context, a primary learning opportunity might be practical experience, that is volunteering initiatives. The latter are often arranged in association with an NGO partner and allow employees to contribute to social and environmental projects. These activities can not only offer them the possibility to experience something novel, but also enable them to enhance knowledge and skills, expand networks, gain recognition among colleagues, foster the ability to learn, flexibility and adaptation, as well as ethical and moral education (Peloza et al., 2009). However, organizational learning, be it technical or sustainability-related, also emerges from everyday experiences and social interactions in the workplace, and in this way, can be conceived of as spread across practices and rooted in the company's culture. Indeed, according to Dodgson (1993), it defines the "ways firms

build, supplement and organize knowledge and routines around their activities and within their cultures”**.**

### *3.3.2. Shaping an organizational culture towards sustainability*

Over the years, the need for businesses to pursue sustainability practices has been mostly translated into the introduction of ad hoc policies and the modification of processes to address pollution, decrease resource use and strengthen community and stakeholder relations (Crane, 2000). These changes, however, are usually insufficient for an organization to become sustainable because they are only superficial. Thus, in order to fully respond to environmental and social challenges, several scholars have highlighted the need to undergo a significant cultural change and transformation towards sustainability (Crane, 1995; Linnenluecke and Griffiths, 2010; Eccles et al., 2012). As mentioned in section 1.4.2, organizational culture has been interpreted very differently in the literature and there is still a lack of consensus regarding a common definition of the term. Nevertheless, the one cited most appears to be that provided by Schwartz and Davis (1981), who pointed it out as "a pattern of beliefs and expectations shared by the organization's members. These beliefs and expectations produce norms that powerfully shape the behavior of individuals and groups”. Core values and behavioral norms for organizational conduct, including those sustainability-related, are usually established and formally communicated by top managers through vision and mission statements, codes of conduct or ethics and credos. For instance, in 2007 Lars Rebien Sørensen, the former CEO of Novo Nordisk, widely considered as one of the most sustainable companies worldwide, stated:

“*At Novo Nordisk we believe in the power of the possible, our vision is one of civilization based on sustainability, partnership and respect for the individual. Sustainability is a powerful, unifying force. We believe it is possible to be commercially astute and socially aware. To accelerate growth and minimise environmental impacts. To earn competitive returns and contribute to economic prosperity for society. These are the cornerstones of the Triple Bottom Line principle upon which we build our business*.”

Dechant and Altman (1994), disclosing the best practices of environmental leadership, confirm as the first step the definition of a mission statement and corporate values that promote environmental advocacy, including stewardship in regard to ecology, parsimony in regard to resources, fairness in relation to society, and accountability, proactivity, participation, and long-termism in regard to processes.

Changing organizational culture is not an easy task. Companies have to reframe their identity by properly engaging and communicating with employees. According to Eccles et al. (2012), this is possible through considering three different drivers: the capacity for transformational change, innovation and trust. Firstly, transformational change can take years or even decades to accomplish, particularly when it is directed towards a concept, sustainability, that is still being developed. The fact that companies are heading in the direction, tolerating the related risk and making in-process adjustments instead of starting with a precise plan is not a surprise. Furthermore, it obviously depends on smaller incremental changes which should be effectively executed in order for the transformational change to be successful. Secondly, the commitment to sustainability becomes a "forcing function for innovation in processes, products and business models, which is the natural outcome of learning, broad thinking and creativity. For example, rather than suppressing conflict, sustainable organizations tend to prompt the airing of diverse ideas and point of views. Thirdly, creating a sustainable company requires trust among employees. Being confident that people can be taken at their word and that they will do their best to deliver on promises and commitments is the basis for success. Firms usually foster trust by demonstrating they value employees' contribution, deliberately aligning actions with core values, honoring their responsibilities and basing decisions on what is good for all the stakeholders.

Anyhow, most scholars agree that a gradual inclusion of sustainability into corporate culture allows to mitigate or even avoid the risk of resistance from employees who could feel overwhelmed by radical change and discontinuity of traditional behavior (Riccaboni and Leone, 2010). Moreover, cultural controls are considered the most powerful as they provide the ground for understanding sustainable development, leading to a strong, common identity based on ethics, morality, and responsibility and employees highly motivated to strive for social and environmental goals (Lueg and Radlach, 2016).

### *3.4. Considerations regarding SCSs' implementation*

In modern management control and sustainability literature, very few studies have yet taken into account the perspective of employees, which instead represent a crucial aspect that, if well assessed and understood, can facilitate the definition and implementation of control systems' configuration. Among them, Slack et al.'s (2015) research focuses indeed

on the level of engagement of the individual employee with the sustainability principles and values, strategies and targets that the company spreads internally. The latter clearly shows divergent behavioral responses. There are employees who fully engage, those who perceive no value of sustainability engagement at an organizational level, and others who give higher importance to the personal engagement outside the workplace, depending on the so-called "social exchange" of benefits between an individual social commitment and the company's citizenship attitude. Anyway, these differing views demonstrate the lack of organizational awareness of sustainability indicating a lack of shared vision for social and environmental commitment further fueled by a lack of internal communication, in particular from the top management. Analyzing the control composition of the sample company, the authors discovered that the formal controls adopted were inadequate and failed to promote organizational commitment towards sustainability objectives. In fact, not all types of control are equally effective in every situation. This is why companies should take extra care in the design and implementation choices, selecting the proper formal (results and action controls) and informal (people controls) systems to implement sustainability strategy (Ghosh et al., 2019). Another relevant argument concerns the fact that, alongside social and environmental goals and targets, organizations need to achieve those financial as well. Therefore, an integration between SCSs and traditional MCSs would be necessary (Gond et al., 2012).

### *3.4.1. The interaction between formal and informal SCSs*

Malmi and Brown (2008) emphasize that ineffective control mechanisms may not be ineffective per se, but that a misfit among the types can be the root of the problem. Accordingly, the investigation of the whole set of formal and informal controls is particularly significant since it reveals important links between them. Anyhow, a necessary condition for the SCSs to be effective is that organizations must clearly define sustainability and the related objectives, otherwise employees will be forced to attach their own interpretation, which might widely differ from what the company desires to achieve (Durden, 2008). The subsequent move involves the decision of what control types use, bearing in mind the related benefits and costs, which are similar to those of traditional systems. On the one hand, while formal sustainability controls provide an effective, measurable, and transparent method of organizing and directing employees' behavior, they can also be criticized for a lack of "sensitivity", such as the need for motivation,

flexibility and development. On the other hand, while informal sustainability controls may serve as drivers for loyalty, strong social attitudes and the development of a collective orientation, it is also hard to measure the contributions of the related activities as well as exactly when they are transgressed and, consequently, the criteria for rewards and/or punishments are less clear and potentially counterproductive (Morsing and Oswald, 2009).

From the case studies and the conceptual frameworks analyzed so far, it is evident that both forms of controls are significant. However, converging views yet exist within the literature regarding the control congruity, that is the need to balance formal and informal controls (Norris and O'Dwyer, 2004), that both forms of control need to reinforce one another in order to encourage behaviors congruent sustainability objectives and strategies (Durden, 2008); and the predominance of informal controls (Epstein et al., 2015). The arguments just mentioned have been embedded in Crutzen et al.'s (2017) study of 17 large European companies listed on the Dow Jones Sustainability Index, as the latter can be considered an indicator for an above average level of sustainability performance, examining the level of formalization of their control configuration. Premising that all the firms had control systems for sustainability in place, three distinctive patterns arose. The first pattern is related to a limited number of both formal and informal control approaches, that should be unusual for highly performing companies in terms of sustainability. The possible explanations found by the authors ranged from the limited management awareness of the relevance that deploying management control can have for achieving sustainability objectives to the unwillingness to design strong control mechanisms, which leads to the theory that the explicit sustainability strategy may serve as a "window-dressing" with the sole aim of improving the company's image and reputation rather than the related performance (Durden, 2008). The second pattern outlines an approach predominantly informal, which is in line with Epstein et al.'s (2015) observations and the most adopted in the sample. As mentioned in previous sections, informal controls create a high level of awareness and integration of sustainability within the organization's boundaries because may face less resistance. Giving more space to a low level of formalization can motivate and involve all employees, allowing the company to introduce structures and systems at a later stage, once a solid basis of common understanding about sustainability is established. However, the lack of formal controls may also create conflicts in terms of pursuing sustainability goals, with managers giving

much higher importance to financial targets' achievement linked to rewards. The problem related to the absence of sustainability results control might be, in this case, the difficulty or inability to analyze and measure sustainability issues. Opposite to the second, the third pattern depicts a rather formalized approach to control for managing sustainability, where dedicated organizational structure, clear responsibilities, definite targets and available resources reinforced by budgeting and planning are emphasized. The adoption of a technocratic view expressed in sustainability management may be closely related to the reliance that top management of many large corporation usually have on the effectiveness of traditional results control systems. A strong formal approach not backed up with informal controls may yet face implementation problems deriving from a lack of motivation and understanding of why sustainability issues. Lastly and curiously, none of the sample companies had in place a pattern with both strong formal and informal controls. This is interesting, because, according to Durden (2008), both forms of control should fortify each other.

However, as it works for conventional MCSs (Merchant and Van der Stede, 2007), a "perfect" configuration of control that gives a complete assurance that the organization's sustainability objectives will be achieved does not exist in practice. Moreover, trying to implement enough SCSs to reach the perfect condition could be too costly. Therefore, having good control in place, meaning that top management can be reasonably confident that no major surprises will occur, can be considered the optimal status.

### *3.4.2. The integration between SCSs and traditional MCSs*

So far in the chapter, SCSs have been considered as "autonomous" tools aimed at influencing employees' behaviors towards sustainability goals' achievement. However, in order to avoid that the latter ''remain peripheral and decoupled from core business activities'' (Gond et al., 2012) and hence to ensure that sustainability operations are run in accordance with those business-related, SCSs should be integrated with MCSs. This would allow organizational members to make decisions based on financial, social and environmental information at the same time (Caputo et al., 2017). Specifically, the alignment could manifest, for example, if sustainability performance measures were included, alongside traditional financial or operational indicators, within a firm's overall strategic planning and budgeting, internal reporting and monitoring systems, and the related compensation

schemes or, with respect to action controls, if specific sustainability considerations were introduced within the operating procedures regulating functions' processes. Ditillo and Lisi (2016) argue that the degree of integration largely depends on managerial sustainability orientation. On the one hand, if the latter is proactive, the company should strive for the efficacy of the adopted SCSs and their complete integration with MCSs, in order to align decisions and actions and motivate employees' effort. On the other hand, if management perceives sustainability as mere external pressure, then the company would react by adopting SCSs as "façade", buffering systems separated from the core organizational mechanisms.

Anyhow, as noted by Buhr and Gray (2012), "if they are going to work in harmony, the various control systems must also be integrated and capable of talking to each other. It is critical to create linkages to ensure that the different systems can actually point in the same direction". In line with this assertion, Gond et al. (2012) studied the interplay between SCSs and MCSs, identifying three different dimensions along which integration should occur: *technical*, *organizational* and *cognitive*.

Technical integration refers to the need of considering single activities and systems of sustainability control within a broader practice of management control. Despite they represent two parallel worlds, SCSs and MCSs reveal potential for methodological linkages, such as the presence of a common information system that simultaneously gathers, processes, and reports financial, environmental, and social performance data, even though, in practice, accounting systems used for managing and reporting sustainability impacts, vary in the way they are integrated into "regular" MCSs (Adams and Frost, 2008).

Organizational integration instead involves the adoption of a systemic approach aimed at defining actors' roles and organize the company's structure in ways that facilitate the socialization of management controllers and accountants to become specialists of sustainability reporting and control and, alternately, that enhance the financial skills of sustainability managers, thus sharing the responsibility for the whole set of financial, social and environmental objectives. Accordingly, Gond et al. (2012) states that "rather than seeing regular and sustainability management control just as something organizations have, we argue that integrating sustainability into management control and strategy should also be approached as something people do".

Finally, cognitive integration entails working towards the creation of communication platforms through control systems, both traditional and sustainability-related, that

promote interaction and generates opportunities for dialogue between employees with different way of thinking, mindsets and points of view with regard to sustainability (Heidmann et al., 2008). The main objective of such discussion is to attempt an exchange of knowledge between those participating, to reach a common understanding and to suppress or redefine cognitive boundaries. In other words, Gond et al. (2012) argue that a complete convergence of both MCSs and SCSs should be reflected in shared cognitions among the managers working on mainstream financial strategy and control those working on sustainability issues.

# CHAPTER 4

# 4. METHODOLOGY

In order to analyze the concepts described in previous chapters, qualitative research methodology has been adopted. However, before defining research design and methods used, the concept of qualitative research should be explained. Creswell (1998) provides some clarification by defining the latter as follows: "Qualitative research is an inquiry process of understanding based on distinct and methodological traditions of inquiry that explore a social or a human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants and conducts the study in a natural setting". The choice to adopt quantitative or qualitative research methodology depends upon the central research objective and questions (Denzin and Lincoln, 2005). While the former typically answers where, what, who and when questions, it does not adequately answer why a given phenomenon occurs or how it occurs. In order to achieve a clear picture of the "why" and "how" process, qualitative research is suggested by literature (Symon and Cassel, 1998; Silverman, 2000; Collis et al., 2003), as it provides a stronger basis for analysis and interpretation being grounded in the natural environment of the phenomenon.

