**Master Thesis**

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# Reporting of Swiss and German Companies on Contributions to the Sustainable Development Goals

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## Management Summary

Globalization and economic progress have brought many benefits to businesses, such as worldwide trade and bigger customer bases. Yet at the same time, this has increased competition and decreased the availability of important raw materials and natural resources, such as oil or water. Both in the literature and in business, many agree that no company can function isolated from its environment in the long-run. Additionally, technological advances and changes in communication have led to increased public awareness about social and environmental topics and call for more transparency of business activities. Thus, sustainability has become a pivotal factor for long-lasting success.

In late 2015, the United Nations (UN) introduced the 17 sustainable development goals (SDGs), a set of targets which includes a wide range of social, environmental and economic goals for the world to pursue in collaboration in the coming years. The SDGs have been identified by many as a chance for companies to contribute to a more sustainable future. At the same time, companies that include the SDGs in their strategy will gain a competitive advantage, as many important regulations and incentives will be based on those UN goals.

A survey by PWC has shown that the majority of businesses (92%) are aware of the importance of those goals. Yet, only 13% claimed to have identified the necessary tools to integrate the SDGs into their companies' activities. This survey was conducted shortly after the introduction of the SDGs in 2015, and the progress since has not been fully analyzed. External publications, such as annual reports or corporate website content, have been found to be a useful source to determine this progress. Besides a study focused on Netherlands-based companies by PWC, no such research has been conducted. Therefore, this paper aims to narrow this research gap by analyzing the publications of a different group of companies. Further, it is of interest to determine if incorporation of SDGs varies between countries, given that most large enterprises apply similar reporting languages. The researcher has decided to analyze a sample of Swiss and German companies, due to the number of globally active enterprises in those countries and their geographical proximity to each other and the home of the research base.

To quantify the quality of SDG inclusion in the publications, the researcher has developed a scoring system based on target-setting. Targets are mentioned by the UN and in the SDG Compass, a guideline developed by the United Nations Global Compact to aid companies in understanding and adapting the goals, and which is important for the communication of SDG contributions to the public. To round out the research, qualitative aspects such as effectiveness of the targets and measures mentioned, and other aspects of communication, were analyzed using guidelines by the UN and the recommendations provided in the SDG Compass. The results were

than compared to the PWC survey mentioned above. Within this survey, companies from the pharmaceutical, financial, consumer goods and industrials sector were asked to rank the 17 SDGs in order of assumed importance to their business.

The SDGs formulated around environmental goals, such as SDG 13 (climate action), SDG 6 (clean water and sanitation) and SDG 7 (affordable and clean energy), scored highest across industries as well as countries. This finding is contradictory to the results of the PWC survey, in which economic goals such as SDG 8 (decent work and economic growth) or SDG 9 (industry, innovation and infrastructure) were given more importance by companies. The quality of reporting with regard to the SDGs did not differ between the two countries in question. The researcher attributes this similarity to the common reporting language used. Yet, the German companies scored higher within the applied scoring system in four of five industries evaluated.

The analysis has shown that reporting on SDGs could be improved significantly by directly linking SDGs to sustainability activities of the company. Further, many companies seemed to lack a clear understanding of the scope of the specific SDGs, as many claimed their contribution could not be confirmed by the researcher, and interconnections between the 17 SDGs were not considered. The last recommendation formulated is to improve stakeholder engagement and materiality analysis with regard to the SDGs.

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# 1 Introduction

The attitude of companies towards sustainability has changed in recent years. In the past, sustainability was often a footnote to corporate strategy and communications. It was viewed as a “green” issue that may or may not help to reduce energy and resource usage and thus lower the company’s costs (PWC, 2016a). However, the effects of sustainability have grown immensely, especially for multinational enterprises (MNEs). Two-thirds of world trade currently involves MNEs, and globalization has reached its highest point to date (PWC, 2015). With globalization comes stronger competition for raw materials and natural resources like water. An uncertain future is looming for companies worldwide because of scarce commodities, unpredictable energy costs, and various regulations on global emissions. Those aspects are challenging the business models of today and require companies to invest more in sustainable development around the world (Sachs, 2012). Revolutions in technology and communications further ensure that MNE activities are more transparent than ever, and require greater transparency towards the public. Consumers and non-governmental organizations (NGOs) use social media and other media to address labor issues, procurement of materials, and overall corporate culture (PWC, 2016a). Sustainable development may seem like a challenge at first but arguably it should be seen as an opportunity to create new long-lasting business models and to become a product, service, and market pioneer. The introduction of the sustainable development goals (SDGs) by the United Nations (UN) in September 2015 provides a perfect stepping-stone for companies to create a more sustainable future. The agenda for sustainable development around the world is a plan that involves people, the planet, and prosperity. Seventeen SDGs with 169 specific targets embrace a wide range of environmental, social, and economic goals that the UN – in collaboration with all stakeholders – will continue to work on until 2030 (UN, 2015). In some ways, the SDGs are a continuation of the millennium development goals (MDGs) introduced by the UN at the turn of the century, 2000, which were essentially concluded in 2015. Drawn up to fight poverty, hunger, and disease, they mainly focused on developing countries, with developed countries playing the role of facilitator (Sachs, 2012). The MDGs were described by the UN (2015) as the most successful anti-poverty movement in history, while other assessments have been more critical. The progress has been described as unequal and limited in some parts of the world. Nevertheless, fueled by the economic growth of certain developing countries, such as China, the overall poverty rate in those countries was halved between 1990 and 2010 (Sachs, 2012). The goals were targeted at poorer countries and states were asked to contribute to the fulfilment of those goals. The influence that companies could provide was limited. By contrast, SDGs are more incorporating in the sense that they do not distinguish between developed and developing economies, and they set a broader focus which includes topics that directly influence companies (PWC, 2015).

Although SDGs are in no way binding, they are the framework around which all the member countries of the UN will create future regulations and incentives. Companies which include SDGs in their corporate strategies and goals will gain a competitive advantage in the future (PWC, 2016a). The UN (2015) urges businesses to contribute actively to achieving the SDGs; donations and verbal commitments are no longer sufficient to support the goals. The private sector is required to help tackle the core issues in each SDG by developing new and innovative business ideas. Companies need to embrace the long-term creation of shared value to aid their activities and the environment (PWC 2016b).

## 1.1 Problem Definition

With expectations being high that companies will contribute to a more prosperous future, the way in which those companies have positioned themselves towards the SDGs is of interest. A survey conducted by Price Waterhouse Coopers (PWC, 2015) in late 2015 found encouraging early indicators. Among the business community, 92% of businesses were aware of the SDGs and 71% claimed to have started acting on them. However, with regard to implementing the SDGs in corporate strategy, companies struggle. Only 13% had identified suitable tools for implementation, and 29% had set goals regarding the SDGs. To better understand how companies commit to contributing to the goals and how they plan to do so, the external publications of such companies are a useful data source. PWC (2016b) analyzed the annual reports of 25 Netherland-based companies to assess the extent to which the 17 SDGs were mentioned and reported on. The researchers found that some sectors have integrated the SDGs more rapidly than others. The financial sector has been found to struggle to identify ways to contribute to the SDGs (PWC, 2016b), which is worrying as the UN (2015) has identified banks and insurance companies as important facilitators to reach the SDG targets. The SDGs are viewed as the new approach to communicate social and environmental efforts by companies (SDG Compass, 2016). Yet research on integrating SDGs into reporting efforts has been limited to the PWC study on Dutch companies. This paper aims to narrow the research gap by analyzing another sample of companies. Further, the implementation of the PWC survey recommendations was not assessed; therefore, this analysis maps the results against those recommendations. As many MNEs use similar reporting languages (SDG Compass, 2016), it is of interest to examine whether the level of SDG adoption varies across countries. To incorporate these aspects and to narrow the existing gaps in research, the following research question was formulated:

*How have the largest Swiss and German companies communicated about the sustainable development goals in their reporting?*

## 1.2 Structure of the Paper

After this introductory section, background information is given in a review of the literature on related topics. The topics are sustainable development, the UN’s sustainability agenda (including MDGs and SDGs), corporate social responsibility (CSR) communication, and the concept of shared value. The next section describes the theoretical framework adopted to analyze the results, as well as the methodology, including the sample and the scoring system. This study uses a scoring system based on target-setting. The companies analyzed were selected from five important sectors in Switzerland and Germany, and were required to be listed on either the Swiss Market Index (SMI) or the German Stock Index (DAX). All publications and information found on the corporate websites of those companies were considered, including annual reports or CSR reports. In the findings section of this paper, the results of each company’s analysis are summarized. Those findings are then discussed by mapping them against the theoretical framework. The insights presented in the discussion section are summarized and are then translated into recommendations and areas for further research.

# 2 Sustainable Development

Sustainable development is commonly discussed by quoting the definition provided in the Brundtland Commission's publication *Our Common Future* (WCED, 1987). It reads "Sustainable development is development that meet the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p41). This definition was revolutionary because it was the first to combine environmental and socio-economic questions. *Our Common Future* marked a shift towards realizing that humans depend on the environment to fulfill their needs. The environment was no longer seen as an unending source of resources. As stated by Giddings (2002), human activities are nested within the environment. The Brundtland report (WCED, 1987) expressed that in both urban and rural areas worldwide, the economy as well as the comfort of people depend on the environment. In addition, the report addressed global interdependence regarding environmental issues. Those issues must be looked at as global and not local, thus they cannot be resolved by simply moving harmful factories to other countries. The report stated that environmental issues are far-reaching and impact the health and daily lives of people, and are a potential cause of future wars. Before the publication of the Brundtland report, the environment was mainly looked at as separate from humanity. For hundreds of years the environment was a mean for human development and growth; people felt they were above nature and any issues concerning the environment were local (Hopwood et al., 2005). Dryzeck (1997) defined this type of thinking as the Promethean view. Capitalism, the industrial revolution, and the progress of technology all fueled this view, leading some people to believe that all hurdles the environment poses can be overcome with the use of the human mind. During this time economy was the focus with economic growth being the main goal of any activity (Douthwaite, 1992). Global issues such as inequality or hunger would be overcome by increased production, as all people would eventually benefit from greater wealth in the world (Hopwood et al., 2005). The ideology of sustainable development questions the thinking that equality can be achieved and poverty ended simply through economic growth and globalized trade (Sachs, 1999). Advocates of sustainable development point out that post-world-war economic models failed to erase worldwide poverty. Through pursuing the growth of production and wealth, people have harmed the world and created a spiral of poverty and environmental degradation (WCED, 1987). The Brundtland report suggested a new form of growth such that environmental and economic considerations must be combined when making decisions (WCED, 1987). Wackernagel and Rees (1996) point out that although exhaustive in its argument in favor of sustainable development, the Brundtland report is intentionally ambiguous. It tries to include aspects of poverty, environmental protection, and steady growth. By leaving room for interpretation, the report has allowed many definitions and applications of sustainable development to emerge. According to the US National

Science Foundation (2000), this broadness carries the risk that sustainable development can be used to justify any policies or practices of politicians or companies. In a world where large enterprises dominate the global economy, the Brundtland report's support for growth allows many business ventures to be justified as beneficial for sustainable growth (Hopwood et al., 2005). The World Summit on Sustainable Development resulted in an additional definition of sustainable development that was widely adopted. The three pillars of sustainable development were identified as economic, social, and environmental. The summit addressed the concern that development was mainly understood in economic terms, ignoring advances in human progress or social justice. However, like many widely accepted definitions, the understanding arising from the summit was not universally agreed on (Hopwood et al., 2005). In their paper Hopwood et al. (2005) mapped the various approaches towards sustainable development. To distinguish the viewpoints, the authors rated them on two axes: the environmental dimension and the socio-economic dimension. The environmental axis charted the importance granted to the environment, and the socio-economic axis charted the importance granted to people's equality and well-being. Analyzing the distributions within their matrix, Hopwood et al. (2005) defined three major sentiments about the changes required to ensure sustainable development. Interpretations that were rated low on both axes were grouped as "status quo" thinking; medium ratings on both axes were grouped as "reform" viewpoints; and views that scored high on both axes were "transformation" thinking. Members of the status quo group acknowledge the need for change but argue that neither the environment nor society are irreversibly damaged. Often governments and multinational enterprises express this viewpoint and see no need for drastic change. Rather they use adjustments within their scope and development is measured through economic growth. According to this viewpoint, business is the main driver of a sustainable future; thus, liberal fiscal policies are encouraged. By contrast, reform thinking accepts the existence of bigger problems in government policies and ways of doing business. At the same time, the possibility of collapse in ecological and socio-economic structures is de-emphasized. The basis of the world's problems is not human nature, according to supporters of reform thinking; instead, the unequal distribution of wealth and resources is the origin of all sustainability issues. This school of thought assumes that by drawing on existing structures, the required changes in lifestyle and policies can be achieved in time. Government and global institutions are responsible to fuel those changes, with the introduction of reforms to markets and by investing in innovation and education. Furthermore, reform thinkers ask governments to urge businesses to operate more sustainably, using tools such as tax, subsidies, and controls. The main advocates of reform thinking are academic groups and NGOs. The last group, transformationists, see the need for a fundamental change in society's relationship with the environment. Because many issues lie within structures of society that do not focus equally on the wellbeing of all people worldwide, reforming those structures would be insufficient. According to transformational thinkers, the essentials of the world's issues can be traced back to a few powerful individuals or entities that exploit most of the population and the environment for their own gain. In general, transformationists believe that groups that are usually less powerful – such as indigenous groups, the working classes, and in some countries women – must be included in the decision-making process to overcome social and environmental problems. Views on sustainability can further be classified as strong or weak (Haughton & Hunter, 1994). Supporters of a weak standpoint on sustainability argue that natural or created resources can be used interchangeably; meaning that through technology, humankind can mend deficits that have been created in the environment. The strongest form of a weak model of sustainability was formulated by Solow (1974), who stated that the world can function without natural resources, meaning that exhaustion of those resources would not be a catastrophe. Strong standpoints on sustainability, by contrast, point to environmental circumstances vital to life, such as the ozone layer or the water cycle (Roseland, 1998). As mentioned, the looseness of the definition provided by the Brundtland Commission has created different strains of thoughts and has fueled debates about what sustainable development really means. The Board on Sustainable Development of the US National Academy of Sciences tried to create a common understanding of sustainable development. The Board reviewed the literature and sought to identify distinctions and common ground between the different streams of thought. During their analysis, the Board developed a definition of sustainable development that addresses the relationship between "sustaining" and "developing" (National Research Council, 1999). Three categories were formulated for what needs to be sustained, namely nature, life support, and community. Those three dimensions were further broken down into sub-categories, such as ecosystems for nature, resources for life support, and groups for community. Most of the literature reviewed emphasized the category of life support, which viewed the environment as a source of life on Earth. The National Research Council (1999) similarly identified three categories of what requires sustainable development, namely people, economy, and society. When talking about development, the literature reviewed mainly focused on the economic aspects, arguing that productivity creates employment and wealth. Nevertheless, a shift can be identified in the most recent literature. Human development in terms of increased life expectancy, education, and opportunity has emerged as an important theme in sustainable development. A few authors have discussed the role of developed societies in the security of states, and the value of people's ties to regions and communities. However, varying definitions of sustainable development have made operationalization of the topic difficult. Governments and global institutions have struggled to create regulations supporting sustainable development for private players and entities (Robinson, 2004). This is unfortunate, as the private sector has been assigned an important role by many experts in creating a more sustainable world. Financial means and human resources are pivotal resources for change, whereas technology and innovation are facilitators of sustainability in many areas (Sachs, 2005). In general, companies have endorsed the cause of sustainable development and understand their impact on different stakeholders (Raupp et al., 2011). The area in which the concept of sustainable development has most altered the activity of private companies is communication with the public. In recent times, sustainable development reporting has been operationalized and widely adopted. The main framework used for this is the so-called triple bottom line (TBL), using the guidelines provided by the Global Reporting Initiative (GRI). This is an accounting framework, which – as its name suggests – includes three aspects of operations. The TBL differs from traditional frameworks in that it considers environmental and social measures as well as financial ones (Hall, 2011). In his book about TBL, Savitz (2013, p12) describes the framework as "capturing the essence of sustainability by measuring the impact of an organization's activities on the world, including both its profitability and shareholder values and its social, human and environmental capital." Although many businesses have adopted the TBL to report on their sustainability performance, critics have identified fundamental problems with the framework (Berkmeyer et al., 2014). Norman and MacDonald (2003), for example, argue that adopting the TBL approach merely requires companies to collect and publish data that are in some form relevant to a few stakeholders. The authors describe TBL as "inherently misleading; the very term itself promises or implies something it cannot deliver" (Norman and MacDonald, 2003, p254). The framework allows companies to continue their harmful activities while using TBL to suggest sustainability. Milne (2005) similarly describes TBL reporting as offering "soothing palliatives" – which could essentially lead to a less sustainable form of doing business. When examining the business activities of MNEs, some authors have argued that any MNE activity helps sustainable development. To support this argument, they refer to foreign direct investment (FDI) by those companies (Barkmeyer et al, 2014). According to Oetzel and Doh (2009), such investments create additional surpluses beyond the initial goal of the investment. When investing in foreign economies, companies share not only capital but also knowledge and technology to aid the environmental and economic goals of sustainable development. However, Lall (2000) pointed out that the influence of FDI on sustainability has not and cannot be quantified, and analysis of positive impacts has been vague (Benecek et al, 2000). These research limitations mean that the overall effectiveness of FDI is debatable. The benefits that most researchers agree on are the transfer of know-how and technology, financial capital for developing economies, and increased competition and globalization. Negative aspects that have been identified include the suppression of smaller local players, pricing transfers, and inequality in power between large MNEs and developing countries and companies (Lall, 2000). However, advocates and critics alike believe that FDI can have a potential positive impact on sustainable development, but only if investors are involved in the local economy – beyond merely financial activities. Only then can positive sustainable impacts be achieved (Hansen and Kuada, 2006). Although the actual influence and intentions of the private sector are debated in the literature, this sector is the biggest procurer of natural resources and the main driver in economic and socio-economic growth. A crucial ability of private entities is their power to shape regulations. The process of drawing up regulations is challenging due to the complexity of sustainable development itself. However, by creating codes of conduct within a company or an industry, the private sector can create guidelines for a sustainable future (Kolk and van Tulder, 2005). Private enterprises also help to integrate sustainability into the broader culture (Norman and MacDonald, 2003). Nonetheless, in line with the debate about TBL reporting, such codes could have similar disadvantages. The emergence of sustainable development provides a new understanding of humanity's role in our world. At the same time, the true meaning of the concept is debatable – and ranges from a mere appendage to plans for economic growth to an existential contemplation of life on Earth. (Kolk and van Tulder, 2005)

# 3 United Nations Sustainability Agenda

## 3.1 Millennium Development Goals

"We believe that the central challenge we face today is to ensure that globalization becomes a positive force for all the world's people." (United Nations, 2000a, p2).

The above statement illustrates the thinking behind the creation of the millennium development goals (MDGs). The MDGs began with the millennium declaration, in which 189 independent states agreed on the challenges identified as the main issues facing the world at the turn of the millennium. The number of states represented at the conference that preceded the declaration made this an historic event (Visy, 2012). It marked the first global approach to tackle concerns about poverty, disease, hunger, gender inequality, education, and environmental exploitation. Bill Gates (2008) famously called the MDGs the world's "report card" for the years between 2000 and 2015. The MDGs heralded a paradigm shift in the world's approach towards its issues. This was a move away from neoliberal development theories of the 1980s, which proposed economic measures as the main tool to fight poverty and hunger. In the 1990s, the UN started to use global conferences to address those issues, as evident in the Education for All conference in Thailand, the World Summit for Children in New York, and the Summit for Nature and Development in Brazil. The focus in all those conferences was on human development. The reason behind these gatherings was the belief that socio-economic and environmental issues can be resolved only at a global level (Loewe, 2005). Kofi Annan, then Secretary-General of the UN, noted in his report on the role of the UN in the 21st century (United Nations, 2000b) that globalization should be the key driver to do good for the people of the world, especially in reducing poverty.

In the declaration, the UN (2000a) defined several core values for international relations:

- Freedom of every human being to live a life without hunger, fear, or violence.

- Equality in the sense of equal opportunities for and treatment of men and women, so they can profit to the same degree from the desired development.
- Solidarity by those who have wealth to support those in need.
- Tolerance of all ethnicities, religions, cultures, and languages for greater cooperation.
- Dignity towards the environment, to ensure that future generation can live in a prosperous world.
- Collective responsibility to tackle the challenges the world faces.

To translate the declaration into concrete action, further goals, targets, and measures needed to be established. For that, the UN, the International Monetary Fund (IMF), the World Bank and the Organisation for Economic Co-operation and Development (OECD) gathered together in 2001. The OECD is an intergovernmental economic organization. Based on the declaration's commitment to "development and poverty eradication", eight goals with 18 targets were formulated. The baseline year for all measurements was 1990 and the targets were to be met by 2015 (United Nations, 2001). As mentioned above, the millennium declaration and the MDGs are a shift in thinking towards a more globalized approach. This trend and the clear goals that have been set to fight major issues, as well as intergovernmental cooperation, are the strengths of the millennium process (Loewe, 2005). Nevertheless, critics have found weakness within the MDGs. The one most often mentioned is the relation between the declaration and the subsequent goals. Some important aspects mentioned in the declaration, such as "peace, security and disarmament" were not included when the eight goals were formulated. Similarly, "human rights, democracy, and good governance" are absent (Martens, 2005). Furthermore, Glotzbach et al. (2007) argue that the interdependence of specific goals – often mentioned in statements by the UN – has not been taken into account. Some critics point out that by setting targets to be achieved by 2015, the UN focused too much on facts and figures and did not look at the quality of the measures taken to achieve the targets. This aspect is closely linked to the debate about the sustainability of the goals. Measures taken should be long-lasting and thus effective beyond 2015, with the MDGs merely being stepping-stone towards achieving those objectives (Martens, 2005). Mainly fueled by the progress of developing countries, vast improvements across all MDGs were evident. Extreme poverty, covered by MDG 1, fell significantly during the period of measurement (1990 to 2015). According to the UN Report on MDGs (UN, 2015b), the percentage of people in the developing world who live in extreme poverty (surviving on less than USD 1.25 per day) declined from 47% in 1990 to only 14% in 2015. Another encouraging trend identified by the UN was better gender equality in education. In 1990 in Southern Asia, for every 100 boys enrolled in primary school, only 74 girls were enrolled. In 2015 in the same region, 103 girls were enrolled for every 100 boys. However, the achievements are unevenly distributed across the globe. Some countries have reached most of the targets, while some have struggled to achieve any. In a worldwide context, many targets were met only because of exponential progress by China and other rising economies. Nevertheless, overall the MDGs can be deemed successful, as they remained contemporary throughout the 15 years, on political agendas and in international planning. Moreover, many NGOs and international entities have based their regulations and activities on the MDGs (Sachs, 2012). Despite the progress in many aspects of the MDGs, some issues remain unresolved and other new problems have arisen. According to a conclusive report by the UN (2015b, p8), "the poorest and most vulnerable people are being left behind." The UN has identified five problem areas to be targeted to ease this scenario. Although gender equality has improved in some regions in the field of education, women still face discrimination in work environments and in decision-making. Women are still compensated at a significantly lower rate and in many developing countries they are restricted in their efforts to work. Another area of concern is that the gap between the richest and poorest people grew wider during the MDG period. This difference is visible in many areas; child mortality is twice as high in poor households than in rich communities. Additionally, a discrepancy between rural and urban areas has developed. The access to clean drinking water is much more limited in rural areas than urban areas, and people in rural areas have worse sanitation facilities. The issue that has worsened the most during the 15 years of MDGs is climate change and environmental degradation. The emission of carbon dioxide has risen by 50% since the start of the measurement period. Forest clearing has reached a level never seen before, and the population increase has led to overfishing of marine fish, pushing some species close to extinction. Overexploitation of natural resources has furthermore made water a scarce resource in some areas of the world. The UN has identified conflicts and war as the biggest threat to human development. According to UN information, by 2014 an estimated 60 million people were forced to resettle due to conflicts, resulting in a huge refugee problem. War is also closely tied to poverty, and many of the affected countries score highly on poverty ratings. Poverty remains a main topic on UN agenda, as today 800 million people live in extreme poverty. 160 million children suffer from consequences of hunger, such as illness or underdevelopment, and daily 16 000 children die before the age of five. Poverty forces almost half of the workforce globally to work in substandard conditions. (UN, 2015b)

## 3.2 Sustainable Development Goals

The targets set out by the MDG were by no means all achieved, and in some cases, they were not effective at all. Nonetheless, the public agrees that the goals set out by the UN positively influenced the world's development in many aspects. Thus, the approach of using globally formulated targets to overcome global problems is worthwhile and should be continued (Sachs, 2012). Yet as recently as 2010, the idea that successor goals should be created for the MDGs seemed remote (Dodds, 2017). A proposal by the director of Economic Social and Environmental

Affairs of Columbia, Ms. Paula Caballero, in preparation for the Rio+20 Conference in 2012 initiated the discussion about SDGs. At first the proposal was met with concern and even with anger by some state representatives. The SDGs were viewed as competing with the MDGs and were therefore seen as a possible threat to achieving the MDGs (Sachs, 2016). So, the goal of creating a broader set of targets with universal applicability was conceived as very ambitious in the early stages (Dodds, 2017). The growing concern over the sustainability of humankind's actions lead the SDGs to quickly gain ground among policy makers and state representatives (Sachs, 2012). After many negotiations, spread out over several years, the UN General Assembly in September 2015 agreed on the SDGs (Jones et al. 2016). Interestingly, in the development of the SDGs, business played a crucial role (PWC, 2016a) – and has in turn been assigned a further role in achieving the SDGs, as later described in this paper. The SDGs provide "a plan of action for people, planet and prosperity, that also seeks to strengthen universal peace and larger freedom" (United Nations, 2015a, p1). While the SDGs can be regarded as the direct successor of the MDGs, they are in many ways different. A report by PWC (2016a) stated that the SDGs have far broader scope than the MDGs and are therefore far more ambitious. The Institute of Human Rights and Business describes the SDGs as providing a "genuinely comprehensive vision of the future" (Institute of Human Rights and Business, 2015, p12) that leaves little unaddressed. The SDG vision ranges from "the wellbeing of every individual to the health of the planet, from infrastructure institutions, from governance to green energy, peaceful society to productive employment" (Institute of Human Rights and Business, 2015, p12). PWC (2016a) pointed out that the MDGs were to a large degree concerned with developing countries and focused on poverty and hunger, whereas the new goals are broader and increase the accountability of the developed world. In addition to ongoing topics such as health and well-being, the SDGs consider innovation, infrastructure, and responsible consumption. This means that no country is excluded from contributing towards their achievement.

## 3.3 Sustainable Development Goals in a Business Context

Because many governments use the SDGs as a guideline to adjust their current frameworks or to create future ones, the SDGs affect the business world. In a global survey conducted by PWC (2015a), many chief executive officers (CEOs) identified governments and regulators as having a major impact on business strategy. Additionally, the UN (2015a, p10) has directly addressed businesses by stating "we acknowledge the role of the diverse private sector, ranging from micro-enterprises to cooperatives to multinationals […] in the implementation of the new Agenda." According to PWC (2015b), it is possible that governments will appeal to businesses to achieve the targets they set at a national level. Nevertheless, the SDGs should not be viewed merely as a challenge or task; they also provide opportunities for the private sector. The PWC report (2015a) argued that by incorporating the SDGs into strategy planning, businesses would be able to see how their activities support or restrict the achievement of the targets. By aligning their strategies to contribute towards the SDGs, companies can maintain or strengthen their ability to conduct business in the future in a changing regulatory environment. As a result, companies that engage in collaborative effort to achieve the goals will gain a competitive advantage. The UN Global Compact (UNGC), in cooperation with the GRI, published an "SDG Compass" to help companies understand the impact of this new set of goals, and to explain why contributing towards them is necessary. The SDG Compass (2015, p4) describes five business benefits stemming from the SDGs: 1) identify future business opportunities; 2) enhance the value of corporate sustainability; 3) strengthen stakeholder relations and keep pace with policy developments; 4) stabilize societies and markets; and 5) use a common language and shared purpose. One objective of the SDGs is to channel financing towards the issues identified. This creates a new market for companies that offer services and products to mitigate such issues. Corporate sustainability is known for enhancing relations with stakeholders, strengthening brands, and in some cases improving efficiency (Jones et al., 2016). The SDGs bolster the importance of corporate sustainability and add to its benefits. It is in the interests of every company to operate in a healthy society and to contribute to societal well-being; a healthy society reduces the risk of corruption and unstable regulatory circumstances and improves the rule of law. In addition, the SDGs make for easier communication about the sustainability efforts of a company, as the SDGs can be referred to and facilitate comparison with other companies. A PWC (2015b) survey conducted shortly after the presentation of the SDGs showed that the private sector was well aware and ready to act. The survey found that 92% of the business community was aware of the SDGs, soon after their introduction, with 71% of respondents already planning how to integrate the goals into their business activities. However, some results of the survey suggested that companies would prefer to focus their efforts on a few goals rather than trying to contribute to as many as possible. Only 1% of the companies surveyed were planning to analyze their influence across all 17 SDGs. This general approach is not in line with the UN view that the goals are interdependent (PWC, 2015b). The PWC report (2015b, p12) stated that "prioritizing one or two SDGs might make sense internally but, from an honesty and transparency perspective, governments, citizens and other stakeholders are likely to be less impressed." This statement reflects the results of a citizens' survey in which 90% of respondents wanted businesses to adopt the SDGs. From a business perspective, 78% of the citizen respondents also stated that they were open to changing their buying behavior because of the SDGs (PWC 2015b). Therefore, companies somewhat biasedly see the main benefit of achieving the SDGs as reflecting those goals that contribute to the business's own growth (Jones et al., 2016). According to PWC (2015b), only actions that simultaneously aid both a business and the society are scalable and sustainable. Therefore, "cherry picking" a few SDGs is not so much about restricting one's effort as about finding issues that have the biggest impact on one's business. This principle is essentially the concept of creating shared value, as formulated by Porter and Kramer (2011). Thus, assigning the private sector an important role in achieving the SDGs is complex and risky. Doing so implies an assumption that businesses in all sectors will adjust their activities to benefit the environment and society, and that business models will be reshaped to ensure the sustainability of all products and services – even at the expense of revenue. Furthermore, the UN agenda requires private business to redirect financial assets in the form of investments or donations to the cause of the SDGs. (The Institute for Human Rights and Business, 2015)

## 3.4 The 17 Sustainable Development Goals

In the following chapter, the 17 SDGs are explained. The challenges which the world faces regarding each goal are examined. Additionally, the goals are framed in a business context and the rationale for companies is illustrated.


