

# **“WHAT GETS MEASURED, GETS MANAGED”**

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The design of a framework that evaluates Corporate Social Responsibility of investments at Amsterdam Airport Schiphol



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The design of a framework that evaluates Corporate Social Responsibility of investments at Amsterdam Airport Schiphol

Quote: Peter Drucker



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## AMSTERDAM AIRPORT SCHIPHOL

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## PREFACE

This thesis is the concluding part of my master Systems Engineering, Policy Analysis and Management of the faculty Technology, Policy and Management at Delft University of Technology. This graduation project is conducted at Schiphol Amsterdam Airport. When I read other prefaces I always thought that graduating was horrible. Seriously guys, you all scared me! Until today, I am glad to say, I really enjoyed my graduation project. This would of course not have happened without some people who either were of great value to my thesis or of support to me. I would like to devote this section to thank those people.

I wish to express my appreciation to my graduation committee. First of all, Bert van Wee, who served as Chair of the graduation committee. Second, I would like to thank my first supervisor Jan Anne Annema. Jan Anne, I enjoyed our meetings and the advise you gave me. After each meeting I always felt confident that I was on the right track, a bit more relaxed and still motivated to improve. Third, I would like to thank Jan Kwakkel, I really appreciated your sharp and direct comments.

Special thanks to Amsterdam Airport Schiphol who provided me this challenging, interesting and topical graduation internship. From sailing in Friesland to field trips in the terminal and inspiring lectures from André Kuipers, I really enjoyed my time at Schiphol. What I also like about this experience, is that I developed myself at a personal level. I have to admit, before this internship I did not think about sustainability that much. This graduation project opened my eyes and made me realize the urge for change. I am proud to say I now collect plastic cups and properly dispose trash. We all have to start somewhere, right? Thank you Jeremy, Cora and Marcel for answering all my questions and Ed and Honesta for the warm welcome at The GROUNDS. Not to forget about Patrick, thank you for all your advise and your opinion on.. everything.

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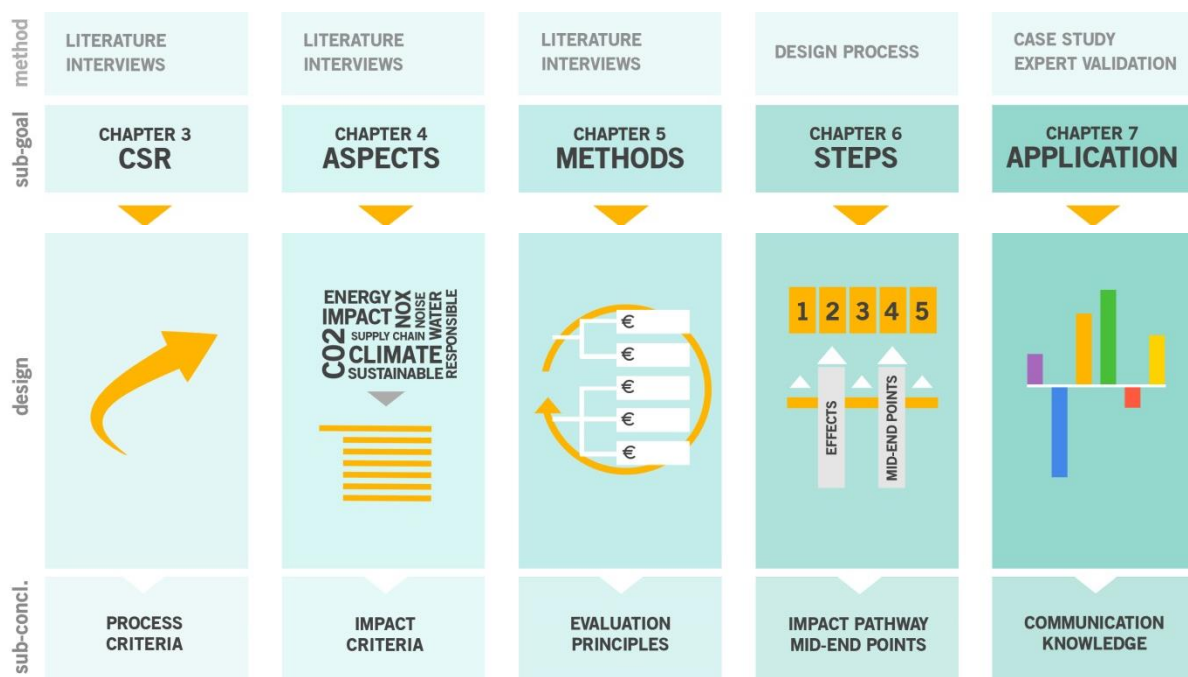
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Michelle Samson