In order to empirically explore the concepts described in Chapter 3, Henkel has been analyzed as a case study. The choice of this company is due to the researcher's internship experience in the Controlling Department of Henkel Norden, located in Stockholm and one of its subsidiaries, managing operations for Sweden, Denmark, Norway and Finland. Data was collected by means of semi-structured interviews conducted with different managers (see Table 1) randomly selected. The latter technique was chosen since it represents a balance between structured, "pure" interviews, which enable to provide a "mirror reflection" of reality, and unstructured, open-ended interviews defined as "authentic accounts of subjective experience" (Silverman, 2015). The face-to-face interviews had an average duration of about an hour. Detailed notes were taken in order to document the interviews. In addition to the latter, publicly available information including company's annual report, sustainability report, internal steering documents such as scorecards, internal codes of conduct and standards and website data were retrieved and analyzed.

| Interviewee | Position | Questions | Control systems covered |
|---|---|---|---|
| Cecilia Mellqvist | Head of Controlling Henkel Norden | 1. What are the steps of financial target-setting process? What functions are involved? At what level of "challenge" are these targets set? Are there negotiations between top- and lower-level managers during target-setting process?<br>2. What are the tools and systems used to measure and evaluate employees and man-agers' performance?<br>3. How is remuneration system structured? | Traditional results controls |
| Mats Hagwall | SHEQ Manager Henkel Norden | 1. How is sustainability integrated into organizational structure? Who is in charge of decision-making and oversight? Are responsibilities for sustainability split between business units and/or local entities?<br>2. What are the steps of sustainability long-term goal- and short-term target-setting process? What functions/bodies are involved? At what level of "challenge" are these targets set? Are there negotiations between top- and lower-level managers during sustainability goal- and target-setting process?<br>3. What are the tools and systems used to measure and evaluate sustainability performance? What function/body is in charge of measuring and evaluating sustainability performance?<br>4. Are there specific internal codes of conduct and standards for sustainability? What are the main topics covered? | Sustainability results controls<br>Sustainability action controls |
| Philipp Kolb | International SHEQ - Sustainability Steering Supply Chain Laundry & Home Care | 1. How is sustainability integrated into organizational structure? Who is in charge of decision-making and oversight? Are responsibilities for sustainability split between business units and/or local entities?<br>2. What are the steps of sustainability long-term goal- and short-term target-setting process? What functions/bodies are involved? At what level of "challenge" are these targets set? Are there negotiations between top- and lower-level managers during sustainability goal- and target-setting process?<br>3. What are the tools and systems used to measure and evaluate sustainability performance? What function/body is in charge of measuring and evaluating sustainability performance?<br>4. Are there specific internal codes of conduct and standards for sustainability? What are the main topics covered? | Sustainability results controls<br>Sustainability action controls |
| Minna Mielke | Human Resources Manager Henkel Norden | 1. Are there specific internal codes of conduct and standards for sustainability? What are the main topics covered?<br>2. Is candidates' sustainability attitude considered and evaluated during selection process?<br>3. Are there training or other educational programs on sustainability for Henkel's employees?<br>4. How is sustainability integrated into corporate culture? | Sustainability action controls<br>Sustainability people controls |

***Table 1**: Henkel managers interviewed, starting questions and control systems covered.*

# CHAPTER 5

# 5. HOW TO MANAGE SUSTAINABILITY EFFECTIVELY: HENKEL CASE STUDY

## *5.1. Henkel at a glance*

Henkel is a German multinational company headquartered in Düsseldorf, Germany, operating in the chemical and consumer goods industries in over 120 countries in Western Europe, Eastern Europe, Africa, Middle East, North America, Latin America and Asia-Pacific. Founded in 1876 by Fritz Henkel, it looks back on more than 140 years of success. Within its three business units including Adhesives Technologies, Beauty Care and Laundry and Home Care, Henkel employs more than 52,000 people globally who constitute a highly diverse team, united by a strong company culture and a common purpose to create sustainable value. The latter, together with strong brands, innovations and technologies enables the company to hold leading market positions in the aforementioned businesses and to be recognized as a leader in sustainability. In 2019, Henkel reported sales of more than 20 billion euros and adjusted operating profit of more than 3.2 billion euros and its preferred shares are listed in the German stock index DAX (Henkel AG & Co. KGaA, 2020a).

### *5.1.1. More than 140 years of brand success*

The company's story begins in 1876, when the young merchant interested in science Fritz Henkel on September 26 founded with Otto Dicker and Otto Scheffen the company Henkel & Cie in Aachen, Germany marketing a universal detergent based on silicate named "Universal-Waschmittel" as their first product. His two partners, one year earlier, had founded one of the first German water glass factories – the Rheinische Wasserglasfabrik – in Herzogenrath, near Aachen. The new company thus had reliable sources of water glass as a raw material for laundry detergents' production (Henkel AG & Co. KGaA, 2016).

In 1878, its first branded product, result of Fritz Henkel's own research, the bleaching soda, was launched (see Figure 7). In the same year, Henkel also began exporting products abroad and, in order to take advantage of the better transport links and sales opportunities, it relocated to Düsseldorf, where it is currently headquartered. Düsseldorf at the time

was the gateway to the Ruhr region, which became the most important industrial area of the German Empire from the 19th century onward.


***Figure 7**: Henkel's Bleich-Soda, first branded product, on the left and Persil, the world's first self-acting laundry detergent on the right (Source: Henkel AG & Co. KGaA, 2016. Timeline – 140 Years of Henkel).*

In 1883, in order to improve liquidity and make better use of the company's travelling salesforce, Fritz Henkel decided to sell merchandise in addition to his detergents, including colorant ultramarine (a laundry bluing agent), gloss starch, a liquid cleaning agent, a pomade for cleaning, beef extract, and a hair pomade. Three years later, the company started developing its international presence with the opening of the first office in Vienna, Austria and also began to establish the first business links with England and Italy.

In 1907, Henkel launched Persil, the world's first self-acting laundry detergent (see Figure 7), which has been the cornerstone for its growth since then. Its success was two-fold: it cleaned and bleached laundry without the use of chlorine, eliminating the physically hard task of scrubbing and washing by hand, which caused fabrics to wear, and also improved general household hygiene. These represent directly tangible contributions that Henkel made to social progress. In 1912, the number of employees increased by 89 compared to the previous year, resulting in a total workforce of more than one thousand, around half of them women. Furthermore, a first-aid center was set up in the plant, full-time nurses were employed and ball fields and play areas were installed to encourage exercise during

break times. In the same year, total production rose to 50 thousand tons. At almost 20 thousand tons, the detergent accounted for 40 per cent of this, just five years after its market launch. Today, Persil is Germany's number one laundry detergent and one of the top brands in the Laundry & Home Care business (Henkel AG & Co. KGaA, 2016).

Pursuing expansion, in 1913, Henkel founded its first production site outside Germany, namely Henkel & Cie AG in Basel-Pratteln, Switzerland. Early in 1923, after World War I, France and Belgium troops' occupation of the Rhineland made delivery of adhesives from suppliers used for Persil's packaging unreliable. The disruption caused Henkel to internally manufacture adhesives for its own needs, starting to produce Sula (paper adhesive), Desula (board adhesive), and Buba (packet adhesive). The year after, glue was sold to a neighboring company for the first time. From 1928, Henkel started to export adhesives to its European neighbors and, in 1929, expanded its reach to Australia and South America (Henkel AG & Co. KGaA, 2020c).

In 1930, both Fritz Henkel and his son died, leaving Hugo Henkel to take sole management power over the company, who also became a member of the Nazi Party. During the years before World War II, Henkel received several awards by the regime and was designated a National Socialist Model Enterprise by the Beauty of Labor organization. In 1945, US troops occupied the Düsseldorf-Holthausen site and five members of the Henkel family and seven other members of the Management and Supervisory Board were arrested. Dr. Paul Schulz, a Henkel chemist, was then appointed as the trustee and CEO of the company. Two years later, Henkel family returned to the company and the former Management Board members were reinstated with their rights fully restored.

From the 1960s, Konrad Henkel took the position of Chairman of the Management Board with the aim of combining organic growth with strategic company acquisitions, representing a turning point for the company and its international expansion. In 1969, Pritt, the first glue stick in the world, made its debut. Under this brand, more products were introduced overtime, which enhanced the importance of Henkel in the market of office supplies. In the same year, Henkel started to export Pritt, making it the most widespread global brand under the Henkel umbrella. On January 1, 1975, Henkel GmbH changed into Henkel Kommanditgesellschaft auf Aktien (KGaA) – a limited corporation based on shares, and he Shareholders' Committee was set up as the decision-making body for the Henkel family. In 1985, the company went public in the stock market and shares without voting rights were issued.

The two major acquisition made by Henkel were Schwarzkopf and Loctite in the 1990s. The name Schwarzkopf has been synonymous with hair competence and values, such as modernity, high quality, and innovative strength. Since acquired in 1995, it enabled the company to double the sales of its Beauty Care business unit. Today, Schwarzkopf is one of the leading hair cosmetics brands in the world and one of the largest in Henkel portfolio. Two years later, in 1997, Henkel acquired all the shares of the Loctite Corporation. Loctite is, next to craft and household adhesives, the world's leading specialist for engineering adhesives, especially for microelectronics. With its integration in adhesives brands portfolio, Henkel has managed to achieve, by far, the world market leadership, improving sales structure in the US and worldwide (Henkel AG & Co. KGaA, 2016).
On April 14, 2008, the company was renamed Henkel AG & Co. KGaA. After the identification of a corporate culture providing a clear vision and shared values in order to address the growing internationality and diversity within the company, and the definition of both financial and sustainability long-term strategies, nowadays Henkel hold leading positions in all the three business units in which it operates. A new CEO, Carsten Knobel, has recently been appointed from January 1, 2020 (Henkel AG & Co. KGaA, 2020c).

### *5.1.2. Business Units and 2019 financial results*

As you can infer from the success story just described, Henkel is organized into three business units: Adhesive Technologies, Beauty Care, and Laundry & Home Care.
**Henkel Adhesive Technologies** leads the global market with high-impact solutions, offering a broad portfolio of adhesives, sealants and functional coatings through both its Industry and its Consumers, Craftsmen and Building businesses. In fact, the latter can be found in many objects that are manufactured, which touch consumers' lives every day: cars, books and magazines, computers, cell phones, aircraft, furniture, textiles, packaging, and many more. Whilst the industrial product portfolio is organized into five Technology Cluster Brands - Loctite, Technomelt, Bonderite, Teroson and Aquence, for consumers and craftsmen, the focus falls on the four global brand platforms Pritt, Loctite, Ceresit and Pattex. Adhesive Technologies business encompasses the following areas (Henkel AG & Co. KGaA, 2020d):

- The *Automotive and Metals* business area, where the company provides international customers in the automotive and metal processing industries with tailor-made

solutions and specialized technical services across the entire metals value chain, from metal coil and metal processing to finished metal products including metal packaging.

- The *Packaging and Consumer Goods* business area, where Henkel leads in developing solutions addressing global consumer trends like the growing demand for more sustainable practices. Accordingly, the company strives for promoting circular economy with high-impact solutions for packaged food and beverages, diapers and hygiene products, plasters and bandages, clothes and shoes, furniture and much more.
- The *Electronics and Industrials* business offers a specialized portfolio of engineering solutions for electronic and industrial key accounts, thanks to Henkel's specialized technical and R&D expertise. Leveraging the global presence, it enables some of the world's most recognizable brands and products with its bonding, connecting, sealing, coating, protection and thermal management solutions.
- The *Craftsmen, Construction and Professional* business area, where the company markets a large range of branded products for private consumers, do-it-yourselfers, craftsmen and trade as well as for maintenance and manufacturing professionals from more than 800 different industries. The solutions offered include adhesives and sealants for use in and around the house, building materials and sealing products for tiles, windows, roofs and floors and a comprehensive portfolio of products for the assembly and maintenance of machines.

In 2019, Adhesive Technologies business unit experienced a decline, in some cases significant, in global demand from major industries that drove to a decrease in both organic sales growth and adjusted return on sales (ROS)[20]. As you can see in Exhibit 12, although sales generated in 2019 rose nominally by 0.6 per cent compared to previous year to 9,461 million euros, the exclusion of the positive impact of foreign exchange effects (1.5 per cent) and acquisitions/divestments (0.6 per cent) leads to an overall organic sales decrease by 1.5 per cent, with price increase strategy implemented that was unable to offset lower volumes. Adjusted operating profits decreased by 2.3 per cent to 1,712 million euros. Adjusted ROS came in at 18.1 per cent, adversely affected by declining volumes. Nevertheless, by rising prices and continuing on ongoing measures to reduce costs and enhance production and supply chain efficiency, the company was able to more than outweigh the negative effects of volumes (Henkel AG & Co. KGaA, 2020a).

[20] Adjusted operating profits and the related profitability indices are adjusted for one-time charges/gains and restructuring expenses.


**Key financials**

| in million euros | 2018 | 2019 | +/– |
|---|---|---|---|
| Sales | 9,403 | **9,461** | 0.6% |
| Proportion of Henkel sales | 47% | **47%** | – |
| Operating profit (EBIT) | 1,669 | **1,631** | – 2.3% |
| Adjusted operating profit (EBIT) | 1,761 | **1,712** | – 2.8% |
| Return on sales (EBIT) | 17.7% | **17.2%** | – 0.5 pp |
| Adjusted return on sales (EBIT) | 18.7% | **18.1%** | – 0.6 pp |
| Return on capital employed (ROCE) | 19.3% | **17.2%** | – 2.1 pp |
| Economic Value Added (EVA®) | 762 | **685** | – 10.2% |

**Sales development**

| in percent | 2019 |
|---|---|
| **Change versus previous year** | **0.6** |
| Foreign exchange | **1.5** |
| **Adjusted for foreign exchange** | **– 0.9** |
| Acquisitions / divestments | **0.6** |
| **Organic** | **– 1.5** |
| of which price | **1.8** |
| of which volume | **– 3.3** |

***Exhibit 12**: 2019 Henkel Adhesive Technologies key financial and sales development (Source: Henkel AG & Co. KGaA, 2020a. Henkel Annual Report 2019).*

**Henkel Beauty Care** holds leading market positions with its brand-name products business that is continuously expanding. Numerous successful high-quality solutions are developed, produced and sold in more than 150 countries worldwide, both in the Branded Consumer Goods business area with Hair Cosmetics (hair care, hair colorants and hair styling), Body Care, Skin Care and Oral Care, as well as in the professional Hair Salon business. Top brands in Beauty Care business unit include *Schwarzkopf*, a hair cosmetic brand representing quality, expertise and innovation with its professional products' line being among the world's three leading suppliers of hair salon products; *Dial*, a skin care brand that with products such as bar soap, body wash, liquid hand soap and lotions provide benefits such as moisture, exfoliation and protection; and *Syoss*, a successful retail brand in the hair cosmetic sector – hair care, styling and coloration - with products developed with and tested by professional hairdressers, stylists and colorists (Henkel AG & Co. KGaA, 2020d).