During the period of the MDGs, the global poverty rate was cut by more than half. However, progress within this issue was uneven (PWC, 2016a). East Asia experienced a large decline, but in African countries, particularly Sub-Saharan Africa, the poverty level remains unacceptably high (42.6%; USD1.90 per day) (World Bank, 2016). This issue does not pertain only to developing countries, as the average poverty rate across the OCED countries is 11.5% (Kroll, 2015). Hence, collaborative efforts are required. Due to globalization, developing economies have experienced huge monetary inflows from the private sector, which gives the private sector an important role in lifting those countries out of poverty. To drive progress, businesses should act responsibly when dealing with developing countries, especially with regard to human rights. Furthermore, by counting people in poorer countries as consumers, employees, and suppliers within the value chain, business can take proactive measures. (SDG Compass, 2017)


The world population is growing rapidly and one-eighth of all people live with chronic malnutrition. Hence, the world faces a challenge to produce enough food for everyone. In growing economies, dietary preferences are changing towards more meat consumption due to more disposable income. Meat production requires an enormous amount of resources, including land, cereal, and water (Global Agriculture, 2015). Large companies dominate the food market worldwide, with standardized supply chains and big factories. Their business practices exclude and diminish small farmers, who are essential if food productivity is to increase. Integrating these smaller farmers into the food business and creating the infrastructure and supplying the financial means for them to prosper are tasks for the private sector. Another way to achieve this goal is to reduce food waste. In theory, the world already produces enough food to feed the entire human population, and by recovering half of what is wasted, everyone would have food. (PWC, 2016a)

3 GOOD HEALTH AND WELL-BEING

The goal of "good health and well-being" is a problem that does not require a distinction between the developed and the developing world. People everywhere suffer from diseases such as cancer or diabetes. Those illnesses are the main cause of death in the world and are expected to create costs of more than USD30 trillion by 2035 (World Health Organization, 2014). Businesses are affected through lower productivity from employees, and huge health costs. Often such illnesses can be avoided as they stem from lifestyle choices, such as lack of activity or poor choices about nutrition (PWC, 2016a). For the private sector, this problem also offers an opportunity to cater to the health needs of millions of people, through providing products and services. Creating safe work environments and offering health services to staff can benefit a company thorough better stakeholder relations and increased productivity. (SDG Compass, 2017)

4 QUALITY EDUCATION

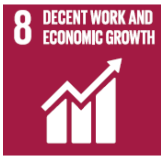
The MDGs have achieved improvement in many fields; however, education was not one of them. In the last few years the number of children who are not attending school has risen to more than 59 million (PWC, 2016a). The issues are not only a lack of education but also its quality. Millions of children attend school for at least four years but without learning basic skills such as reading and writing. These failed attempts to educate the youth of the world are estimated to cost USD129 billion annually (UNESCO, 2013). Lack of proper education entrenches a cycle of poverty, as poorly educated people face limited job opportunities, resulting in less income. Rapid technological changes require new skills and knowledge from the workforce, which has deepened the divide between developed and developing countries (UNDP, 2015). Companies can use their assets to support the government in tackling this immense global issue. As education must be dealt with on a local basis, the private sector needs to engage with communities to make a difference. Investing in education means investing in the abilities of future employees. This can reduce the gap between skills required and skills available, which persists in many countries and harms economies and businesses. Furthermore, education drives innovation and opens new markets for businesses. (SDG Compass, 2017)

In any country of the world, no matter how developed, women are directly or indirectly discriminated against through laws or social norms (UN Women, 2017). Removing this inequality would have a tremendous positive influence on poverty reduction. It would also aid the world economy by closing the existing employment gap (International Labour Organization, 2012). In many countries, adding women to the labor force fully would mean a double-digit percentage increase in the country's growth rate (PWC, 2016a). According to a McKinsey report on power parity (2015), USD28 trillion would be added to the global average for gross domestic product (GDP) by 2025 if women were equal to men in the labor market. Empowering women through employment would also aid children and families at the same time. Apart from respecting the basic human rights obligation to not discriminate against women, businesses can improve gender equality through initiatives and policies within the company. (SDG Compass, 2017)

Water is required to improve health, community life, and stable economic growth. The World Economic Forum (WEF, 2015) ranked water scarcity at the top of its global risk report because of the impact on the world's economy. In a message on World Water Day, the General Secretary of the UN (2017) predicted that by 2030 almost half of all people could face water scarcity, as the demand is far higher than the supply. The competition for clean water is fierce between sectors such as agriculture and energy, households and ecosystems, and will only grow due to climate change. Businesses stand the risk of undersupply of this important resource. They must take stewardship in dealing with water usage by considering the whole value chain of water production; they should not focus only on the economic aspect but also on the environmental and social aspects. (SDG Compass, 2017)

According to the UN (2015a), better use of sustainable energy is essential for the economy and for people to prosper in the future. With many people still lacking access to electricity, 3 billion people use outdated and unsustainable resources to fulfill their heating and cooking needs (UN, 2015a). Not only does access to electricity need to be established across the globe, but reliability and affordability must also be considered. Electricity is crucial for communities as it power schools, health services, and economic efforts (CAFOD, 2015). Energy consumption is expected to grow in the future – by as much as 20% to 35% by 2030 (International

Energy Agency, 2014). Thus, countries need to adopt low-emission energy solutions to increase their energy efficiency. Businesses can contribute to this shift by investing in sustainable energy and adopting clean energy within their value chains. Also, the private sector is the main driver of innovation of new technologies in the energy sector. (SDG Compass, 2017)




Jobs are the foundation of economic and social prosperity. Employment allows people to live better lives, to spend more, and thus to increase the demand for products and services. However, since the global financial crisis of 2008, the number of people without jobs has risen and is expected to rise further. Youth unemployment is a concern, with 13% of young people being unemployed (ILO, 2015). Gaining an income is the first step to escape poverty, but in some places in the world an income does not guarantee this. Bad working conditions and insufficient pay are factors that perpetuate poverty and inequality. In too many parts of the world, disabled people, women, and migrants face various obstacles in the job market (SDG Compass, 2017). Other unresolved employment-related issues are child labor and hazardous work environments (ILO, 2015). Once again, the business sector holds the key to solving this issue. Business is the main driver behind job creation and economic growth. Implementing correct working conditions throughout the value chain protects companies from damaging their image or from having legal action taken against them (SDG Compass). Apart from those benefits, governments which assign large public projects to international companies often require them to create jobs and economic value for the country (PWC, 2016a). Nevertheless, the main responsibility falls to small and medium-sized enterprises (SMEs), as they make up 75% of developing countries' economies and 70% in OCED countries (ILO, 2013).


Long-term economic growth can only be attained if basic infrastructural systems, such as transport and water and waste systems, are in place and operate effectively. In many countries, these services are outdated and in dire need of maintenance. With the emergence of the internet, companies can find new customers in every possible location. But the infrastructure needed to service all potential consumers is not available everywhere and this hinders economic growth (SDG Compass, 2017). Businesses are major beneficiaries of high-quality infrastructure and should thus not rely solely on governments to provide this. Rather, the need for infrastructural improvements around the world is an opportunity for companies to provide investment and services (PWC, 2016a). The second pillar of this SDG is innovation. According to PWC (2012), innovation is the main force behind economic and social growth. Major technological breakthroughs, such as the electric car or solar panels, are the basis of a more sustainable future (PWC, 2016a).

As the rich have become richer and the poor become poorer, the top 1% of people are wealthier than the other 99% combined (Oxfam, 2015). This gap occurs in both the developing and the developed world, and it threatens social and economic development. Severe inequality within a society creates distress and instability. Crime rises when the wealth gap within a country increases (Bloomberg, 2013). The disparities also run along rural and urban lines and along gender and ethnic differences (SDG Compass, 2017). Differing incomes is in many ways beneficial for economic growth, as it promotes hard work, education, and innovation. But the level of inequality the world is currently experiencing renders the reduction of poverty, hunger, and illness nearly impossible (IMF, 2014). While business drives economic growth, it also contributes to the widening of the wealth gap. When dealing with corrupt governments, enterprises should work openly with those governments and ensure that many people – not just a few – will benefit from the investment. Furthermore, applying a high standard of human rights adherence goes a long way in countering inequalities. Inclusive business models can have a direct positive influence for discriminated groups. (SDG Compass, 2017)

Urban areas are home to half of the world's population and will experience a steady inflow of new residents (UNDP, 2015). Economic value is generated within cities, with over 80% of the global GDP stemming from urban areas (New Climate Economy, 2015). However, urban areas are a hotbed of SDG challenges. Social problems like poverty and environmental harm are often the highest in cities. According to a report by the World Bank (2017), 70% of global greenhouse emission is linked to cities. Collective undertakings by governments, organizations, and citizens have already started to turn many cities into more sustainable working societies. Smoothly functioning and sustainable cities reduce the cost of doing business and increase people's productivity; therefore, contributing to this SDG is in the interest of companies. Businesses are the enablers of the plans and visions of governments or organizations, and they are asked to implement the solutions. A hands-on approach is possible, with businesses engaging in the planning of cities and providing innovative solutions to cut costs and energy usage. (SDG Compass, 2017)

The world's population is rising rapidly and coupled with economic growth, whilst desirable for individual well-being, are fueling the demand for scarce resources such as soil, water, and minerals. Many innovations have led to more efficient energy production and an efficient supply chain in general. However, those gains alone cannot balance the rising demand, therefore the consumption patterns of individuals must change (SDG Compass, 2017). Improving efficiency in consumption and production would also lead to less waste, which influences climate change in various ways (World Bank, 2013). The UN's (2015) vision is to establish circular economies in as many sectors as possible. An economy is circular when its processes generate neither waste nor pollution, and products are recycled, reused, and repaired. Implementing this principle can lower costs and the demand for new resources for business, and lessens the risk of production shortages and price volatility. (PWC, 2016a)

The Intergovernmental Panel on Climate Change (IPCC, 2014) claims that climate change will affect each individual. This renders the SDG on climate action one of the most important goals, if not the most important. Natural disasters, food and water availability, and rising sea levels mean that this issue intersects with many or all of the 17 SDGs (SDG Compass, 2017). The year 2015 was the warmest year in recorded history (NASA, 2016), which is a reminder that the issue is indeed pressing and humankind needs to act swiftly (PWC, 2016a). According to the Center for Climate and Energy Solutions (2013), a third of businesses are directly influenced by the change in climate, and the general cost of doing business is increased by it. The increasing threat of extreme environmental events can cause huge disruptions to value chains. Additionally, the financial damages of natural disasters can cripple businesses or cause their breakdown (PWC, 2016a). In a joint effort, businesses need to reduce their environmental footprints by making their products and services more sustainable and efficient. Their knowledge and assets must continue to produce innovative solutions to this problem – such as the electric car. (SDG Compass, 2017)

An estimated USD3 trillion is turned over every year with marine and coastal resources. Human activities such as waste treatment, pollution, and over-fishing are harming this valuable ecosystem (UN, 2015a). The use of plastic is increasing and makes up the bulk of refuse that pollutes the oceans. Because plastic cannot be degraded by natural forces, it is expected that by 2050 the oceans will carry more plastic waste in kilograms than fish (WEF, 2016). Plastic and other non-natural materials, coupled with over-fishing, have led to a decrease in underwater life. This is especially concerning as the ocean is the main provider of nutritional protein for many people, with over 3 billion people relying on it (Moffit & Cajas-Cano, 2014). The food and fisheries industries, and to a lesser degree the tourism industry, rely on a healthy ocean life, but other sectors can be affected too if this important natural resource degrades further (PWC, 2016a).

The land ecosystem provides many "services" to people of the world. It provides us with plants, which make up 80% of the world's diet (UN, 2015a). It also purifies the water and air, protects communities from natural disasters such as flooding, and has a general influence on human well-being (PWC, 2016a). Yet human beings have destroyed 60% of the natural functions of land-based ecosystems in the last 50 years alone. For now, the consequences of that destruction are often felt only on a local basis, but in the long-run the effects will be felt globally. They will be highly disruptive for individuals and businesses. Business rely on the ecosystem for resources like water, food and other resources and are heavily influenced by the clean water and air it provides as well as the control of nature's powers like floods and climate control (SDG Compass, 2017). One of the biggest factors that contributes to the diminishing ecosystem is deforestation. To plant the resources needed by many different industries, forests. The amount of land required to produce crops – food crops for livestock and meat production, or commodity crops for the food industry – is massive (Innovation Forum, 2014). The most powerful way that businesses can offset this damage is through reducing the use of such products and developing new production and procurement processes (PWC, 2016a). To compensate for damages caused to date, companies should consider increasing their efforts in restoring the land. Through these measures, the private sector can play an essential role in more sustainable use of the Earth's limited land. (SDG Compass, 2017)

The term fragility is defined by the OECD (2015) to obtain the aspects: justice, effective institutions such as government and regulator entities, violence, economic foundations and resilience. The 16th SDG related to peace and justice as well as institutions covers issues found in the primary three aspects (PWC, 2016a). Globally, over a billion lives are affected by either fragility or conflicts (World Bank, 2015) that cause people to be unsettled, hungry, and poor. The pace of war and conflict resolution is not sufficient to help everyone who is affected

(OECD, 2015). Other factors that hinder the development of third world countries and prevent many people from escaping from poverty are illegal financial flows, such as corruption or tax evasion. These activities are often facilitated by persons in powerful government roles (UN, 2015a). Corruption creates unstable and uncertain conditions because it circumvents the rule of law. Bribery can increase environmental harm due to its use to avoid regulations that are supposed to protect nature (PWC, 2016a). According to the results on the corruption perception index by Transparency International (2016), no country is fully free of corruption; this issue concerns all states. Businesses prefer peaceful environments that are free from corruption and bribery as they allow better planning and stable conditions. The occurrence of corruption hinders market efficiency, through lack of fair competition and false transaction costs (SDG Compass, 2017). Companies must continue to promote transparency in their financial reporting and integrity throughout the value chain, to foster the growth of developing countries and industries. (Transparency International, 2012)

17 PARTNERSHIPS FOR THE GOALS

The last SDG can be described as the requirement to meet all other goals. To reach the targets set out by the UN with the SDG Agenda, an estimated total financial investment of USD5 trillion to USD7 trillion per year is required (UN General Assembly, 2014). Income of the various states, and the public finances derived from those states, are expected to cover the bulk of the required investment. However, even with grants from the World Bank or the International Monetary Fund (IMF), those investments are calculated to be insufficient (UNCTAD, 2015). Thus, the role the UN has assigned the private sector to contribute toward the fulfillment of the targets. In the past, the private assets of banks, funds, or corporations have rarely been directly invested into developing countries or towards any SDGs (UNCTAD, 2015). Alongside such direct investments, business can contribute to economic growth by making international trade more inclusive for developing countries (UN, 2015a). As globalization proceeds, companies should take an interest in improving the business environments in developing countries, which are potential new markets (World Bank, 2011).

## 3.5 A Critical Look at the SDGs: An Alternative Model

The achievement of the UN regarding the inclusion of a wide range of environmental, social, and economic goals into 17 main goals and 169 specific targets needs to be acknowledged. However, the guide for the world’s development until 2030 is not without critics. An author group led by Erling Holden (2016) has argued that by covering all the issues facing the world, the newest set of UN goals has ended up being “vague, weak or meaningless” (Holden et al., 2016, p1). This statement was based on four observations by Holden et al. regarding the SDGs. Primarily, they question why the various goals have not been prioritized, and suggest that there is a risk of meeting the secondary targets while missing those that are most important to the UN and to sustainable development itself (Holden et al., 2016). Hak et al. (2016) support this viewpoint, by claiming that having so many goals and not prioritizing them amounts to the same thing as having no objectives at all. Secondly, Holden et al. regard some goals as ambiguous. Examples are the two goals intended to promote sustainable agriculture and make cities sustainable. Thirdly, they find the sustainable development goals to be actually “a mixture of goals to be achieved and the means by which to achieve them” (Holden et al., 2016, p3). Lastly, they criticize that only a few of the goals are measurable in terms of their development and achievement. The first six goals are concrete and quantifiable, but goals 12 to 15 are only phrased as ambitions, with the use of words such as “protect”, “strengthen”, or “promote” (Holden et al., 2016). The International Council for Sciences (ICSU, 2015) traces the lack of quantification back to the report’s non-consideration of environmental limits. The main criticism by Holden’s group, however, is that in its report *Transforming our World*, the UN did not consider the boundaries and scarcity of the environment, contrary to the first report in 1987 on sustainable development, called *Our Common Future*. Furthermore, too much emphasis is placed on economic growth without fully considering the consequences. Holden et al. (2016) claim that the main ideas of sustainable development, namely satisfying the needs of all people, creating equity, and respecting the environment, limit the business sector and its effort to push economic growth to the maximum. Thus, the new SDGs are based on faulty notions because they try to “promote economic, social and environmental aspects equally” (United Nations, 2015a, p2). Holden et al. (2016) proposed a new model for sustainable development that clashes with the three-pillar model of the UN that intends to balance environmental, economic, and social objectives. Holden et al. adopt the view that sustainable development is only possible if society constrains its activities to protect its surroundings. The authors then suggest a model that includes three moral imperatives: ensuring social equality, respecting environmental limits, and satisfying human needs. To explain the rationale behind their model, Holden et al. (2016) examine sustainable development as a normative value system. This system is as important as the principles of human rights, democracy, and the freedom of people. Because sustainable development essentially outlines what should be done from a moral and ethical standpoint, Holden et al. label this approach “the moral imperative”. Daly (2007) understands the same imperatives as fundamental objectives and not individual preferences. The main reports by the UN (1987, 2015) described satisfying human needs while also ensuring social equality. Respecting environmental limits, however, was considered only in the first report. Holden et al.’s recommendation to include this moral imperative rather than purely economic objectives is based on two notions. The first is that the current generation is responsible for preserving the environment for future generations, and disrespecting the environmental limits in today's world will reduce humankind's access to natural resources in the future (Brown, 1992). The second notion behind the consideration of environmental limits is that human beings, as the most powerful species on Earth, need to be thoughtful when dealing with all other species (Sen, 2009). This model by Holden et al. is thus not intended to balance three aspects of development, as in the UN's three-pillar model; rather, it should be understood as proposing three areas of constraint on human action. In between those constraints is the space that human behavior is parallel to sustainable development. In publishing this new sustainable development model, the authors noted four important points to consider when working with it. First, the model understands an action that is in line with sustainable development as one that achieves its goals without violating any of the three constraints. Essentially, the model does not provide guidelines to correct behavior; instead it illustrates what does not accord with sustainable development. Secondly, the three constraints are equally important. So, for example, doing what is required to satisfy human needs does not justify actions beyond the constraints of social equity. Thirdly, Holden et al. (2016) explain the omission of economic growth as a factor for sustainable development. Although economic growth can improve social welfare and reduce poverty, as noted by Atkinson (2015) it can also fuel global wealth inequality, as seen in the past. Economic growth is accompanied by innovation, which can help to tackle climate change (Stern, 2015) – but at the same time can lead to increased carbon dioxide emissions. Hence, Holden et al. argue that economic growth is both good and bad for sustainable development, and its positive impact depends on policies and constraints, as illustrated by their proposed model. Furthermore, they argue for the inclusion of social equity. Social equity, including democracy, is important for sustainable development because meeting environmental and socioeconomic targets while tolerating a political system that disregards equality among people, cannot be considered successful. (Holden et al., 2016)

# 4 Corporate Social Responsibility Communication

Corporate social responsibility (CSR) has become more important in the last two decades. It has been transformed from a marginal ideology to a cornerstone of modern business strategy (Lee, 2007). A result of technological development and changes in knowledge-gathering is that people have become more informed and involved. Easier access to information and a more rapid dissemination of news have created a greater awareness of social and environmental issues (Tschopp & Nastanki, 2014). Consumers no longer base their buying behavior solely on price and quality; rather, they consider the efforts a company makes towards sustainable development as a factor (Fernando, 2010). Traditional marketing methods are decreasing in effectiveness (Keller, 2003) and companies need to look towards CSR as a tool to obtain the trust of consumers (Türkel et. al, 2016). Results from various market research and literature underline the economic benefits of positive CSR activities. More than 85% of American consumers have been found to switch their choice of products based on the CSR images of companies (Cone, 2007). Du et al. (2007) claimed that besides buying products, consumers can become “ambassadors” who endorse brands through word-of-mouth or social media. Furthermore, other stakeholders are also affected as individuals are more willing to invest in or work for companies that engage in CSR (Sen et al., 2009). The definition of CSR varies in the literature. Broadly, it describes a business’s role in the environment it operates in and the impact the business has on social, environmental, and economic aspects of the environment (Golob & Podnar, 2013). The philosophy behind CSR is that no company can function secluded from its environment and without engaging with stakeholders (Matten & Moon, 2005). Importantly, CSR offers the fulfillment of social and environmental commitments without interfering with profits (Türkel et. al, 2016). As the benefits of including CSR in corporate strategy are evident, it is equally important to communicate those benefits to the public. Creating awareness of the CSR activities of a company is one challenge of corporate communication; the other is to mitigate skepticism towards CSR. Good CSR communication has been shown to promote sales and stakeholder relationships. However, too obvious a promotion of CSR initiatives can quickly lead to an image of “greenwashing” and can repel customers. Stakeholders may perceive CSR communication as being either extrinsically motivated – meaning companies use CSR only to drive sales; or as being intrinsically motivated – which would mean that businesses genuinely try to do good for the environment. (Yoon et al. 2006) Whether a company’s CSR communication is perceived as being aggressive, or to what extent, depends on the elements used in the communication. Those elements can be categorized as either subtle or broad. According to Morsing and Schultz (2006), subtle communication elements of CSR are annual reports and website content; these have marginal use. By contrast, promotions, publicity, and public relations are broader methods of communication. Another aspect that influences the authenticity of CSR communication is the controllability of the channels. According to Du et al. (2010), channels that cannot be controlled by the company, such as news or word-of-mouth, are perceived as relatively sincere and credible. Advertising is a tool that is controllable but is therefore less credible (Sen et. al, 2009). Therefore, a company must find the right trade-off between credibility and controllability to ensure successful CSR communication (Sen et al., 2009). To better understand CSR communication, it is important to know the two different methods of using CSR communication. The traditional understanding of CSR communication is strategic and is based on a top-down approach (Mumby & Stohl, 1996). According to this view, CSR communication is solely about reporting on CSR activities to stakeholders (Porter & Kramer, 2006). Through various means of communication, the goal is to create a responsible brand and company image. Morsing and Schultz (2006) stated that traditional CSR communication is meant to influence the stakeholders. In a sense, it is a channel and a somewhat minimized information-sharing tool. What this type of CSR communication fails to do is provide a platform to interact with stakeholders so that everyone can understand and change the environmental expectations surrounding the company (Christensen et al., 2011). The alternative view of CSR communication is a constructivist one. This approach considers the interactive aspect (Golob & Podnar, 2013). Proponents of this view support the cooperation of companies and stakeholders to work towards sustainable goals and to create a common understanding of the issues. In this approach, CSR communication is a far more integral part of the company's processes. (Golob & Podnar, 2013)

# 5 Creating Shared Value

When the value of CSR for business is discussed in literature, arguments for and against it can be found based generally on the economic value (Motilewa et al. 2016). The supporters of CSR's role in modern business strategy refer to the benefits of the public being aware of CSR. It is viewed as a means to obtain a competitive advantage through stakeholder support and loyalty for brands and companies (Carroll, 2009). The critics (Blowfield & Murray, 2011) argue that the influence of business on society is detrimental to both. Business should adhere to its main purpose: profit maximization and driving economic growth. These aspects indirectly add to social well-being. Involving business in social issues beyond this imperative is said to give companies more power than they should possess (Jensen, 2000). Based on these differing views of social responsibility, the concept of creating shared value (CSV) has been developed. This concept is an evolved form of CSR that has emerged from an environment in which companies were blamed for many social failures, while at the same time being expected to drive huge profits (Crane et al., 2014). The CSV model marks a shift from a philanthropical proposal – in which revenue was to be invested to solve social issues, to the idea of solving those issues through creating value for the company (Motilewa et al., 2016). Porter and Kramer developed the notion of CSV in several articles for the *Harvard Business Review* over a couple of years (Crane et al., 2014). Porter and Kramer (2011) stated that companies were following old strategies to create value. Businesses viewed value creation as constrained, and they tried to gain short-term profits and thus missed the chance to influence a broader spectrum. To support this view, the authors raised the question of how else companies could ignore the issues faced by their customers world-wide, such as hunger and poverty, while exploiting the resources they rely on and the economic struggles of the countries they produce or operate in (Porter & Kramer, 2011). They define CSV 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.

(Porter & Kramer, 2011, p6).

The distinction between CSV and CSR should be understood, because CSV lies at the core of the corporate strategy to function correctly. It provides a new method to achieve economic success, whereas CSR is often applied in a way that is detached from the core business (Moore, 2014). In their *Harvard Business Review* paper on creating shared value, Porter and Kramer (2011) introduced three forms of CSV. The first is to adjust products and services to meet customer demand and needs, while contributing to society at the same time. Companies have a stronger influence on the buying behavior of people than governments ever will. By promoting healthier nutrition or sustainable packaged products, new product revenues are generated while social issues are addressed. The second method is to optimize productivity and cut resources in the value chain through innovation. Transportation, for example, is harmful to the ecosystem and costs companies money. New production processes or product compounds allow companies to limit the depletion of resources and to cut costs. Supporting one's suppliers rather than using bargaining power to cripple their business allows them to thrive, and as companies become more successful generally their environmental impact is decreased. The third method is to integrate industry clusters in developing countries into the supply chain, and thus simultaneously diversify suppliers and aid the development of those communities. Porter and Kramer (2011) provide the example of Nestlé, which assisted farmers in developing countries with financing and knowledge to expand their supplier base.