## EXECUTIVE SUMMARY

Today, Corporate Social Responsibility (CSR) holds an important place in annual reports and has never been so present in the corporate strategy before. Many different definitions for CSR exist but - broadly speaking – CSR is defined by the European Commission as “a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment”. Driving forces like transparency and the increase of information technology are making both consumers and organisations more aware of the planet’s limits and the consequences of climate change, resource depletion and population growth. The decision-making process of investments within companies is, however, still aiming at financial metrics rather than an integral evaluation of the aspects that CSR entails. This can be explained by the fact that the concept of CSR is internally complex and dynamic over time. Besides, the lack of global standards to measure impact makes it hard to evaluate all aspects of CSR in investment decisions.

The goal of this research is to structurally design a framework which evaluates CSR impact in a comprehensive way in the decision-making process of investments of large organisations. This thesis is design-oriented and figure 0-1 summarizes what steps are taken and how they contribute to the design of the framework. Leading companies using CSR were interviewed in order to find definitions, motives, methods and so forth. Using content analysis, these interviews were structured and related to scientific literature which resulted in an evaluation framework. This evaluation framework designed was subsequently tested on Amsterdam Airport Schiphol. The reason for choosing Schiphol was that its license to operate and to grow is dependent on multiple stakeholders and it faces the trade-off between people, planet and profit every day.



Figuur 0-1 Design process

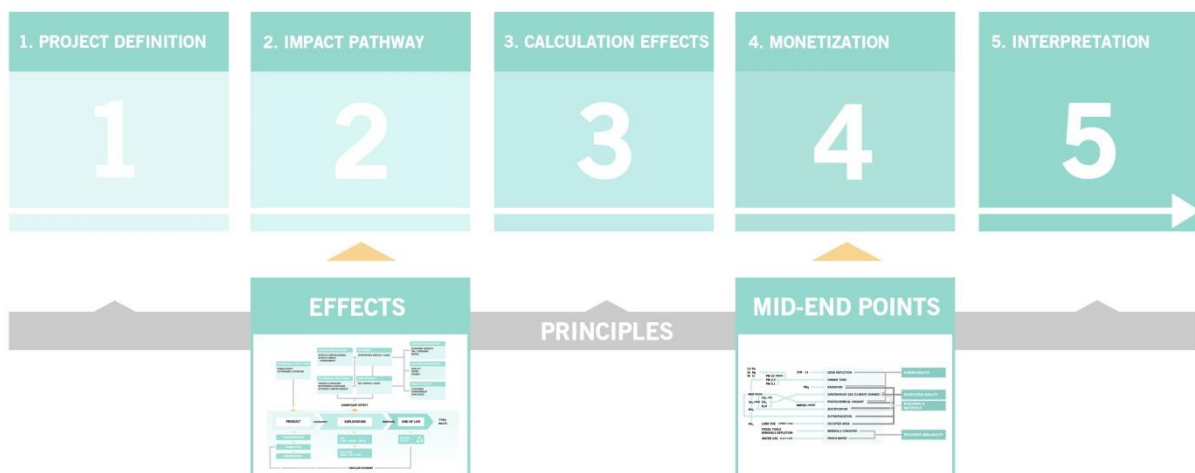
The content analysis showed that there is no consensus about the definition of CSR, since it seems to be impossible to have one coherent definition that suits all companies. It is, however, important to have a clear definition. Therefore, one of the most commonly used definitions, *People, Planet* and *Profit* is chosen in this study to relate to CSR in general. This definition advocates that the three ‘pillars of sustainability’, *People, Planet* and *Profit*, should be balanced properly.