In 2019, sales development in Beauty Care was overall negative. This was mainly due to the negative impact in mature markets, especially in the Branded Consumer Goods business in Western Europe and Asia. On the other hand, Hair Salon business continued its strong widespread growth supported by Schwarzkopf Professional brand. Overall sales produced by the business unit decreased nominally by 1.8 per cent compared to previous

year to 3,877 million euros, 85 per cent of them generated with its 10 top brands but, excluding the positive impact of acquisitions/divestments (0.3 per cent), they result in an overall organic sales decrease by 2.1 per cent, mainly because of lower volumes (see Exhibit 13). The foreign exchange effects overall had a neutral impact on sales. Adjusted operating profits fell by 23.1 per cent to 519 million euros. Adjusted ROS decreased to 13.4 per cent, adversely affected by declining gross margin and increased investments in brands, technologies, innovations and digitalization (Henkel AG & Co. KGaA, 2020a).

**Key financials**

| in million euros | 2018 | 2019 | +/– |
|---|---|---|---|
| Sales | 3,950 | **3,877** | –1.8% |
| Proportion of Henkel sales | 20% | **19%** | – |
| Operating profit (EBIT) | 589 | **418** | –29.0% |
| Adjusted operating profit (EBIT) | 675 | **519** | –23.1% |
| Return on sales (EBIT) | 14.9% | **10.8%** | –4.1 pp |
| Adjusted return on sales (EBIT) | 17.1% | **13.4%** | –3.7 pp |
| Return on capital employed (ROCE) | 14.8% | **10.1%** | –4.7 pp |
| Economic Value Added (EVA®) | 230 | **88** | –61.9% |

**Sales development**

| in percent | 2019 |
|---|---|
| **Change versus previous year** | **–1.8** |
| Foreign exchange | **0.0** |
| **Adjusted for foreign exchange** | **–1.8** |
| Acquisitions/divestments | **0.3** |
| **Organic** | **–2.1** |
| of which price | **–0.6** |
| of which volume | **–1.5** |

***Exhibit 13**: 2019 Henkel Beauty Care key financial and sales development (Source: Henkel AG & Co. KGaA, 2020a. Henkel Annual Report 2019).*

**Henkel Laundry & Home Care** is the cornerstone of Henkel's success story, since all started with a product from this sector, namely the laundry detergent "Universal-Waschmittel". Since then, the business unit occupies leading positions on a worldwide scale with well-known brands such as Persil, Pril, Dixan, Bref and Color Catcher. The overall product portfolio ranges from heavy-duty detergents and specialty detergents, laundry additives, dishwashing products, hard surface cleaners and WC cleaners, to air fresheners and insect control products (Henkel AG & Co. KGaA, 2020d).

In 2019, growth in the relevant markets for laundry and home care products was good, despite the intense price and promotional competition. This good performance was mainly due both to the sustained success of the strong brands and the convincing

introduction of innovations. Sales generated by the business unit increased nominally by 3.7 per cent compared to previous year to 6,656 million euros which, without an incremental or decremental effect due to the zero-net impact of foreign exchange and acquisitions/divestments, result in an organic sales growth by 3.7 per cent, mainly driven by price increases (see Exhibit 14). Adjusted operating profits dropped by 5.7 per cent to 1,096 million euros. Adjusted ROS decreased to 16.5 per cent, due mainly to increased investments in brands, technologies, innovations and digitalization (Henkel AG & Co. KGaA, 2020a).


**Key financials**

| in million euros | 2018 | 2019 | +/– |
|---|---|---|---|
| Sales | 6,419 | **6,656** | 3.7 % |
| Proportion of Henkel sales | 32 % | **33 %** | – |
| Operating profit (EBIT) | 970 | **973** | 0.3 % |
| Adjusted operating profit (EBIT) | 1,162 | **1,096** | – 5.7 % |
| Return on sales (EBIT) | 15.1 % | **14.6 %** | – 0.5 pp |
| Adjusted return on sales (EBIT) | 18.1 % | **16.5 %** | – 1.6 pp |
| Return on capital employed (ROCE) | 13.1 % | **12.6 %** | – 0.5 pp |
| Economic Value Added (EVA®) | 306 | **356** | 16.2 % |

**Sales development**

| in percent | 2019 |
|---|---|
| **Change versus previous year** | **3.7** |
| Foreign exchange | **– 0.3** |
| **Adjusted for foreign exchange** | **4.0** |
| Acquisitions / divestments | **0.3** |
| **Organic** | **3.7** |
| of which price | **3.2** |
| of which volume | **0.5** |

***Exhibit 14**: 2019 Henkel Laundry & Home Care key financial and sales development (Source: Henkel AG & Co. KGaA, 2020a. Henkel Annual Report 2019).*

Exhibit 15 shows the overall economic picture of Henkel Group for fiscal 2019. Sales increased nominally by 1.1 per cent to 20,114 million euros which, adjusted for the positive effects of both foreign exchange and acquisitions/divestments, falls to a flat zero per cent organic sales growth, with price increase strategies that managed to cover the decrease in volumes. The overall profitability of the Group was negatively impacted by the slight increase in cost of sales and the enhanced investments in brands, technologies, innovations and digitalization as well as by declining volumes. In fact, both adjusted operating profits and adjusted ROS decreased by 7.9 per cent to 3,220 million euros and to 16.0 per cent, respectively (Henkel AG & Co. KGaA, 2020a).

Reconciliation from sales to adjusted operating profit

| in million euros | 2018 | % | 2019 | % | Change |
|---|---|---|---|---|---|
| **Sales** | **19,899** | **100.0** | **20,114** | **100.0** | **1.1%** |
| Cost of sales | −10,641 | −53.5 | **−10,811** | **−53.7** | 1.6% |
| **Gross profit** | **9,258** | **46.5** | **9,303** | **46.3** | **0.5%** |
| Marketing, selling and distribution expenses | −4,513 | −22.6 | **−4,793** | **−23.9** | 6.2% |
| Research and development expenses | −471 | −2.4 | **−487** | **−2.4** | 3.4% |
| Administrative expenses | −875 | −4.4 | **−895** | **−4.4** | 2.3% |
| Other operating income / expenses | 97 | 0.5 | **92** | **0.4** | – |
| **Adjusted operating profit (EBIT)** | **3,496** | **17.6** | **3,220** | **16.0** | **−7.9%** |

Sales development

| in percent | 2019 |
|---|---|
| **Change versus previous year** | **1.1** |
| Foreign exchange | **0.6** |
| **Adjusted for foreign exchange** | **0.5** |
| Acquisitions / divestments | **0.5** |
| **Organic** | **0.0** |
| of which price | **1.8** |
| of which volume | **−1.8** |

Sales by business unit 2019

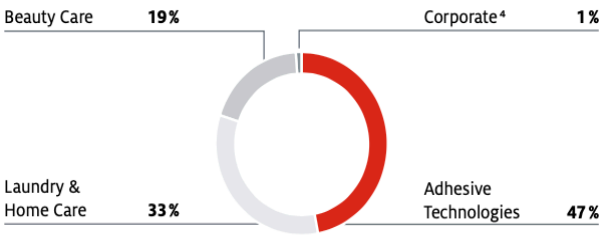


***Exhibit 15**: 2019 Henkel Group reconciliation from sales to adjusted EBIT, sales development and sales by business unit (Source: Henkel AG & Co. KGaA, 2020a. Henkel Annual Report 2019).*

### *5.1.3. Corporate governance structure and principles*

Henkel is a "Kommanditgesellschaft auf Aktien" (KGaA), namely a limited partnership based on shares. A KGaA is a company with legal identity in which at least one partner has unlimited liability with respect to the company's creditors that, in the case of Henkel, is Henkel Management AG – all shares held by Henkel AG & Co. KGaA – acting through its Management Board. The other partners' liability is limited to the shares they own in the capital stock and they are thus not personally liable for the company's debts. Exhibit 16 shows the governance structure of Henkel AG & Co. KGaA.

In line with the traditional German two-tier system, the Henkel AG & Co. KGaA's *Supervisory Board* is composed of equal numbers of shareholder representatives elected by the General Meeting and employee representatives elected by the workforce, for a total of sixteen members. The latter are appointed for five-year terms and are bound to protect the corporation's interest by advising and supervising Henkel Management AG and the work of its Management Board and by reviewing the financial and non-financial statements produced and the external auditor's report. Instead, the Supervisory Board of Henkel Management AG consist of three members who are also members of the Shareholders'

Committee with oversight and monitoring duties over the Management Board in order to ensure effective control of management activities (Henkel AG & Co. KGaA, 2020a).

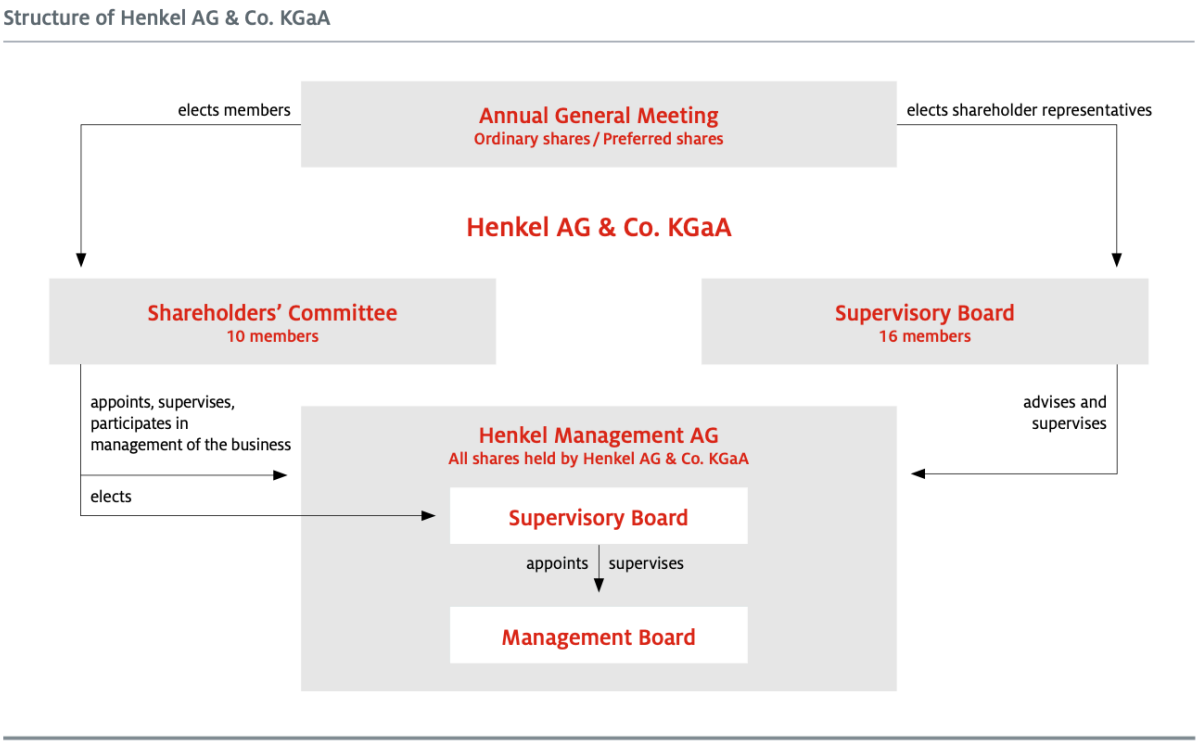


***Exhibit 16**: Henkel's governance structure (Source: Henkel AG & Co. KGaA, 2020a. Henkel Annual Report 2019).*

In addition to the Supervisory Board, Henkel AG & Co. KGaA has a standing *Shareholders' Committee* composed of ten members appointed for five-year terms by the General Meeting, who engage in regular monitoring of the Management Board in the performance of its business management activities, advising and supporting it in its stewardship and in the company's strategic development and implementation. It is also responsible for appointing and removing personally liable partners and has power of authority and management authority for the legal relationship between the company and personally liable partner Henkel Management AG (Henkel AG & Co. KGaA, 2020e).

The *Management Board* is the executive body of the Group, bound to uphold the interest of the corporation and accountable for ensuring sustainable increase in shareholder value, and is composed of six members, responsible for managing the company's business operations in their entirety, and appointed by the Henkel Management AG's Supervisory Board. The latter are segregated from both the Supervisory Board and Shareholders' Committee of Henkel AG & Co. KGaA and from the Supervisory Board of Henkel Management AG and the restriction that no member can also sit on either the aforementioned Supervisory Boards nor the Shareholders' Committee applies. The members of the

Management Board also have the duty to prepare annual financial and non-financial statements, consolidated financial statements, management reports and interim financial reports for Henkel AG & Co. KGaA, are responsible for the overall business activities including planning, coordination, resources' allocation, control and risk management, and must ensure compliance with regulatory requirements and internal company guidelines (Henkel AG & Co. KGaA, 2020a).

Corporate management principles, which go beyond the statutory requirements, are derived from the company's purpose, vision, mission and core values, highlighted in Exhibit 17. The latter guide both corporate bodies and employees' conduct in day-to-day activities and decisions worldwide, in order to meet the highest ethical standards. Furthermore, in order to avoid conflict of interest, to protect Henkel's assets and to respect social values of the countries and cultural environments in which it operates, the Management Board has issued a series of binding Group-wide codes and standards of conduct.