# 6 Theoretical Framework

The UNGC, in cooperation with the GRI, published the SDG Compass, which offers a guideline for companies to follow regarding the SDGs. It supports companies in aligning their activity with the SDGs and measuring their contributions. The compass is divided into five consecutive steps: understanding the SDGs; prioritizing them; setting goals; integrating and communicating the methods; and performance (SDG Compass, 2015). For the analysis in this paper, the last step, communicating about the SDGs, is relevant. Within the SDGs, the UN (2015a) urges governments to ensure a high level of transparency about the influence that companies have on society and the environment. Reporting on actions related to the SDGs and on the effects they have on the environment becomes even more important (SDG Compass, 2015). The SDGs define a set of targets against which future business and CSR activities will be measured, and they offer a uniform reporting standard. Nowadays, most multinational enterprises report on CSR activities to fight climate change, to support human rights, or to foster economic development. Thus, many of those companies already contribute to the SDGs. In future, the reporting of such activities must be aligned to the SDGs, to clearly illustrate how a company is aiding the cause of the UN. This alignment further allows stakeholders to better compare the activities of different companies (SDG Compass, 2015). Companies should ideally describe processes and strategies developed to influence the SDGs. Additionally, quantitative and measurable targets should be set, including progress made to date. Key performance indicators (KPIs) are to be favored as they allow comparison of outcomes and serve as a measuring tool. Although comprehensive reporting is commendable, the compass guides companies to identify issues that the business activity can most strongly influence. The positive and negative impact on those material issues must be reported. In this way, companies can show how they dealt with their responsibility towards the environment and society and can elaborate how they intend to deal with negative impacts. Further, focusing on the most relevant topics enables a company to highlight how its services and products can contribute to the targets of the SDGs in more detail. Additionally, to explain the SDGs that concern the business activities most, effective reporting should include the stakeholders' views on the goals. Companies should comment on concerns and expectations of different stakeholders regarding the SDGs, even if they vary from the core business. A materiality matrix is proposed as an effective tool to combine the internal and external views about the SDGs. One axis shows the importance of an issue to the business activities, while the other shows the influence the issue can have on decisions and assessments by stakeholders (SDG Compass, 2015). The 17 SDGs are not isolated and each one is connected to at least two other SDGs. Most SDGs are positively linked to others, meaning that contributing to one SDG will also aid the cause of another. However, at times a trade-off between SDGs is unavoidable (PWC, 2016a). This interconnection can be illustrated using the example of SDG 1, “No poverty”. Ending poverty improves the income of poorer communities and helps to reduce hunger, as the availability of food is mainly not the problem but rather the lack of money to buy it. Reducing hunger is related to SDG 2. In turn, SDG 1 is influenced by other goals such as SDG 7, “Affordable and clean energy”. The poorest and most rural communities are often the ones that have no access to reliable electricity services, making it harder for them to maintain a business or generate income which would aid in escaping poverty. Le Blanc (2015), in a study conducted for the UN Department of Economic and Social Affairs, ranked the SDGs in accordance with their number of links to other SDGs. Four SDGs were shown to be linked to more than 10 other SDGs. They are SDG 1 (no poverty), SDG 8 (decent work and economic growth), SDG 10 (reduced inequalities), and SDG 12 (responsible consumption and production). The SDG with the fewest links is SDC 14 (life below water), which has two links. In their business guide for engaging with the SDGs, PWC (2016a) listed and explained all the links between the 17 goals. The links identified by PWC are visualized in Figure 1 and they differ from the findings of Le Blanc. In the appendix of this paper, the links for each SDG identified by PWC are explained in detail.

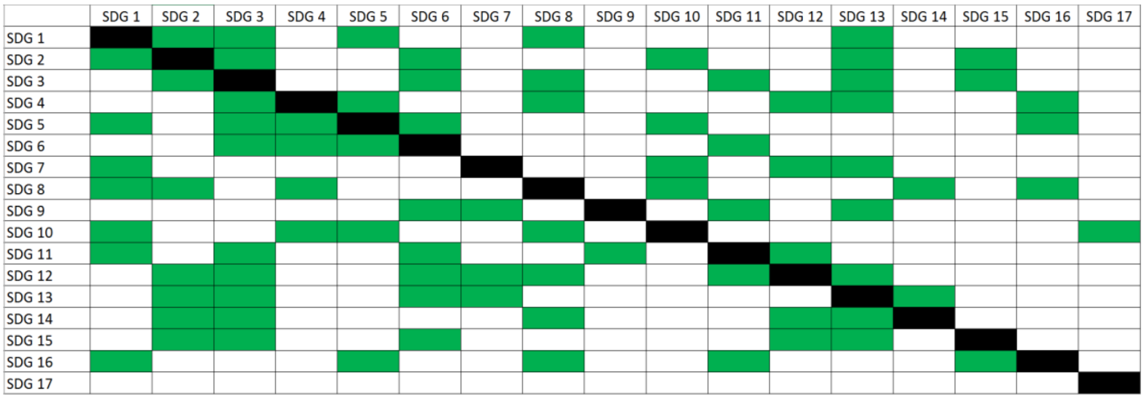



*Figure 1: Linkage between the SDGs*
*Source: Own Illustration based on PWC (2016)*

In June 2015, PWC (2015) held a survey to assess companies’ views of the SDGs and how citizens perceived the goals. The survey recorded interesting early perceptions of the SDGs by businesses. Business respondents were asked to rank the SDGs regarding the perceived impact of their activities on the goals and the perceived opportunity the goals offered their business. Figure 2 visualizes the results in a matrix that indicates the rankings of the goals. The impact and opportunity of the SDG 8 targets (decent work and opportunity) were perceived to be far greater than any other SDG. According to PWC (2015), this finding was not surprising as economic growth and a stable workforce are beneficial for both companies and societies. The rest were grouped into two clusters perceived as having either a medium or a low level of impact and opportunity. This 2015 study allows a comparison between the perceived importance of each SDG against the eventual reporting on each SDGs, as assessed in this paper.


*Figure 2: Impact and opportunity rankings of SDGs*
*Source: PWC (2015)*

The alleged impact business can have on the SDGs was ranked by PWC for specific industries (PWC, 2016a), as shown in Figure 3. As the companies were not grouped into the same industry as used in this paper, the most analogous were chosen to contrast in the discussions part of this paper. The manufacturing industry includes companies analyzed in the industrial sector, financial services include the banking and insurance sector, healthcare comprises pharmaceutical companies, and the retail and consumer industry means consumer goods businesses. The SDGs that were ranked highest for specific industries were those that offer business opportunities for the relevant companies (e.g. SDG 3 for healthcare) (PWC, 2015). Finding sustainable business strategies which are in line with the overall business is a formula that guarantees scalable solutions. Companies will only pursue a target or invest in a social or environmental issue if it adds to their business while creating value for stakeholders (PWC, 2015).


*Figure 3: Industry rankings of SDGs*
*Source: PWC (2015)*

# 7 Methodology

In this chapter, the methods used to conduct the analysis for this study are explained. The sampling of companies is described as well as data collection and data analysis methods. The analysis was mainly based on quantitative data from a customized scoring system. Qualitative aspects round out the analysis.

## 7.1 Sampling

In this research, the SDG reporting for Switzerland and Germany are compared. These two countries were chosen due to the number of large companies that operate within them as well as their proximity to Europe and each other. Five different but similarly important sectors for the achievement of the SDGs were chosen: banking, insurance, consumer goods, pharmaceuticals, and the industrial sector. The definitions of banking, insurance, and pharmaceuticals are straightforward. Consumer goods are defined in this paper as goods that are bought by the average consumer. Industrial goods are products used in construction and manufacturing. To facilitate a comparison across industries, an equal number of companies was chosen for each industry. Table 1 shows the companies that were selected. To facilitate comparison across companies, companies listed in the Swiss Leader Index (SLI) or the German Stock Index (DAX), representing the 30 largest companies in the country, were selected.

| Sector | Switzerland | Germany |
|---|---|---|
| Banking | UBS<br>Credit Suisse | Deutsche Bank<br>Commerzbank |
| Insurance | Zurich Insurance<br>Swiss RE | Allianz<br>Munich RE |
| Consumer Goods | Nestlé | Henkel |
| Pharmaceuticals | Novartis<br>Roche | Merck KGaA<br>Bayer |
| Industrials | ABB | Siemens |

*Table 1: Company Sample*
*Source: Own Illustration*

## 7.2 Data Collection

In this paper, only data that were available through the official corporate websites of the selected companies were considered. This included publications such as annual reports and sustainability reports, and information found on the corporate website itself, most often in the sustainability section. Excluded were any interviews of company personnel by news outlets of third parties, and any publications by third parties on a company's SDG-related activities. The required data were collected using the content-analysis method. Content analysis is used to analyze written documents (Krippendorff, 2012), thus fitting the aim of assessing the written reporting on corporate websites of the selected companies. This method allows the quantification of what is communicated in written reports or articles (Krippendorff, 2012). The content analyzed for each company was translated into quantitative data by applying a scoring system. This system was developed based on the suggestion by the SDG Compass. The system considers the recommendation of the SDG Compass to include targets for discussed SDGs, through applying the following scale of 0 to 4 points:

| Points | Criteria |
|---|---|
| 0 | SDG not mentioned in the report |
| 1 | SDG mentioned in the report but no target set |
| 2 | Vague or qualitative target or ambition set for SDG |
| 3 | Quantitative target set for SDG |
| 4 | Target including KPI set for SDG |

*Table 2: Scoring System*
*Source: Own Illustration*

In line with the approach of the SDG Compass regarding targets, KPIs were favored when assessing the goals set by companies to support the SDGs. The KPIs put the targets in a relative context and allow comparison across companies of different sizes and resources. There are different views on what qualifies as a KPI. In this study, four points were awarded only if the indicator was linked to percentage number with a targeted increase or decrease respectively. The analysis of the Swiss pharmaceutical company Roche's communication is shown here as an example of such an KPI. The CSR report of Roche states with regard to waste reduction and SDG 12:

"Using 2015 as a baseline, we aim to reduce general waste per employee by 10% and landfilling of organic chemicals by 50%, by 2020." (Roche, 2017 p86)

→ 4 Points

The company clearly identified its indicators (general waste per employee and landfilling of organic chemicals) and provided targets in the form of percentages (10% and 50% respectively). Continuing to use the example of Roche, a score of three points was given for the target for SDG 4, quality education. The Roche reports read as follows:

"In 2016, we started a partnership with the Maharishi Institute in South Africa to cover the university-education costs of 50 students." (Roche, 2017 p93)

→ 3 Points

This was rated as a quantitative target, because a measurable target was set (costs of 50 students). However, the number is not put into any relation in form of percentage. A vague or qualitative target, resulting in two points, was given to Roche for SDG 3, good health and well-being:

"Our aim is for every person who needs our medicines and diagnostic tests to be able to access and benefit from them." (Roche, 2017 p3)

→ 2 Points

For this target, no amount or indicator was mentioned, making measuring of progress difficult. One point was awarded to Roche regarding SDGs 9 and 17, as the goals were mentioned in the reports as having been pursued but no further elaboration was given on how exactly that was done. Points were only awarded if the SDGs were explicitly mentioned and clearly linked to the efforts and targets in the communication. General CSR activities that may cover certain aspects of SDGs were not considered, as the links between those activities and the SDG targets are open to subjective interpretation. To complete the assessment of the companies' communication on the

SDGs, qualitative aspects were included into the analysis. This allowed the researcher to better distinguish between contributions made and points received. Specifically, the following qualitative facets were examined for each company:

- How effective are the measure and targets taken or set towards the SDGs?
- Are potential indirect influences on other SDGs considered and reported?
- Are material issues identified and communicated?
- Are issues of high significance for stakeholders identified and addressed?

The effectiveness of the measures was assessed by considering the examples given in the SDG Compass (2017) of key business actions and the UN (2015) sub-goals for each SDG. The examples provided in the SDG Compass for each SDG appear in the appendix. As they are not exhaustive, efforts outside of those were assessed by the author on their effectiveness. The inclusion of the indirect influences, material issues, and significance for stakeholders was based on the guidelines in the SDG Compass and PWC reports, as explained in the theoretical framework.

## 7.3 Data Analysis

The quantitative data collected through the content-analysis method with the use of the scoring system developed, were listed and calculated using Microsoft Excel. Country totals and averages for each SDG were calculated. Further, industry-specific averages were computed to allow cross-industry analysis of the data. By listing the five highest scoring SDGs for each industry, comparison with the PWC survey results (described in the theoretical framework section) was possible. The results of the qualitative aspect of the analysis are discussed using the recommendations made by the SDG Compass (2017) and the PWC guide (2016a).

# 8 Company Analysis

In this section, the scoring of each company is elucidated. The findings for each company are introduced by an overview of the scope of business, followed by the company's stance towards CSR and the SDGs. The stated contributions and concrete measures and strategies are assessed for their effectiveness, based on the SDG Compass's proposed business actions and the sub-targets set by the UN for each goal. Each assessment is rounded out with a description of the materiality and stakeholder engagement, plus possible considerations of interconnections between the SDGs. For companies which failed to mention specific SDGs in their communication, and thus did not score any points in the analysis, the potential of the reported CSR activities to contribute to the SDGs is explained. The points scored for each SDG are visualized at the end of each company analysis.

## 8.1 Novartis

Novartis is one of the largest healthcare enterprises; its headquarters are in Basel, Switzerland and it had net sales of USD48.5 billion in 2016. The reach of Novartis's portfolio is global and the company's products can be found in more than 150 countries, and were used by close to a billion people in 2016. Through their ambit, and as an employer of about 120 000 people worldwide, Novartis can have an important role to play regarding the UN SDGs (Novartis, 2017). In an introduction to the annual report on CSR at Novartis, Chairman of the Board, Joerg Reinhardt, commented on the SDGs. By illustrating the problems the world faces – with population growth and longer life expectancy – he highlighted the importance of the UN agenda. According to Reinhardt, SDGs provide the basis for targeting those issues and continuing the fight against infectious illnesses like malaria and HIV. Novartis contributes to SDGs through its drive for innovation in medicine and programs to spread universal healthcare. The CEO, Joseph Jimenez, further stated that Novartis was seeking partnerships with other private and governmental entities, as global healthcare issues are not manageable by one company alone. The Novartis report is structured according to the GRI G4 Index. The various aspects discussed within the index are linked to the UNGC principles and the SDGs. As a result, Novartis mentions all 17 SDGs in its report; however, only six are elaborated on. The third SDG, good health and well-being, is mentioned as the goal that is closest to the company's core business and aligned with its strategy to better the lives of people. While Novartis does not state any quantifiable targets, the report mentions that the company has taken measures to make their medicines accessible to underserved people (Novartis, 2017). In the SDG Compass, facilitating medicine and healthcare for pooper populations contributes towards SDG 3. Thus, the approach of Novartis is consonant with the SDG Compass's proposed actions to influence SDG 3 and can be assumed to be effective. Further, Novartis claims that by doing business their way, SDG 8 (decent work and economic growth), SDG 9 (industry, innovation and infrastructure) and SDG 12 (climate action) are supported. However, in the report the proposed influence on decent work and economic growth is based on the number of employees and the global presence of Novartis. Although the importance of employment is discussed in terms of the SDG, the focus lies on creating new jobs in developing countries and ensuring equality and good working conditions. Those aspects were not directly addressed in the report's discussion of SDG 8. Reporting on SDG 9 was solely focused on the innovation aspect. The success of Novartis is built on innovation, whereas no direct link can be made to the principles proposed by the SDG Compass (2017). Nonetheless, the effort to foster an innovative environment and to focus on sustainable new business models are consistent with the idea behind the SDG. Additionally, Novartis states that partnerships are at the core of the company's efforts, by which they work in accordance with SDG 17 (partnerships for the goals). As no concrete examples were given, such efforts could not be assessed for their effectiveness. To minimize the ecological footprint, Novartis aims to manage water usage more strictly throughout the whole value chain, and averts chemicals from flowing into the water cycle. Here, too, no concrete measures are elaborated. The only quantitative goals mentioned were related to SDG 13 (climate action). In the section about the environment, Novartis links the SDG and the company's efforts to contribute to the UN targets. Novartis aims to lower its greenhouse gas (GHG) emissions by 30% by 2020, and plans – among other measures – to source energy from renewable plants. Furthermore, by improving the recycling process, Novartis plans to reduce its non-recycled operational waste by 30% by the same target year. Both the reduction of GHG through renewable energy and the reduction of waste are effective measures proposed by the SDG Compass (2017). Novartis did not report on the indirect influences that contributing to one SDG can have on other SDGs, as recommended in the guide by PWC (2016a). Novartis includes a corporate responsibility materiality matrix in its CSR report. However, the matrix is not constructed around the SDGs but rather covers general issues that stakeholders have identified. These issues are only partly applicable to SDGs. Therefore, Novartis did not identify the material SDGs in the report. Neither did the company consider the SDGs most relevant to its stakeholders, although close stakeholder engagement is indicated in the CSR report. (Novartis, 2017)


*Figure 4: Scores for Novartis*
*Source: Own Illustration*

## 8.2 Roche

Roche is the world's largest biotech company, with annual sales exceeding CHF50 billion in 2016. Roche operates globally with over 94 000 employees, with the headquarters in the pharmaceutical cluster in Basel, Switzerland (Roche, 2017). Roche prides itself as being one of the most innovative and influential companies in healthcare; thus, the company is expected to provide assistance in reaching the SDGs. The Roche annual report (2016) comments on the SDGs in its opening pages and briefly introduces both the SDGs and Roche's commitment towards them. The company asserts that its commitment to sustainable business influences various aspects of the SDGs. By adhering to its general business strategy, Roche aims to support the cause of SDG 3 (good health and well-being). Roche has identified five ways in which the company already supports the SDG targets, and expresses the intention to keep focusing on these targets. The first is the effort to increase access to healthcare, which they state contributes towards SDGs 3, 9 and 17. The goal Roche set for the company for SDG 3 is to ensure that every person who needs their medical solutions has access to them. In trying to achieve this vision, Roche has identified partnerships as the most influential approach. Roche does not only focus on the accessibility of its medicines but also strives to create awareness about those medicines, and to improve healthcare capacities through funding and knowledge-sharing. Partnerships, investments, and creation of awareness are all stimuli included in the SDG Compass (2017) principles, leading to assume that the steps taken are effective. However, the Roche report does not provide quantifiable targets. For the other two SDGs mentioned, namely SDG 9 (industry, innovation and infrastructure) and SDG 17 (partnerships for the goals), no further explanation is given of Roche's influence on the goals. Roche states that it supports SDGs 5 and 8 through the company's pursuit of a work environment based on diversity and inclusion. Adopting a business action proposed by the SDG compass, Roche intends to increase the percentage of women in key leadership roles by 30% by 2020 (the baseline was 2014). The efforts for SDG 8 (decent work and economic growth) are aimed more towards safer working conditions, with a KPI and effective targets set for the accident rate, than job creation. The most comprehensive effort involves minimizing the company's environmental footprint. In its activities related to this effort, Roche claims to contribute towards SDGs 6, 7, 8, 9, 12 and 13. KPIs are reported for SDG 6 (clean water and sanitation), SDG 7 (affordable and clean energy), SDG 12 (responsible consumption and production), and SDG 13 (climate action). Targets are set for reducing water consumption per employee, energy consumed per employee, and general waste per employee, and for the landfilling of chemicals and for eco-balance respectively. The measures developed are all in line with principles outlined in the SDG Compass (2017) and include the use of renewable energy sources, better recycling processes, and improved wastewater management. All these activities are predicted to be effective towards reaching the UN goals. The remaining two SDGs addressed in the annual report are SDG 4 (quality education) and SDG 16 (peace, justice and strong institutions). Various initiatives at the corporate level are aimed at improving the quality of life in communities in which the company operates. Furthermore, farsighted endeavors include financing the education costs for students from developing countries. Although not explicitly mentioned in the SDG Compass (2017) principles, this approach has a direct and effective influence on education and SDG 4. Business ethics involving human rights and other international standards are embedded in the company's code of conduct. All employees are trained to comply and a separate supplier code of conduct is included in all contracts. Only vague targets are set for SDG 16, and reporting on the assessment and measurement of the company's progress as proposed by the SDG Compass (2017) is lacking. Without measurement tools, the effectiveness of Roche's policies cannot be evaluated. In accordance with the GRI G4 guidelines, Roche uses a materiality analysis to report on the most essential CSR topics. Contrary to the recommendations, however, that analysis is not used to classify the SDGs. The report on stakeholder engagement is likewise focused on broader CSR topics (Roche, 2017) without identifying which SDGs are most significant to stakeholders.


*Figure 5: Scores for Roche*
*Source: Own Illustration*

## 8.3 Merck KGaA

Merck KGaA is a global science and technology company, with its main business being healthcare and life science products and solutions. The company operates out of Germany and employs close to 50 000 people in 66 countries. Importantly it needs to be noted that, Merck KGaA is in no way affiliated to the pharmaceutical company Merck in the US (Merck KGaA, 2017a). According to a subchapter on Merck KGaA's corporate website, the company takes an active role in achieving the SDGs. Merck KGaA's CSR strategy builds on the pillars of health, environment, culture, and education to contribute towards solving the issues raised by the UN. Merck KGaA has identified three SDGs for which the company's influence can be substantial. As a healthcare company, the most obvious impact is on SDG 3: good health and well-being (Merck KGaA, 2017a). To expand the reach of healthcare, Merck KGaA has developed a strategy to improve access to health, called "A2H". As Merck KGaA recognizes that the impact of a single company is limited, the company collaborates with other pharmaceutical companies, governments, and public entities (SDG 17) to accelerate its efforts. These efforts rest on the four "As": availability, accessibility, affordability, and awareness (Merck KGaA, 2017b). Merck KGaA has established an effective strategy to facilitate affordable healthcare to communities in need. However, neither a quantitative target nor a KPI was formulated to support this effort. The endeavor to improve quality education (SDG 4) was split into two aspects. Firstly, Merck KGaA provides funding and scholarships to underprivileged students in India and China, and supports training centers to develop nursing and artisanal skills. Secondly, the company provides platforms for young people to cultivate an interest in science (Merck KGaA, 2017c). Both approaches support the targets set by the UN. The third SDG identified as relevant to the business strategy of Merck KGaA is SDG 7, affordable and clean energy. The focus is not on reducing energy consumption or expanding the inclusion of renewable energy but rather the sustainable products Merck KGaA offers, as the company has diversified into producing performance materials. In addition to solutions for solar panels, Merck KGaA provides the industry with energy-saving technologies for displays. According to the SDG Compass (2017), supplying innovative solutions to save energy is one of the most effective ways to influence SDG 7. In addition, further small or indirect contributions to the SDGs are reported. Merck KGaA has invested resources to improve healthcare for women in developing countries. Because health issues frequently prevent women from entering the labor market or developing a career (Merck KGaA, 2017d), this investment contributes towards gender equality (SDG 5). A direct influence on the specific targets of SDG 5 associated with nurturing women’s health is not evident. The most distinctive measures relate to SDG 6 (clean water and sanitation). Merck KGaA seeks to decrease water usage and to contribute to cleaner water by reducing residues and water pollution. Various projects, especially in locations where water is scarce, have been started. At sites in North America, Spain, and Taiwan, Merck KGaA intends to lower the water use by 10% in the coming years (Merck KGaA, 2017e). The company states it is committed to assuring that human rights are respected within its scope of business, meaning that Merck KGaA strives to positively influence its suppliers (Merck KGaA, 2017f). Merck KGaA thus fulfills the minimum requirements of a decent work environment (SDG 8), while no further effective measures towards job creation are reported. Furthermore, Merck KGaA is part of a German–Chinese project to improve water management in eastern Chinese cities. Merck KGaA provides these initiatives with knowledge and instruments for measuring and testing (Merck KGaA, 2017g), thus contributing towards SDG 11 (sustainable cities and communities). Collaboration with governments to create solutions for sustainable urban systems is a measure proposed by the SDG Compass (2017); hence, effectiveness in this area must be validated. To support SDG 12, responsible consumption and production, Merck KGaA is rethinking its waste treatment process. To reduce any waste generated, Merck KGaA recycles as much of its waste as possible (Merck KGaA, 2017h). Contributing to SDG 13, climate action, reference is made to the “Edison program” created in 2009 to reduce GHG. The program is run by a working group that evaluates energy-saving projects in all business sectors (Merck KGaA, 2017i). The aim of reducing GHG emission must be acknowledged as contributing towards SDG 13, but in the absence of information about concrete measures, its effectiveness cannot be judged. Quantifiable targets were defined by Merck KGaA only for SDGs 4 and 6; all other SDGs were commented on vaguely. Merck KGaA does not report on a materiality assessment, neither are the SDGs' impacts on stakeholders evaluated. Additionally, indirect influences of Merck KGaA's various activities Merck KGaAto contribute towards the SDGs were omitted from consideration.


*Figure 6: Scores for Merck KGaA*
*Source: Own Illustration*

## 8.4 Bayer

Bayer is a life science company that focuses on healthcare and agriculture. The headquarters are located in Leverkusen, Germany, and over 115 000 people are employed at Bayer. On its corporate website (Bayer, 2017a), Bayer defines its stance towards the SDGs. The company supports the global approach of the UN to tackle the issues facing the world. Bayer sees its business activities as appropriate for contributing to specific SDGs. The SDG 2 (ending hunger) and SDG 3 (improving healthcare globally) are the most relevant goals for Bayer's strategy (Bayer, 2017a). Regarding SDG 2, the company refers to its sustainable development efforts to supply "high-quality food for all" (Bayer, 2017a). The pursuit of "zero hunger" is interpreted as being closely tied to sustainable farming. Bayer (2017a) has identified the dilemma of scarce land versus increased food demand as the main challenge for ending hunger; thus, the company's innovative products to protect seeds and crops are described as helpful. Genetically diverse seeds and sustainable agricultural solutions are explicitly mentioned by the SDG Compass (2017) as important tools to improve food production and efficiency. Bayer's products can substantially influence the achievement of SDG 2. Bayer's (2017a) stance towards SDG 3 reads as a pursuit to help people benefit from the progress in healthcare no matter their income or location. Bayer affirms that the company invests in research and development to find new treatments and to improve the quality of life. Specifically, the company has been working on curing so-called "neglected" diseases of developing countries, like African sleeping sickness (Bayer, 2017a). In those efforts, cooperation with the World Health Organization and other NGOs is sought. Working in partnership with such organizations is suggested by the SDG Compass (2017). However, no concrete targets or measures appear on the corporate website or in the annual report to support the marketed contribution towards SDG 3, which calls into question the effectiveness of Bayer's healthcare activities. Bayer's contribution to quality education (SDG 4) is more visible and quantifiable. By offering 245 scholarships to students in fields of interest such as biology or medicine (Bayer, 2017b), a contribution towards the UN targets within this SDG is made. Yet the scholarship program is restricted to German-speaking students intending to study abroad or foreign students studying in Germany. This limitation can be construed as an effort to ensure future employment at Bayer, which helps to create shared value. As the UN targets for education are mainly focused on improving the status in developing countries (UN, 2015a), the effect of Bayer's scholarship program is not direct. Bayer has adopted various principles to ensure gender equality across its employee base. The human resource process is based on diversity and a gender balance is desired, particularly in management roles. Further, Bayer strives to achieve equal pay for men and women across all divisions and countries (Bayer, 2017b). If implemented as intended, both measures are mentioned in the SDG Compass (2017) as being influential towards gender equality. In its 2016 annual report (Bayer, 2017b), Bayer sets a group-wide target to establish water management at all production locations in water-scarce areas. The goal is to ensure that business activities do not lead to water paucity in those areas. Another aspect of SDG 6, clean water and sanitation, is the reduction of water pollution. Accordingly, Bayer has installed wastewater purifying plants at all its locations (Bayer 2017b). However, Bayer failed to explain how exactly the water management system will reduce water usage. In theory, both wastewater purification and water management systems are effective tools to contribute towards SDG 6 (SDG Compass, 2017), but without clear measures (KPIs) and targets, the progress cannot be quantified. Regarding SDG 8, decent work and economic growth, Bayer focuses its involvement on existing employees rather than on providing aid for economic growth or employment. The constrained efforts are nonetheless exemplary when evaluated against the SDG Compass principles. Bayer reports on its policy for fair recruitment, has created systems to prevent child labor in primary activities and in its supplier network, and encourages learning and skills development throughout the organization (Bayer, 2017b). The long-term Bayer Climate Program, which intends to reduce the ecological footprint through process innovations and energy management, contributes towards SDG 13, climate action. In the future, Bayer wants to focus its GHG-reduction efforts on emissions incurred by supporting activities. Increased use of electric vehicles for transport and greener IT and communication solutions were mentioned in the report (Bayer, 2017b). For SDG 13, Bayer defines a KPI by setting the group target as a reduction in GHG of 15% by 2020. The

SDG Compass (2017) lists process innovation and more sustainable transportation as effective measures for the targets of SDG 13. In its message about contributing to the SDGs (Bayer, 2017a), Bayer argues that it makes significant contributions to SDG 9, SDG 10, SDG 12, and SDG 15. The researcher analyzed the publicly available sources and found no further mention of those goals or applicable actions. In accordance with the GRI principles on CSR reporting, Bayer uses materiality analysis and stakeholder engagement to identify the areas of priority. Contrary to the suggestions of the SDG Compass (2017), however, neither a materiality analysis nor stakeholder involvement was reported on regarding the SDGs. The researcher also found no consideration of indirect influences as recommended by PWC (2016a). Bayer stated that it influences SDGs 9, 10, 12, and 15, but without providing further elaboration, which suggests the company perceives an indirect contribution through its efforts to support other SDGs.