From the comparison between literature and interviews it became clear that some process criteria are paramount in applying CSR successfully. First, companies should relate CSR to what is material for their core business and stakeholders. CSR initiatives are often uncoordinated, philanthropic and separated from a firms' strategy, which results in a huge loss of time and resources when they still apply some sort of CSR. Second, CEO awareness is key to get CSR fully integrated in business strategy and transform threats into opportunities. If, and only if, CSR includes a win-win situation, CSR can be of considerable impact, according to the content analysis.

Content analysis and literature resulted in a longlist of important CSR aspects: *economic performance, welfare, pollution, resource depletion, customer satisfaction, safety & health, stakeholder relation, sustainable employment, responsible supply chain*. The CSR aspects found are used as impact criteria in the evaluation framework designed. The aspects can be categorised in the following 6 types of 'capital': *financial, social, natural, human, manufactured and intellectual*.

The CSR aspects need to be measured and valued. Content analysis and literature showed several possible valuation methods. In the framework designed monetization is chosen as evaluation method since it is cost and time-effective and it suits the purpose of the framework, namely to gain insight in all CSR impacts of an investment. Life cycle thinking, taking into account all effects over the value chain from cradle to grave, is also considered to be relevant, and, thus, incorporated in the framework. By using monetization all impacts of an investment are expressed in one single unit: euro. This enables an integral overview of the amount and distribution of all CSR impacts. Monetization, however, is prone to risks and strategic behavior. In order to mitigate these risks and increase the usability, the following evaluation principles are proposed in the framework to overcome these limitations: *proportionality, separation of capitals, order of magnitude and decision tool*.

The final framework consists of 5 steps that need to be addressed and is supported by two process schemes to structure impact pathways, as shown in figure 0-2. The five steps are: project definition, impact pathway, calculation of effects, monetization and interpretation. Moreover, the framework is also accompanied by evaluation principles, as suggested to tackle the risks of monetization. The first principles prescribes that the time and resources needed for the evaluation framework need to be *proportional* to the investment. Besides, the impacts on different capitals (financial, natural, social, human, manufacturing and intellectual) should be kept *separate* since gains for one capital should not be used to compensate for losses at other capitals. Furthermore, outcomes should be presented in *order of magnitude* since its input are averages, the outcomes should not suggest to be precise. The last principle, intended to prevent strategic behaviour, prescribed that the framework should be used as a *decision tool*, rather than a decision rule.



Figuur 0-2 Evaluation framework

The evaluation framework is tested in a case study and has been subject to an expert-validation at Amsterdam Airport Schiphol. The experts stated that the framework is useful in decision-making since it gives insight in the order of magnitude, the distribution of CSR impacts and clearly visualizes the trade-off of decisions concerning CSR impacts. In-house experts also argued that the framework did not contain all aspects relevant in the decision-making process. For example, in the single case study about investing in photovoltaic modules it turned out that, next to the CSR impacts, the Public Relation value was also considered to be important by decision makers. It is, therefore, concluded that the framework designed is generic in most aspects but if companies apply the framework they may have to add company-specific aspects, simply because the evaluation framework will not be able to capture all aspects relevant in the decision-making process for all companies possible. Furthermore, from the expert-validation meeting it is also derived that there might be a knowledge gap which can cause some difficulties with the interpretation of outcomes. It is recommended to organize information workshops and communicate clearly about the results.

In conclusion, the framework structures and objectifies CSR impacts and enables an integral comparison of the impacts of investments. It is of added value to the decision-making process in companies since it supports decision-making and it gives insight into important CSR impacts, albeit not all. It contributes as a starting point for the journey towards impact measuring and transparency. Besides, it offers a different view on how companies see CSR. In literature, CSR is often described as a goal, while interviewed companies currently perceive CSR as a means to remain relevant and ensure business longevity. Moreover, it provides a different perspective regarding the difficulties of a lacking general definition. It is discussed that as long as companies create a clear, coherent CSR statement related to their core business and key stakeholders, it is more effective than a general definition.