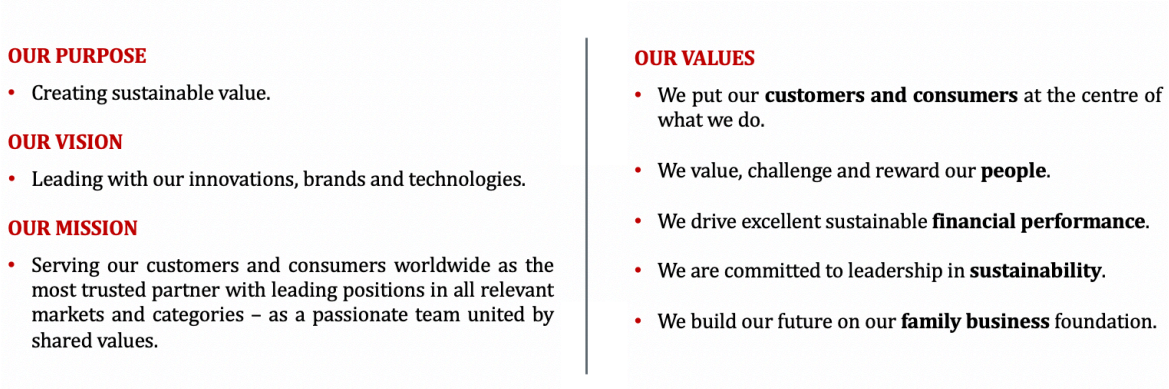


***Exhibit 17**: Henkel's purpose, vision, mission and core values (Source: Henkel AG & Co. KGaA, 2020a. Henkel Annual Report 2019).*

In summary, the Shareholders' Committee, the Supervisory Boards and the Management Board are committed to work together to ensure a responsible and transparent conduct of the company's management and stewardship aligned to achieving a long-term increase in shareholder value. With this in mind, three main principles have been pledged: value creation as the foundation of the management approach; sustainability achieved through the application of socially responsible management principles; and transparency supported by an active and open information policy (Henkel AG & Co. KGaA, 2020e).

## *5.2. Henkel's sustainability commitments and ambitions*

Henkel has a long history dedicated to sustainability. In 1912, a first aid center was set up at the plant in Düsseldorf and a full-time nurse was hired. It was also among the first companies to take a systematic approach to environmental issues, introducing regular ecological quality checks for detergents and household cleaners already in 1959. In 1992, the company published its first Environmental Report and, at the time, was one of the few firms worldwide who started reporting on the issue. Following this, sustainability became one of Henkel's corporate values and a binding behavioral guideline for all employees in every country in which it operates. In fact, as mentioned in the previous section, Henkel is committed to leadership in sustainability. Accordingly, it aims to create sustainable value together with employees, partners and stakeholders, taking responsibility for the safety and health of employees, customers and consumers, the protection of the environment and the quality of life in the communities in which it operates (Henkel AG & Co. KGaA, 2021).

### *5.2.1. A leading role in sustainable development*

The set of values, the codes of corporate sustainability and the related standards help Henkel anchor sustainability in operations, systems and processes, and meet the increasing expectations of stakeholders for responsible business practices. They are also the basis for the implementation of the United Nations Global Compact, joined as early as 2003 to publicly underscore its commitment to respect human rights, fundamental labor standards and environmental protection and to work against all forms of corruption. Fundamental to Henkel's success is the executive management continuous dedication to sustainability. This applies since the founder Fritz Henkel started the detergent business in 1876. In 1972, his grandson Konrad Henkel made a clear commitment on the issue: "*I believe that the times when the entrepreneur was allowed to focus solely on profit maximization and the health of his company are over*", and every CEO that came after him followed this example, embracing the challenges of their times and setting standards for leadership in sustainability and the long-term success of the company (Henkel AG & Co. KGaA, 2021). The central idea at the heart of Henkel's commitment to sustainability derives from the challenges to decouple economic growth in quality of life from resource consumption. As mentioned in section 2.1.2, today, there are seven billion people on earth which consume

1.5 times more resources than the planet can provide. For 2050, expectations are worrying: population will rise to nine billion accompanied by increasing resource consumption from households worldwide. This would require five planets in the current resource consumption levels. As the planet is only one, resources must be used more efficiently. For Henkel, this reflects in the need to create and deliver more value at a reduced footprint. This is why in 2010 the company decided to define a long-term goal to make sure it develops in line with this challenge. By 2030, value creation should be tripled compared to the footprint made by operations, products and services. This goal to become three times more efficient has been called "*factor 3*" (Henkel AG & Co. KGaA, 2020b).

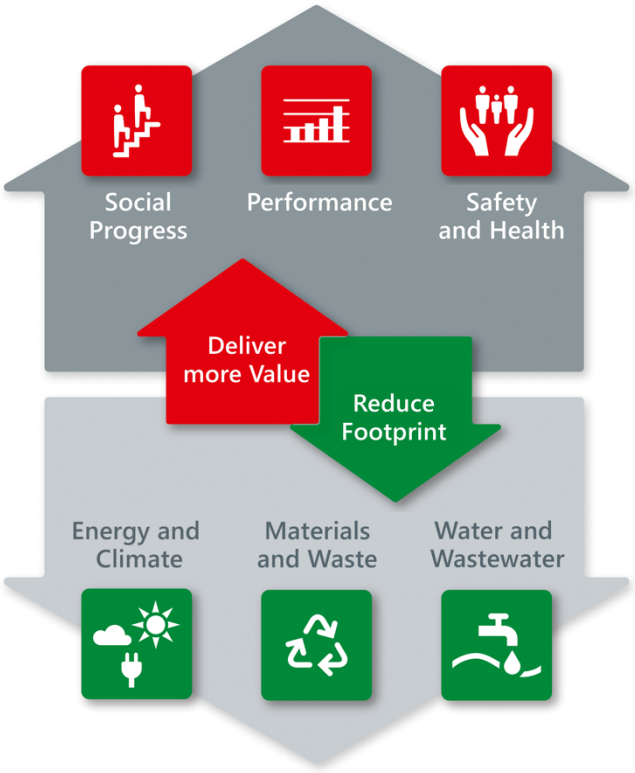


***Figure 8**: Henkel six focal areas mirroring the challenges of sustainable development (Source: Henkel AG & Co. KGaA, 2021. Sustainability. Retrieved from: https://www.henkel.com/sustainability).*

Innovating and achieving more with less will be a key to a sustainable development without sacrificing people's quality of life. In order to drive progress along the entire value chain, the latter ambition has been translated into six focal areas mirroring the challenges of sustainable development as they relate to the company's operations (see Figure 8). These focal areas are divided into two main dimensions: "more value" and "reduced footprint", which are the core ideals at the heart of Henkel sustainability strategy and must

therefore be ever-present in employees' minds and day-to-day actions and mirrored in business processes (Henkel AG & Co. KGaA, 2021).

Henkel has been working to improve efficiency and safety of production processes for decades. Sustainability performance over the past ten years show this relatively clearly (see Figure 9). In particular, between 2009 and 2019 the company has reduced water consumption by 37 per cent, reduced $CO_2$ emissions by 36 per cent, reduced waste by 38 per cent and reduced accident rate by 46 per cent (Henkel AG & Co. KGaA, 2020b).

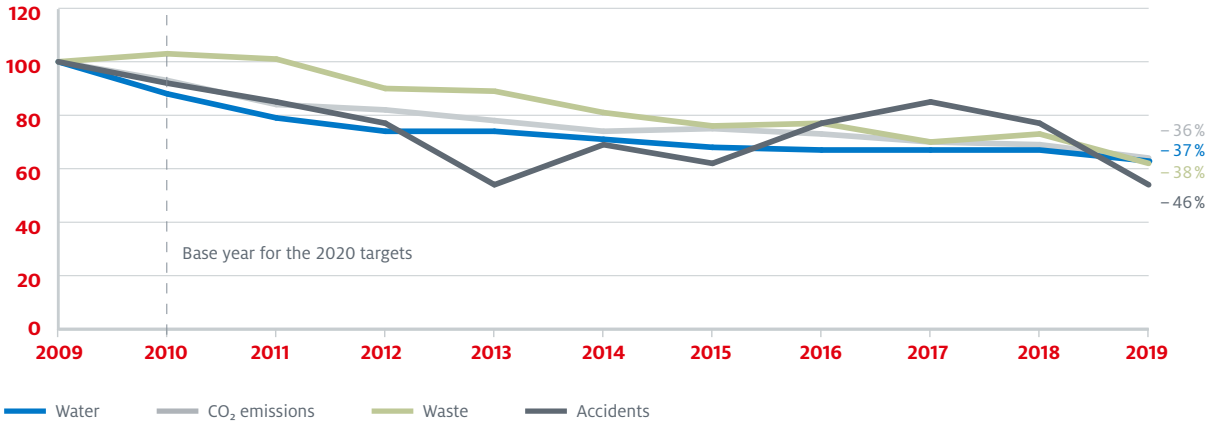


***Figure 9**: 2009-2019 trend of environmental indicators per metric ton of output and occupational accidents per million hours worked (Source: Henkel AG & Co. KGaA, 2020b. Henkel Sustainability Report 2019).*

### *5.2.2. Sustainable commitment along the value chain*

Henkel's approach to sustainability covers the entire lifecycle of products, starting with the sustainable sourcing of raw materials including supplier base management, and continuing with production, packaging solutions, and logistics and products' transport to customers and consumers, who can have a great impact since environmental footprint of many of Henkel's products largely depends on how they are being used and consequently how they are disposed. As a sustainability leader, Henkel aims to pioneer new solutions and develop the business responsibly in each field of action (Henkel AG & Co. KGaA, 2021). In particular, the company is committed to managing raw materials responsibly, especially when it comes to conserving natural resources and biodiversity. Ingredients based on renewable raw materials are used to optimize the overall characteristics of products, wherever this is compatible with environmental, economic and social considerations. Palm oil and palm kernel oil represent prominent examples. Henkel is promoting sustainable practices with business partners along the entire value chain. The palm-related

materials, used for example as raw materials for laundry detergents, should not contribute to deforestation of primary and secondary forest with significant ecological value. In 2010, for this reason, the goal of zero net deforestation by 2020 has been adopted. Moreover, the company aims for 100 per cent of palm products purchased and used to be certified in line with the Mass Balance model of the Roundtable on Sustainable Palm Oil[21] (RSPO) (today 81 per cent of palm oil materials are certified according to the model). To guarantee that the palm products purchased were really produced sustainably, Henkel aims to increase the ability to trace them back to the mills where they were processed or even to the plantations they were grown on. Furthermore, in collaboration with the international development organization Solidaridad, the company is currently involved in seven different initiatives in Colombia, Ghana, Honduras, Indonesia, Mexico, Nicaragua and Nigeria to empower and support local small farmers. In Honduras, for instance, the project focused on supporting 17,500 small farmers and workers. During a three-year program, the latter received training and were shown how to increase productivity and make sure their crops comply with criteria to be certified as sustainable (Henkel AG & Co. KGaA, 2020b).

Henkel currently has suppliers and other business partners from around 120 countries, which have the potential to significantly influences its environmental footprint. Environmental and social aspects are becoming increasingly important as they take their place alongside key commercial and operating indicators. Suppliers are then expected to conduct business operations consistently with Henkel sustainability requirements. In fact, in selecting and working with business partners, the company considers their performance with regard to safety, health, environment, social standards and fair business practices. This is based on the corporate Safety, Health and Environmental Protection Standards, first defined in 1997. These standards represent Henkel's early commitment to responsibility along the entire value chain. The corporate purchasing standards apply worldwide, and they are supplemented by a Responsible Sourcing Policy, to which suppliers have to comply with.

[21] The Roundtable on Sustainable Palm Oil (RSPO) is a non-profit organization uniting stakeholder from the seven sectors of the palm oil industry (oil palm producers, processors or traders, consumer goods manufacturers, retailers, banks/investors, and environmental and social non-governmental organisations), to develop and implement global standards for sustainable palm oil. The RSPO has developed a set of environmental and social criteria which companies must comply with in order to produce Certified Sustainable Palm Oil (CSPO). When properly applied, the latter criteria can help to minimize the negative impact of palm oil cultivation on the environment and communities in palm oil-producing regions.

In order to assess and evaluate supplier performance, Henkel has implemented a six-stage Responsible Sourcing Process, a central element of its Responsible Sourcing strategy. The company also supports strategic suppliers in contributing to the continuous improvement of sustainability along the value chain through targeted cooperation – for instance, through knowledge transfer and constant education about process optimization, resource efficiency, and environmental and social standards (Henkel AG & Co. KGaA, 2020b).

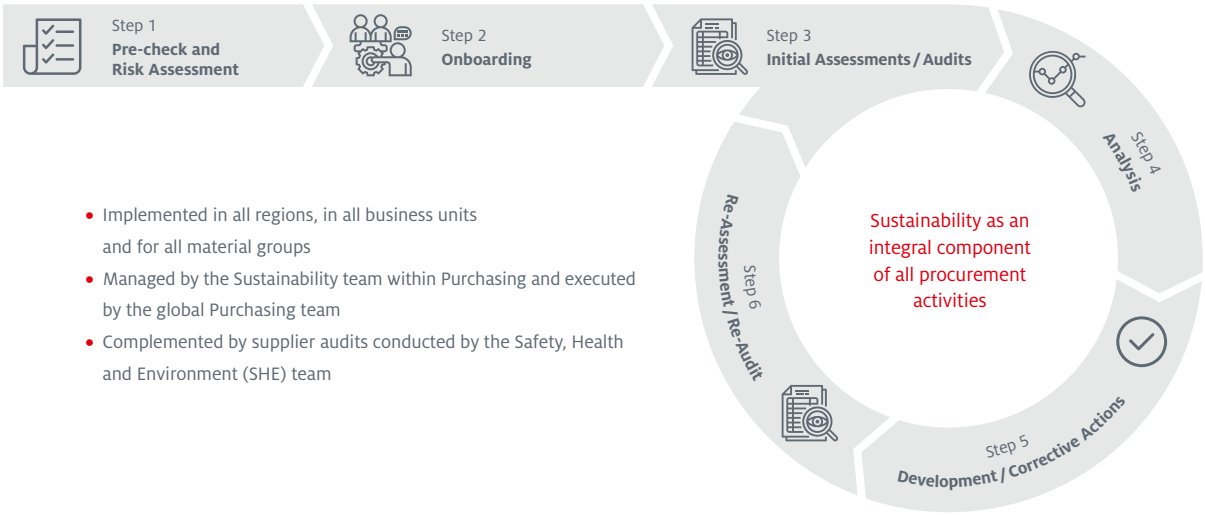


***Exhibit 18**: Responsible Sourcing Process – the six-step supplier management process (Source: Henkel AG & Co. KGaA, 2020b. Henkel Sustainability Report 2019).*

The Responsible Sourcing Process is an integral part of the purchasing activities and is applied both at the beginning of any cooperation and in the repeated cycle of review, analysis and continuous improvement with existing suppliers. Exhibit 18 shows the six-step process: *pre-check and risk assessment*, used as early warning systems for sustainability risks in a specific region or country, including topics such as human rights, corruption and legal environment, and helping identifying countries or purchasing markets that may require special precautions; *onboarding*, involving the supplier recognition of Henkel supplier code and the subsequent registration; *initial assessment or audit*, including a self-assessment questionnaire covering expectations in the areas of safety, health, environment, quality, human rights, employee standards and anti-corruption and on-site inspections and audits; *analysis of the performance assessment*, where sustainability experts and supplier advisors analyze the results of audits and self-assessment questionnaire and identify sustainability deficits, assigning suppliers to different sustainability risk classes depending on risk exposure; *corrective actions and continuous improvement process*, involving requesting suppliers to draw up a corrective action plan on the sustainability

deficit identified and reviewing the progress in its implementation; *re-assessment/re-audit*, used to monitor performance progress of suppliers and ensure a continuous improvement cycle consisting of evaluation, analysis and corrective measures.