*Figure 7: Scores for Bayer*
*Source: Own Illustration*

## 8.5 Swiss Re

Swiss Re is one of the largest reinsurers in the world, headquartered in Zurich, Switzerland. Through its products and services, Swiss Re provides support for rebuilding and developing the world (Swiss Re, 2017a). Coupled with the global presence and a customer base of highly influential governments and companies, Swiss Re can directly and indirectly impact many SDGs. The CEO of Swiss Re, Michel Lies, stated that the SDGs are high on his and the company's agenda for future strategy development. He urged governments to recognize the role insurance companies can play in supporting sustainable business ventures (Swiss Re, 2017a). The company's most recent CSR Report (Swiss Re, 2017b), however, addresses the SDGs only briefly. In a short section, Swiss Re discusses its commitment towards the SDGs and claims that many CSR activities are destined to contribute to several goals. Four specific SDGs are mentioned: SDG 7, SDG 12, SDG 13, and SDG 17. At the time of the release of the CSR Report in early 2017, Swiss Re affirmed that the company is exploring how it can support other SDGs through its business activities. Thus, the scoring of Swiss Re for this study was incomplete and better results are expected in future reports. The company's strongest commitment was to SDG 13, climate action. Swiss Re has set the target of obtaining its 2013 levels of GHG emission per capita for its own operations. This target was set after Swiss Re nearly halved its carbon dioxide levels during an energy initiative from 2003 to 2013 (Swiss Re, 2017b). Reduction of GHG emission is the main driver to achieve the SDG 13 targets (SDG Compass, 2017) and is thus a highly effective lever. Further, Swiss Re intends to cover its energy needs through renewable energy sources only, by 2020, as purposed by the SDG Compass (2017). This intent also impacts the targets of SDG 7, affordable and clean energy. Additionally, to aid sustainable energy solutions, Swiss Re supports other companies in their endeavors to find renewable energy solutions by helping them to manage the risks associated with innovative and complex ideas in this field. Although Swiss Re does not directly influence SDG 7, mitigating the risks associated with renewable energy projects can encourage more companies to invest in them. Throughout the report (Swiss Re, 2017b), industry–intern partnerships and other collaborative efforts related to various SDGs are mentioned. This information justifies the stated contribution towards SDG 17, partnerships for the goals. Regarding SDG 12, responsible consumption and production, no direct links or contributions were noted within the report. The analysis of the Swiss Re CSR report (2016) showed an extensive approach regarding CSR and SDG topics, leading to the assumption that in future reports, various contributions to SDGs will be highlighted. Moreover, mapping CSR topics for their relevance to Swiss Re and stakeholder expectations already forms part of the reporting effort. Transferring this approach as well as stakeholder engagement to the SDGs is a further option to improve the company's communication.


*Figure 8: Scores for Swiss Re*
*Source: Own Illustration*

## 8.6 Munich Re

Munich Re operates in all areas of insurance with a business model that is based on the two pillars of primary insurance and reinsurance. The core of the company's strategy is to take on any form of risk from any place in the world. With more than 43 000 employees, Munich Re has established a global presence. The concepts of CSR and shared value are core aspects of the business strategy of Munich Re (Munich Re, 2017a). In a statement on the corporate website, the chairman of Munich Re states that any future actions will be based on sustainable criteria and that the company is conscious of its role in society and within the environment. However, the SDGs are solely mentioned as a side-note in the company's CSR report and are not mentioned at all on the corporate website. In the report, Munich Re (2017b) claims to adopt its CSR activities to the ever-changing environment; thus, the SDGs are identified as a global trend the company considers when developing any future CSR-related strategies. Because Munich Re failed to mention any of the 17 SDGs specifically, in this study the company was not allocated any points using the scoring system (discussed earlier). Further analysis evaluated only the potential of Munich Re CSR activities to influence certain SDGs, although these were not reported specifically. The corporate responsibility strategy mentions two central ambitions which can be linked to specific SDGs. Firstly, Munich Re has accepted the challenge to confront the effects of climate change, as discussed in SDG 13 (climate action). Further, the company aims to improve access to healthcare, a subject of SDG 3 (good health and well-being). To align the current business strategy with those efforts, Munich Re intends to promote sustainable business ideas and cooperatively share its knowledge to create solutions for critical issues (Munich Re, 2017a). The endeavors against climate change can be separated into internal and external activities. Internally, Munich Re developed a carbon neutrality strategy in 2009, which was implemented across the group in 2015. Thus, since 2015 the Munich Re Group has been carbon-neutral, offsetting all carbon emission the group produces through other efforts. Moreover, the target was set to fuel all business operations with energy from renewable sources by 2020, and thus to cut carbon emissions by 35% compared with the 2009 baseline. Externally, Munich Re invests resources to evaluate the financial risks of climate change, allowing the company to make well-researched recommendations to its customers. From an investment standpoint, Munich Re has developed an asset management strategy that incorporates sustainable funding. Munich Re invests its own assets and distributes private-sector capital towards renewable energy projects. Compared with the company's operations regarding efforts to combat climate change, its efforts to improve healthcare and overall well-being are vaguely described. As a primary and secondary insurer of health risks and cost, it is in the company's interest to improve people' health. Thus, Munich Re provides sports programs and offers teaching about child obesity, among other preventive measures. While the climate change targets and aims are concrete and effective according to the

SDG Compass (2017) principles, the operations in the healthcare field do at least not directly impact the targets of SDG 3, good health and well-being. Overall, the CSR reporting – and thus the potential to report on the SDGs – lacks tangible targets and clear efforts. However, the company has business activities in many relevant fields and is active across many countries, thus a greater impact on the SDGs than reported can be assumed.


*Figure 9: Scores for Munich Re*
*Source: Own Illustration*

## 8.7 Zurich

Zurich Insurance is one of the leading insurers worldwide. Their product portfolio ranges from property and casualty insurances to life and car insurances. Zurich offers solutions for individuals and companies of all sizes and reach. Zurich itself has a global reach with over 54 000 employees in 210 countries (Zurich, 2017a). Zurich expects its role as an insurer to become increasingly important in society and for communities. With the company’s knowledge and services, it helps the environment to become more resilient. Further, it acts as an investor and helps to fund businesses and projects in communities (Zurich, 2017b). Zurich’s (2017b) corporate responsibility report highlights the importance of CSR within the company by positioning it “at the heart of our culture” (Zurich, 2017b, p.3). The board and the highest level of executives play a role in CSR. Zurich claims that its approach to tackling environmental, social, and governance issues in its daily work impacts several SDGs. However, no further reference is made to the goals, either in the CSR report or on the corporate website. As result, Zurich did not receive any points in the scoring system used in this paper. Nevertheless, the CSR activities were evaluated to identify possible contributions to the SDG targets. In its community work, Zurich has emphasized its engagement in areas where floods have a big impact on economic and social development. According to the company’s report, flooding affects more people annually than any other natural disaster. The aim is to work on the enablers of floods rather than helping in the relief after a disaster. The flood resilience program of Zurich is a collaboration of the company with NGOs and education facilities. In cooperation with those entities, Zurich has actively worked with over 100 communities in Asia and South America. Through knowledge sharing, Zurich has helped people to reduce their exposure to the effects of floods and has trained them in securing income independent from natural disasters. A stable income and resilient water and sanitation systems have helped those communities to suffer less from poverty and hunger (Zurich, 2017b). Interestingly, Zurich has identified a correlation between SDG 13 (climate action) and SDGs 1 and 2. The SDG 13 is directly influenced by carbon emission reduction processes and goals. Since 2014, carbon neutral through investments into biodiversity projects in Asia, Zurich has set to goal to reduce emission per employee by 40% in the next three years compared with the 2007 baseline. Furthermore, Zurich is joining forces with many other companies in an effort to power all their office buildings with renewable energy by 2020. Additionally, Zurich has invested around USD1.3 billion into so-called green bonds. Green bonds support green projects such as building renewable energy facilities or supporting sustainable real estate development. On a smaller scale, Zurich screens its business partners for corruption and bribery as well as sustainable procurement processes, which contributes to SDG 16 (peace, justice and strong institutions) and SDG 15 (life on land) (Zurich, 2017b). As with the reporting efforts of Munich Re, Zurich does not focus on the SDGs. However, unlike Munich Re, the CSR report of Zurich is not so comprehensive. Zurich has the potential to influence SDGs regarding climate change and to aid society through its endeavors, but its reporting is below the standard of comparable companies in the same industry.


*Figure 10: Scores for Zurich*
*Source: Own Illustration*

## 8.8 Allianz

Allianz is active in different fields of the financial sector. Mainly the company is known as one of the biggest insurers and fund managers worldwide. The more than 140 000 employees deal with the needs of over 80 million customers in over 70 countries. Insurance and investing are both long-term commitments, according to the CEO of Allianz. Insurance companies thus depend on sustainable development in the environment. The ultimate goal of Allianz is to make the world a more resilient place. The company introduced a new CSR strategy that is built around three main topics: low-carbon economy, social inclusion, and business integration (Allianz, 2017a). In the introduction to its CSR report (2016), Allianz elaborates its influence on various SDGs. As a company in the finance industry, Allianz states that it contributes more directly to some SDGs than others through its business activities. The influence of Allianz is illustrated by dividing its CSR efforts into five categories and matching these to the SDGs. As a "sustainable insurer", Allianz contributes towards SDGs 1, 2, 3, and 10 and to a lesser degree to SDGs 9, 13, and 17. In its role as a "responsible investor", the company supports the efforts of SDGs 7, 9, and 13 and indirectly supports SDGs 8, 11, and 17. As a "trusted company" for its customers, Allianz aids the targets of SDGs 12, 13, and 16. Further, Allianz strives to become an "attractive employer", through which it supports SDGs 3, 4, 5, and 8 and to a lesser extent also helps the causes of SDGs 10 and 16. Lastly, Allianz is part of society as a "committed corporate citizen" and funds projects that confront the problems discussed in SDGs 1, 4, and 5, through collaborative effort (SDG 17); the company also helps the causes of SDGs 8, 10, and 11 (Allianz, 2017a). In a separate document, Allianz highlights how its specific efforts within those five categories are linked to the targets of the SDGs. For some activities, tangible targets are set; for others the influence is described in a broader sense. Allianz has partnered with SOS Children's Village, the biggest NGO with a focus on children worldwide, to develop skills young people need to participate in the economy and gain employment (Allianz, 2017a). The target for 2017 is to enter into local partnerships with communities in 25% of the countries that were covered during 2016 by the collaboration of Allianz and SOS Children's Village. The aim for 2018 is to double this coverage (Allianz, 2017b). Offering training for children and young adults to develop knowledge and skills to enter the job market is a sub-target of SDG 4 (UN, 2015a) and provides an effective contribution towards the goal. To reduce the gender inequality in leadership positions (SDG 5), Allianz has introduced programs to encourage women to pursue management roles. Flexible work structures are supposed to allow women to promote their careers while having a family. The target that Allianz has set for 2017 is to increase the percentage of women in so-called "talent pools" to 40%. Talent pools consist of promising employees who are prepared for leadership roles at Allianz. As inclusion into such pools does not ensure a future leadership role, the target does not directly contribute to the goals of SDG 5 (SDG Compass, 2017). However, creating a supportive network with flexible work–life balance and special training for women are valid ways of improving gender equality, according to the principles of the SDG Compass (2017). Through its investment strategy, the company has contributed to various green energy projects. The approach for the coming years is to double the company's equity investment in the renewable energy sector (Allianz, 2017b), which is a direct financial contribution to the targets of SDG 7 (UN, 2015a). Allianz's direct contribution to address the issue of climate change, and therefore SDG 13, is made through efforts to decrease the energy consumption per employee and the carbon emission per employee; the target is a reduction of 30% by 2020 compared with 2010 levels. Both are achieved by sourcing an increased share of energy from renewable sources and restricting the business travel of employees. In non-critical matters, employees are instructed to use communication tools as an alternative to travel. Electric cars are integrated into the fleet to reduce the emissions and improve the GHG footprint (Allianz, 2017a). Effective contribution to SDG 13 is straightforward, as decreased GHG emission aids the overall goal. Emphasizing transportation emissions is recommended by the SDG Compass (2017) principles. Responsible consumption

(SDG 12) is aided by the intention to minimize waste produced and to better reuse the generated waste. No concrete or KPI was set in these regards. Allianz mentions the interlinkage of the SDGs in its statement about the goals. The partnership with SOS Children’s Village to develop skills is mentioned as a contribution not only to SDG 4 (quality education) but also to SDG 10 (social equality) and SDG 8 (decent work and economic growth). The linkage between SDG 4 and SDG 8 was proposed by the PWC guide, thus Allianz reported correctly on the indirect influences of the company’s efforts. In line with the GRI G4 principles, Allianz conducts a materiality analysis of relevant CSR topics through engaging the stakeholders, but to date the respective SDGs have not been examined.


*Figure 11: Scores for Allianz*
*Source: Own Illustration*

## 8.9 Commerzbank

Commerzbank is an internationally active bank with a focus on two business segments, private clients, and small-business as well as big corporate businesses. As a commercial bank, Commerzbank provides its customers with all essential financial services. Although the bank operates in nearly 50 countries, most business occurs in Germany, where more than 1000 branches exist (Commerzbank, 2017a). The bank reports on the SDGs on its corporate website, in the annual report, and in a special document that illustrates the contribution to each SDG (Commerzbank, 2017b). In the 2016 annual report (Commerzbank, 2017c), a commitment to support the UN SDG Agenda is expressed. Further, the report sets forth that Commerzbank believes that aligning the core strategy with sustainability will help to secure the future of the bank and increase the value of its operations. Commerzbank (2017c) intends to contribute to the SDGs not only by reducing its negative impacts, but also through the opportunity for financial institutions to support sustainable development. According to the annual report, private clients are showing increased interest in sustainable investments (Commerzbank, 2017c). Commerzbank explains its specific contributions to each of the 17 SDGs in a special document available on the website. While some contributions are clear and effective and are supported by targets and KPIs, others contribute in a broader sense. For SDGs 5 and 13, Commerzbank has defined KPIs and goals for the coming years. Commerzbank maintains that only qualifications and competences matter when promoting people; hence, the goal is for at least 30% of leadership positions to be held by women (Commerzbank, 2017b). This exact minimum percentage is proposed by the SDG Compass (2017) principles as an effective measure towards gender equality. The bank is climate neutral and aims to reduce its GHG emissions by 70% by 2020, compared with the 2007 level. In addition to its efforts to reduce its own environmental footprint, Commerzbank is adopting the idea of “green finance”. Green finance proposes that banks should play a role as facilitators and financiers of a sustainable future. In 2016, the wind, solar, and bio energy ventures funded by Commerzbank saved 14 million tons of carbon dioxide from being emitted (Commerzbank, 2017c). Providing the assets to materialize such projects is one of the main functions of companies in the financial industry (UN, 2015a). Commerzbank is a partner in the “business@school” project, which tries to ease people’s transition from school to the business world. By providing insight through theoretical and practical teachings about economy and banking, students have the chance to master the skills required in business (Commerzbank, 2017d). Such programs are listed as an effective means to reach the targets of SDG 4, quality education. In partnership with the main certifier in Germany, TÜV, Commerzbank consults its corporate clients about energy efficiency, develops sustainable solutions for new construction projects, and enhances production processes. These services are said to support the propositions of SDG 7 (affordable and clean energy) and SDG 11 (sustainable cities and communities). For the latter, the measures are deemed to be influential, as the SDG Compass (2017) proposes collaborating with real estate developers and providing expertise to achieve more sustainable cities. However, the contribution to cleaner energy is indirect if indeed it is a contribution. More effective measures would be sourcing from renewable energy or investing in the research and development of sustainable energy solutions (SDG Compass, 2017). Nonetheless, Commerzbank fulfills the basic requirements of SDGs, such as a commitment to human rights (SDG 8), ensuring equal opportunities for job applicants (SDG 10), and verifying responsible production by all its suppliers (SDG 12). For SDG 1 (no poverty) and SDG 2 (zero hunger), the advertised stake in achieving those targets seem to be quite a stretch. Providing basic bank accounts and investing in staple foods, respectively, are the stated contributions. The researcher was unable to establish even an indirect link between those SDGs and the efforts of Commerzbank, even by consulting the SDG Compass (2017) principles and other guidelines. The CSR topics or SDGs were not analyzed by the company regarding their materiality or importance to the stakeholders. Further, no reporting was offered on the indirect influences of contributions towards certain SDGs regarding other SDGs.

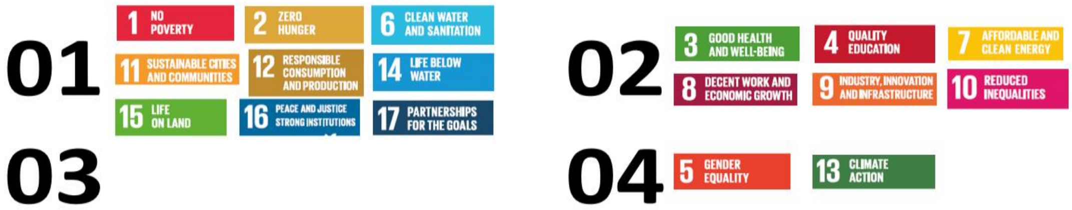



*Figure 12: Scores for Commerzbank*
*Source: Own Illustration*

## 8.10 Deutsche Bank

One of the largest banks worldwide, Deutsche Bank has over 2600 branches in 70 countries. The bank has established a strong presence in important emerging economies such as Asia and Latin America, ensuring a powerful influence on the development of those countries as well as business opportunities. As a universal bank, different types of customers are served, from private individuals to institutions and businesses. (Deutsche Bank, 2017a) The bank employs around 100 000 people and understands that its processes must be aligned with global challenges to be sustainable. It aims to create wider value not only for the shareholders and clients but also for the environment and society, by contributing to economic growth and supporting solutions for current issues. In its corporate responsibility report for 2016, Deutsche Bank (2017b) acknowledged the importance of the SDGs and confirmed the role of the private sector as defined by the UN (2015a). Regarding the SDGs, Deutsche Bank views the goals not only as providing a plan to address the issues of the world, but also as a benchmark for business to identify the most important challenges to the environment. Further, the bank states that its future operations will depend heavily on their contribution towards the SDG targets (Deutsche Bank, 2017b). The UN (2015a) predicts that over USD5 trillion a year will be needed until the conclusion of the SDGs in 2030 if the targets are to be achieved. This huge investment will require capital from the private sector. Deutsche Bank (2017b) has identified the sustainable and impact funds it manages to be the biggest contributor to many SDGs. Through its funds, Deutsche Bank contributes to solutions on four continents and supports over 30 developing countries. It claims that the seven sustainability funds contribute to all SDGs except for SDGs 6, 12, 16, and 17. Through Africa Agriculture and Trade Investment Fund (AATIF), over USD140 million was provided to companies and credit agencies to support the African agriculture sector. The funds facilitate training programs for people in poor communities to obtain agricultural skills and assists them to grow rice, coffee, or tea, thus giving them a source of both income and food. (Deutsche Bank, 2017b) These measures contribute effectively to SDG 2 (zero hunger), and because people are trained to become producers and part of a value chain they also support SDG 1 (no poverty) (SDG Compass, 2017). Deutsche Bank offers several funds that support microfinance institutions, through which the bank fosters the emergence of small business and thus economic development, especially in developing countries. Microfinancing is an effective and sustainable tool to support economic growth in those countries, and contributes to SDG 8. Furthermore, in 2016 the "Made for Good" initiative was launched, with the purpose of supporting innovative startups that are dedicated to solving social and environmental challenges. Through expertise-sharing in various settings, the startups help to reduce educational barriers, create solutions for clean water, or to help communities out of poverty through various projects. Through Made for Good, Deutsche Bank claims to contribute to many SDGs, especially SDGs 8 and 10. The website does not mention specific projects or solutions provided by the startups that are supported, hence the effectiveness of the Made for Good initiative could not be evaluated in this study. Deutsche Bank is the first commercial bank in the world to be chosen to implement the funds allocated by the Green Climate Fund. The Green Climate Fund was created by the UN to tackle climate change through investments. Deutsche Bank focuses the fund's contribution on renewable energy solutions for Africa. The bank has set a target of raising USD300 million to provide loans for businesses in Africa to supply clean energy. (Deutsche Bank, 2017b) Bringing such technologies to developing countries supports SDG 7 effectively, according to the SDG Compass (2017). The bank supports the UN philosophy that education is a crucial tool in solving many of the SDG issues. As Deutsche Bank supports access to education for all young people (SDG 4), it has created the program "Born to Be". The purpose of this initiative is to break down barriers that hinder children in some parts of the world from receiving an education and becoming employed. In partnership with NGOs, the program addresses the problems in regions such as India, South Africa, and the Middle East. It is also active in the western world, with scholarship opportunities for Germany and the US. The goal is to reach five million people through the program by 2020. Additionally, the reduction of inequality between boys' and girls' access to education forms part of the program, for example through collaborating with organizations that work with girls' education in India. Thus, the company reports that it contributes to SDG 5, gender equality (Deutsche Bank, 2017b). However, disparities in access to education between boys and girls is an issue covered by SDG 4 explicitly; the contribution to SDG 5 is less direct as this goal deals with economic discrimination against women (UN, 2015a). The measures described are nevertheless effective towards the targets of SDG 4 (SDG Compass, 2017). Although Deutsche Bank claims that its funding also contributes to SDGs 3, 8, 9, 10, 11, 13, 14, and 15, no concrete measures were reported. Deutsche Bank conducts and reports on a comprehensive stakeholder engagement process. In dialogue with multiple stakeholders, the topics of greatest interest to stakeholders are identified. By aligning those to the perception of Deutsche Bank, a materiality matrix has been created. The process of stakeholder engagement and identifying the material topics is explained in length; however, no linkage to SDGs has been provided to date. Indirect influences of the bank's CSR and SDG efforts are also not identified or reported.

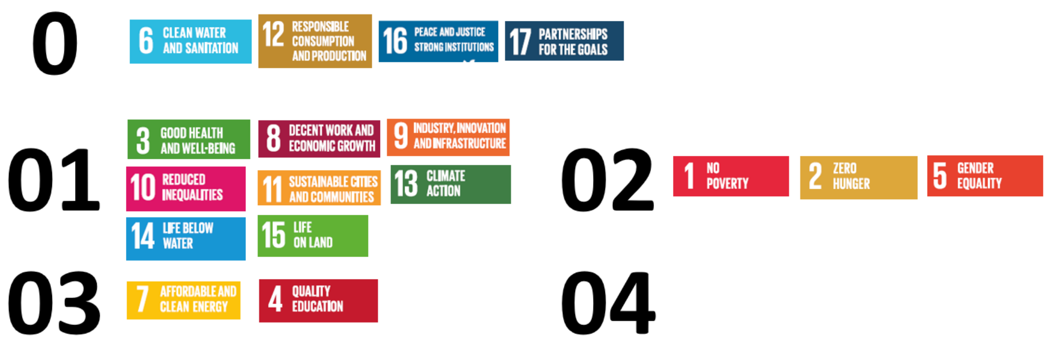



*Figure 13: Scores for Deutsche Bank*
*Source: Own Illustration*

## 8.11 Credit Suisse

The bank of Credit Suisse describes itself as one of the largest wealth managers in the world. In additional to its core function, Credit Suisse has a strong presence in investment banking. Wealth management is balanced between activities in mature markets that have a base in the home market of Switzerland, and efforts to benefit from emerging markets – especially in Asia. Operations in close to 50 countries and an employee base of over 47 000 give Credit Suisse global reach (Credit Suisse, 2017a). In this role as a multinational financial enterprise, Credit Suisse acknowledges its importance to the economy and society as well as various responsibilities to its stakeholders. The approach to CSR is divided into four areas of responsibility. The priority of the bank is to serve its customers with financial services. It also aims to act as a responsible employer and to promote diversity and inclusion within the company (Credit Suisse, 2017c). Externally, Credit Suisse states in its CSR report (Credit Suisse, 2017b) that to achieve sustainable success, the business strategy needs to be built around responsibility towards society and the environment. To aid those external causes, the bank offers philanthropic financial support, engages with NGOs to drive change directly, and encourages its employees to engage in volunteer work. Considering the impact of the bank's own operations as well as facilitating investments by its clients into sustainable funds and projects, Credit Suisse claims to contribute to a wide range of SDGs (Credit Suisse, 2017c). In a special publication, Credit Suisse explains its various methods of contributing to the SDGs and provides details in the form of case studies. The main contribution is support for sustainable economic development. Microfinancing is an important driver of Credit Suisse's CSR activities and therefore affects the SDGs. The bank manages over USD2 billion of funds that are used to support microfinance institutions. Those institutions provide financing for more than 1 million micro-entrepreneurs, people who are normally excluded from any form of financial support. (Credit Suisse, 2017b) Many businesses that are supported operate in the farming and agriculture sector (Credit Suisse, 2017c). As proposed by the SDG Compass (2017), fostering entrepreneurial activity in developing countries can directly influence the targets of SDG 8. Credit Suisse describes further linkages with other SDGs and the indirect influence of microfinancing on those goals. By supporting economic growth, SDG 1 (no poverty) and SDG 2 (zero hunger) are also aided (Credit Suisse, 2017c). A contribution is also made to the cause of SDG 5, gender equality. According to the report, more than 75% of the funded micro-entrepreneurs were women (Credit Suisse, 2017c), and the creation of business opportunities for women is specified as a measure to reach the targets of SDG 5 (SDG Compass, 2017). Another topic of importance to Credit Suisse is education. In light of the MDGs and their cause to create better access to education (MDG 2), the bank collaborated with various partners to reach over 100 000 students in 38 countries between 2008 and 2014. The project succeeded and in 2014 a new initiative was launched to focus on the education of girls. The target is to reach 100 000 young and teenage girls and prepare them for independent lives. Basic life skills are supplemented by knowledge about women's rights and entrepreneurial know-how. The program is rounded out by financial education, informed by the core business of Credit Suisse. The ultimate goal is not only to change the lives of the participating girls but also to enable them to change their communities (Credit Suisse, 2017c). This new initiative addresses targets related to SDG 4 and SDG 5 simultaneously, according to the report. Credit Suisse educational endeavors are not limited to educating girls. Through its partnerships, the bank promotes literacy in developing countries and supports the cause of "Teach for All" to build knowledge among teachers around the world. To integrate education into the core business of Credit Suisse and offer ways for clients to invest in educational projects, the bank created scholarship bonds that are provided as student loans. The recipients of the loans are primarily students from developing countries who struggle to obtain grants for higher education (Credit Suisse, 2017c). The cause of better education for girls supports both SDG 4 and SDG 5, according to the SDG Compass (2017). The bonds offer underprivileged students a path to higher education, but because they are given as loans, they are mainly an investment rather than charity. Real estate is a huge consumer of energy around the world. Having identified the importance of sustainability in buildings, Credit Suisse has developed the first Swiss Seal for sustainable real estate, with the goal of assessing new and existing construction projects regarding their environmental impact. Further, to offer its clients a path to invest in environmentally friendly real estate, the Green Property fund was launched. The fund possesses more than CHF700 million already. The fund promotes the reduction of carbon dioxide emissions from properties and aims to achieve a 10% reduction by the end of 2017 compared with 2012 levels, across the almost 1000 properties supported by the fund (Credit Suisse, 2017b). The contribution of those efforts towards SDG 11 (sustainable cities and communities) can be confirmed, as the SDG Compass (2017) states that using private sector assets to develop low-carbon buildings is an effective scheme. Further, reducing carbon dioxide emission supports SDG 13 (climate action) (UN, 2015a). Credit Suisse (2017c) moreover believes that asset management can conserve nature and promote biodiversity. The Nature Conservation Note is a financial product that invests in sustainable forestry and ecosystem conservation in more than 20 countries. The Note is expected to invest in between 12 and 15 projects in the coming years in different parts of the world. Those projects are calculated to avoid deforestation of trees worth 33 million tons of carbon dioxide and to protect ecosystems of a size equivalent to Belgium (3 million hectares) (Credit Suisse, 2017c). The fund's planned activities are effective means to support SDG 15, life on land, by investing in natural infrastructure (SDG Compass, 2017). Following the adoption of the SDG in 2015, Credit Suisse (2017d) hosted a workshop for various stakeholders, such as government agencies, development banks, investors, and representatives from universities and civil societies. The workshop was held in Hong Kong and Zurich and allowed stakeholders to voice their opinions about the bank's influence on the 17 goals. When asked to rank the SDGs based on relevance and need for immediate action, the participants found all SDGs to be important but with a hierarchy in terms of priority. The SDGs that were deemed to require significant attention by Credit Suisse, in both workshop locations, were SDG 5 (gender equality), SDG 8 (decent work and economic growth), and SDG 13 (climate action). This form of stakeholder engagement accords with the proposed measures of the SDG Compass (2017). The materiality assessment is focused on broader CSR topics rather than solely on the SDGs (Credit Suisse, 2017b).