This research concludes by providing recommendations for future research. This framework might be improved by increasing the number of interviews and case studies. A larger variety of interviewed companies would increase the level of detail of the impacts and process criteria. It is also recommended to test the framework on more investment decisions at different companies and sectors. These tests can be used to validate the framework and possibly to improve its applicability. It might be interesting to determine what aspects other than CSR aspects, such as the PR value, are relevant or even decisive in the decision-making process of companies. Besides, it is also recommended to validate the CSR longlist, since the longlist is used as impact criteria to be evaluated. For example, the impact criteria could be validated by testing the longlist with the help of Q methodology. Q factor analysis reduces individual viewpoints to a few factors. The method can also give further insights into the inter-rate comparisons.

The evaluation method chosen could also be researched further. For example, by examining more closely the difference between Multi Criteria Decision Making (MCDM) and monetization. The decision to include monetization in the framework is based on literature and content analysis. However, an experiment whereby both methods are used on the same case to gain insight into the CSR impacts of investments could give additional insights. By the use of this experiment, the evaluation methods can be compared to each other in real life. By doing so, it can be examined what insights are obtained by the different methods. Besides, the applicability, usability and complexity of both methods can also be assessed.



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## ABBREVIATIONS

AAS	Amsterdam Airport Schiphol
CAPEX	Capital Expenditure
CBA	Cost Benefit Analysis
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CSR	Corporate Social Responsibility
CSV	Creating Shared Value
DJSI	Dow Jones Sustainability Index
EF	Ecological Footprint
EP&L	Environmental Profit and Loss Account
ETS	Emissions Trading Systems
FTE	Fulltime-equivalent
GER	Gross Energy Requirement
GFT	Groente-, Fruit- en Tuinafval
GRI	Global Reporting Initiative
IIRC	International Integrating Reporting Council
IOA	Input Output Analysis
KPI	Key Performance Indicator
LCA	Life Cycle Assessment
LTO	Landing and Take-Off
MCDA	Multi Criteria Decision Making
MFA	Material Flow Accounting
NPV	Net Present Value
OPEX	Operational Expenditure
PPA	Power Purchase Agreement
PPP	People Planet Profit
PR	Public Relations
PV	Photovoltaic
R&D	Research and Development
RA	Risk Assessment
RVO	Rijksdienst Voor Ondernemend Nederland
SROI	Social Return On Investment
TB	Transparency Benchmark
TBL	Triple Bottom Line
TCO	Total Costs of Ownership
UN	United Nations
WTA	Willingness to Accept
WTP	Willingness to Pay

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# 1.

## INTRODUCTION

Corporate Social Responsibility (CSR) has never been as present in the corporate strategy as today. There is a global tendency towards a more sustainable and transparent way of doing business. CSR holds a prominent place in annual reports and is currently almost fully integrated into business operation. This trend is fuelled twofold. First, climate change has become a serious, worldwide problem and has a large share in influencing this movement. Global warming and exhaustion of resources are direct threats to a company retaining their license to operate and especially for its license to grow (NCC, 2015). Corporations are becoming more and more aware of the effect they have on the society and what the planet can bear.

The second key driver is the speed of information. Society is using its power to draw attention to issues. It is not the organisations that are suddenly transparent, it is the world. Nowadays people are empowered with more distribution channels to voice their opinions and confront companies with issues they had not previously thought of (van Bergen, McKenzie, & Mackintosh, 2014). For example, packaged food companies were being held responsible for obesity and bad nutrition. Multinationals were also targeted for issues for which they may have little impact. While water bottling companies were held responsible for access to fresh water, 70% of the world's annual supply is inefficiently used for agriculture irrigation, but then there is not one single party to blame (Porter & Kramer, 2006). Whether this public approach helps the transition or harms businesses is unclear, but what is clear is that the speed of information and low transaction costs is driving this trend even more.

Feeling and acting responsibly as a business, however, is not as bad for the business performance as previously thought. Several studies, both empirical and theoretical, have shown the numerous advantages CSR practice entails. The majority of the literature is focusing on the positive relation between social responsibility and financial performance due to cost savings and efficiency gains (Weber, 2008). Some research claim CSR has a neutral impact on the firms' finances since it does not affect R&D (McWilliams & Siegel, 2000). While others argue that there is a positive correlation between CSR and competitive advantage thanks to a better reputation and image (Milton de Sousa Filho et al., 2010). Although image is highly subjective for change, research has shown that 30% of consumers consider sustainability in their purchasing behaviour (Sipkens, Drost, Beeren, & Scholte, 2014). Except for the positive effects that sustainability has on sales and costs, it can also be an important aid to retentions and recruitment (Weber, 2008).