In order to make this process even more efficient both for the firm and its suppliers, in 2011 Henkel and five other companies in the chemical industry established the initiative "Together for Sustainability". The latter aims to harmonize the increasingly complex supply chain management processes with regard to sustainability and to optimize dialog among worldwide business partners, creating synergies so that resources can be used more efficiently and with a minimum of administrative effort, not only among the member companies but also with all the shared suppliers. The idea at the heart of the initiative is "an audit for one is an audit for all": suppliers only have to undergo one assessment, or one audit, conducted by independent experts. Sharing the audit results with partners enables to cover a larger group of suppliers, maximize the impact and be in a better position to drive improvements (Henkel AG & Co. KGaA, 2021).

With all its efforts, Henkel also aims to improve the workplace conditions for one million employees working in the supply chain. The company operates approximately 184 production sites worldwide, all working towards reaching the long-term goal "factor 3" and hence improving the relationship between value created and environmental footprint by 75 per cent overall within 2020 (in 2019 total efficiency amounted at 56 per cent). Henkel's globally binding standards for safety health and environmental protection (SHE Standards) and integrated management systems provide the basis for worldwide optimization programs.

When it comes to sustainability product packaging plays an important role, fulfilling many different functions, such as ensuring hygiene intactness and protection during transport, providing space for necessary consumer information, and foster product attractiveness through its design. At the same time, packaging waste – especially plastic and pollution – has catch the eye of the public, governments, and businesses around the world. Accordingly, a radical transition toward a circular economy is needed. Resource consumption can be reduced if materials are kept within the cycles of the economy for as long as possible. The company's mission is therefore to include materials from sustainable sources into smart designs to close the loop. To achieve this goal, Henkel's packaging engineers work closely with partners along the value chain to design smart packaging solutions using the most sustainable materials available while using the least possible amount

of packaging material, all without compromising consumers' expectations. Three guiding principles represent the cornerstone: prevention, reduction and recycling or, in other words, less packing, better packing and circular economy, respectively. The following examples can make the idea (see Figure 10). First, the trigger pump system for spray bottles of the Bref brand make it easier and more efficient to use liquid products. The new spray pump design saves more than 450 metric tons of plastic material per year, which corresponds to saving up 900 metric tons of crude oil. Second, the PET[22] shampoo bottles used for the Syoss Pure&Care range are made of 25 per cent recycled PET and save 167 metric tons of new PET material. The carbon footprint of recycled PET plastic is 80 per cent lower than that of comparable new material. Third, for Pattex Made at Home all-purpose glue, both components, the bottle and the adjustable applicator nozzle for filigree and wide area gluing, are made of 100 per cent recycled material (Henkel AG & Co. KGaA, 2021).


***Figure 10**: A Bref product, a Syoss Pure & Care product and Pattex Made at Home all-purpose glue (Source: Henkel AG & Co. KGaA, 2020d. Brands & Businesses. Retrieved from: [https://www.henkel.com/brands-and-businesses](https://www.henkel.com/brands-and-businesses)).*

Henkel responsibility along the entire value chain also includes optimizing transport and logistics processes in terms of environmental compatibility and resource efficiency. Overall, the five-year goal was to reduce logistics emissions by 5 per cent per ton of product between 2015 and 2020. At the end of 2019, this has been already achieved by reducing

[22] Polyethylene terephthalate (PET) is type of plastic used as a raw material for making packaging products such as bottles and containers. It is one of the most common consumer plastics used because highly recyclable.

transport-related emissions by 7 per cent. However, the company keeps working on optimizing operations focusing on three major topics: reduce the transport weight in volume by optimizing products characteristics, for example developing concentrates in lighter packaging; reduce the transport mileage by optimizing warehouse and production footprint; and increase the proportion of intermodal routes switching more and more transport volume from road to rail. In addition, digital solutions and data collection systems will also be put in place in order to help monitor transport emissions, space utilization as well as transport routes.

Henkel products are utilized in millions of households and employed in as many industrial processes every day and the environmental footprint of many of them largely depends the way they are used. For instance, around 90 per cent of shampoo ecological footprint results from heating up water while showering. When it comes to dishwasher tabs, the picture is very similar. Around 80 per cent of the ecological footprint arises from the energy and water used by the dishwasher. That is why the company concentrates on developing products that enable the efficient use of resources such as energy and water while simultaneously striving to promote a responsible attitude when using its products through targeted communication. The challenge is represented by the gap between consumers' attitudes and their actual willingness to change their behavior. The majority of them are aware of the importance of sustainability, but only few are willing to make a personal contribution. Henkel uses partnerships with retailers to motivate consumers to make more sustainable choices when buying and using its products. At the same time, through its communication channels, such as brand website or social media channels, it builds awareness. An example could be the Henkel Footprint Calculator, developed to illustrate the impact of personal lifestyle choices. By answering simple questions, consumers can quickly estimate how much carbon footprint they generate in the areas of housing, nutrition, mobility and recreational activities. Furthermore, Henkel also shows consumers how to have a positive impact by small changes in daily habits (Henkel AG & Co. KGaA, 2020b).

#### *5.2.3. Products' contribution to sustainability*

Products represent the core business and where Henkel can make the biggest difference. This is not a question of developing individual green products where only the environmental profile has been improved, but nevertheless continuously making improvements

to all products across the entire portfolio taking every aspect into account. The ambition is clear: each product has to contribute to sustainable development, offering customers and consumers more value and better performance at a smaller environmental footprint, according to “factor 3”. To live up to this ambition, the company integrated sustainability checks into the product innovation process. Accordingly, at various gates within the development process, the new product has to prove its contribution to sustainability. This helps track progress and is an important basis for communicating the product benefits. The three different business units use tools and processes to contribute to sustainability differently.

*Henkel Adhesive Technologies* is the leading solution provider for adhesives, sealant and functional coatings worldwide. The comprehensive technology portfolio covers a wide range of applications in different industries. They help save energy by making cars lighter, by insulating buildings or by making production processes more efficient. For instance, Loctite GC 10 is an innovative solder paste for electronics, the first one that can be stored at up to 26.5 degrees Celsius for one year and up to 40 degrees Celsius for one month. This eliminates the need to transport it in refrigerated conditions, significantly reducing energy consumption and waste. Another example can be Bonderite M-NT, a new surface treatment technology for lightweight metals. The nanoceramic coating acts as a base for applying paint and protects against corrosion. The technology is suitable for use on vehicle chassis, containing up to 100 per cent aluminum helping diminish vehicle weight and emissions. Compared to the traditional zinc phosphating processes, it substantially reduces energy in water consumptions as well as waste. The work with customers goes beyond the use of products. Thanks to a partnership with the innovative recycling company TerraCycle, Henkel industrial customers can now easily recycle their empty Loctite anaerobic adhesive bottles. By dropping them into a collection box, the empty bottles will be treated and recycled into new plastic products keeping lock tight containers out of landfills (Henkel AG & Co. KGaA, 2020b).

*Henkel Beauty Care* also concentrates on developing innovations that contribute significantly to the company’s global sustainability strategy and targets, while developing products that offer more value and that have a lower footprint. The latter must combine consumer appeal and high performance with sustainability, considered a key competitive advantage. The product portfolio is continuously optimized by combining active ingredients that use fewer resources and still achieve the desired performance by developing smart

packaging solutions and by driving the operational efficiency. For instance, Schauma Nature Moments shampoo with fair trade argan oil from Morocco is produced without additional heat during the production process, which saves energy and reduces the associated $CO_2$ emissions. Additionally, a new process has been introduced for labeling the bottle, which enables the release liner to be recycled. This saves a considerable amount of waste. Another example can be the Got2b dry shampoos that combine practical hair cleaning and styling with significant environmental savings compared to conventional shampoos used in combination with warm water. Compared to washing with a conventional shampoo, the reduced footprint is particularly significant. 200 grams of $CO_2$ can be saved with each application. Again, Barnängen All Over Intensive Body Balm comprises 70 per cent renewable raw materials. The product is packaged in a lightweight plastic jar to avoid transport emissions caused by weight and enables consumers to easier empty the container completely. As mentioned before, consumers can influence the carbon footprint of products to a very large extent as a result of their consumption behavior. To raise awareness for the responsible use of water resources, Beauty Care launched the initiative "Be Smarter". Using a combination of notices on products, a comprehensive informational website and supportive in-store activities, Henkel aims to encourage consumers to help save resources using its products (Henkel AG & Co. KGaA, 2021).

*Henkel Laundry & Home Care* aims to outperform with sustainable and profitable growth by merging consumer relevant concepts with appropriate technologies into big fast differentiating sustainable and cost competitive innovations. The global marketing teams assessed the potential for green brands and line extensions for their different product categories country by country. They found out that the consumer readiness to buy green products differs tremendously between markets and categories, and that is why laundry and home care follows a twofold sustainability strategy, always delivering on the key purchase drivers: performance, convenience and direct cost savings. In markets ready for the concept of sustainability, laundry and home care develops sustainability "Lighthouse Innovations" with brands or line extensions that are clearly positioned as sustainable and with strong green claims. Three examples can be Pronature, LeChat and MIR, either awarded with European Ecolabels. In markets where sustainability aspects are not yet that prominent, Laundry & Home Care offers so-called "Smart Sustainability Champion" products. Their focus is on the three drivers mentioned above, however coming along with sustainability features. One example of a "Smart Sustainability Champion" is the

concentrated liquid detergents. The latter provide better washing performance beyond industry sustainability standards and provide significant contributions in every step along the value chain. 3.5 million kilograms plastic savings, 120 million liters water savings, 4.2 million kilograms $CO_2$ less in transportation, 50,000 waste bins less in the disposal phase and a saving potential of 117 million kilograms of $CO_2$ in use, are the yearly sustainability contributions of this laundry innovation. Another example is the Color Catcher: it provides top protection against color run accidents, enabling consumers to mix colors in one wash load which they would normally wash separately and thereby delivering a water saving potential of 20 billion liters every year. This equals three bottles per person living on the planet (Henkel AG & Co. KGaA, 2020b).

#### *5.2.4. Upcoming ambitions*

Even though Henkel has a long history and a proven track record of success in sustainability confirmed by numerous international ratings and rankings, customers, consumers and other stakeholders' expectations are continuously rising, and peers are also increasing their efforts, demonstrating that the focus on this topic has never been more important than today. The latter supports growth, contributes to cost efficiency and helps reduce risks. In order to keep up, Henkel defined three overall priorities for the upcoming years. Firstly, the company wants to strengthen its foundation. This includes delivering tangible progress towards its strong ambitions for 2030, the "factor 3" and the intermediate targets defined. Secondly, it aims to boost employees' engagement, who can make sustainability strategy implementation effective with their commitment, skills and knowledge. Henkel philosophy is reflected in the fact that if everyone contributes to a sustainable development, the impact will be significant. After being successfully trained within the company to become a Sustainability Ambassador, employees should be motivated to continue working on advancing sustainability in their daily business and through social activities. Henkel indeed promotes various initiatives to enable them to make a difference and inspire others to act more responsibly. Thirdly, the company wants to maximize the impact of operations, brands and technologies in order to strengthen its leadership and contribution in sustainability. The Global Climate Agreement reached in Paris, described in section 2.1.1, is a clear commitment to limit global warming to well below 2 degrees Celsius. Until 2050, carbon dioxide emissions around the world will have to be reduced dramatically and businesses will need to play a key role in that. Henkel has

therefore decided to work towards becoming a climate positive company. As a first step, it aims to reduce the carbon footprint from operations by 75 per cent until 2030 and to help customers and consumers to save 50,000,000 tons of $CO_2$ until 2021. While the global middle class is growing, large parts of the world's population are still confronted with poverty, poor working conditions and no chance to participate in development. Together with partners, Henkel is working on its contribution to social progress, creating shared value along the value chain and helping improve living conditions in the communities it operates in. Moreover, it wants to improve income opportunities for people touched by its businesses, for example smallholder palm oil farmers, to empower girls and women to build a successful future, and together with partners, to improve labor standards for workers in the supply chain. As Henkel's brands and technologies are being used in a million household and industry processes every day, it also aims to foster their sustainability contributions developing innovations that deliver a substantial environmental and/or social impact. Henkel is convinced that the focus on sustainability and the unwavering commitment to this topic are important now and will also underline the company's viability in the future (Henkel AG & Co. KGaA, 2020b).

## *5.3. Henkel's Sustainability Control Systems*

In order to pioneer new solutions to sustainability challenges while continuing to shape business responsibly and increase economic success, Henkel employs different control system for managing sustainability that enable the company to drive employees' behavior towards the related objectives and strategies. In the following sections, Henkel sustainability results, action and people control are analyzed.

### *5.3.1. Sustainability results controls*

As mentioned in section 3.1.1, sustainability results controls require a proper organizational structure defining responsibilities in place. In fact, in order to implement sustainable business practices effectively, Henkel's structure enables sustainability to be integrated vertically, horizontally and cross-functionally. The Management Board bears overall responsibility for sustainability strategy implementation and for compliance with legislations and internal guidelines. The central decision-making and oversight body for

sustainability management is the *Sustainability Council*. Chaired by a Management Board member and reflecting all areas of the company, the latter steers the company's global sustainability activities, performing coordination, initiative and control functions in relation to social and environmental issues on behalf of senior management.