*Figure 14: Scores for Credit Suisse*
*Source: Own Illustration*

## 8.12 UBS

The largest universal bank in Switzerland, with headquarters in Zurich, UBS offers its private and institutional customers an all-round bank service. In addition to business in Switzerland, UBS is present in all financial centers globally and has offices in more than 52 countries, with over 60 000 employees. While UBS strives to be the premium bank for Swiss customers, globally its strategy is focused on being the leading wealth manager for high net and ultra-high net worth individuals

(UBS, 2017a). UBS presents itself as one of the sustainability leaders in the financial industry and therefore focuses on long-term commitment to a sustainable business approach, and to creating value for its clients through sustainability (UBS, 2017b). UBS uses its capabilities to promote sustainable investment by its stakeholders. The business can only succeed if its sustainability efforts create value for clients, shareholders, and communities, according to the annual report (UBS, 2017b). In a letter to the shareholders, both the chairman of the board of directors and the CEO stated that UBS is engaged in support for the SDGs; they referred to the commitment of UBS to allocate USD5 billion of client assets towards the goals (UBS, 2017b). However, the SDGs are not mentioned throughout the report besides these opening sentiments by management. As UBS does not report any direct influence on the SDGs or any linkage between its CSR activities and the UN goals, in this study the bank was not allocated any points. Nevertheless, SDGs are an integral part of UBS's recent sustainability publication, most notably in its study on investing for sustainable development (UBS, 2015) and a white paper for the World Economic Forum 2017 (UBS, 2017c). Both of those papers are aimed at facilitating action by third parties and do not focus on the efforts of UBS itself. The reporting on UBS's role in contributing to the targets of the SDGs states that UBS plans to collaborate with philanthropic organizations to maximize the effectiveness of its investments. Further, UBS plans to host summits with innovative business leaders, clients, and global media (UBS, 2017c). Although the reports and publications do not comment on links to the SDGs specifically, information about related SDG efforts is available. UBS acknowledges the UN call for private equity investment to achieve the goals. Additionally, UBS argues that SDGs offer interesting avenues of investment for private wealth. As the SDGs pursue long-term improvement and goals, investors usually also tend to have a long investment horizon. Private investors are not constrained by any investment guidelines and can invest in innovative and risky SDG-related projects that have the potential to return large profits. UBS is the biggest private bank in terms of assets under management, with nearly USD1.75 trillion as of 2015 (UBS, 2017c). Thus, the bank plays an integral role in facilitating those assets for sustainable development. UBS has implemented a dual bottom line, which considers both profit and the positive influence on society and the environment, and offers related client investment advice and fund management services. UBS aims to introduce at least one impact fund every year based on an SDG-related topic. Impact funds collect private equity to be invested with the dual bottom-line approach (UBS, 2017c). In this study, the effectiveness of this intention could not be determined as no examples or specific SDGs were mentioned. In addition to asset allocation functions, UBS reports on in-house efforts towards sustainable development and SDG-related issues. To address climate change, UBS is committed to source all its energy needs from renewable sources by 2020, an effort that supports the targets of SDG 7 and SDG 13. UBS is further aiming for a GHG reduction of 75% by 2020 (compared with 2004), and this is another effective measure towards the goal of climate action (SDG 13). To enhance the lives of children by investing in their health and education, UBS has created the UBS Optimus Foundation. It supports UBS clients in donating their wealth to effective causes. In 2016 the Foundation reportedly improved the lives of 1.6 million children (UBS, 2017c). The foundation has the potential to contribute to SDGs 3, 4, and 5, but its company reports do not provide a link to these SDGs. UBS made a direct donation of CHF30 million in 2016 to support the communities in which the bank operates. The funds were used to promote education and entrepreneurship in those areas. The bank's efforts extend to local partnerships with NGOs, the promotion of female-founded businesses, education for underprivileged children, and assistance for disadvantaged students (UBS, 2017c). The examples given and the overall purpose of UBS's community work can contribute to SDGs 4, 5, and 8 at least, if not more. The methods described are effective in terms of the principles proposed by the SDG Compass (2017). Further, UBS strives to create a diverse employee base in which all people enjoy equal opportunity to progress in their careers. Specifically, UBS plans to hire more women across all divisions and levels of the bank, with the goal of having a minimum of 30% of management roles filled by women. The human resource strategy of UBS promotes the ideas behind SDG 5 in an effective way (UN, 2015; SDG Compass, 2017). The reported CSR endeavors of UBS are beneficial to various SDGs. In this study, the low score of UBS is not due to the absence of relevant activities but rather because no linkage is provided between the bank's efforts and concrete SDGs.


*Figure 15: Scores for UBS*
*Source: Own Illustration*

## 8.13 ABB

ABB is a technology company that primarily works with businesses and governments on projects related to industry, transportation, and infrastructure. ABB operates in more than 100 countries and is known as a pioneer of digital technologies (ABB, 2017a). With more than 130 000 employees, ABB has the potential to play an important role in the future of digitalization and industry (ABB, 2017b). ABB's goal is to increase efficiency and reduce the environmental impacts of industry and transportation operations through its solutions (ABB, 2016a). In July 2017, the CSR report for 2016 was not yet published, thus the primary source of information about ABB's position towards the SDGs was the company's CSR report for 2015. In this report, ABB (2016a) welcomed the introduction of the SDGs as they offer a framework to address the most crucial economic, social, and environmental issues. The report further stated that the core business of ABB allows the company to contribute to several targets of the SDGs. The goals related to efficiency, renewable energy, and climate change are of special interest to the company. Further, ABB highlighted its involvement in social projects, with a focus on improving education and healthcare (ABB, 2016a). Programs in India, South Africa, and the US are supported by ABB to improve general health and contribute to SDG 3. While ABB did not further elaborate on those programs, the report did offer a discussion about the health and safety of its employees. The company aims to achieve zero accidents by 2020. A message from the CEO in the form of presentation and safety awards underlines the importance of safety and health in the workplace. Training sessions throughout 2015 were attended by more than 180 000 participants, who were trained on safety risks and working with contractors. (ABB, 2016b) The effectiveness of the company’s external efforts could not be evaluated in this study due to lack of information; however, its investments into safety and health at the workplace contribute to a sub-goal of SDG 3, which is concerned with the health of a workforce. The involvement in education programs is not only founded on charitable causes, as ABB seeks to improve its profile and to foster the employee pipeline with talented engineers. ABB works closely with universities in the US or China and funds equipment for research purposes. In developing countries, such as Egypt and India, ABB helps to improve the quality of facilities and invites young people into ABB factories to introduce them to work life. (ABB, 2016a) The SDG Compass (2017) proposes collaboration with universities and programs to give young people early insight into business life; hence, the methods of ABB are effective. Because ABB is an internationally active organization that provides solutions to problems in different parts of the world, it requires a diverse employee base to provide the company with knowledge of different regions. The company-wide framework to promote diversity includes measures to promote women to management positions. ABB is part of the Women’s Forum, which brings powerful women from businesses and governments together to create a female perspective on current topics. (ABB, 2016b) Nevertheless, ABB does not report on concrete methods to improve the profile of women within the company, thus the scope of contribution towards SDG 5 cannot be assessed. For the SDGs concerning environmental issues, namely SDG 6 (clean water and sanitation), SDG 7 (affordable and clean energy), SDG 12 (responsible consumption and production), and SDG 13 (climate action), ABB has introduced a set of objectives to be achieved in the near future. Concerning water scarcity and SDG 6, ABB has classified all facilities in accordance with the level of water stress in the surrounding region. Of the 470 facilities, 64 having high water-stress levels were selected for the initial focus of water reduction. The aim is to reduce water usage by 25% between 2013 and 2020 at facilities that were classified as either extremely high, high, or medium-high for water stress. Further, ABB is committed to reduce the energy intensity in its production processes by 20% by 2020. Energy intensity includes the use of electricity as well as heating and fuel consumption. (ABB, 2016a) This aim supports the targets of SDG 7 as it promotes energy efficiency across operations, and it also supports SDG 13 as it aims to reduce the overall GHG emissions. Externally, ABB supports SDG 7 by bringing electricity solutions to remote areas in Africa and India. To drive sustainable consumption and production (SDG 12), ABB intends to achieve a zero-waste processing cycle ultimately. This includes facility-specific measures to reduce waste and improve recycling. All the environmental friendly measures are in line with the targets of the UN (2015a) and the SDG Compass (2017) (ABB, 2016a). The broadest influence on the SDGs could be made through ABB’s investments into research and development in energy and infrastructure technologies and the products developed. ABB offers energy-efficient solutions that help the cause of SDGs 7 and 13 most effectively. Those investments are referred to as part of ABB’s contribution to SDGs 9 and 11 (ABB, 2016b). Through its products, ABB promotes innovation and helps cities to became more resilient and sustainable, yet SDGs 9 and 11 both require a more hands-on approach to achieve the targets – such as joint development of solutions with communities and governments, or promoting innovation by stakeholders (SDG Compass, 2017). ABB started the analysis of material issues in 2011 by interviewing over 600 people from different stakeholder groups. Since then, the most relevant topics have been published on the corporate website, with some related to SDGs. However, neither was a link provided to the UN goals, nor were the most pressing SDGs for the stakeholders evaluated.


*Figure 16: Scores for ABB*
*Source: Own Illustration*

## 8.14 Siemens

Siemens is a company with an international presence that is primarily known for its service and products along the electrification value chain. Siemens offers smart and efficient solutions to generate, distribute, and transmit energy. The company has ventures in the medical devices and diagnostics industry. Siemens employs over 350 000 employees in over 200 countries. With around 280 manufacturing plants, Siemens operations can be found in every part of the world (Siemens, 2017a). The most recent sustainability report by Siemens (2017b) begins with a reference to the SDGs. Siemens states that sustainable development, as described in the Agenda 2030, is the only way to be successful and achieve long-term growth. The company commits to do business for future generations and to achieve an equilibrium between profitability and the interests of the planet and humankind. As the company is active in the field of energy and electricity, sustainability is primarily considered a business opportunity. To analyze Siemens' contribution to the UN goals, a specific approach was developed by the company, termed "business to society" (B2S). Identifying the company's influence on the SDGs allows Siemens to make more profound strategy decisions and fosters the dialogue with stakeholders. To follow this approach, Siemens gathers information on the most relevant developments in the environment, at the global and national levels. The company's contributions in those areas are then identified and measured. To improve Siemens's influence, new strategic projects are developed, which are then communicated to all stakeholders. (Siemens, 2017c) In the context of this approach, the 17 SDGs were assigned to impact areas, which provide the framework for publication and communication by Siemens (2017b). The impact area "strengthening the economy" is stated to contribute to SDGs 7, 8, and 9. Currently, Siemens is working on an energy project in Egypt that includes the construction of over 12 wind parks across the country. In a special document dedicated to the impact areas and their links to the SDGs, this specific project is mentioned for SDG 7, affordable and clean energy. (Siemens, 2017c) The leading target of SDG 7 is to ensure access to affordable and reliable energy solutions and simultaneously to increase energy efficiency globally (UN, 2015a). The projects in Egypt support both of those targets and are thus effective measures. The contribution towards SDG 8 is justified by the economic value Siemens generates through its activities in over 200 countries, for which the company has paid more than EUR1.7 billion in income tax (Siemens, 2017c). The UN's purpose behind SDG 8 is to promote job creation and to foster economic growth. Although a fair share of the taxes was paid in developing countries, solely doing business does not proactively and directly support SDG 8 (SDG Compass, 2017; UN, 2015). Infrastructure development, part of SDG 9, is supported by financing projects and new technologies around the world, at a cost of over EUR25 billion (Siemens, 2017c). Coupled with the mega project in Egypt, such endeavors are regarded by the SDG Compass (2017) as effective. The second area of impact is "developing local jobs and skills", which are stated to contribute to SDG 4 and SDG 8. A computer technology (ICT) solution called GO PLM, which facilitates education tools, has reached close to one million people and is one avenue through which Siemens supports SDG 4 (quality education). Further, the company encourages lifelong learning among its employee base and expands its training and projects to suppliers and customers. In 2016, over one million people took part in courses or trainings provided by Siemens (Siemens, 2017c). The ICT solutions offer an effective channel to improve the delivery of education, according to the SDG Compass (2017). Additionally, the compass suggests that companies should offer continuous opportunities to stakeholders, especially employees, to improve their knowledge and skills. Both contributions towards SDG 4 as stated by Siemens are deemed to be effective, as they accord with the principles provided by the SDG Compass. The claimed influence of this impact area on SDG 8 is based on the number of people Siemens employs (Siemens, 2017c), without considering the creation of new jobs as intended by SDG 8. Thus, the influence on SDG 8 cannot be confirmed. The company's efforts in the area "driving innovation" are focused on SDG 9. Siemens invests close to EUR5 billion in research and development and has appointed over 33 000 employees to work on new technologies and innovations. Furthermore, many collaborative initiatives with startups were established in the recent past with investments reaching EUR800 million. Siemens intends to accelerate its work with startups to foster innovative ventures, by providing EUR1 billion in funding over the next five years. The efforts are concentrated on the innovation part of this goal, overlooking infrastructure and industry aspects (Siemens, 2017c). High expenditure on research and development and support of startups are effective ways to drive innovation, yet the geographic regions are not reported. The UN's intent behind SDG 9 is to usher developing countries into research and development efforts and to promote innovation within those countries. Hence, Siemens's efforts at promoting innovation are effective, but the company's influence cannot be assessed regarding the UN's main targets. Considering the climate and environmental issues, the impact area "sustaining the environment" was formed. The measures in this area are claimed to support SDGs 6, 7, 12, 13, 14, and 15 – essentially all SDGs with a link to the environment in some way. Siemens has developed a water strategy, and by analyzing over 300 sites has concluded that the consequences of water stress and pollution are relevant to the company. With this strategy Siemens intends to reduce water use and pollution locally (Siemens, 2017c). However, concrete methods are not reported, and as of 2016 the strategy was implemented in only 18% of the sites (Siemens, 2017c). Regarding SDG 12, Siemens strives for a circular economy, meaning that it intends to recycle 100% of the waste generated during production. The recycle rate in 2016 was already 90%. In addition to increasing waste recycling, Siemens intends to reduce the volume of waste. Better waste management is proposed by the SDG Compass (2017) as supporting SDG 12; however, Siemens's lack of elaboration of the measures taken or its planning efforts do not allow for assessment of effectiveness in this area. To counteract climate change and support the cause of SDG 13, Siemens has launched a comprehensive program to reduce its own carbon dioxide emissions. The aim is to halve the environmental footprint by 2020 (compared with 2014) and ultimately to achieve carbon-neutrality by 2030. Actions taken to achieve those targets are investments in the energy efficiency of the sites and reduced emissions from the company's own fleet of cars. The targets set and the measures explained are in line with the goals of SDG 13 (UN, 2015a) and appear in the principles of the SDG Compass (2017). Hence, Siemens is contributing effectively in this area. For SDG 14 (life below water) and SDG 15 (life on land), no relevant efforts were described. In the impact area "improving quality of life", the SDGs 1, 2, 3, 9, and 11 are listed as being influenced by Siemens (2017c). The cause of improving healthcare globally, part of SDG 3, is reportedly supported by products in Siemens' medical device portfolio. More than a billion patients were treated with the use of an imaging system produced by the company, justifying the claim that the targets of SDG 3 were supported. However, selling devices used for patient treatment improves the health of those people only indirectly and is not an active effort to support the UN's cause. Similarly, Siemens's contributions to SDG 9 and SDG 11 were based on the use of the company's products in city infrastructure, without active participation in developing innovative and sustainable solutions for those cities, as recommended in the SDG Compass (2017) (Siemens, 2017c). Hence, the reported influence on those SDGs appears not to be fact. The inclusion of SDG 1 (no poverty) and SDG 2 (zero hunger) is justified because Siemens's production technologies – such as autonomous machines – increase the accessibility and quality of essential goods (Siemens, 2017c). The proposed linkage between the machines produced by Siemens and the effort to combat poverty and hunger could not be confirmed, as the UN (2015a) and the SDG Compass (2017) propose measures that involve people in need more actively. The last impact is "shaping societal transformation", which reportedly concerns the targets of SDGs 5, 10, and 16. Siemens has established a zero-tolerance approach to corruption and bribery across their supplier base of over 90 000 people. Siemens stated that the company enforces adequate responses to violations in this regard and regularly assesses the risks of its suppliers; hence, the measure can be deemed effective according to the SDG Compass (2017). Regarding SDG 10, Siemens claims to promote equality by uniting employees from 171 countries (Siemens, 2017c). However, recruiting members of underprivileged communities and investing in poverty eradication are efforts that reduce inequality across the globe, whereas having a diverse employee base does not aid this cause. Further, Siemens predicts that the proportion of women in management positions will increase from the 2016 baseline of 15.6% (Siemens, 2017b), but fails to mention any means to ensure this. The unfounded inclusion of some SDGs into areas of impact implies that indirect influences were considered; however, those deliberations are not disclosed. Materiality of issues was rated with the support of external and internal stakeholders, yet the results were not linked to SDGs or any specific CSR topics. The opinions of stakeholders on the SDGs were not discussed in any reports or the website.


*Figure 17: Scores for Siemens*
*Source: Own Illustration*

## 8.15 Nestlé

Nestlé is the world's largest food and beverage company, with more than 2000 brands and products in over 190 countries. Nestlé employs over 320 000 people worldwide directly, and works with many more suppliers and vendors. Production occurs in over 415 factories across 86 countries, and in 2016 sales reached nearly CHF90 billion. (Nestlé, 2017a). This huge network allows Nestlé to interact with billions of stakeholders and to influence society and the environment on a massive scale. The company's values require it to work closely with stakeholders to create shared value. The strongest connections between the business activities and society are related to the following topics: nutrition, through providing healthier food products, with a focus on babies and new mothers; rural development, through engagement with local suppliers, such as farmers, to strengthen their economic position and that of the community; and water, because Nestlé is a main procurer of natural water resources, and is committed to improving the availability of water (Nestlé, 2017b). Regarding the SDGs, Nestlé states that the company is fully committed to supporting the targets through its shared value approach, and through collaboration and stakeholder engagement. Nestlé has linked its shared value approach closely to the 17 goals, but focuses on those it can have the greatest influence on. The commitment to the SDGs is guided by three overarching goals. The first is to enable healthier and happier lives, which includes improving the health of 50 million children. Secondly, Nestlé intends to develop the communities it works with by improving the lives of 30 million people. The third ambition is to handle resources sustainably and to ensure the availability of the environment for future generations, by achieving zero impact in the company's own operations. The three ambitions focus on people and lives, communities, and the environment respectively. In 2013, Nestlé introduced a set of commitments aligned with the core business that reflects specific efforts to achieve the three main goals. Considering the UN's new agenda and new set of goals, Nestlé has supplemented its earlier commitments to better consider the SDGs (Nestlé, 2017b). In its sustainability report for 2016, the commitments were assessed against the SDGs, with each of the goal being considered to be influenced in some form. In the current study, the analysis of those linkages showed that Nestlé contributes to many of the SDGs but not to all of them as claimed.

For SDGs 4, 7, 9, 11, and 17, no direct contribution could be identified regarding the UN (2015a) targets and the SDG Compass (2017). The company lists various measures through which it contributes directly and indirectly to the remaining SDGs. For the analysis and scoring in this study, the most applicable commitments were filtered and described subsequently. Nestlé works closely with small-scale farmers and their communities to improve the quality and diversity of their supply chain. In 2016, Nestlé trained over 700 000 farmers in effective and sustainable agriculture practices, to help developing alternative income streams for them. A special focus was placed on the training of women and including them in the value chain of Nestlé (2017b). Integrating local community members into business activities is an effective and sustainable solution to lift people out of poverty, which therefore supports SDG 1 (SDG Compass, 2017). Further, recruiting local community members as suppliers supports the targets of SDG 10, reduced inequalities. Nestlé (2017b) is also engaged in finding methods to promote living wages – an important lever to reduce inequality (UN, 2015a) – throughout the supply chain and in all countries where the company operates. The support of small-scale farmers simultaneously aids SDG 2 (SDG Compass, 2017). As well as training farmers in commercial agriculture, Nestlé (2017b) provides training in house gardening, growing plants, and keeping livestock for one's own consumption. Regarding the cause of SDG 2, zero hunger, Nestlé is making a valuable contribution. The company's efforts to improve human health are primarily based on improving the health value of its food products, by reducing the use of sugar and artificial ingredients or increasing the share of vegetables and vitamins. Further, Nestlé aims to use its position to promote a healthier way of living. The UN (2015a) focuses its targets for SDG 3 on improving people's access to healthcare and on developing medical solutions to cure illnesses. Therefore, Nestlé's efforts, which are mainly preventive in nature, support SDG 3 indirectly. However, one sub-goal of SDG 3 is addressed, namely the aim of reducing accidents in the workplace to zero. As Nestlé promotes the inclusion of women across the value chain, the company also aims to achieve greater gender parity across all levels. The goal is to increase the proportion of women in management and senior roles in the coming years, through empowerment measures, more flexible work arrangements, and training to eradicate discrimination (Nestlé, 2017b). Increasing the percentage of female managers is a main target of SDG 5, and supporting a more flexible balance between work and personal life is an effective tool (SDG Compass). Through water withdrawal technologies, the company intends to reduce direct water withdrawals by 35% by the year 2020 (compared with 2010). Innovative solutions have led to a "zero water factory" in Mexico, the first of its kind (Nestlé, 2017b). The use of best practices and groundbreaking technologies to reduce water use are measures proposed in the SDG Compass (2017) to support SDG 6. Another environmental target is the reduction of 140 000 tons of packaging material between 2015 and 2020, to support sustainable consumption and production (SDG 12). Regarding the fight against climate change (SDG 13), Nestlé intends to achieve a 35% reduction in GHG emissions in its manufacturing process by 2020 (compared with 2010). The company is attempting to reach this goal through energy-saving measures in all factories, more efficient transportation processes through better monitoring measures, and the use of natural refrigerants to reduce electricity use by industrial refrigerators (Nestlé, 2017b). These objectives are effective in supporting the targets set by the UN for SDGs 12 and 13 (SDG Compass, 2017). Moreover, as a procurer of palm oil, Nestlé concurs that the deforestation associated with this raw material is a problem. The company made a commitment in 2010 to achieve “no deforestation” by 2020, meaning that no products of Nestlé will be associated with deforestation. This measure would support SDG 15 effectively. Through its initiative “global youth”, Nestlé promotes youth employment and employability. Youth unemployment is serious issue that affects various SDGs but is primarily discussed within SDG 8 (UN, 2015a). The initiative aims to offer up to 50 000 apprenticeship and trainee positions at Nestlé by the year 2020. Additionally, Nestlé plans to offer 25 000 jobs annually to people under 30 years of age. This is not only a service to the community but also ensures a steady talent pipeline for the company (Nestlé, 2017b). Offering entry-level positions to young people is one of the main enablers of economic growth and eradication of youth unemployment, according to the SDG Compass (2017). In other words, Nestlé’s contribution to SDG 8 is highly effective. In line with the cause of SDG 16, Nestlé (2017b) does not tolerate any form of bribery or corruption in its own value chain or in the business activities of its suppliers. However, although Nestlé communicates its commitment to fighting corruption and ensures this is understood by all stakeholders, the company does not take an active stance against corruption. Indeed, it states that such activities do arise in certain markets (Nestlé, 2017b). The lack of reporting measures on the enforcement of this commitment against bribery and corruption does not allow an assessment of its effectiveness. Nestlé conducted an analysis of the most material issues through interviews with executives of the company and crucial stakeholders. The topics identified were then mapped against the 17 SDGs, to examine the alignment between the issues facing Nestlé and those facing the world. Through this mapping, Nestlé (2017b) specified the topics through which the SDGs can be supported most effectively. The report states that both direct and indirect contributions were considered in this process (Nestlé, 2017b); however, no distinction was discussed. At an event in March 2016, Nestlé (2017b) invited stakeholders – ranging from employees, customers and suppliers to NGOs and academia – to raise questions about CSR. In this forum, questions about the SDGs were asked but Nestlé did not offer any more insight than that which appears in the report, and they missed the chance to seek out the most important SDGs as rated by their stakeholders.

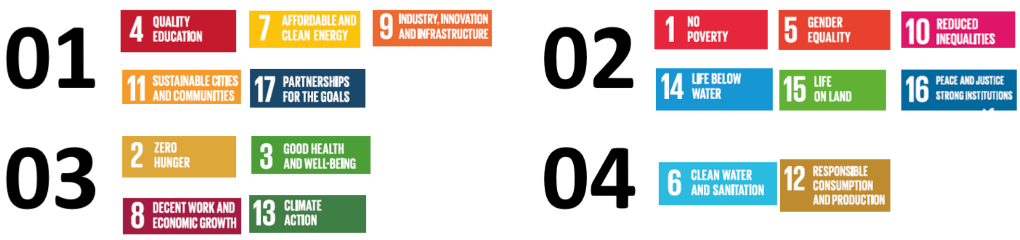



*Figure 18: Scores for Nestlé*
*Source: Own Illustration*

## 8.16 Henkel

Henkel is a producer of various consumer goods, with a worldwide network that has its headquarters in Düsseldorf, Germany. In total, the various brands and products of Henkel generated over EUR18.5 billion during 2016, with over 40% of those sales deriving from emerging markets. Henkel employs more than 50 000 people and operates in three main sectors. In the adhesive technology sector, Henkel is the market leader and offers innovative solutions to its customers. However, the best-known brands are the beauty care and home care lines of Henkel products. (Henkel, 2017a) Sustainability is at the core of the company's strategy, and "creating sustainable value" is the slogan on the corporate website and the annual report (Henkel, 2017b). The main idea is to create added value for clients, consumers, communities, and the company itself, while reducing the environmental footprint. With a company-wide initiative called "factor 3", Henkel aims to create three times more value for stakeholders than the footprint it leaves on the environment. Naturally, with sustainability at the core, Henkel supports the SDGs and their targets actively. The SDGs are viewed by Henkel as shared goals that create a focus to encourage industry-wide and global cooperation and provide a strong push toward sustainability. (Henkel, 2017c) Since the introduction of the SDGs, Henkel has reviewed its social and environmental engagement and continually aligns the company's priorities with the targets set by the SDGs. Thanks to its long-term CSR activities and the broad reach of the product portfolio, Henkel claims to support almost all SDGs. In particular, contributions are made to SDG 8 (decent work and economic growth) and SDG 12 (responsible consumption and production). (Henkel, 2017a) In 2016, Henkel supported over 2000 social projects with donations close to EUR8 million (Henkel, 2017c). Among those projects, 44% percent were dedicated to educating young girls and boys (Henkel, 2017c); thus, the purpose of SDG 4 – quality education – features prominently in Henkel's CSR efforts. In a special document available on the corporate website, the company gives an overview about its contribution and activities related to each of the 17 SDGs (Henkel, 2017d). Many contributions to the SDGs are supported by quantitative targets and KPIs. For all indicators, the base year of 2010 was chosen, with the targets set to be reached by 2020. Besides ensuring the safety of all products through rigorous tests, Henkel promotes occupational safety to align its production to the goals of SDG 3, good health and well-being. The target for this SDG is to reduce accidents by 40% by 2020. To achieve this milestone and to eventually fulfill the objective of a zero-accident work environment, Henkel focuses on safety training throughout the value chain and invests in improved technical safety. While the main purpose of SDG 3 is to promote healthcare around the world (UN, 2015a), the SDG Compass (2017) assigns businesses the task of promoting better safety within their own value chains. Thus, focusing on the health of employees is an effective but restricted contribution to SDG 3. In more than 170 production sites worldwide, Henkel (2017b) takes measures to reduce the environmental effect of the company’s processes. Company-wide lean management programs are developed to eliminate inefficiencies in production, to cut excess materials and products. Introducing the benefits of industry 4.0, such as interconnectivity of the different product stages, will further help to cut the amount of resources required. The interim target for water usage (SDG 6), energy consumption (SDG 7), total waste (SDG 12), and carbon dioxide emission (SDG 13) is a 30% reduction by 2020 (compared with the 2010 baseline). All the set targets, if achieved, will also benefit the targets for the relevant SDGs and are thus effective means to contribute to the goals (SDG Compass, 2017). The various projects, and volunteering that is encouraged within the employee base, are targeted to reach over 200 000 children for education. In 2015, the Henkel Foundation built two schools in Brazil to provide children with a safe, stable learning environment and ultimately to give the them the chance to break out of the poverty cycle. In collaboration with the NGO called SOS Children’s Village, Henkel offers young women training in hairdressing, giving them a path into the working world and integrating them into the value chain of the company’s beauty products. Over 1500 young women have taken part in this program to date. (Henkel, 2017d) Building schools in underprivileged communities supports the goal of ensuring education for all girls and boys around the world (UN, 2015a); thus, this measure is effective in contributing to SDG 4. The SDG Compass (2017) recommends the creation of programs to give young people access to the value chain of companies, as implemented by Henkel in its hairdresser training. In 2016, women held more than 36% of the management positions at Henkel (Henkel, 2017b). Therefore, Henkel already exceeds the target of 30% proposed by the SDG Compass (2017). Nevertheless, Henkel clearly states that it aims to further increase the presence of women at all corporate levels worldwide, backing the cause of SDG 5 effectively (SDG Compass, 2017). Henkel uses palm oil in some of its products, which adds to deforestation and negatively compounds the issues covered by SDG 15, life on land. The company aims to procure only from sustainable palm oil producers, and to achieve a zero-net deforestation by 2020 (Henkel, 2017b). Committing to responsible sourcing practices aids SDG 15. However, the SDG Compass (2017) proposes implementing practices beyond compliance and financing to actual restoration of degraded forest lands as a more effective measure. Henkel engages in stakeholder dialogue with its employees and with governments and associations to identify the most material issues facing the environment. Many of the issues raised overlap with the SDGs, yet the connection is not made. The interlinkage of the goals is not considered in the company's reports.