### 1.1. RESEARCH PROBLEM

The introduction has shed some light on the dynamic world of Corporate Social Responsibility and the transition to which companies are currently subject to. The problem exploration is based on the state-of-the-art-literature. By this, three problem areas are identified: the complexity of CSR, financial focus in decision-making process and the lack of a global evaluation standard. These dilemmas will be discussed in the following paragraphs and concluded in the research problem. Furthermore, the scientific and social relevance will be given. This chapter ends with the formulation of the main goal and sub-goals.

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### 1.1.1. COMPLEXITY OF CSR

CSR is a very complex concept because it contains several direct and indirect effects that may change in time and place. The dynamics of CSR its definition will be discussed below.

The increasing demand for transparency puts pressure on organisations. The trend towards integrated reporting shows that companies are favourable to becoming more transparent, but it also makes them vulnerable. If they do not act as they communicate, trust of consumers will be distorted (Sipkens et al., 2014). Because the positive effects a firm has on people and the planet are often mistaken to be merely used for advertisements and commercial CSR only, the negative effects might be suppressed. In reality, the problem resides in the fact that CSR is a very complex concept with multiple interdependencies and interpretations. Although the concept of CSR has become, both in theory and practise, well represented in management literature, there is no general agreed definition (Margolic & Walsh, 2003). While these interpretations vary in detail, the majority focuses on voluntary actions of firms in order to improve social and environmental impact (Campbell, 2007; Dahlsrud, 2008). According to the European Commission, CSR can be explained as: *“a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment”* (COM, 2011, pp. 4) by integrating *“social and environmental concerns in their business operations and in their interaction with their stakeholders”* (COM, 2011, pp.6).

The definition given by the European Commission implies that CSR is a contribution to the firm’s environment and stakeholders. However, it does not give any insight into what a good contribution is nor how it should be incorporated in business operations. Despite the fact that the meaning of CSR varies at different places and in different times, it is also dependent on all stakeholders who may have different interests and objectives (Campbell, 2007). Several trade-offs are at stake. Expansion of businesses, for example, might have a positive effect on economic welfare and employment but may harm local communities and environment. Furthermore, Corporate Social Responsibility shifts historically (Campbell, 2007). Some issues, such as, underpayment and forced labour, rarely occur nowadays in well-developed countries due to the enforcement of laws and regulations. New topics, such as privacy and safety of information, may arise.

Besides the direct and indirect CSR effects, there are also externalities. These effects, positive or negative, are not captured by the market price but do affect third parties (van Bergen et al., 2014). To decrease negative externalities, these effects are more often internalized, meaning that the producer needs to pay for it. Methods to internalize these effects vary from taxes to regulations but can also be captured in shortage of minerals (Sipkens et al., 2014). When companies have integrated CSR into their corporate strategy, they need to take into account all the effects, the dynamics over time and differences per stakeholder.

This brings us to the second dilemma with respect to the management of CSR. Besides the fact that CSR is an internally complex concept, it is also difficult for management teams to integrate into their decision-making process.

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### 1.1.2. DECISIONS BASED ON FINANCIAL METRIC

Even though it is proven that CSR has a large influence of a firms’ performance, business decisions and investment decisions in particular, are still mainly based on financial metrics. This can be explained because CSR effects are hard to evaluate and companies are still judged on financial performance.

Looking from an conservative economic perspective, one of the most important goals of a company is profit maximization (Williamson, 1985; Friedman, 1962). Unless institutions are in place to mitigate opportunities and structural incentives for firms to benefit themselves at the expense of others, firms will act socially irresponsibly (Campbell, 2007). The general thought is that if these companies act responsibly, they will lose

competitiveness and subsequently lose profit. That theory did hold in the mid-1990s, when mainstream companies argued not to be responsible for other people's factories, in defence of Levi's launching labour standards for business partners (Zadek, 2004). Today, things are different. Companies are held responsible by society for the thousands of victims of the collapse of the largest clothing factory in Bangladesh (van Wijk, 2013). Not only the clothing industry but several other sectors are under attack around the world.