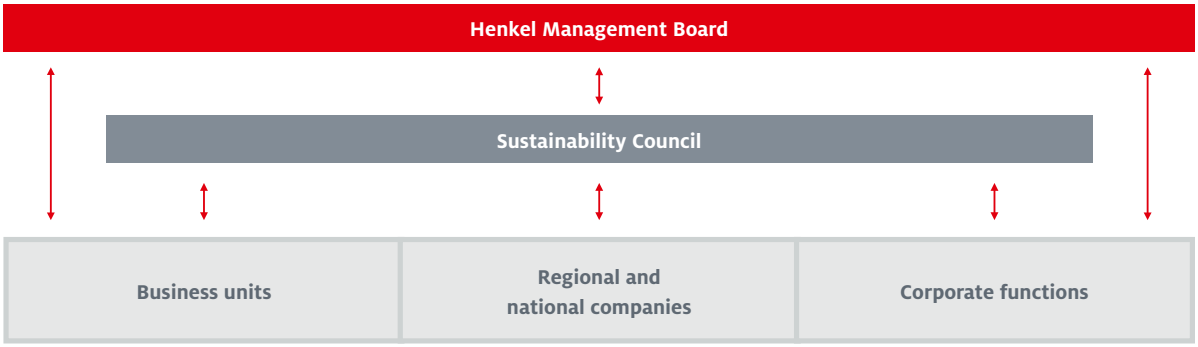


***Exhibit 19**: Henkel organization for sustainability (Source: Henkel AG & Co. KGaA, 2020b. Henkel Sustainability Report 2019).*

Its members represent the business units and corporate functions responsible for transforming sustainability strategy into operational action in day-to-day activities. The business units (Adhesive Technologies, Beauty Care and Laundry & Home Care) are not only responsible for adapting sustainability strategy to their operating needs, but also for providing the resources needed for its implementation. They align brands and technologies, and the sites involved, to sustainability in line with the specific challenges and priorities of their product portfolio. Through their representatives, corporate functions instead support the implementation of sustainability strategy in their respective areas of responsibility. For example, they develop appropriate management tools or control systems for measuring greenhouse gas emissions. A specialist unit in the Corporate Communications department, which serves as the company-wide interface for sustainability, coordinates key sustainability issues for Henkel (Henkel AG & Co. KGaA, 2021).

As a general condition, the Sustainability Council meets four times per year, but members are called to take decisions on matters as required during the year. These include the identification of strategic topics as well as operationally-relevant issues, such as climate change and its effects, human rights, sustainable products and technologies, packaging, product safety and, last but not least, management systems. In addition to the central role of the Council and the interaction between different units and functions, information sharing in international management conferences and specialist committees form an important basis for the ongoing development of Henkel's Sustainability Policy. These

meetings deal with new scientific findings, practical experience, changes in laws and regulations, and other current topics.

Being committed to leadership in sustainability – anchored in company's values, Henkel is actively supporting SDGs' achievement. The latter serve as guidelines for various organizations to identify priorities and provide a shared focus that can empower collaborative action and will accelerate progress toward sustainability. Exhibit 20 illustrates some examples of the company's contributions (Henkel AG & Co. KGaA, 2020b).

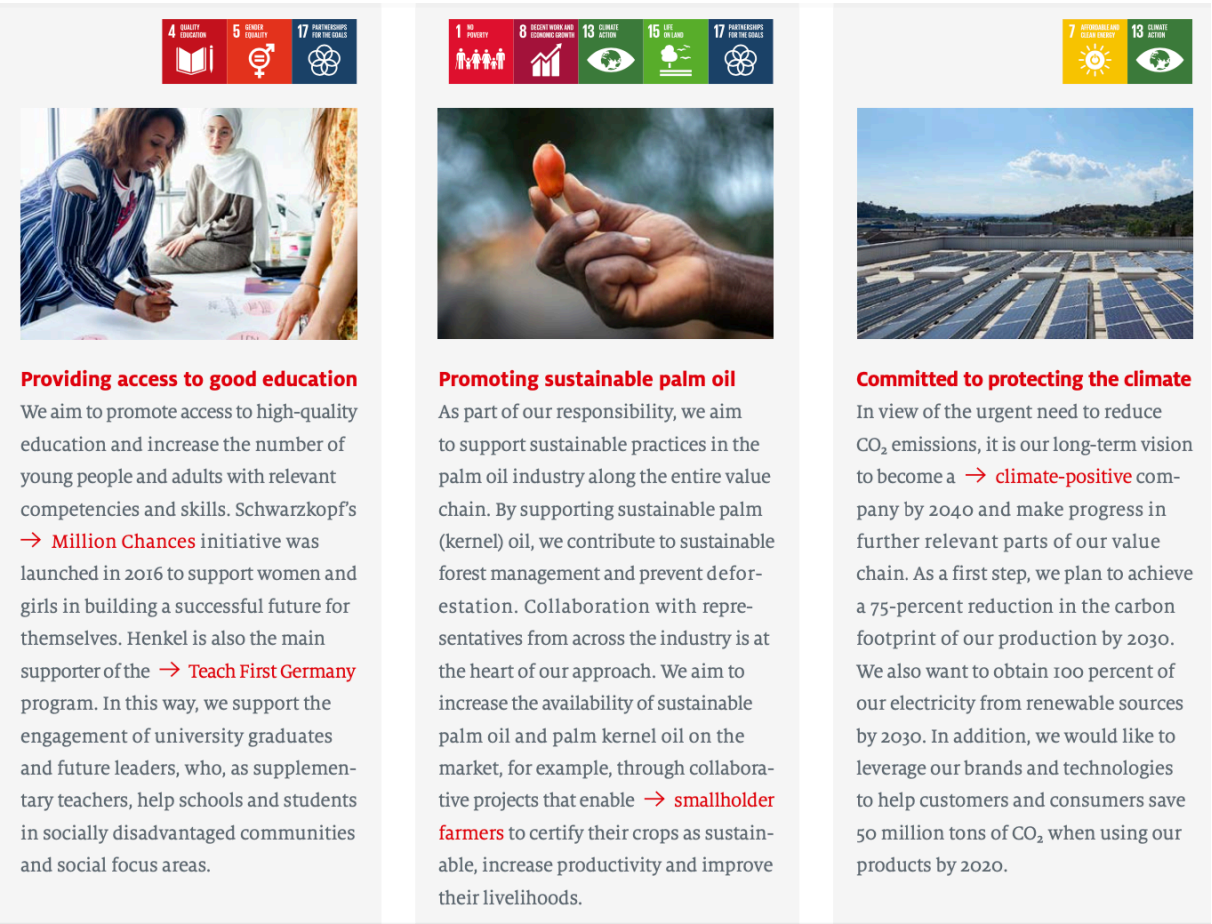


***Exhibit 20**: Three example of Henkel's contribution to Sustainable Development Goals (Source: Henkel AG & Co. KGaA, 2020b. Henkel Sustainability Report 2019).*

Since sustainable consumption, packaging and plastics, and combating climate change, human rights, equal opportunities and education are important topics for Henkel and its operations, it ensures that defined long-term goals and short-term targets and developed strategies are aligned with SDGs' priorities. To make this possible, working groups acting under Sustainability Council guidance are formed in order to evaluate trends and developments, to review stakeholders' expectations and analyze environmental footprint and social challenges along the entire value chain (see Exhibit 21), in accordance with the approach suggested by SDG Compass (WBSCD et al., 2015).

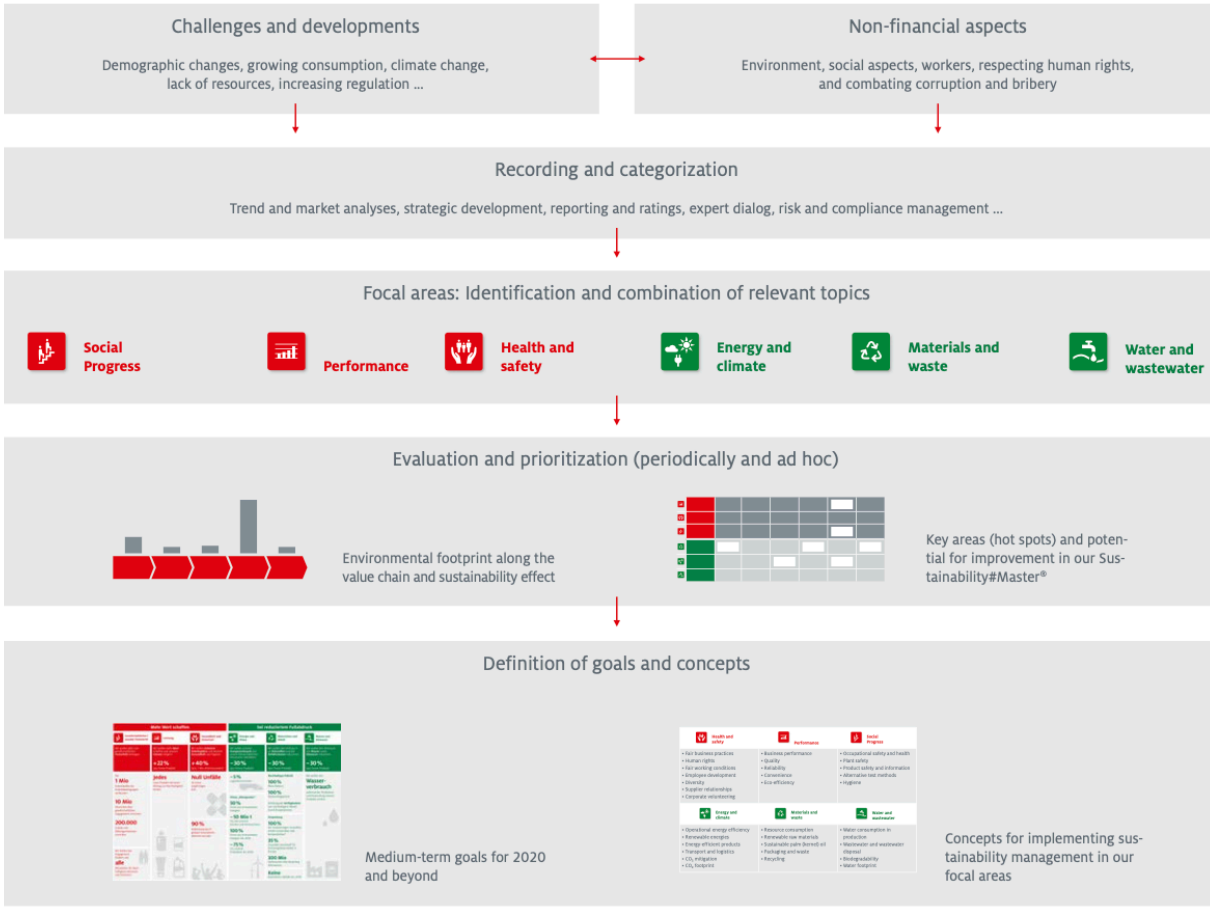


***Exhibit 21**: Henkel's process for identifying material issues and developing goals (Source: Henkel AG & Co. KGaA, 2020b. Henkel Sustainability Report 2019).*

To determine and categorize relevant topics for business activities, Henkel engages in a continuous process of recording and evaluating sustainable development challenges and opportunities using various tools assessing the importance of the topics for the company, environment and society, and stakeholders. The dialog with the latter helps obtain insights and perspectives from outside the business and fosters a common understanding of priorities and challenges. For example, the company engages in dialog with opinion leaders, sustainability-focused institutions, international rating agencies and analysts, which at regular intervals evaluate how companies balance the relationship between economic, environmental and social aspects. Aside leading to greater transparency in the market, these sustainability performance external assessments further enable the identification of key aspects where the company has to work on. The results of these processes can be categorized in line with the six focal areas identified through a materiality analysis. Once the relevant topics have been determined, these are evaluated and prioritized using various measurement and evaluation methods such as life cycle appraisals to identify the activities that have the greatest influence along the value chain, including raw ingredients

and packaging materials used, as well as transport operations. For instance, improvements in input materials and in the use phase are the decisive factors when it comes to water and $CO_2$ footprints. As mentioned in section 5.2.1., the core of sustainability strategy is to reduce resource consumption while at the same time creating more value. In order to visualize and optimize its contribution to these two dimensions along the value chain, the company employs the so-called *Sustainability#Master*® (see Exhibit 22), a key analysis tool that, through a matrix representation, enables to carry out systematic measurements and assessments both on the corporate and product levels.