*Figure 19: Scores for Henkel*
*Source: Own Illustration*

## 8.17 Summary of Findings

Table 3 summarizes the findings of the company analysis. Under "SDG mentioned", the number of references to the SDGs were counted. The effectiveness of the measures is rated in accordance with the SDG Compass principles and the UN targets for each goal, as well as the judgment of the researcher. The percentages (in brackets) are calculated as the number of effective measures based on the total SDGs mentioned by the company. Quantitative targets and KPIs are visualized condensed, with detailed descriptions found in the findings for each company. In the appendix, an overview of each company's specific references to each SDG is provided for further insight.

| Company | SDG Mentioned | Effective Measure | Quantitative Target or KPI | Indirect Influence Considered | SDG Materiality | Significance for Stakeholders |
|---|---|---|---|---|---|---|
| **Novartis** | 17 | 2 (11%) | 1 | No | No | No |
| **Roche** | 11 | 8 (72%) | 7 | No | No | No |
| **Merck** | 10 | 6 (60%) | 2 | No | No | No |
| **Bayer** | 13 | 4 (30%) | 3 | No | No | No |
| **Swiss Re** | 4 | 3 (75%) | 1 | No | No | No |
| **Zurich** | 0 | 0 (0%) | 0 | No | No | No |
| **Munich Re** | 0 | 0 (0%) | 0 | No | No | No |
| **Allianz** | 14 | 4 (28%) | 4 | Yes | No | No |
| **Credit Suisse** | 13 | 6 (46%) | 3 | Yes | No | Yes |
| **UBS** | 0 | 0 (0%) | 0 | No | No | No |
| **Commerzbank** | 17 | 5 (29%) | 2 | No | No | No |
| **Deutsche Bank** | 13 | 5 (38%) | 2 | No | No | No |
| **Nestle** | 17 | 10 (58%) | 6 | Yes | No | No |
| **Henkel** | 17 | 6 (35%) | 7 | No | No | No |
| **ABB** | 11 | 5 (45%) | 4 | No | No | No |
| **Siemens** | 17 | 6 (35%) | 2 | No | No | No |

*Table 3: Summary of findings*
*Source: Own Illustration*

# 9 Discussion

## 9.1 Overall Scoring

The results of all the companies studied are illustrated in Figure 21, and the sum of all industry averages are shown in Figure 20. Considering these results, SDG 13 – climate action – scored the highest by a large margin in both calculations. Every company analyzed had tackled the issues related to SDG 13 by aiming to reduce GHG emissions; this is the most effective, but not the only, measure to contribute towards the goal (SDG Compass, 2017). In the results for the industry averages, the top three SDGs were all related to the environment, with goals 6 and 7 in second and third positions respectively. For these three goals, KPIs were often formulated by the companies. Further, achieving lower energy and water consumption (as proposed by SDGs 6 and 7) has a high potential to save companies in operational costs. Therefore, it can be assumed that the targets set by most companies can be repatriated to financial considerations as environmentalism. Additionally, many companies were noted to invest in education. Those investments vary from providing scholarships – as in the case of Bayer and Merck KGaA for example – to awarding apprenticeship opportunities or developing stable educational facilities in rural areas and developing countries – as in the case of Allianz. In general, those endeavors in education were justified by referring to the talent pipeline of the respective company. In other words, most companies were planning to reap the benefits, thus creating shared value. For the last quartile of goals, namely SDGs 17, 10, 11, and 14, companies were unable to formulate quantitative targets. This finding is in line with the PWC survey's results, the themes of which are discussed in the theoretical framework section of this paper. SDG 14 (life below water) was considered by the companies to have the lowest impact and opportunity for business. Similarly, the differences in rankings between the PWC survey and the analysis in this paper (shown in brackets in Figure 20 and Figure 21) were small for SDGs in the lower positions. By contrast, the SDGs in the top positions had widely discrepant rankings. SDG 8, perceived in the PWC survey to be the most relevant goal for business by a wide margin, was ranked only eighth in this study. Similarly, the issues of clean water and sanitation (SDG 6) were addressed far more comprehensively than the PWC survey might suggest. These differences can be explained either by the relatively straightforward goal of SDG 6, to reduce the water usage, or by the companies' failure to address SDG 8 through effective and concrete measures. Many companies (e.g. Siemens) listed their economic value in contributing towards SDG 8 in the form of tax payments and global presence, whereas the UN (2015) targets aim to create jobs and promote economic development in developing countries. The other SDG for which the rankings differed by seven places, SDG 9, represents industry, innovation, and infrastructure. Despite been perceived as important within the survey due to the innovation aspect, the companies analyzed in this study generally did not formulate quantifiable targets for SDG 9. The reason might lie in the unpredictability of innovative success; nevertheless, communicating the aim of allocating a portion of revenue to research and development or startups would serve as a viable target to support SDG 9.

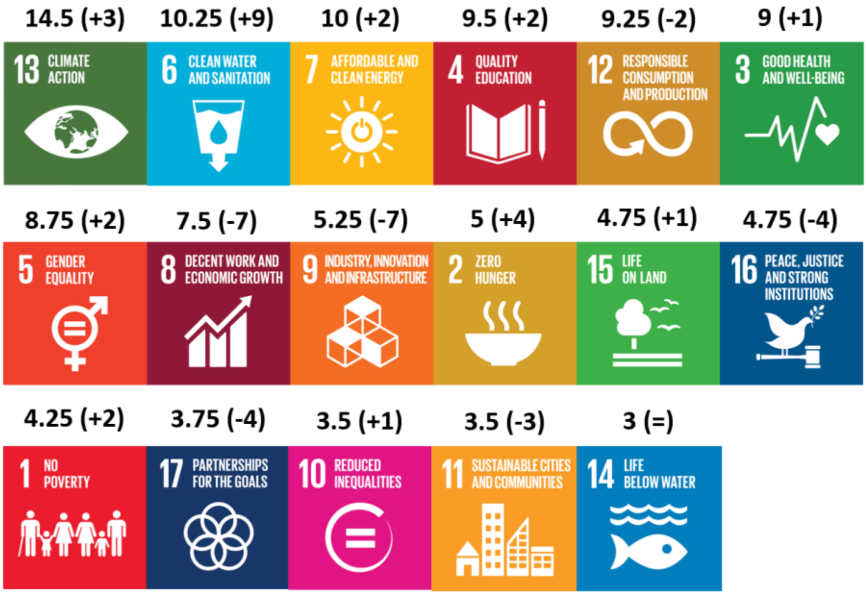



*Figure 20: Overall ranking of SDGs across industries (industry averages)*
*Source: Own Illustration*

Due to the unequal number of companies per industry, the ranking of the sum each SDG across all 16 companies looks slightly different to the industry average ranking. As the SDG 13 was prioritized by all companies regardless of industry, it topped the ranking. However, SDG 6 scored lower when complying the points of each company individually, as the issue of water stress and usage was most prominent in the industries consumer goods and industrials, both represented by only two companies each. Other than that, there were only slight differences, like the bigger better scoring of SDG 4, mainly due to enhanced targets of the pharmaceuticals and banking sector. This ranking resemblance confirms the sample group chosen to be consistent.


*Figure 21: Overall ranking of SDGs across all companies*
*Source: Own Illustration*

## 9.2 Switzerland and Germany: A Comparison

The quality of the reports did not differ much among the companies from the two countries. The main reason for this similarity was that all the companies studied used the same reporting guidelines for their CSR reports. In today's globalized world, companies are no longer tied to national regulations but must rather comply with international standards to operate globally. As the sample group was selected from the two main stock indexes of the respective countries, the companies were all operating globally. The guidelines applied were the GRI G4 standards by the Global Reporting Initiative. However, differences were found when comparing the results for the setting of targets, as determined in this paper. German companies scored better in four of the five industries; only the pharmaceuticals companies of Switzerland scored better than their German counterparts. The scores of the banking sector were tilted in favor of Germany, due to the failure of UBS to mention specific SDGs. In the insurance industry, only Allianz and Swiss Re were considered in the scoring, with Allianz publishing a better report on the SDGs than Swiss Re (a Swiss company). The scope of companies needs to be broadened in future studies to allow a clear comparison of the differences between Swiss and German companies, as the current analysis was partly influenced by the omission of a few companies.

| | Switzerland | Germany |
|---|---|---|
| **Country: sum of averages** | 105.5 | 127.5 |
| Pharmaceuticals | 29 | 21.5 |
| Banking | 10.5 | 24.5 |
| Insurance | 4 | 13.5 |
| Consumer Goods | 37 | 40 |
| Industrials | 25 | 28 |

*Table 4: Sum of country averages in this study*
*Source: Own Illustration*

## 9.3 Industry Comparison

In this section, the scores are broken down into industry-specific rankings. The top five goals for each industry are ranked to allow comparison with the ranking method used in the PWC survey, as described in the theoretical framework of this paper.

### 9.3.1 Overall

When comparing the average total scores across the industries, distinct patterns are evident. Both the consumer goods companies, Nestlé and Henkel, included all 17 SDGs in their reporting efforts. Both companies work directly with small-scale suppliers across the globe and produce everyday goods selling to billions of people. This could be one reason they covered all the SDGs effectively. Commerzbank, a company in the financial industry, also addressed all SDGs, although the claimed contributions were not all viable. Therefore, consideration of all SDGs should be possible given the global reach of those companies, no matter the industry. The differences in reporting quality might be attributable to a lack of understanding about the variety of ways in which many SDGs can be addressed. Further, as many companies did not consider indirect influences, despite the recommendation by PWC (2016a) to do so, they missed many reporting opportunities. The results for the insurance sector especially and the banking sector to a lesser degree were strongly influenced by the reports of Zurich, Munich Re, and UBS, all of which failed to mention any SDG specifically in their reporting efforts.

| | Pharmaceutical | Banking | Insurance | Consumer Goods | Industrials |
|---|---|---|---|---|---|
| **Average Total** | 25.5 | 17.5 | 8.75 | 38.5 | 26.5 |

*Table 5: Industry average totals*
*Source: Own Illustration*

### 9.3.2 Pharmaceuticals


*Figure 22: Ranking of SDGs in the pharmaceutical industry Key: current results (left panel); PWC 2015 (right panel)*
*Source: Own Illustration partly based on PWC (2015)*

All four pharmaceutical companies studied claimed that their largest influence was related to SDG 3, good health and well-being, due to the field of business. However, all efforts became entangled in vague aims and goals. An example is the Novartis (2017 p.8) commitment to SDG 3: "Our mission is to improve and extend people's lives […]." Despite stating such aims, the pharmaceutical companies did not elaborate on any concrete measures and they failed to link any measures to SDG 3. For SDGs 6 and 13, however, KPIs were stated and this meant that these two SDGs topped the rankings, despite not being ranked in the top five healthcare-related SDGs in the PWC survey. This finding can perhaps be explained by the fact that reduction of GHG emissions and water usage are straightforward targets. The SDGs 4, 5, and 8 were ranked high both in this study and by PWC, confirming their perceived and communicated importance for the pharmaceutical industry. SDG 4 was primarily supported through scholarships and coverage of school expenses, whereas SDG 5 focused on eradicating inequalities within the employee base of the respective companies. Surprisingly, the pharmaceutical companies prioritized setting targets for environmental SDGs over health-related goals, yet were found to report on efforts towards other SDGs prioritized by them in the PWC survey.

### 9.3.3 Banking


*Figure 23: Ranking of SDGs in the banking industry*
*Key: current results (left panel); PWC 2015 (right panel)*
*Source: Own Illustration partly based on PWC (2015)*

The banking sector's results are compared with those of companies in the financial service industry in the PWC survey. It needs to be considered that the results of this paper are based on the analysis of three companies, as UBS failed to mention any SDGs specifically. The prioritization of SDG 13 in terms of target setting was evident within the banking sector. In total, only three KPIs were set by the banks, two for SDG 13 and one for SDG 4, resulting in higher scores for those goals. The banks mainly interpreted their role as being a facilitator of assets to support the targets of the SDGs. The three globally active banks in the research, Deutsche Bank, Credit Suisse, and UBS, highlighted their portfolios of sustainable funds as the main tool to contribute towards the SDGs. Such investments are perceived by the UN (2015) and the SDG Compass (2017) as being the main driver for SDG 9. This perception partly explains the perceived importance of the banking sector within the PWC survey. In the content analyzed for this study, SDG 9 was indeed stated to be supported by managed funds, yet no clear investments or projects were mentioned. By contrast, investments in clean energy projects were discussed. Therefore, in this study's results SDG 9 was replaced by SDG 7 in the top five rankings. The SDG 4 was addressed through various methods, from financial education programs at schools and universities to investments in educational programs. Gender equality was supported by the companies through providing equal opportunities for their men and women employees to level the playing field in terms of careers. The banks were noted to report on targets and measures related to SDGs perceived to be important to the industry, while focusing on energy savings and the promotion of youth and women.

### 9.3.4 Insurance


*Figure 24: Ranking of SDGs in the insurance industry*
*Key: current results (left panel); PWC 2015 (right panel)*
*Source: Own Illustration partly based on PWC (2015)*

Scoring of the insurance companies was similar to the banking sector compared to the results of the PWC survey for the financial service industry. The results for the insurance sector were affected by the incomplete scores allocated to Zurich and Munich Re, as both companies failed to mention any SDGs specifically. Further, Swiss Re only reported measures for two of the 17 SDGs, leading to a disproportionate influence of Allianz's reporting on the results for the whole industry. Both Swiss Re and Allianz have set KPI targets for SDG 13, in the form of carbon dioxide reduction and reduced energy consumption, leading SDG 13 to hold the top ranking. Insurance companies are able to influence many sustainable development projects either directly or indirectly, by providing insurance for the risks attached to such projects. Filling that role more effectively could lead to a greater contribution to SDGs 8 and 9, as both these goals depend on promoting investments into innovation. Indeed, SDGs 8 and 9 were perceived as being important to the insurance industry in the PWC survey. The inclusion of SDGs 5 and 12 in the top five rankings is based on Allianz's endeavors regarding those goals. This analysis found that insurance companies did not support SDG 8, despite its stated importance for the insurance industry in 2015, through any concrete targets or measures.

### 9.3.5 Consumer Goods


*Figure 25: Ranking of SDGs in the consumer goods industry*
*Key: current results (left panel); PWC 2015 (right panel)*
*Source: Own Illustration partly based on PWC (2015)*

The consumer goods sector scored the highest across all industries analyzed in this study. The results of this analysis are comparable to the PWC survey's findings. Both Nestlé and Henkel reported on all 17 SDGs, and four of the top five SDGs were the same in this study as in the PWC survey. However, the top-ranked goal in this study was SDG 6, whereas in the PWC survey it was SDG8 – which did not feature in the top-five list for this study. For both SDG 6 and SDG 13, KPI targets were set, resulting in an average score of 4 for both goals. Nestlé (2017b) stated that the main challenge of its production processes is the drain on water resources, rather than other environmental effects. Through their supplier bases, which include small producers from all over the world, the consumer goods companies were found to provide a more positive direct impact on the lives of people in developing countries than businesses in other industries. The SDG 2 is supported by helping small farmers to grow food more efficiently for their own use. Contributions towards SDG 3, by contrast, are constricted, as the efforts mentioned were focused on the health and safety of the workforce and reducing accidents in the value chain. SDG 8, perceived in the PWC survey as the most influential goal, was ranked seventh in the current analysis, fueled by effective targets set by Nestlé in particular. Nestlé promotes youth employment through apprenticeships and positions restricted to young workers. Consumer goods companies were found to influence many different SDGs with many targets set, with a focus on production efficiency and community support.

### 9.3.6 Industrials


*Figure 26: Ranking of SDGs in the industrial sector*
*Key: current results (left panel); PWC 2015 (right panel)*
*Source: Own Illustration partly based on PWC (2015)*

The average scores for the top three SDGs in this analysis are all the same, and all three goals are related to the environment and energy. Both companies, Siemens and ABB, aim to reduce water and energy usage at their own production facilities. ABB further uses its expertise in the field of electricity to bring power to underprivileged areas in Africa and Asia, thus creating shared value. Such measures can boost economic growth and contribute to SDG 8. However, neither company reported on any measures regarding SDG 8. To promote technological innovation, the companies invest in research and development as well as startups, contributing to the targets of SDG 9. ABB failed to set quantitative targets for those investments, leading to a lower ranking for SDG 9, compared with the results of the PWC survey. SDG 3 and the topic of health, despite not being directly relevant to industrial companies, were ranked high in the analysis, due to the companies' efforts to reduce workplace accidents. Overall, the targets set by the industrial companies were comparable to the priorities reflected in the PWC survey, apart from SDG 6.

## 9.4 SDG Materiality and Stakeholder Significance

Only one company, Credit Suisse, engaged with its stakeholders to rank the SDGs regarding their significance to the stakeholders. Even Credit Suisse, however, did not match the stakeholders' views against the company's prioritization of SDGs; thus, no materiality matrix of the SDGs was found throughout the analysis. Most of the companies publish a materiality matrix in line with the suggestion of the GRI G4 principles, which are applied by all the companies. These principles focus on general CSR topics or issues concerning the business of the company. An example of such a matrix is shown in Figure 27, from Nestlé's most recent CSR report. Nestlé linked the issues identified through dialogue with its stakeholders to the SDGs, indicating that many topics illustrated in the materiality matrixes are related to SDGs. The recent adoption of the goals and the publication of the SDG Compass in late 2015 suggests that in the future, companies may adapt their materiality analyses and stakeholder engagement to feature the SDGs. The link between the two aspects is prominent. Stakeholder engagement occurred at every company analyzed, yet the topic of SDGs was not discussed – except by Credit Suisse.


*Figure 27: Nestlé materiality matrix*
*Source: Nestlé (2017b)*

## 9.5 Effectiveness

The effectiveness of the measures presented in the company reports and websites varied across the companies and the SDGs. In this study, effectiveness was determined by consulting the SDG Compass's suggested actions and the targets set by the UN for each goal. In Table 3, low percentages (shown in brackets) were often the result of a company claiming to contribute to a SDG without further elaborating on how it does so. Some companies claim to contribute based simply on business activities like selling or producing relevant items – for example, in Siemens's case, where the sale of medical devices is stated to support SDG 3. The UN targets are focused mainly on proactive support for the underlying issues, such as limited access to healthcare in developing countries regarding SDG 3. The same misinterpretation of a goal was found in several cases for SDG 8, where simply existing as a multinational enterprise was deemed to provide sufficient impetus to help drive economic growth. This finding is relevant to the criticism noted in the literature review that the SDGs are perceived as being vague. Although the SDG Compass gives examples of effective measures that contribute to the achievement of the goals, the UN formulation of the targets leaves room for interpretation, allowing companies to justify their contributions based on vague linkages. Another issue raised by the critics of the SDGs is the lack of prioritization of the targets for each SDG. This concern was confirmed for some goals during this analysis. Apart from the healthcare companies, the efforts to support SDG 3, for example, were all focused on one sub-goal – occupational health and safety. While the importance of this topic should not be diminished, it does not help the health issues in developing countries and neither does it reduce child mortality. The effect is limited to the company's own value chain. The same problem was identified for SDG 12, for which all endeavors and targets were formulated to reduce waste and improve recycling – issues that save costs for companies. However, SDG 12 actually has a much broader scope as it deals with problems such as food waste or raw material scarcity, problems that will become worse as the world population grows. The Institution for Human Rights and Business (2015) has expressed doubt about companies' willingness to support the SDGs beyond the concept of shared value. Most of the measures analyzed were cherry-picked as predicted by PWC (2015) in its discussion of the survey results, and did not address the main issues behind the SDGs.

# 10 Conclusion

The comparison between companies has shown that the quality of reporting, rated in this study through analyzing the target-setting, differed between Swiss and German companies. Yet, the number of companies analyzed and the global alignment of the companies does not allow a significant difference between the quality of reporting in Switzerland and Germany to be determined. However, across industries, the differences were more distinct. The assumption that companies in the financial industry would struggle to report their contribution towards the SDGs was confirmed in this analysis. Companies in the banking and insurance industry scored the lowest, whereas consumer goods companies achieved the highest scores. The research question of this paper was *"How have the largest Swiss and German companies communicated about the sustainable development goals in their reporting?"* The answer is provided by the findings and discussion in this paper. Overall, all companies have embraced the new set of goals for a sustainable future and have committed to supporting their achievement. The reporting on specific measures to do so varies in depth and coverage across the 17 goals, but the general quality of sustainability reporting is high, mostly due to the adoption of the GRI G4 principles. The analysis further showed that many aspects of the guidelines for incorporating the SDGs into company reports have not yet been implemented. Based on this finding, the following recommendations were developed and formulated.

## 10.1 Recommendations

### Mention of SDGs

Because many companies failed to mention the specific SDGs they claimed to contribute to, the results of this analysis were limited. For the sake of comprehensiveness, the CSR reporting of the companies that failed to mention SDGs were analyzed for potential contribution to the SDGs. All three companies which failed to mention specific SDGs in their reports, namely Zurich, Munich Re, and UBS, have measures in place to directly contribute to various SDGs, thus a higher score in this analysis would have been possible if the SDGs were linked to those measures in some way. Therefore, the first recommendation is that companies should clearly demonstrate the contributions their business makes towards specific SDGs. This would enable stakeholders to better understand the value created for the SDGs, which essentially provide the "new reporting language" of CSR.

### Scope of SDGs

The SDG Compass (2015) states that understanding the content of each SDG is a necessary premise for good reporting on the goals. This notion was confirmed in the analysis. Many companies seem to misinterpret or ignore aspects of the SDGs. The best example is SDG 14, life below water, which had the lowest score overall. SDG 14 is concerned with preserving and restoring biodiversity in the oceans, an area in which few industries are active. Thus, almost no companies in the sample identified any points of contact with this goal. However, the measures stated by the SDG Compass (2017) as being effective in their support for SDG 14 are similar to measures for other goals that are more widely applicable, such as SDG 6 or SDG 12. The main target of SDG 14 is to prevent further pollution of the oceans, a target that relates to clean water (SDG 6) and water consumption (SDG 12). Thus, measures to support SDG 14 are responsible disposal of waste water, and improved product and process efficiency to reduce waste generation (SDG Compass, 2017). Hence, all companies that address water quality – such as Novartis, or that reduce waste production – such as Henkel or Merck KGaA, effectively support SDG 14. Another issue with the scope of the SDGs is misinterpretation of the main targets and issues behind each goal. As debated in the discussion part of this paper, many companies claim false contribution towards SDGs. This might be ascribed to a narrow understanding of the goals, as many alleged contributions did not tackle the root causes identified by the UN. The most fitting example is SDG 8, decent work and economic growth. Most of the claimed influences on this goal were based on business growth and number of employees, rather than efforts and investments into skills training or entrepreneurship. As indicated by the SDG Compass, companies need to better map their efforts and strategies against the UN’s targets for each SDG, to improve the effectiveness of their contributions and the quality of their reporting.

### Indirect Influences

As explained in the discussion on the theoretical framework in this paper, the SDGs are interconnected. This means that contributing to one goal will generally have a positive influence on at least another goal, which extends the influence that companies can claim regarding their efforts. Yet only three businesses analyzed in this study made such connections, and then only for a few cases. Indirect influences thus offer a substantial opportunity for companies to improve the quality of their reporting. For example, SDG 13 – the goal rated highest in this analysis and one which most companies claim to contribute to – has an indirect influence on SDG 1. This is because poorer countries often suffer the consequences of global warming ahead of wealthier countries. It is recommended that companies consult the correlation between the SDGs shown in the appendix of this paper or in the SDG guide by PWC (2016). Knowledge of these links would help them to understand the methods by which companies can influence the many targets of the UN.

### Companies in the Financial Industry

As established in the research by PWC shortly after the introduction of the SDGs, companies in the financial industry lag behind companies in other industries. Their fields of business often have no direct influence on many SDG-related issues. However, financial companies are the designated facilitators of private wealth and resources – a role that was assigned huge importance by the UN. Banks have embraced this role to a degree, yet they struggle to make connections between their funds and financial products, on the one hand, and, on the other, the SDGs. Future efforts should be focused on developing financial products to support causes related to the SDGs and on clearly linking those products to the UN goals. Insurance companies, by contrast, should provide security for risky endeavors into sustainable projects. This would facilitate other companies and private entities to engage in innovative and groundbreaking projects, which are identified by the UN as the main driver of a sustainable future.

#### Materiality and Stakeholder Engagement

In the discussion section of this paper, the low level of SDG inclusion in the materiality analyses and stakeholder engagement was highlighted. As companies adapt their reporting efforts to better align with the SDGs, it is strongly recommended that the new goals (SDGs) should be integrated into the materiality analyses and the reports on stakeholder engagement. Both aspects can increase the appreciation by the stakeholders and increase the transparency of reporting. Further, these measures would align the reporting efforts with the new guidelines of the SDG Compass and would complement the GRI G4.

## 10.2 Areas for Further Research

The limitations of the sample group, geographically and industry-wise, were mentioned earlier in the paper. Given these limitations, it would be of interest to expand the application of the scoring system to other countries and business sectors. This would allow firmer conclusions to be drawn about differences between companies in different countries, and about industry influences. The scoring system applied in this paper was built around target-setting; thus, deploying another system to measure the efforts could lead to different results. Coding the companies’ publications against the set of terms and words in the recommendations of the SDG Compass or the targets set by the UN could result in an insightful analysis of the reporting standards. Additionally, it makes sense to measure the companies’ improvements, at a future point, against the targets set within their reporting. This approach would allow a valid assessment of effectiveness. Future analysis of reporting efforts is advisable in any event, as the introduction of the SDGs is still recent and thus further adaption and improvement can be expected. To improve the quality of the financial industry’s reporting, focused research to find more concrete ways for those companies to support the SDGs is of interest.