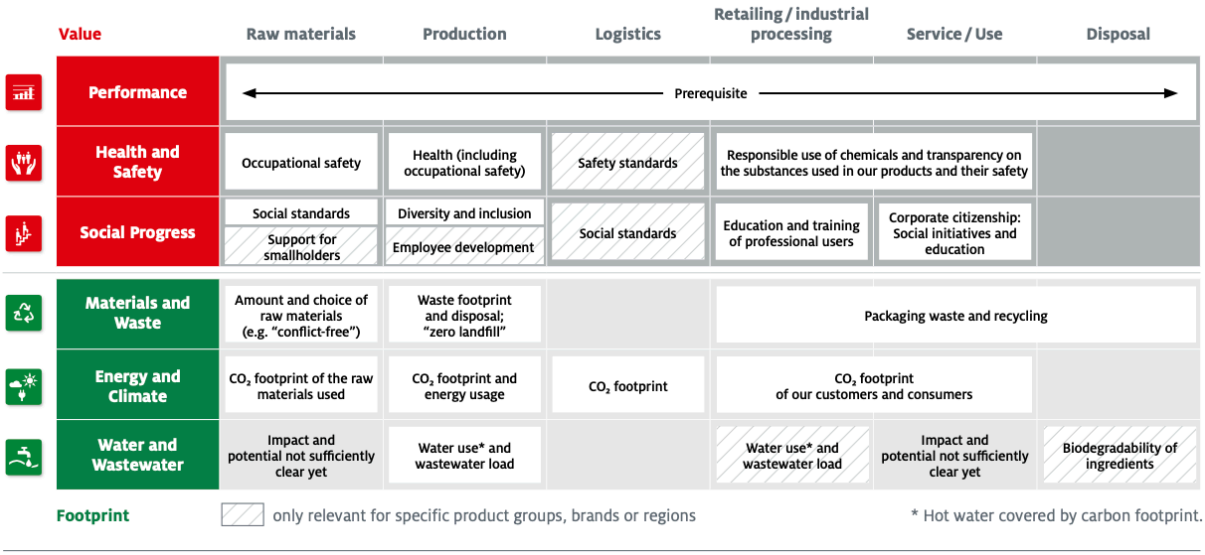


***Exhibit 22**: An overview of important topics and opportunities for improvements along the value chain (Source: Henkel AG & Co. KGaA, 2020b. Henkel Sustainability Report 2019).*

Based on this evaluation and prioritization, specific concepts and long-term goals within the six focal areas are defined and continuously revised. This task is generally performed by cross-departmental project groups established and supervised by the Sustainability Council, who are also in charge of regularly monitoring the extent to which sustainability goals are met. In line with SDGs, basic objectives have been set for 2025, 2030 and 2040 at corporate level (see Exhibit 23). The latter are then split up into five-year plans which, in turn, are broken down into one-year targets for each business unit, that have free rein on how to achieve them. At the end of the year, these are reconciled for corporate performance evaluation and external reporting purposes. Within business units, accountability usually falls on Supply Chain Directors for what concerns environmental and health and safety aspects who, based on historical data and within the range of goals received, define specific targets for the whole value chain considering, for instance, the portfolio of

products produced by single factories, since each product has different impacts on the environment (Henkel AG & Co. KGaA, 2020b).

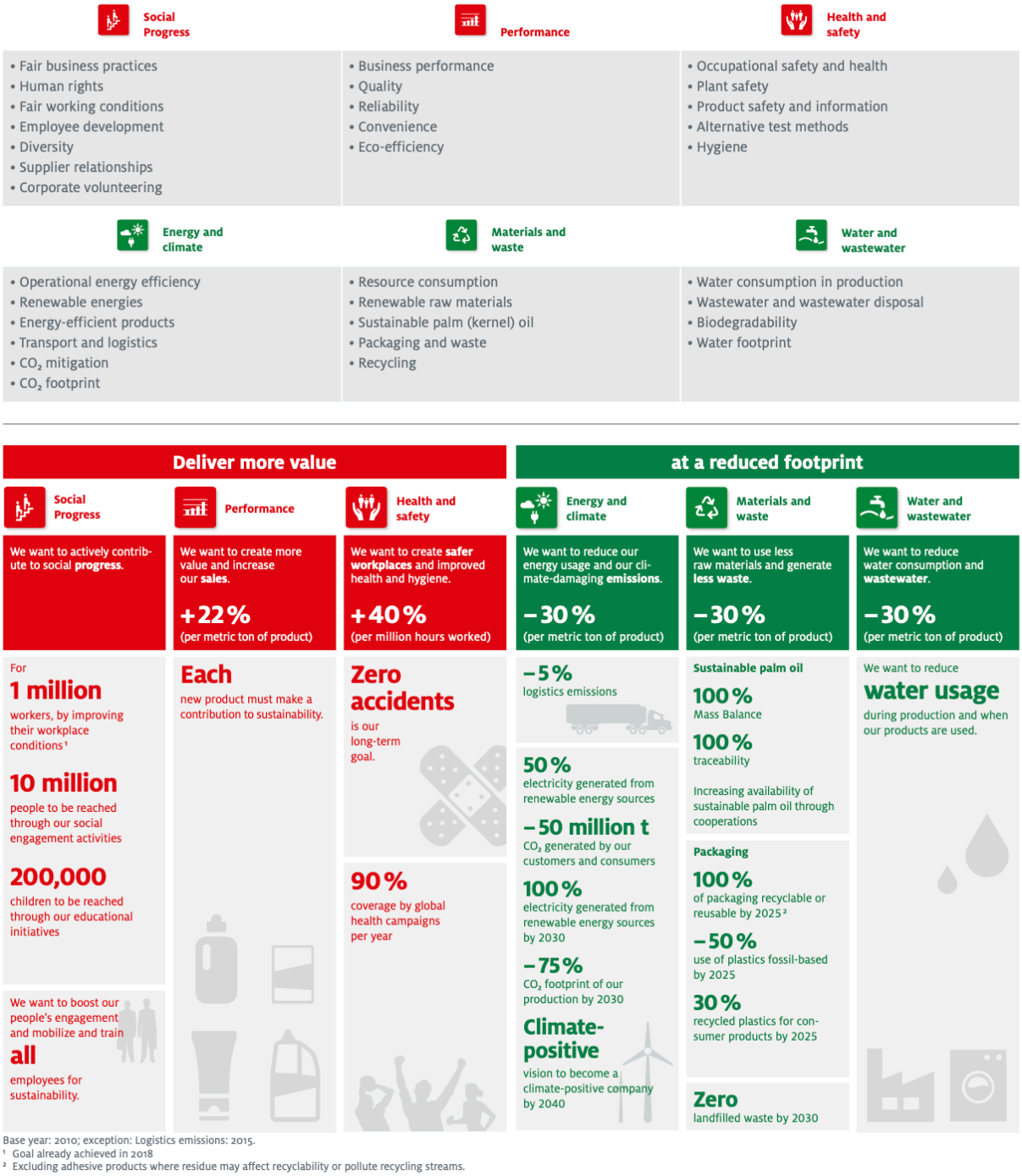


***Exhibit 23**: Goals and concepts in the six focal areas (Source: Henkel AG & Co. KGaA, 2020b. Henkel Sustainability Report 2019).*

Henkel's goals and targets setting is generally an interactive and joint approach, mixing top-down and bottom-up process characteristics. On the one hand, top executives provide ambition and direction, while on the other hand lower-level managers have more information on expected performance for the period and investments to be done for its

achievement. Discussions and negotiations between parties involved are only aimed to find the most effective way to achieve sustainability targets, since putting more effort than necessary could be costly both time- and money-wise. However, as highlighted by Philipp Kolb, Sustainability Steering Supply Chain Laundry & Home Care, targets are more and more challenging: "Henkel has been working with sustainability for so long that low-hanging fruits have been already picked since at least fifteen years. Thus, rather than just pulling the levers or making small adjustments within factories, we have to think differently. This means focusing on developing products' formulas and functional features, so that material, energy and water usage in both production and final consumption stages".

As mentioned in section 3.1.2, targets refer to key performance indicators (KPIs), which are the basis for driving, monitoring, and communicating progress on the organization's sustainability performance. The KPIs on which Henkel sustainability performance is evaluated are listed below: environmental indicators (see Exhibit 24) and employee and social indicators (see Exhibit 25). The cross-departmental project groups mentioned above are also in charge to monitor the extent to which sustainability goals and targets are met across the entire value chain. This continuous monitoring activity is facilitated by weekly and/or monthly reporting on these indicators with quarterly meeting where sustainability results are discussed and, if there is any deviation from targets, corrective actions are put in place (Henkel AG & Co. KGaA, 2020b).

## Environmental indicators

### Production volumes

| In thousand metric tons | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Production volumes | 7,924 | 8,419 | 9,390 | 9,057 | **9,532** |
| **Index: Change from 2015 to 2019** | | | | | **+20%** |

The increase includes the pro rata annual production of our acquisitions.

### Carbon dioxide emissions

| In thousand metric tons | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Henkel's own carbon dioxide emissions | 353 | 355 | 365 | 353 | **351** |
| Carbon dioxide emissions from bought-in energy | 295 | 314 | 344 | 329 | **315** |
| Total | 647 | 669 | 709 | 682 | **665** |
| **Index: Change from 2015 to 2019** | | | | | **–15%** |

Energy generation accounts for almost all of the carbon dioxide released as a result of Henkel activities.

### Emissions of volatile organic compounds

| In metric tons | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Emissions of volatile organic compounds | 367 | 385 | 427* | 590 | **422** |
| **Index: Change from 2015 to 2019** | | | | | **–4%** |

### Energy consumption

| In thousand megawatt hours | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Bought-in energy | 677 | 738 | 837 | 840 | **824** |
| Renewable of bought-in energy | 5% | 4% | 6% | 10% | **11%** |
| Coal | 127 | 126 | 105 | 86 | **79** |
| Fuel oil | 121 | 121 | 115 | 102 | **113** |
| Gas | 1,376 | 1,392 | 1,484 | 1,471 | **1,454** |
| Total | 2,302 | 2,377 | 2,541 | 2,500 | **2,470** |
| **Index: Change from 2015 to 2019** | | | | | **–11%** |

Bought-in energy is electricity, steam, and district heating that is generated outside our sites.

### Water consumption and volume of wastewater

| In thousand cubic meters | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Water consumption | 7,260 | 7,630 | 8,448 | 8,136 | **8,103** |
| Volume of wastewater | 2,994 | 2,977 | 3,217 | 3,283* | **3,261** |
| **Index: Change from 2015 to 2019** | | Water consumption | | | **–7%** |
| | | Volume of wastewater | | | **–9%** |

Because water is lost by evaporation and water is contained in many of our products, the volume of wastewater is smaller than the volume of water consumed.

### COD emissions to wastewater

| In metric tons | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| COD emissions to wastewater | 6,448 | 7,037 | 8,726 | 8,024 | **8,333** |
| **Index: Change from 2015 to 2019** | | | | | **+7%** |

Chemical oxygen demand (COD): Measure of the pollution of wastewater with organic substances.

### Emissions of heavy metals to wastewater

| In kilograms | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Zinc | 519 | 481 | 593* | 445* | **621** |
| Lead, chromium, copper, nickel | 296 | 268 | 228 | 277* | **241** |
| Total | 815 | 748 | 821 | 721* | **862** |
| **Index: Change from 2015 to 2019** | | | | | **–12%** |

Particularly hazardous heavy metals, such as mercury and cadmium, are not relevant in our production.

### Waste for recycling and disposal

| In thousand metric tons | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Waste for recycling | 59 | 68 | 72 | 71 | **67** |
| Hazardous waste for disposal | 15 | 13 | 13 | 13 | **11** |
| Waste for disposal | 38 | 39 | 38 | 40 | **32** |
| Total | 112 | 120 | 123 | 124 | **111** |
| **Index: Change from 2015 to 2019** | | | | | **–18%** |
| Construction and demolition waste | 33 | 70[1] | 28 | 42* | **22** |

We have removed the share of construction and demolition waste from our footprint and shown it separately, as the presence or absence of some larger construction projects have a significant effect on our waste footprint. This has enabled us to show the performance of our sites and our progress more transparently.

[1] The increase in 2016 resulted from wide-ranging infrastructure projects.

### Dust emissions

| In metric tons | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Dust emissions | 304 | 279 | 398 | 316 | **279** |
| **Index: Change from 2015 to 2019** | | | | | **–24%** |

The values include aerosols, since these are difficult to distinguish from dust during measurements.

### Sulfur dioxide emissions

| In metric tons | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Sulfur dioxide emissions | 108 | 105 | 94 | 80* | **72** |
| **Index: Change from 2015 to 2019** | | | | | **–44%** |

### Nitrogen oxide emissions

| In metric tons | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Nitrogen oxide emissions | 382 | 418 | 493 | 409 | **433** |
| **Index: Change from 2015 to 2019** | | | | | **–6%** |

### Use of chlorinated hydrocarbons

| In metric tons | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Use of chlorinated hydrocarbons | 1,205 | 1,249 | 1,387 | 1,320 | **1,415** |
| **Index: Change from 2015 to 2019** | | | | | **–2%** |

Most of the chlorinated hydrocarbons take the form of dichloromethane, which is used in the UK and in the USA as an ingredient in paint strippers.

***Exhibit 24**: Henkel 2019 environmental indicators. The index in the tables shows the development of the specific indicators relative to the volume of production (per metric ton of output) (Source: Henkel AG & Co. KGaA, 2020b. Henkel Sustainability Report 2019).*

## Social indicators

### Employees (as of December 31)

| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Henkel worldwide[1] | 49,450 | 51,350 | 53,700 | 53,000 | **52,450** |
| Structure of workforce | | | | | |
| – Non-managerial employees | 77.5% | 76.9% | 77.7% | 77.4% | **77.5%** |
| – Managers | 21.0% | 21.7% | 20.9% | 21.3% | **21.2%** |
| – Top managers[2] | 1.5% | 1.4% | 1.4% | 1.3% | **1.3%** |
| Employee fluctuation worldwide[3] | 5.4%* | 6.3% | 6.8% | 7.1% | **6.6%** |

[1] Permanent staff excluding trainees. Figures have been rounded.
[2] Corporate Senior Vice Presidents, Management Circles I and IIa.
[3] Based on employee resignations.

### Personnel development

| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Internal promotion (managers) | 1,309 | 1,181 | 1,325 | 1,262 | **1,501** |
| International job rotations | 658 | 428 | 380 | 319 | **282** |
| Trainees (Germany)[1] | 508 | 488 | 502 | 501 | **534** |
| Average number of training days[2] | 2.1 | 1.6 | 1.8 | 1.7 | **1.8** |

[1] Initial vocational training includes trainees and Bachelor students.
[2] Our employees have many different development opportunities. In addition to traditional training courses and in-person seminars, they also include eLearning modules and on-the-job training.

### Nationalities (as of December 31)

| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Henkel | 123 | 123 | 120 | 120 | **120** |
| Managers | 87 | 90 | 89 | 90 | **88** |
| At headquarters in Düsseldorf | 64 | 64 | 66 | 71 | **72** |

The internationality of our workforce reflects our business policy of filling local positions with local employees, and ensuring that we have international teams at our corporate headquarters in Germany.

### Percentage of women (as of December 31)

| in percent | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Henkel | 33.6 | 33.1 | 34.3 | 34.4 | **35.5** |
| Managers | 33.1 | 34.3 | 34.5 | 34.7 | **35.7** |
| Top managers[1] | 21.1 | 22.5 | 23.2 | 22.9 | **24.3** |

[1] Corporate Senior Vice Presidents, Management Circles I and IIa.

As a result of our consistently applied diversity strategy, we have continually developed the percentage of women we employ, especially at the different management levels.

Social engagement

| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Total number of projects supported | 3,431 | 2,051 | 2,124 | 2,032 | **2,044** |
| Number of people supported | 1,506,525 | 1,223,598 | 1,268,791 | 1,285,851 | **1,324,806** |
| Time off from work for employee-initiated projects (days) | 121 | 335 | 204 | 327 | **301** |
| Donations in thousand euros (financial and product donations, not counting time off) | 8,316 | 7,814 | 8,037 | 8,304 | **8,096** |
| Number of schoolchildren reached by our Sustainability Ambassadors | 24,426 | 29,456[1] | 43,306[1] | 17,326[1] | **17,286** |

[1] This figure has been adjusted based on subsequent reports.

The number of projects supported was slightly above the prior-year level. Employee projects required fewer days off from work in 2019 than in the prior year. Generally speaking, employees may request up to five days off from work per year for volunteer activities. Total donations were up versus the prior year.

Occupational accidents per million hours worked

| At least one day lost (excluding commuting accidents) | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Henkel employees | 0.8 | 1.0 | 1.1 | 1.0 | **0.7** |
| Employees of external companies who work at Henkel sites and are directly contracted | 1.0 | 0.9 | 1.0 | 1.0 | **0.6** |

Serious occupational accidents

| More than 50 days lost | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Accidents during typical production activities | 13 | 13 | 11 | 11 | **9** |
| Accidents while walking or moving around (e.g., stumbling) | 4 | 8 | 6 | 9 | **5** |

***Exhibit 25**: Henkel 2019 social indicators (Source: Henkel AG & Co. KGaA, 2020b. Henkel Sustainability Report 2019).*

In order to motivate managers and employees to take actions and make decisions considering environmental and social dimension alongside that financial, Henkel has implemented an incentive system that reflects a sustainability approach. Apart from basic salary based on market conditions and paid out in monthly installments, and a long-term purely financial reward based on the average ROCE targets' achievement over a performance period of three years, the largest slice of management remuneration structure is represented by short-term incentives that comprise a bonus for each fiscal year based on the attainment to financial targets, whose amount depends on management level and job profile, to which a multiplier ranging from 0.8 to 1.2 is applied. The factors considered in the calculation of this multiplier are the following: the achievement of the relevant separate targets agreed with each individual, including sustainability targets, the absolute and relative performance of the business unit in which they operate compared to competitors' performance, and their individual contribution to general company goals (Henkel AG & Co. KGaA, 2020a).

### *5.3.2. Sustainability action controls*

Based on its corporate purpose, vision, mission and values, over the years Henkel have formulated globally binding rules of conduct, specified in a series of codes and corporate

standards that apply to all its employees worldwide and in all business areas and cultural environments in which it operates.

Alongside the Code of Conduct introduced in 2000, that contains key corporate principles, behavioral rules and supplementary guidelines for dealing with potential conflicts of interest, an important element of the company's preventive measures against corruption, there are several codes and corporate standards that address specific topics and provide the basis for implementing the United Nations Global Compact, joined by Henkel as early as 2003. Among the latter, the Code of Corporate Sustainability, the Safety, Health, and Environmental (SHE) Standards, and the Social Standards guide employees' behavior towards a sustainability approach (Henkel AG & Co. KGaA, 2020b).

The Code of Corporate Sustainability has been developed in 2013 in order to reflect company's contribution to sustainable development with the goal of achieving "more with less". Accordingly, it states: "Sustainable development is a shared responsibility of the worldwide community. Based on this understanding, Henkel has reduced its environmental footprint year after year and conducts a continuous and open dialogue with all social groups. Our policy of doing business in an ethical and legal manner is inseparably linked with respect for human rights and the social values of the countries in which we operate. We welcome and support the volunteer work of our current and retired employees in many different areas, as such volunteer work reflects our understanding of responsible corporate citizenship" (Henkel AG & Co. KGaA, 2013). The Code is based on the following nine principles:

1. *Economic success through sustainability*, on the basis of a long-term goal, clear targets, and strategic principles;
2. *Focus on people*, investing in employees' skills and knowledge and encouraging them to make their own contributions to sustainable development, in day-to-day business and in their local communities;
3. *Protecting and promoting health*, helping individual employees keep in good health and thus also improving quality and productivity;
4. *Safe and environmentally compatible products and technologies*, that deliver more value for customers and consumers through innovative solutions offering better performance with a smaller environmental footprint;

5. *Safe and efficient plants and production processes*, developing new methods and improving existing ones, to continuously increase safety and cost-efficiency while simultaneously reducing the use of resources such as energy, water and materials;
6. *Treatment of business partners and market behavior*, abiding by the rules of fair competition;
7. *Sustainable business processes*, subjected to regular audits;
8. *Technology and knowledge transfer*, that enable a systematic improvement of products, plants and production processes' safety and efficiency;
9. *Open dialogue with stakeholders*, considered as a source of new ideas for the alignment of business operations to sustainability.

In addition to the Code of Corporate Sustainability, the set of formal documents concerning sustainability also includes the globally uniform SHE and Social Standards which define behavioral rules and requirements in safety, health, environmental protection and social responsibility and are an integral part of Henkel's commitment to sustainable development (Henkel AG & Co. KGaA, 2010; Henkel AG & Co. KGaA, n.d.). The company's management systems ensure that these standards are implemented consistently across the global business operation network. Since employees' behavior plays a key role in this respect, Henkel conducts regular environmental and safety training sessions on a variety of topics in all sites. Furthermore, regular audits are carried out at production sites and at subcontractors and logistics centers to verify compliance with codes and standards. All audit results, including the monitoring of SHE and Social Standards, are included in the Internal Audit department's annual report to the Henkel Management Board.

### *5.3.3. Sustainability people controls*

When it comes to implementing sustainability strategy, employees have a central role. They can contribute to sustainable development in their daily business lives, making the difference through dedication, skills and knowledge. They are committed to ensuring that brands and technologies have a positive impact on environmental and social challenges and are the interface to customers and consumers. Furthermore, they drive innovation, develop successful strategies, and give the company its unique identity. In order to make employees' engagement even stronger with sustainability issues, in 2012 Henkel initiated the *Sustainability Ambassador* program. Since its introduction, the company has trained more than 50,000 employees worldwide through an eLearning program on Henkel Global

Academy learning platform, as well as through team training sessions. In addition to discussing the fundamental principles of sustainability – from its concept to the key global challenges – the training program explains how Henkel is responding to these challenges and how employees can make their contribution to sustainable development. The communication campaign also includes dialog with experts, recycling tips and employee events (Henkel AG & Co. KGaA, 2020b).

However, Henkel not only aims at just communicating information about sustainability, but it wants to motivate employees to become involved in sustainability. Ambassadors are indeed encouraged to visit schools to teach children how to behave sustainably, helping the next generation understand how to use resources efficiently from an early age. At the same time, the children multiply the impact by imparting their knowledge and enthusiasm to others around them. From the start of the project in 2012 until the end of 2019, Henkel's Sustainability Ambassadors reached more than 170,000 school-children in 53 countries. Henkel also aims to encourage healthier lifestyles and greater awareness of water consumption, energy use and waste generation across production sites and offices. Examples of this commitment are the "(Y)our move toward sustainability" initiative, introduced in 2014 to promote sustainability in employees day-to-day work activities by avoiding unnecessary printing, switching off lights or eating healthily, the "Trashfighter" initiative, launched in 2019 worldwide with employees taking part in plastic waste collection and removal campaigns from riverbanks, parks and cities.

Above and beyond Sustainability Ambassador program, the company also gives employees the opportunity to engage in volunteer projects and make their own contribution to the local communities in which it operates. In 1998, to support employees and retirees in their voluntary and social engagement in charitable institutions, Henkel launched the "Make an Impact on Tomorrow" (MIT Volunteering) initiative, with which the company supports projects through product and in-kind donations, as well as by sharing expertise or investing time through paid leave. The initiative's basic principle is the following: "The larger the initiative, the more support Henkel will provide". Active and retired employees' great commitment ensures that resources are used fully, responsibly and transparently where they are most needed (Henkel AG & Co. KGaA, 2021).

Reporting better teamwork, greater job motivation and a stronger sense of identification with the company, all the initiatives and programs mentioned above help Henkel strengthen its already well-established corporate culture. Sustainability is embedded in

the company's purpose, vision and mission, with the commitment to create sustainable value together with employees, partners and other stakeholders. As highlighted by Minna Milke, Henkel Norden Human Resource Manager, the company's culture towards sustainability has an impact in talent attraction: "Nowadays sustainability does not represent a selection factor in our company, however, it is certainly the other way around. People approach Henkel because of its sustainability attitude and profile". Key aspects of Henkel's culture are diversity and inclusion. Diversity represents the variety of abilities, perspectives, strengths, attitudes, talents and characteristics of employees and business partners that make Henkel unique and is an essential contribution to creativity, innovation and business success. Consequently, Henkel has been focusing on creating an inclusive working environment in which every employee is valued and individual performance is recognized. Through various numerous programs, workshops and trainings, the company promotes not only diversity and inclusion concepts, but also their application within its boundaries. In 2019, for instance, a global Diversity Challenge was held for the first time, where all employees were invited to gather in teams and demonstrate how they experience diversity and how this promotes business success. More than 300 contributions were submitted from 45 countries, clearly showing teams' diversity, with different ways of thinking and different cultures (Henkel AG & Co. KGaA, 2020b)

# CONCLUSION

This final section illustrates the conclusions the researcher was able to reach through the findings and data analyzed. The study centred on investigating which formal and informal SCSs top management employs to align employees' behaviors with the organization's sustainability objectives and strategies. In particular, the key aim was to explore which control mechanisms have been tackled by business literature by classifying them according to the object-of-control framework (Merchant and Van der Stede, 2007), and analyze their application into an organizational context through Henkel case study. The categorization of SCSs based on this framework provides a conceptually clear and consistent taxonomy for studying the elements of an organization's management control, or rather, in this case, sustainability control, that allows to examine the key management control problems that need to be addressed, the systems that can be used to deal with them, the situational factors that can induce management to choose one set of controls over another, and the outcomes that can be produced, be they positive or negative.

The SCSs suggested by sustainability and management control literature comprise sustainability planning and budgeting (Epstein and Roy, 2001; Burritt and Schaltegger, 2001; Bonacchi and Rinaldi, 2007; Roth, 2008; WBSCD et al., 2015; Lueg and Radlach, 2016), sustainability performance measurement systems including material flow accounting (Wagner and Enzler, 2006; Herzig et al., 2012; Christ and Burritt, 2016), sustainable value added (Figge and Hahn, 2004), sustainability cost accounting (Schaltegger et al., 2003; Roth, 2008) and sustainability balance scorecard (Epstein and Wisner, 2001; Figge et al., 2002; Dias-Sardinha et al., 2002; Van Der Woerd and Van Den Brink, 2004; Roth, 2008; Hubbard 2009; Hansen and Schaltegger, 2018), and compound compensation systems (Holmstrom and Milgrom, 1991; Lothe et al., 1999; Ramus, 2002; Lothe and Myrtveit, 2003; Merriman and Sen, 2012) as *sustainability results controls*; codes of corporate responsibility and internal social and environmental standards (Bansal, 2002; Mackenzie, 2007; Van Tulder et al., 2009; Haugh and Talwar, 2010) as *sustainability action controls*; and HR selection practices (Wirtenberg et al., 2007; Liebowitz, 2010; Jabbour, 2011), education and awareness training programs (Worley (1994; Madsen and Ulhøi, 2001; Martin, 2001; Perron et al., 2006; Bansal and Hoffman, 2012), volunteering initiatives (Peloza et al., 2009) and the sustainability integration within organizational culture (Dechant and Altman, 1994; Crane, 1995; Linnenluecke and Griffiths, 2010; Riccaboni and Leone, 2010;

Eccles et al., 2012; Lueg and Radlach, 2016) as *sustainability people controls*. Most of the systems described above were reflected in Henkel case study. In particular, the company has a well-structured process for setting sustainability long-term goals and short-term targets and monitoring the extent to which these are met, starting from the identification of trends and developments, challenges and opportunities and their categorization into the six focal areas (social progress, performance, health and safety, energy and climate, materials and waste, and water and wastewater), to their evaluation across the value chain and prioritization for the definition of specific goals and targets. The presence of the focal area "Performance" shows a partial integration of the financial dimension into those social and environmental. In order to motivate managers and employees to take actions and make decisions in day-to-day activities considering sustainability, Henkel has implemented an incentive system with short-term bonuses whose payment depends on a multiplier that takes into account the degree to which sustainability targets are achieved. Sustainability action controls are reflected by the Code of Corporate Sustainability and the SHE and Social Standards, which define key corporate principles and behavioral rules that guide employees' behavior towards a sustainability approach. Instead, sustainability people controls include the Sustainability Ambassador program, comprising continuous training on sustainability challenges and developments inside and outside company's boundaries, and volunteering initiatives such as the "Make an Impact on Tomorrow" project, that allow employees to make their own contribution to the local communities in which the company operates, beside the integration of sustainability within purpose, mission, vision and, in general, organizational culture. Accordingly, "we are committed to leadership in sustainability" is one of the six core values.

From an academic perspective, although the object-of-control framework is recognized as one of the most relevant patterns for analyzing MCSs (Strauß and Zecher, 2013), it is somewhat surprising that it has not yet been adopted by any researchers for classifying the controls systems used for managing sustainability. Anyhow, literature on this topic seems to be anything but complete. Since companies have huge social and environmental impacts, understanding how they can help achieve sustainable development by implementing proper SCSs should be something to focus on, today more than ever. Additionally, future research could broaden this by empirically analyzing the effect that different configurations of SCSs and the degree of integration with conventional MCSs could have on companies' sustainability performance. Considering contextual factors, this would allow

to find the control options that lead to the best outcomes. As highlighted by Merchant and Van der Stede (2007), a "perfect" configuration of control that provides a complete assurance that the organization's sustainability objectives will be achieved does not exist in practice. However, "good" solutions might be reached.

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