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# Appendix

## Interlinkages between the SDGs

The SDG 1 can be linked to the SDGs Zero Hunger (SDG 2), as food availability is often not the problem, it is the lack of money to buy food that causes hunger; Good health and well-being (SDG 3), as limited access to medicine or health services is increased by poverty; Gender equality (SDG 5), as equal rights for women to better educate themselves and enter the job market would decrease poverty of women; Decent work and well-being (SDG 8), as lack of work is the main driver of poverty, companies could influence this issue by creating work and thus economic growth; Climate Action (SDG 13), as poor countries are often times in harm's way of natural disaster, and by decreasing poverty their resilience could be improved. (PWC, 2016)

The SDG 2 can be linked to the SDGs No Poverty (SDG 1); Good health and well-being (SDG 3), as lack of proper nutrition is often time the cause of child and maternal mortality; Clean water and sanitation (SDG 6), as the agriculture sector is the main procurer of freshwater (70% of all water supplies), better agriculture practices would improve the availability of clean water; Reduced inequalities (SDG 10), as including smaller farmers into the value chain would reduce their handicaps in the business world; Climate action (SDG 13), as meat production is one of the main drivers of global warming through huge emissions; Life on land (SDG 15), as sustainable use of land for food production would restore the quality of the ecosystem for future generations. (PWC, 2016)

The SDG 3 can be linked to the SDGS Zero Hunger (SDG 2); Clean water and sanitation (SDG 6), as safe drinking water reduces mortality rates and contains infectious diseases; Decent work and economic growth (SDG 8), as working and being occupied is often times positively influencing physical and mental well-being; Sustainable cities and communities (SDG 11), as unsustainable infrastructure can lead to pollution; Climate action (SDG 13), as the changing climate is influencing the air, the water and the food we consume; Life on Land (SDG 15), as nature aids our physical health through nutrition and climate and our mental health as a retreat. (PWC, 2016)

The SDG 4 can be linked to the SDGs Good health and well-being (SDG 3), as education can lead to changes in lifestyle which in return decrease the risk of non-communicable illnesses such as diabetes or heart problems; Gender-equality (SDG 5), as education will help women to compete for employment and income; Decent work and economic growth (SDG 8), as education allow people to be valuable members of economy and be productive to drive the economic growth; Responsible consumption and production (SDG 12), as education creates awareness about sustainable living; Climate action (SDG 13), as education is a meant to raise awareness about the climate challenge we all face; Peace and justice, strong institutions (SDG 16), as education is a driver of peace and understanding of others. (PWC, 2016)

The SDG 5 can be linked to the SDGs No Poverty (SDG 1); Good health and well-being (SDG 3), as more women are suffering death compared to men and empowerment has shown to improve health; Quality education (SDG 4); Clean water and sanitation (SDG 6), as lack of sanitation add to the health concerns of women and often times they are asked to take on long journey so supply the communities with clean water where it is scarce; Reduced inequalities (SDG 10); Good and inclusive governance (SDG 16), as to be inclusive government need to treasure the participation of women. (PWC, 2016)

The SDG 6 can be linked to the SDGs Good health and well-being (SDG3); Quality Education (SDG 4), as many schools lack single sex toilets, often times forcing girls to stay at home rather than attend schools and additionally children in water scarce regions are forced to travel for hours to fetch water every day making going to school impossible; Gender equality (SDG 5); Sustainable cities and communities (SDG 11), as urbanization has caused rapid growth of cities, there sanitation systems are not equipped to carry this growth. (PWC, 2016)

The SDG 7 can be linked to the SDGs No poverty (SDG 1), as the poorest are often times the ones that have no access to electricity meaning that due to that fact they face a bigger challenge to come out of poverty; Reduced inequalities (SDG 10), as energy distribution is very uneven around the world; Responsible consumption and production (SDG 12), as better usage of electricity is in line with the overall better usage of resources; Climate action (SDG 13), as the issues of climate change and energy use are closely interconnected. (PWC, 2016)

The SDG 8 can be linked to the SDGs No poverty (SDG 1); Zero hunger (SDG 2), as the inclusion of small farmer is not only mean to increase food production but also to create jobs; Quality education (SDG 4); Reduced inequalities (SDG 10), as business which offer level playing field for all potential employees, reduce inequality in the world automatically; Life below water (SDG 14), as sustainable fishing can be a major driver of job creation and economic growth for developing countries and islands; Peace and justice; strong institutions (SDG 16), as especially youth employment is a big reason for social distress and uproar. (PWC, 2016)

The SDG 9 can be linked to the SDGs Clean water and sanitation (SDG 6), as infrastructure is the basis for the access to clean water and sanitary systems; Affordable and clean energy (SDG 7), as besides production of energy the infrastructure to distribute it is necessary; Sustainable cities and communities (SDG 11), as cities can only run sustainable and efficient if all basics infrastructural services are provided; Climate action (SDG 13), as infrastructure is vulnerable to natural disaster associated with climate change and future planning should consider climate resilient projects. (PWC, 2016)

The SDG 10 can be linked to the SDGs No poverty (SDG 1), as there is a direct link between the wealth gap and poverty; Quality education (SDG 4), as education can provide equal opportunity and is directly correlating with the income level; Gender equality (SDG 5); Decent work and economic growth (SDG 8); Partnerships for the goals (SDG 17), as increases income for developed countries can be achieved in this globalized world by reorganizing tax streams and other systems. (PWC, 2016)

The SDG 11 can be linked to the SDGs No poverty (SDG 1), as the poorest communities in big cities are the ones who are set to lose the most from disaster stemming from unsustainable cities; Good health and well-being (SDG 3); Clean water and sanitation (SDG 6); Industry, innovation and infrastructure (SDG 9); Responsible consumption and production (SDG 12), as cities are the main consumer of resources and energy and simultaneously produce the most waste and pollution, creating responsible consumption within these areas is thus important. (PWC, 2016).

The SDG 12 can be linked to the SDGs Zero Hunger (SDG 2), as reducing the food waste by half would be sufficient to feed the world population; Good health and well-being (SDG 3), as correct waste treatment will reduce its harm on people’s health; Clean water and sanitation (SDG 6), as more efficient use of water will counter its scarcity; Affordable and clean energy (SDG 7), Decent work and economic growth (SDG 8), as the target is to achieve economic growth without degrading the environment; Sustainable cities and communities (SDG 11); Climate action (SDG 13), as actions to reduce climate change are closely linked to more energy efficient living. (PWC, 2016)

The SDG 13 can be directly linked to the SDGs Zero Hunger (SDG 2); Good health and well-being (SDG 3); Clean water and sanitation (SDG 6), as global warming will further shorten the natural water supply; Affordable and clean energy (SDG 7); Life below water (SDG 14), as rising temperatures will damage coral reefs and disrupt the whole under water eco-system. (PWC, 2016)

The SDG 14 can be linked to the SDGs Zero Hunger (SDG 2), as under water life is a crucial food resource; Good health and well-being (SDG 3), as fish is an very important source for essential proteins; Decent work and economic growth (SDG 8), as the industry, created around the ocean and the life it holds, is an important job provider and mean of income for many people, especially in poorer countries; Responsible consumption and production (SDG 12), as better use of all resources and products would lower the demand for plastic and reduce ocean pollution; Climate action (SDG 13), as reduction of greenhouse emission will lower the acidification of the sea and control the rise of sea level due to melting ice. (PWC, 2016)

The SDG 15 can be linked to the SDGs Zero hunger (SDG 2); Good health and well-being (SDG 3); Clean water and sanitation (SDG 6), as forests are important fount of clean water; Responsible consumptions (SDG 12), as reducing waste and consumption of products such as wood or paper or many consumer goods would reduce deforesting immensely; Climate action (SDG 13), as terrestrial ecosystem are huge carbon sink whilst at the same time deforestation for agricultural use is main source of greenhouse gases. (PWC, 2016)

The SDG 16 can be linked to the SDGs No Poverty (SDG 1), as fragility is a main driver of poverty and hinders improvement in that regard; Gender Equality (SDG 5); Decent work and economic growth (SDG 8); Sustainable cities and communities (SDG 11), as the fast growth of many cities has left the fragile with many issues such as youth unemployment, income gaps and violence; Life on land (SDG 15), as bribery and corruption often times make proper enforcement of environmental policies and regulations impossible. (PWC, 2016).

## MDG Targets

In the following paragraph the eight MDGs and respective targets are listed (United Nations, 2001, p. 69):

Goal 1: Eradicate extreme poverty and hunger

- *To halve the number of people who earn less than 1$ per day between 1990 and 2015*
- *To halve the number of people who hunger between 1990 and 2015*

Goal 2: Achieve universal, primary education

- *To ensure that until 2015, all children in the world, can attend and finish primary education*

Goal 3: Promote gender equality and empower women

- *To eradicate the inequality of men and women in primary and secondary education by 2015*

Goal 4: Reduce child mortality

- *To reduce mortality of children under the age of five by two thirds between 1990 and 2015*

Goal 5: Improve maternal health

- *To reduce the maternal death by three fourths between 1990 and 2015*

Goal 6: Combat HIV/AIDS, Malaria and other diseases

- *To stop HIV/Aids from spreading by 2015 and create a turnaround*
- *To stop Malaria and other critical diseases from spreading by 2015 and create a turnaround*

Goal 7: Ensure environmental sustainability

- *To integrate sustainable development into the politics and agenda of nations*
- *To halve the number of people who do not have access to clean drinking water*

Goal 8: Develop a global partnership for development

- *To develop an open, regulated and non-discriminating financial system*

- *To cater to the needs of the least developed countries in economic sense*
- *To cooperate with the private sector to benefit from innovation and technology worldwide*

## SDG Compass Guidelines

## SDG 1

- Develop products and services tailored for poor customers (e.g. mobile based money transfer services for unbanked consumers).
- Improve access to basic goods and services for people living in poverty (e.g. through core business, policy dialogue, social investment).
- Recruit, train and employ local community members, including those living in poverty, and integrate them in your value chain (as producers, suppliers, distributors, vendors).
- Invest in business-driven poverty eradication activities (e.g. develop living wage policy).
- Partner with civil society networks to provide education and entrepreneurial skills training.

## SDG 2

- Supporting, encouraging and demonstrating the continued viability of small scale farming, sustaining grower communities by developing partnerships with cooperatives and producer organizations supporting many small farmers. For larger businesses, establishing long-term business relationships that support small scale producers.
- Investing in sustainable agricultural technology, intensifying collaboration with academic as well as scientific institutions.
- Demonstrating support to genetic diversity of seeds, plants and animals and report on company’s contribution to biodiversity.
- Fostering knowledge, experience and data sharing among businesses and other actors, contributing to global data platforms collecting and sharing agricultural information and statistics with all actors along the agricultural value chain including farmers.
- Upholding highest standards of sustainably in sourcing practices, enhancing traceability of commodities and demonstrating transparency in agricultural supply chain.

## SDG 3

- Align human resources policies with principles of human rights, including policies for HIV/AIDS. Use already existing resources for guidance (e.g. from the ILO, WHO, etc.).
- Partner with health care NGOs and public clinics to raise awareness and increase access to targeted health services for women and men workers and their families.
- Make investments in health a priority in business operations.
- Facilitate and invest in affordable medicine and health care for low-income populations.
- Leverage corporate resources (e.g. R&D, distribution, cold chains) to support health care delivery by public and international organizations.

## SDG 4

- Establish relationships with government entities and higher education institutions to improve education curricula to better align with business needs including responsible management.
- Create programs (e.g., internships, work-study programs, traineeships, etc.) that give students earlier access to the corporate environment.
- Provide employees with continuous opportunities to improve their (job) skills for their current and future employment.
- Develop cost-effective education products and services that eliminate barriers to access and improve the quality of learning (e.g., ICT solutions to improve the delivery of education, innovative measurement tools, etc.).
- Ensure learning environments are clean and safe for children by mitigating business-related environmental hazards, like pollution and limited water access.

## SDG 5

- Assure sufficient participation of women – 30% or greater – in decision-making and governance at all levels and across all business areas.
- Pay equal remuneration, including benefits, for work of equal value and strive to pay a living wage to all women and men.
- Support access to child and dependent care by providing services, resources and information to both women and men.
- Establish a zero-tolerance policy towards all forms of violence at work, including verbal/ and/ or physical abuse and prevent sexual harassment.

- Expand business relationships with women-owned enterprises, including small businesses and women entrepreneurs.

## SDG 6

- Prioritize water efficiency across operations by installing best practice technologies for water conservation, in particular in water scarce areas.
- Educating employees about the importance of water efficiency, including tying performance bonuses or operations-based incentives to efficient practices.
- Mitigating against water pollution with state-of-the-art wastewater treatment processes for effluent discharge.
- Development of innovative manufacturing processes such that substances with high water contamination potential are eliminated and substituted with materials that are easier to remove from water systems.
- Invest in water treatment so that municipal treatment facilities are not overburdened by industrial waste-water.
- Collect and treat agricultural run-off and use as fresh water source.
- Integrate gray water back into building operations, reducing the amount of potable water needed to flush toilets.
- Reduce the likelihood of groundwater contamination by treating and processing all waste with exceptional precaution, according to local and federal guidelines.
- Invest in clean-up when necessary, restoring sites to pre-spill quality levels.
- Educate consumers about appropriate water behaviors, explaining global water quality and scarcity issues, thus attempting to shift the negative implications of the use phase associated with many consumer products.
- Invest in water and sanitation projects or infrastructure in under-served regions.
- Ensure that all employees and their families have ample access to safe drinking water and adequate sanitation, and raise awareness about hygiene practices.
- Invest in clean-ups and restoration of water ecosystems to ensure sustainable water withdrawals.
- Prohibit the use of chemicals and materials that can be particularly detrimental to water quality if improperly disposed.
- Working with other groups such as governments, community groups, peer companies to improve local water governance or on water projects to address identified challenges.
- Ensure that the voices of women and girls, who are disproportionately impacted by inadequate WASH facilities, are included in water and sanitation management strategies.

## SDG 7

- Ensure that all employees and their families have access to a reliable and affordable source of energy by investing in local infrastructure to establish accessible energy services.
- Commit to sourcing 100% of operational electricity needs from renewable sources.
- Reduce the internal demand for transport by prioritizing telecommunications and incentivize less energy intensive modes such as train travel over auto and air travel.
- Invest in R&D related to sustainable energy services, bringing new technologies to the market quickly.
- Integrate renewable energy into employee benefits packages, subsidizing the capital expenditures associated with residential solar or electric vehicle investments.
- As women typically drive much of the energy consumption at the household level, companies have an opportunity to invest and train women to become renewable energy entrepreneurs.
- Prioritize energy efficiency across operations through tools such as the use of an internal carbon price and science-based target setting to reduce overall demand for energy.

## SDG 8

- Offer apprenticeship opportunities.
- Foster entrepreneurial culture and invest in or mentor young entrepreneurs.
- Initiate skills development programs moving down company supply chains.
- Put in place mechanisms to identify child labor and forced labor throughout global supply chains, and implement remediation when abuses are discovered.
- Install a firm policy against unfair hiring and recruitment practices, particularly of vulnerable groups such as migrant workers.

## SDG 9

- Invest in new, resilient infrastructure in developing countries or retrofit existing infrastructure to make it more sustainable.
- Expand the geographic reach of research and development facilities, bringing R&D capabilities to developing countries.
- Promote innovation by giving all stakeholders the opportunity to offer creative solutions to sustainability challenges. Further scope out the good ideas and offer awards to the best.

- Consult and engage a wide range of stakeholders, including minority groups, to ensure that infrastructure development benefits and creates opportunities for all.
- Establish standards and promote regulation that ensure company projects and initiatives are sustainably managed.
- Collaborate with NGOs and the public sector to help promote sustainable growth within developing countries.

## SDG 10

- Develop products and services tailored for poor customers (e.g. mobile based money transfer services for unbanked consumers).
- Improve access to basic goods and services for people living in poverty (e.g. through core business, policy dialogue, social investment).
- Recruit, train and employ local community members, including those living in poverty, and integrate them in your value chain (as producers, suppliers, distributors, vendors).
- Invest in business-driven poverty eradication activities (e.g. develop living wage policy).
- Partner with civil society networks to provide education and entrepreneurial skills training.

## SDG 11

- Jointly develop and/or participate in a sustainable community that brings together relevant stakeholders through a common and neutral platform to jointly analyze, discuss and act on urban functionality, resilience and sustainable development.
- Use technological expertise to help build capacity of building owners to deliver solutions to improve energy efficiency in buildings and enable sound building management practices using good data about a building’s performance.
- Collaborate with cities and governments to find solutions to future mobility needs that minimize environmental impact while making transportation safer and more affordable for all.
- Reform private sector finance investment strategies to support integrated and sustainable urban development like sustainable urban transport, low-carbon buildings, and resilient infrastructure.
- Invest in safe and sustainable infrastructure in the community and or city of operation, including lighting, transportation, alarm systems etc.

## SDG 12

- Implement product portfolio analysis tools to understand environmental and social footprint of products within lifestyles as well as production. Innovation must align products and applications to appropriately address sustainability megatrends.
- Develop innovative business models such as moving from selling products to selling services, to retain ownership of the products and help close the materials loop.
- Enable sustainable consumption by developing innovative solutions can reduce energy need in usage and educate consumers about these benefits.
- Reduce manufacturing impacts by substituting virgin raw materials in products with post-consumer materials through recycling and upcycling.
- Apply modular design, so products' constituent parts will be easily separated and either re-used without further processing, or easily recycled near the point of disposal.
- Significantly reduce waste and ensure that any unavoidable waste is utilized to the fullest degree (e.g. organic waste as fuel or fertilizer).

## SDG 13

- Source all electricity the company consumes at its facilities from renewable sources – such as wind, solar or hydro – or install renewable energy generation capacity on-site.
- Retrofit the lighting systems of the company's facilities to energy efficient LED lighting.
- Increase investment in innovation to improve the efficiency of the company's product portfolio, thereby enabling customers to reduce their GHG emissions.
- Invest in CCS (carbon capture & storage) technology to capture emissions produced from the use of fossil fuels in electricity generation and industrial processes, preventing the carbon dioxide from entering the atmosphere.
- Reduce GHG emission from transport operations with abatement levers such as reducing the carbon footprint through greater fuel efficiency, local sourcing, modal shift to lower carbon modalities (e.g. air to sea freight), modular transport, improving container utilization, warehouse optimization, etc.
- Understand climate risk and build resilience into the company's assets and supply chain.
- Expand sustainable forest management through responsible sourcing practices and product substitution.

## SDG 14

- Track the life cycle of products and materials in order to understand how they are disposed and which products could likely find their way into marine environments.

- Record and disclose information on the chemical and material usage within products, packaging, and processing systems to facilitate closing the loop.
- Improve resource efficiency by altering the design, manufacture, or use of products and packaging to reduce the amount of waste that could potentially enter the environment.
- Improve resource efficiency by generating value from waste.
- Replace, limit or prohibit the use of certain chemicals, additives, or materials that could prevent closing the loop or lead to nutrient pollution or chemical and physical hazards if they happen to reach marine ecosystems.
- Prevent waste mismanagement or littering that could pollute the marine environment.
- Raise consumer awareness on effective ways to properly dispose of their waste to discourage littering and promote responsible behavior.
- Prohibit practices that put marine species and resources at further risk of harm, exploitation or depletion.
- Contribute to the development of waste management technologies that minimize the use of clean water.
- Utilize a value-chain approach to create connections between the design, packaging, marketing and recycling of materials with the goals of reducing their environmental impact at the end of their lifecycle.

## SDG 15

- Measure, manage and mitigate impacts on ecosystems and natural resources.
- Scale up best practices for land use planning and management.
- Invest in natural infrastructure as a cost-competitive alternative to grey infrastructure.
- Finance the restoration of degraded land for production and/or conservation purposes.
- Support and apply landscape approaches, based on multi-stakeholder dialogue and collaborative action, to overcome social and environmental fracture lines in landscapes facing deforestation, land and ecosystem degradation.
- Commit to and implement responsible sourcing practices beyond compliance - applying environmental and social safeguards - for all raw materials and commodities.
- Expand markets for responsible forest products and thereby support sustainable forest management.
- Foster product and technology innovation to optimize resource efficiency, reduce impacts on ecosystems and lower carbon emissions.
- Scale up industrial reuse of water and support watershed protection programs.

## SDG 16

- Comply with laws and seek to meet international standards; require and support business partners to do the same.
- Commit to and implement conflict-sensitive, lawful and transparent operational policies and practices, including on human resources, public and corporate procurement, and in the value chain more generally.
- Conduct risk and impact assessments to identify and mitigate risks of contributing to corruption, violence and conflict, and weakening of the rule of law and identify opportunities for positive impacts.
- Measure and report on implementation progress, including on operations in high-risk areas.
- Engage in public-private dialogues, partnerships and collective action in conflict prevention, peacekeeping, peacebuilding, anti-corruption and the rule of law.

## SDG 17

No concrete guideline, as this SDG can be reached by contributing to all other SDGs.

| **Scoring System Results**<br><br>Company Scores | | | | | |
|---|---|---|---|---|---|
| | Novartis | Roche | Merck | Bayer | **Pharmaceuticals** |
| SDG 1 | 1 | 0 | 0 | 1 | 0.5 |
| SDG 2 | 1 | 0 | 0 | 2 | 0.75 |
| SDG 3 | 2 | 2 | 2 | 2 | 2 |
| SDG 4 | 1 | 3 | 3 | 3 | 2.5 |
| SDG 5 | 1 | 4 | 2 | 3 | 2.5 |
| SDG 6 | 2 | 4 | 4 | 2 | 3 |
| SDG 7 | 1 | 4 | 1 | 0 | 1.5 |
| SDG 8 | 2 | 4 | 2 | 2 | 2.5 |
| SDG 9 | 2 | 1 | 0 | 1 | 1 |
| SDG 10 | 1 | 0 | 0 | 1 | 0.5 |
| SDG 11 | 1 | 0 | 1 | 0 | 0.5 |
| SDG 12 | 1 | 4 | 2 | 1 | 2 |
| SDG 13 | 4 | 4 | 1 | 4 | 3.25 |
| SDG 14 | 1 | 0 | 0 | 0 | 0.25 |
| SDG 15 | 1 | 0 | 0 | 1 | 0.5 |
| SDG 16 | 1 | 2 | 0 | 0 | 0.75 |
| SDG 17 | 2 | 1 | 1 | 1 | 1.25 |
| | | | | | |
| Total | 25 | 33 | 19 | 24 | 25.25 |
| | | | | | |
| Country Average | | 29 | | 21.5 | |

| | Zurich | Swiss RE | Allianz | Munich RE | **Insurances** |
|---|---|---|---|---|---|
| SDG 1 | 0 | 0 | 1 | 0 | 0.25 |
| SDG 2 | 0 | 0 | 1 | 0 | 0.25 |
| SDG 3 | 0 | 0 | 1 | 0 | 0.25 |
| SDG 4 | 0 | 0 | 4 | 0 | 1 |
| SDG 5 | 0 | 0 | 4 | 0 | 1 |
| SDG 6 | 0 | 0 | 0 | 0 | 0 |
| SDG 7 | 0 | 2 | 4 | 0 | 1.5 |
| SDG 8 | 0 | 0 | 1 | 0 | 0.25 |
| SDG 9 | 0 | 0 | 1 | 0 | 0.25 |
| SDG 10 | 0 | 0 | 1 | 0 | 0.25 |
| SDG 11 | 0 | 0 | 1 | 0 | 0.25 |
| SDG 12 | 0 | 1 | 2 | 0 | 0.75 |
| SDG 13 | 0 | 4 | 4 | 0 | 2 |
| SDG 14 | 0 | 0 | 0 | 0 | 0 |
| SDG 15 | 0 | 0 | 0 | 0 | 0 |
| SDG 16 | 0 | 0 | 1 | 0 | 0.25 |
| SDG 17 | 0 | 1 | 1 | 0 | 0.5 |
| | | | | | |
| Total | 0 | 8 | 27 | 0 | 8.75 |
| | | | | | |
| Country Average | | 4 | | 13.5 | |

| | UBS | Credit Suisse | Deutsche Bank | Commerzbank | Banking |
|---|---|---|---|---|---|
| SDG 1 | 0 | 1 | 2 | 1 | 1 |
| SDG 2 | 0 | 1 | 2 | 1 | 1 |
| SDG 3 | 0 | 0 | 1 | 2 | 0.75 |
| SDG 4 | 0 | 3 | 3 | 2 | 2 |
| SDG 5 | 0 | 1 | 2 | 4 | 1.75 |
| SDG 6 | 0 | 0 | 0 | 1 | 0.25 |
| SDG 7 | 0 | 1 | 3 | 2 | 1.5 |
| SDG 8 | 0 | 2 | 1 | 2 | 1.25 |
| SDG 9 | 0 | 1 | 1 | 2 | 1 |
| SDG 10 | 0 | 0 | 1 | 2 | 0.75 |
| SDG 11 | 0 | 1 | 1 | 1 | 0.75 |
| SDG 12 | 0 | 1 | 0 | 1 | 0.5 |
| SDG 13 | 0 | 4 | 1 | 4 | 2.25 |
| SDG 14 | 0 | 1 | 1 | 1 | 0.75 |
| SDG 15 | 0 | 3 | 1 | 1 | 1.25 |
| SDG 16 | 0 | 0 | 0 | 1 | 0.25 |
| SDG 17 | 0 | 1 | 0 | 1 | 0.5 |
| | | | | | |
| Total | 0 | 21 | 20 | 29 | 17.5 |
| | | | | | |
| | | | | | |
| Country Average | | 10.5 | | 24.5 | |

| | Nestle | Henkel | **Consumer Goods** |
|---|---|---|---|
| SDG 1 | 2 | 2 | 2 |
| SDG 2 | 3 | 2 | 2.5 |
| SDG 3 | 3 | 4 | 3.5 |
| SDG 4 | 1 | 3 | 2 |
| SDG 5 | 2 | 2 | 2 |
| SDG 6 | 4 | 4 | 4 |
| SDG 7 | 1 | 4 | 2.5 |
| SDG 8 | 3 | 2 | 2.5 |
| SDG 9 | 1 | 1 | 1 |
| SDG 10 | 2 | 1 | 1.5 |
| SDG 11 | 1 | 1 | 1 |
| SDG 12 | 3 | 4 | 3.5 |
| SDG 13 | 4 | 4 | 4 |
| SDG 14 | 2 | 1 | 1.5 |
| SDG 15 | 2 | 3 | 2.5 |
| SDG 16 | 2 | 1 | 1.5 |
| SDG 17 | 1 | 1 | 1 |
| | | | |
| Total | 37 | 40 | 38.5 |
| | | | |
| Country Average | 37 | 40 | |

| | ABB Ltd | Siemens | Industrials |
|---|---|---|---|
| SDG 1 | 0 | 1 | 0.5 |
| SDG 2 | 0 | 1 | 0.5 |
| SDG 3 | 3 | 2 | 2.5 |
| SDG 4 | 2 | 2 | 2 |
| SDG 5 | 2 | 1 | 1.5 |
| SDG 6 | 4 | 2 | 3 |
| SDG 7 | 4 | 2 | 3 |
| SDG 8 | 1 | 1 | 1 |
| SDG 9 | 1 | 3 | 2 |
| SDG 10 | 0 | 1 | 0.5 |
| SDG 11 | 1 | 1 | 1 |
| SDG 12 | 3 | 2 | 2.5 |
| SDG 13 | 2 | 4 | 3 |
| SDG 14 | 0 | 1 | 0.5 |
| SDG 15 | 0 | 1 | 0.5 |
| SDG 16 | 2 | 2 | 2 |
| SDG 17 | 0 | 1 | 0.5 |
| Total | 25 | 28 | 26.5 |
| | | | |
| Country Average | 25 | 28 | |

| **Country Total** | |
|---|---|
| Switzerland | 105.5 |
| Germany | 127.5 |

| **Total Scoring** | | | | |
|---|---|---|---|---|
| | | | | |
| Goal | Total | | Goal | Total |
| SDG 13 | 44 | | SDG 1 | 12 |
| SDG 4 | 30 | | SDG 2 | 14 |
| SDG 7 | 29 | | SDG 3 | 24 |
| SDG 5 | 28 | | SDG 4 | 30 |
| SDG 6 | 27 | | SDG 5 | 28 |
| SDG 12 | 25 | | SDG 6 | 27 |
| SDG 3 | 24 | | SDG 7 | 29 |
| SDG 8 | 23 | | SDG 8 | 23 |
| SDG 9 | 15 | | SDG 9 | 15 |
| SDG 2 | 14 | | SDG 10 | 10 |
| SDG 15 | 13 | | SDG 11 | 10 |
| SDG 1 | 12 | | SDG 12 | 25 |
| SDG 16 | 12 | | SDG 13 | 44 |
| SDG 17 | 12 | | SDG 14 | 8 |
| SDG 10 | 10 | | SDG 15 | 13 |
| SDG 11 | 10 | | SDG 16 | 12 |
| SDG 14 | 8 | | SDG 17 | 12 |

| Total of Industry Averages | |
|---|---|
| | |
| Goal | Average |
| SDG 1 | 4.25 |
| SDG 2 | 5 |
| SDG 3 | 9 |
| SDG 4 | 9.5 |
| SDG 5 | 8.75 |
| SDG 6 | 10.25 |
| SDG 7 | 10 |
| SDG 8 | 7.5 |
| SDG 9 | 5.25 |
| SDG 10 | 3.5 |
| SDG 11 | 3.5 |
| SDG 12 | 9.25 |
| SDG 13 | 14.5 |
| SDG 14 | 3 |
| SDG 15 | 4.75 |
| SDG 16 | 4.75 |
| SDG 17 | 3.75 |

| Banking | | | Pharmaceuticals | | | Insurance | |
|---|---|---|---|---|---|---|---|
| Goal | Total | | Goal | Total | | Goal | Total |
| SDG 13 | 2.25 | | SDG 13 | 3.25 | | SDG 13 | 2 |
| SDG 4 | 2 | | SDG 6 | 3 | | SDG 7 | 1.5 |
| SDG 5 | 1.75 | | SDG 4 | 2.5 | | SDG 4 | 1 |
| SDG 7 | 1.5 | | SDG 5 | 2.5 | | SDG 5 | 1 |
| SDG 8 | 1.25 | | SDG 8 | 2.5 | | SDG 12 | 0.75 |
| SDG 15 | 1.25 | | SDG 3 | 2 | | SDG 17 | 0.5 |
| SDG 1 | 1 | | SDG 12 | 2 | | SDG 1 | 0.25 |
| SDG 2 | 1 | | SDG 7 | 1.5 | | SDG 2 | 0.25 |
| SDG 9 | 1 | | SDG 17 | 1.25 | | SDG 3 | 0.25 |
| SDG 3 | 0.75 | | SDG 9 | 1 | | SDG 8 | 0.25 |
| SDG 10 | 0.75 | | SDG 2 | 0.75 | | SDG 9 | 0.25 |
| SDG 11 | 0.75 | | SDG 16 | 0.75 | | SDG 10 | 0.25 |
| SDG 14 | 0.75 | | SDG 1 | 0.5 | | SDG 11 | 0.25 |
| SDG 12 | 0.5 | | SDG 10 | 0.5 | | SDG 16 | 0.25 |
| SDG 17 | 0.5 | | SDG 11 | 0.5 | | SDG 6 | 0 |
| SDG 6 | 0.25 | | SDG 15 | 0.5 | | SDG 14 | 0 |
| SDG 16 | 0.25 | | SDG 14 | 0.25 | | SDG 15 | 0 |

| Industrials | | | Consumer Goods | |
|---|---|---|---|---|
| Goal | Total | | Goal | Total |
| SDG 6 | 3 | | SDG 6 | 4 |
| SDG 7 | 3 | | SDG 13 | 4 |
| SDG 13 | 3 | | SDG 3 | 3.5 |
| SDG 3 | 2.5 | | SDG 12 | 3.5 |
| SDG 12 | 2.5 | | SDG 2 | 2.5 |
| SDG 4 | 2 | | SDG 7 | 2.5 |
| SDG 9 | 2 | | SDG 8 | 2.5 |
| SDG 16 | 2 | | SDG 15 | 2.5 |
| SDG 5 | 1.5 | | SDG 1 | 2 |
| SDG 8 | 1 | | SDG 4 | 2 |
| SDG 11 | 1 | | SDG 5 | 2 |
| SDG 1 | 0.5 | | SDG 10 | 1.5 |
| SDG 2 | 0.5 | | SDG 14 | 1.5 |
| SDG 10 | 0.5 | | SDG 16 | 1.5 |
| SDG 14 | 0.5 | | SDG 9 | 1 |
| SDG 15 | 0.5 | | SDG 11 | 1 |
| SDG 17 | 0.5 | | SDG 17 | 1 |

| **Industry Total** | |
|---|---|
| | |
| Consumer Goods | 38.5 |
| Industrials | 26.5 |
| Pharmaceuticals | 25.25 |
| Banking | 17.5 |
| Insurance | 8.75 |

| Novartis | | |
|---|---|---|
| | | |
| | Score | Notes |
| SDG 1 | 1 | GRI G4 Index |
| SDG 2 | 1 | GRI G4 Index |
| SDG 3 | 2 | Our mission is to improve and extend people's lives. We pursue a combination of approaches to improve access to our medicines for underserved populations. We also work to improve disease diagnosis and management through disease awareness, training and education programs (p.8) |
| SDG 4 | 1 | GRI G4 Index |
| SDG 5 | 1 | GRI G4 Index |
| SDG 6 | 2 | We are committed to protecting water quality and decreasing water consumption, and reducing the carbon footprint of our global supply chain.(p. 25) |
| SDG 7 | 1 | GRI G4 Index |
| SDG 8 | 2 | We are committed to providing decent employment and promoting a diverse and inclusive working environment. (p. 8) |
| SDG 9 | 2 | Innovation is at the core of what we do. We use science-based innovation to discover and develop breakthrough treatments, and we pioneer sustainable business models to deliver them to as many people as possible. (p.8) |
| SDG 10 | 1 | GRI G4 Index |
| SDG 11 | 1 | GRI G4 Index |
| SDG 12 | 1 | GRI G4 Index |
| SDG 13 | 4 | In line with targets included in the SDGs and national commitments for the Paris Agreement, we have set targets of reducing Scope 1 and Scope 2 GHG emissions by 30% by 2020, and by 50% by 2030 (p.25) |
| SDG 14 | 1 | GRI G4 Index |
| SDG 15 | 1 | GRI G4 Index |
| SDG 16 | 1 | GRI G4 Index |
| SDG 17 | 2 | Novartis seeks effective partnerships to deliver treatments and quality care to as many people as possible. We partner with governments and the public sector, nongovernmental organizations, local communities and health workers, and research and academic institutes. (p.8) |

| Roche | | |
|---|---|---|
| | | |
| | Score | Notes |
| SDG 1 | 0 | |
| SDG 2 | 0 | |
| SDG 3 | 2 | Our aim is for every person who needs our medicines and diagnostic tests to be able to access and benefit from them. (p. 5) |
| SDG 4 | 3 | In 2016, we started a partnership with the Maharishi Institute in South Africa to cover the university-education costs of 50 students (p. 93) |
| SDG 5 | 4 | Plus 30% in the representation of women in key leadership |
| SDG 6 | 4 | Our goal is to reduce water consumption per employee by 10% by 2020, weighted according to the water stress for a respective region |
| SDG 7 | 4 | Minus 15% Energy Consumption (p. 80) |
| SDG 8 | 4 | We are on track to achieve our 2020 safety goals (p. 81). |
| SDG 9 | 1 | Part of the SDGs identified as contribution (p.5) |
| SDG 10 | 0 | |
| SDG 11 | 0 | |
| SDG 12 | 4 | Using 2015 as a baseline, we aim to reduce general waste per employee by 10% and landfilling of organic chemicals by 50%, by 2020. |
| SDG 13 | 4 | By 2019, we want to improve our eco-balance by 10%, compared to 2014. Our improvements in decreasing energy consumption, air emissions (...) (p. 82). |
| SDG 14 | 0 | |
| SDG 15 | 0 | |
| SDG 16 | 2 | We make sure that our suppliers and service providers are subject to the same standards as our employees Our Supplier Code of Conduct is included in contracts, (p100). |
| SDG 17 | 1 | Part of the SDGs identified as contribution (p.5) |

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| Zurich | | |
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| | Score | Notes |
| SDG 1 | 0 | |
| SDG 2 | 0 | |
| SDG 3 | 0 | |
| SDG 4 | 0 | |
| SDG 5 | 0 | |
| SDG 6 | 0 | |
| SDG 7 | 0 | |
| SDG 8 | 0 | |
| SDG 9 | 0 | |
| SDG 10 | 0 | |
| SDG 11 | 0 | |
| SDG 12 | 0 | |
| SDG 13 | 0 | |
| SDG 14 | 0 | |
| SDG 15 | 0 | |
| SDG 16 | 0 | |
| SDG 17 | 0 | |

| Merck | | |
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| | Score | Notes |
| SDG 1 | 0 | |
| SDG 2 | 0 | |
| SDG 3 | 2 | We endeavor to improve access to high-quality health solutions for underserved populations and communities in low- to middle-income countries (website) |
| SDG 4 | 3 | We are currently funding university degrees for 275 students in Mumbai and Goa, India. |
| SDG 5 | 2 | Comprising members from the public and private sectors as well as non-governmental organizations, HWHE has developed a policy toolkit with political measures aimed at eliminating labor market barriers that women face due to health issues (http://reports.merckgroup.com/2016/cr-report/products/health-awareness.ht |
| SDG 6 | 4 | At each of these sites, we aim to reduce water use by 10% by 2020, relative to the 2014 baseline. |
| SDG 7 | 1 | Our Performance Materials business sector manufactures numerous products that help our customers develop sustainable and environmentally compatible products. Our requirements are set out in the following guidelines (http://reports.merckgroup.com/2016/cr-report/products/sustainable-product-design.html#accordion3) |
| SDG 8 | 2 | We are committed to upholding human rights within our sphere of influence and welcome the Guiding Principles for Business and Human Rights / Through our current efforts and initiatives, we are on the right track to fulfilling these requirements. |
| SDG 9 | 0 | |
| SDG 10 | 0 | |
| SDG 11 | 1 | Our Life Science business sector is contributing its knowledge in the area of water analysis; we have provided test kits and measuring instruments, teaching university staff how to use these tools. (http://reports.merckgroup.com/2015/cr-report/products/progress.html) |
| SDG 12 | 2 | We work to minimize the environmental impacts of our waste as far as possible and limit the loss of raw materials. This means that we first attempt to prevent waste. However, this not always being feasible, we seek to recycle as much of our waste as possible |
| SDG 13 | 1 | 2009, we launched our strategic Edison program to consolidate all our initiatives for improving energy efficiency and reducing process-related greenhouse gas emissions. |
| SDG 14 | 0 | |
| SDG 15 | 0 | |
| SDG 16 | 0 | |
| SDG 17 | 1 | We aim to unite divergent interests as far as possible, as well as build and sustain trust. Through this dialogue, we communicate our decisions and actions transparently in an effort to ensure social license to operate. |

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| Swiss RE | | |
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| | Score | Notes |
| SDG 1 | 0 | |
| SDG 2 | 0 | |
| SDG 3 | 0 | |
| SDG 4 | 0 | |
| SDG 5 | 0 | |
| SDG 6 | 0 | |
| SDG 7 | 2 | Use our capacity and technical expertise to provide effective risk covers for complex offshore wind farm projects. |
| SDG 8 | 0 | |
| SDG 9 | 0 | |
| SDG 10 | 0 | |
| SDG 11 | 0 | |
| SDG 12 | 1 | P. 12 |
| SDG 13 | 4 | Keep per-capita CO2 emissions from our own operations at 2013 levels, which we had reduced by 49.3% in the ten years since 2003; |
| SDG 14 | 0 | |
| SDG 15 | 0 | |
| SDG 16 | 0 | |
| SDG 17 | 1 | P. 12 |

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| Munich Re | | |
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| | Score | Notes |
| SDG 1 | 0 | |
| SDG 2 | 0 | |
| SDG 3 | 0 | |
| SDG 4 | 0 | |
| SDG 5 | 0 | |
| SDG 6 | 0 | |
| SDG 7 | 0 | |
| SDG 8 | 0 | |
| SDG 9 | 0 | |
| SDG 10 | 0 | |
| SDG 11 | 0 | |
| SDG 12 | 0 | |
| SDG 13 | 0 | |
| SDG 14 | 0 | |
| SDG 15 | 0 | |
| SDG 16 | 0 | |
| SDG 17 | 0 | |

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| Bayer | | |
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| | Score | Notes |
| SDG 1 | 1 | |
| SDG 2 | 2 | With our innovations in the area of seed and in chemical and biological crop protection solutions, we aim to help overcome this challenge. |
| SDG 3 | 2 | Based on scientific findings, we develop innovative products and solutions to improve people's quality of life through disease prevention and therapy as well as to make a responsible contribution on behalf of society. |
| SDG 4 | 3 | in 2016 the company awarded 245 scholarships to talented students, postgraduates and trainees in the fields of natural, life and agricultural science and medicine, with the particular goal of enabling projects abroad. |
| SDG 5 | 3 | Mutual understanding and a gender and cultural balance, especially at management level, are important success factors.<br>We have an inclusive approach: diversity is integrated into all relevant human resources processes and driven forward by the management.<br>Equal Pay for men and women (quantitiative) |
| SDG 6 | 2 | establishment of water management at all sites in water-scarce areas |
| SDG 7 | 0 | |
| SDG 8 | 2 | Our mission, life values and Corporate Compliance Policy commit all employees around the world to fair and lawful conduct toward staff, colleagues, business partners and customers. For many years, Bayer has taken systematic action to prevent child labor in the cotton, rice and vegetable seed supply chain in India, Bangladesh and the Philippines through its Child Care Program and conducts inspections locally. In 2016, Bayer for the first time also inspected external producers of vegetable seed in China and Thailand. |
| SDG 9 | 1 | |
| SDG 10 | 1 | |
| SDG 11 | 0 | |
| SDG 12 | 1 | |
| SDG 13 | 4 | reduction of 15% in specific greenhouse gas emissions |
| SDG 14 | 0 | |
| SDG 15 | 1 | |
| SDG 16 | 0 | |
| SDG 17 | 1 | We engage in various local, national and global partnerships for sustainable development. |

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| Allianz | | |
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| | Score | Notes |
| SDG 1 | 1 | Launch the Resilience 360° platform within SOS Children's Villages in 2017, an early warning and emergency management tool for natural and man-made catastrophes. (Mentioned in Alignment with SDGs) |
| SDG 2 | 1 | |
| SDG 3 | 1 | |
| SDG 4 | 4 | Roll out active local SOS partnerships in at least 25% of countries covered by our joint footprint in 2017 and aim to double this in 2018. |
| SDG 5 | 4 | 40% target for women in talent pools, up from previous 30% target. |
| SDG 6 | 0 | |
| SDG 7 | 4 | Double equity investment in renewable energy projects in the mid-term. |
| SDG 8 | 1 | Social-Tech Seed-Fund to support young entrepreneurs develop digital solutions that solve societal challenges (Mentioned in Alignment with SDGs) |
| SDG 9 | 1 | |
| SDG 10 | 1 | Social-Tech Seed-Fund to support young entrepreneurs develop digital solutions that solve societal challenges (Mentioned in Alignment with SDGs) |
| SDG 11 | 1 | |
| SDG 12 | 2 | We seek ot minimize the waste we gerenate and to re-use or recylce where possible |
| SDG 13 | 4 | 30% reduction in energy consumption per employee by 2020 (2010 baseline). / 40% paper reduction by 2020 (2014 baseline). |
| SDG 14 | 0 | |
| SDG 15 | 0 | |
| SDG 16 | 1 | |
| SDG 17 | 1 | Roll-out the ESG Scoring approach to our complete portfolio for our proprietary investments until the end of 2017. (Mentioned in Alignment with SDGs) |

| Commerzbank | | |
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| | Score | Notes |
| SDG 1 | 1 | By offering the “Basiskonto”, we fulfill the statutory claim of every consumer for an access to a payment account |
| SDG 2 | 1 | In 2011, we decided not to issue listed investment products based on staple food anymore. |
| SDG 3 | 2 | Our work and health protection aims at systematically identifying and eliminating physical and mental stress factors. |
| SDG 4 | 2 | With “business@school” we aim at conveying business topics vividly and practically |
| SDG 5 | 4 | We are working on our goal to have women occupy on at least 30 percent of leadership positions |
| SDG 6 | 1 | through the project “MoorFutures” which invests in the renaturation of moors in MecklenburgVorpommern so that an important water connected ecosystem gets restored. |
| SDG 7 | 2 | we support the energy transition in Germanynand other countries. |
| SDG 8 | 2 | We commit to respect the human rights and the UN Global Compac |
| SDG 9 | 2 | With the Competence Center Energy, we are committed to loans concerning clean energy and environmentally-friendly technologies for more than 25 years. |
| SDG 10 | 2 | We also try to ensure equal opportunities by a variety of approaches |
| SDG 11 | 1 | Our energy efficiency consulting with the collaboration of TÜV provides our corporate customers with ideal conditions through technical, strategic and financial consulting for sound investment decisions and thus contributes to sustainable cities |
| SDG 12 | 1 | When buying goods and services, we attach importance to sustainability as well. Therefore we have the sustainable procurement standard. |
| SDG 13 | 4 | Our climate target includes reducing our greenhouse gas emissions by 70 percent until 2020 compared to the base year 2007 |
| SDG 14 | 1 | Commerzbank works on a position regarding the subject of fishing. Apart from that, the topic is not a particular focus of Commerzbank due to the lack of reference to the core business of the bank and its customers |
| SDG 15 | 1 | Our positions and directives for agriculture (land) and forestry regulate the conditions under which we can assist businesses in this area. |
| SDG 16 | 1 | The focus of our compliance activities are the defense of money laundering, terrorist financing, insider trading, fraud, corruption and other criminal activities in the context of our business operations |
| SDG 17 | 1 | We are regularly exchanging information and experiences with members of the financial sector and other important stakeholder groups |

| Deutsche Bank | | |
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| | Score | |
| SDG 1 | 2 | Improve food security and end poverty through sustainable investment along the entire agricultural value chain in Africa |
| SDG 2 | 2 | Improve food security and end poverty through sustainable investment along the entire agricultural value chain in Africa |
| SDG 3 | 1 | Mentioned on p. 50 (Funds) |
| SDG 4 | 3 | continue to further improve the reach and the impact of our initiatives, setting a goal to reach five million young people with Born to Be initiatives by 2020. To achieve this, we will focus on: |
| SDG 5 | 2 | With our Born to Be initiatives, we contribute to the SDGs, particularly goals 4 and 5, which aim to ensure an inclusive and equitable, quality education and empower women and girls. |
| SDG 6 | 0 | |
| SDG 7 | 3 | In October 2016, the Fund approved an initial US $78.4 million (€74.4 million) investment in a new Deutsche Asset Management fund for renewable energy access in Africa: the Universal Green Energy Access Programme |
| SDG 8 | 1 | Social entrepreneurs contribute to the Sustainable Development Goals (SDGs), notably goals 8 and 10 |
| SDG 9 | 1 | Mentioned on p. 50 (Funds) |
| SDG 10 | 1 | Social entrepreneurs contribute to the Sustainable Development Goals (SDGs), notably goals 8 and 10 |
| SDG 11 | 1 | Mentioned on p. 50 (Funds) |
| SDG 12 | 0 | |
| SDG 13 | 1 | Mentioned on p. 50 (Funds) |
| SDG 14 | 1 | Mentioned on p. 50 (Funds) |
| SDG 15 | 1 | Mentioned on p. 50 (Funds) |
| SDG 16 | 0 | |
| SDG 17 | 0 | |

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| Credit Suisse | | |
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| | Score | |
| SDG 1 | 1 | |
| SDG 2 | 1 | |
| SDG 3 | 0 | |
| SDG 4 | 3 | Our Financial Education for Girls program aims to reach approximately 100,000 girls and young women with interventions to prepare them for the challenges in life. |
| SDG 5 | 1 | We are committed to providing equal opportunities for all employees – irrespective of factors such as ethnicity or nationality, gender, sexual orientation, religion, age, marital or family status or disability |
| SDG 6 | 0 | |
| SDG 7 | 1 | |
| SDG 8 | 2 | Strengthening the capacities of economicallyactive people by providing them with access to finance is a market-based approach that contributes measurably to SDG 8, |
| SDG 9 | 1 | |
| SDG 10 | 0 | |
| SDG 11 | 1 | |
| SDG 12 | 1 | |
| SDG 13 | 4 | At the end of the five-year process in 2017, CO2 reductions of at least 10%, or 13,000 metric tons, are expected to be achieved relative to 2010 levels |
| SDG 14 | 1 | |
| SDG 15 | 3 | Through the underlying Althelia Climate Fund, the Notes will target a total of 12 – 15 investments in Latin America, Africa and Southeast Asia. In total, they are expected to promote forest conservation and sustainable land use that will directly and indirectly avoid deforestation and associated emissions of approx. |
| SDG 16 | 0 | |
| SDG 17 | 1 | |

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| UBS | |
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| SDG | Score |
| SDG 1 | 0 |
| SDG 2 | 0 |
| SDG 3 | 0 |
| SDG 4 | 0 |
| SDG 5 | 0 |
| SDG 6 | 0 |
| SDG 7 | 0 |
| SDG 8 | 0 |
| SDG 9 | 0 |
| SDG 10 | 0 |
| SDG 11 | 0 |
| SDG 12 | 0 |
| SDG 13 | 0 |
| SDG 14 | 0 |
| SDG 15 | 0 |
| SDG 16 | 0 |
| SDG 17 | 0 |

| Henkel | | |
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| | Score | Notes |
| SDG 1 | 2 | We aim to improve quality of life for 10 million people worldwide by 2020 through our social engagement activities. |
| SDG 2 | 2 | We aim to achieve this through collaborative projects for sustainable palm oil that work directly with small farmers to certify their crops and increase productivity on their plantations. |
| SDG 3 | 4 | and aim to reduce our worldwide occupational accident rate by 40 percent by the end of 2020 (base year 2010). Ensure inclusive and equitable quality |
| SDG 4 | 3 | Reach 200,000 children with our education initiatives |
| SDG 5 | 2 | We aim to continuously increase the share of women at all levels of our company worldwide, and we systematically support women's career development. |
| SDG 6 | 4 | We have set a clear target of using 30 percent less water per ton of product by 2030 (base year 2010) |
| SDG 7 | 4 | We have set a clear target of using 30 percent less energy per ton of product by 2030 |
| SDG 8 | 2 | Henkel follows a clear policy of "zero tolerance" regarding child labor and forced labor, and we do not tolerate any form of discrimination. Small Holder Farmers |
| SDG 9 | 1 | |
| SDG 10 | 1 | |
| SDG 11 | 1 | |
| SDG 12 | 4 | We have set a clear target of achieving 30 percent less waste per ton of product by 2030 (base year 2010) |
| SDG 13 | 4 | We have set a clear target of achieving 30 percent less CO2 emissions per ton of product by 2030 (base year 2010). We also aim to help our customers and consumers save 50 million metric tons of CO2 by 2020, |
| SDG 14 | 1 | |
| SDG 15 | 3 | We have also adopted the goal of ensuring zero net deforestation by 2020. |
| SDG 16 | 1 | |
| SDG 17 | 1 | |

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| ABB | | |
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| | Score | Notes |
| SDG 1 | 0 | |
| SDG 2 | 0 | |
| SDG 3 | 3 | Our objective is that by 2020 all ABB operations will have an excellent health, safety and security culture embedded in their day-to-day business, targeting zero incidents. |
| SDG 4 | 2 | ABB works with students, schools and colleges in a variety of ways |
| SDG 5 | 2 | Group-wide framework for diversity and inclusion, including a roadmap for recruiting and promoting more women and strengthening female representation in senior management positions |
| SDG 6 | 4 | ABB is committed to water resource management in its own operations / Very scarce, scarce and water stressed areas reduce water use by 25% |
| SDG 7 | 4 | ABB's "Access to Electricity" initiative focuses on bringing power to remote communities. Several off-grid rural electrification projects have been developed in Tanzania and India./ ABB is committed to a 20 percent reduction in energy intensity in its operations between 2013 and 2020. |
| SDG 8 | 1 | Through its Social and Human Rights Policies and Supplier Code of Conduct, ABB is committed to supporting and respecting the protection of national and international human rights laws, and internationally proclaimed human rights. |
| SDG 9 | 1 | ABB invests significantly in R&D, with corporate research centers in seven countries, including China and India |
| SDG 10 | 0 | |
| SDG 11 | 1 | ABB products and solutions are at the heart of a city's critical infrastructure, relied upon for everything from the supply of power, water and heat, to the automation of the factories and buildings we work in. / Cancer research initiatives receive long-term support from ABB in several countries, including Canada, Mexico, the United States and United Kingdom, with employees giving in different ways – from donations to sponsored golf tournament |
| SDG 12 | 3 | Consequently, in 2016 all sites will be required to analyze their sources of waste and identify areas where generation of waste can be reduced. At Group level, we will systematically review the current state of waste reduction and recycling efforts, identify common elements, document best practices, and develop clear guidelines on required and recommended practices. Target Zero Waste |
| SDG 13 | 2 | We also aim to cut GHG emissions from direct use of fuels, from purchased electricity and district heating, and from the handling of sulfur hexafluoride gas / |
| SDG 14 | 0 | |
| SDG 15 | 0 | |
| SDG 16 | 2 | BB prohibits bribery in all forms, whether direct or indirect, no matter what the amount, and employees are expected to act with the highest standards of integrity in all business dealings. We are committed to a high standard of integrity which is expected of every employee and in every country where we do business. |
| SDG 17 | 0 | |

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| Nestle | | |
| | Score | Notes |
| SDG 1 | 2 | Our emphasis was on helping them grow safe, high-quality raw materials, using training designed to produce effective impacts. We also continued supporting women in our supply chain, and provided training and assistance. |
| SDG 2 | 3 | Farmer Connect places an emphasis on activities such as local sourcing, assistance, farmer training, developing alternative income streams and supporting women and young farmers - Improve food availability and dietary diversity in five priority sourcing locations based upon the results of the RDF baselines. . |
| SDG 3 | 3 | Targeting zero accidents in the workplace, promoting safe and healthy employee behaviours, and helping employees make more informed decisions to achieve and maintain a healthy lifestyle. |
| SDG 4 | 1 | Many farmers live on low incomes and farming is not always seen as a desirable or profitable career option for the next generation. However, safe, high-quality food comes from healthy farms and communities, which is why we're focused on engaging with our upstream value chain. At the same time, this allows us to create an enabling environment to enhance farmers' livelihoods |
| SDG 5 | 2 | By 2018 – Be a gender-balanced company by creating the enabling conditions in our work environment to achieve annual increases in the percentage of women managers and senior leaders (market management members and key roles at the Centre). |
| SDG 6 | 4 | By 2020 – Reduce direct water withdrawals per tonne of product in every product category to achieve an overall reduction of 35% since 2010. |
| SDG 7 | 1 | |
| SDG 8 | 3 | By 2020 – Nestlé Global Youth Initiative commits to deliver:<br>• 45000 to 50000 apprenticeship and traineeship opportunities;<br>• Continue readiness for work events globally, with increasing number of employees involved in such events;<br>• 20000 to 25000 job opportunities for people under 30 years of age every year. |
| SDG 9 | 1 | |
| SDG 10 | 2 | engage externally to develop a better understanding of the identification and methods that can be applied to promote and deliver living wages and incomes; undertake pilot projects in four countries and commodities to gain better understanding of living wages and incomes. |
| SDG 11 | 1 | |
| SDG 12 | 3 | Continue to systematically analyse and optimise our packaging portfolio, avoiding the use of at least 140000 tonnes of packaging material from 2015 to 2020. / By 2020 – Achieve zero waste for disposal in our sites / |
| SDG 13 | 4 | By 2020 – Reduce GHG emissions (Scope 1 and 2) per tonne of product in every product category to achieve an overall reduction of 35% in our manufacturing operations versus 2010. |
| SDG 14 | 2 | Monitor the implementation of the new and strengthened Nestlé Environmental Requirements for water quality and effluent discharge in all factories, in order to help protect the environment. |
| SDG 15 | 2 | In 2010, Nestlé made a 'no deforestation' commitment, stating that all of its products, globally, will not be associated with deforestation by 2020 |
| SDG 16 | 2 | Nestlé does not tolerate deception, bribery, breach of confidence and abuse of power of any kind, and we have made a public commitment to ensure a culture of integrity across the o |
| SDG 17 | 1 | |
| Siemens | | |

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| Siemens | | |
| | Score | |
| SDG 1 | 1 | Mentioned in the Siemens contribution to the SDGs document |
| SDG 2 | 1 | Mentioned in the Siemens contribution to the SDGs document |
| SDG 3 | 2 | he health and safety of all employees are our highest priority and must not be com-<br>promised by time or cost pressure / Everyone must be able to work at Siemens without suffering an incident. Everywhere.<br>At any time |
| SDG 4 | 2 | We ensure continuous individual development with dedicated processes and practices: / As part of Siemens' commitment to education,<br>every year young talents from all over the world are provided with the opportunity<br>to gain work experience in Germany |
| SDG 5 | 1 | Today, Siemens has 15.6 percent of female employees in management positions and, due to concerted efforts, this share is con-<br>tinuing to gro |
| SDG 6 | 2 | With the Siemens Water Strategy, we aim to reduce the local negative impact of our water use, taking water stress and other risks into account,<br>such as water pollution or flooding of environ-<br>mentally relevant areas |
| SDG 7 | 2 | We are increasing the share of purchased electricity from renewable sources like wind parks |
| SDG 8 | 1 | |
| SDG 9 | 3 | Siemens invested €800' in > 130 collaborations with<br>startups in the past 15 years.With next47 we will invest<br>€1'' over the next five years in innovative ventures Siemens helps to enable infrastructure projects<br>and new technologies around the world through<br>financing solutions totaling €26'' in FY16. |
| SDG 10 | 1 | We unite 171 nationalities in our company and 130 in management |
| SDG 11 | 1 | Siemens is a trusted partner to over 200 cities globally, improving the lives of millions - be it through our rail systems that<br>improve connectivity and transport over 50' people daily or through infrastructure that increases safety, air quality and resilience in urban environments |
| SDG 12 | 2 | Striving for a circular economy<br>90% share of total waste is recycle |
| SDG 13 | 4 | Based on a positive business case, we plan to halve the footprint from our own operations by / Delivering on<br>decarbonization 521' metric tons of $CO_2$ saved at customers through Siemens Environmental Portfolio - equalling to more than<br>60% of Germany's total annual $CO_2$ emissions 2020 and be carbon neutral by 2030 / Our goal is to reduce these emissions and related fuel costs by 30 % by 2020 |
| SDG 14 | 1 | Mentioned in the Siemens contribution to the SDGs document |
| SDG 15 | 1 | Mentioned in the Siemens contribution to the SDGs document |
| SDG 16 | 2 | Zero Tolerance on corruption and bribery |
| SDG 17 | 1 | |