Businesses, however, are still judged on the basis of their financial performance, as discussed in box 1.1. Looking at the decision-making process of companies, the focus is still mainly on financials. The way investments are currently reviewed is primarily based on tools like Net Present Value and Rate of Return (Smith, 2003). These tools, however, are not able to value human and natural capital. The CSR goals, therefore cannot be valued properly in these kinds of decision-making processes.

This is actually a strange course of events because CSR certainly has an influence on a firm's financial success metric. Responsible corporate behaviour, such as, waste reduction and efficiency gains, has a direct link to cost and performance. Moreover, some matters might have far-reaching consequences that affect intangible assets, such as, brand name and image (Weber, 2008). The intensive media coverage of Nike being attacked by NGO's because of the poor labour standards of its suppliers led to disinterest of institutional investors (Zadek, 2004). In that case, CSR held a more strategic purpose and had direct links with risk management. With the current trend towards internalisation of externalities, for example, the carbon trading system, effects could be part of the company's bottom line in the near future. Historically, externalities have had minimal impact on a company's cash flow or risk profile (van Bergen et al., 2014).

**Box 1.1** 'While at the core of a business's performance is its financial return, because we report in monetary terms, a board has to take account of the legitimate and reasonable needs, interests and expectations of all its stakeholders and the resources used by the company'. Prof. Mervyn King SC - Chairman International Integrated Reporting Council (PWC, 2014, pp.2).

Besides risk management, CSR could also play a considerable role in innovations. According to Porter *"If, instead, corporations were to analyze their prospects for social responsibility using the same frameworks that guide their core business choices, they would discover that CSR can be much more than a cost, a constraint, or a charitable deed—it can be a source of opportunity, innovation, and competitive advantage"* (Porter & Kramer, 2006, pp. 1). Currently, business operations are redesigned and improved afterwards. It would actually be more efficient and profitable to integrate CSR, in the beginning of business decisions. The majority of business decisions starts at investments. By incorporating CSR in the decision-making process of investments, it could lead to efficient and effective corporate behavior which reduces impact and creates value in the first place.

There is, however, no integral framework that enables managers to value CSR effects in the decision-making process of investments. Investment decisions are still mainly financially driven. Corporate Social Responsibility, as complex as the concept is, could be a key driver for risks as well as opportunities. Currently, CSR is not quantified nor specified, which makes it hard for decision makers to make objective trade-offs between a firm's profit and social or environmental impact.

### 1.1.3. LACK OF GLOBAL STANDARD

The last dilemma identified in this problem exploration, is the lack of a global standard for evaluation of CSR in investment decisions. Generally speaking, a middle manager can handle four to five Key Performance Indicators (KPIs) with a maximum of five objectives (Champagne, 2011). This would involve somewhere between the 20 to 30 KPI's a person can handle. This number does not cover all direct, indirect, nor external effects of the business, but these effects, as discussed above, are critically important for business performance. If investment decisions are not evaluated consistently within one firm, the decision is dependent on the decision maker's level of ambition.



Although there are some tools that value more than just financial elements, these supporting tools do not capture the whole picture. Life Cycle Analysis and Total Cost of Ownership are tools that are able to value some environmental impacts, such as, recycle efforts and end of life costs, but unfortunately not all (Dobers, 2009). The effects that are missing are the costs to society (Sipkens, 2014).

Carbon dioxide, for example, is a prominent CSR aspect on the corporate agenda. All companies now strive to decrease their carbon footprint. But at what cost? How much is an organisation willing to pay to invest in a less consuming asset? Or what about trading it for other effects? What is an acceptable range of CO<sub>2</sub> to increase in order to decrease noise or pollution? What about safety? Safety against all costs? These questions are often unanswered. The literature is raising several questions about the trade-offs CSR entails, but it does not offer a proper framework to evaluate them (Porter & Kramer, 2006).

Although the practice of CSR in management is relatively young in the academic debate (Matten & Moon, 2004), there are a lot of ongoing initiatives in the market. Some companies take the lead. The world's best example is Puma – the first major corporation to ever attempt to measure, value and report the environmental externalities of its operation and its entire supply chain (Puma, 2011). This success inspired several others. Novo Nordisk was able to reduce the environmental costs of glucose, the main ingredient of insulin, thanks to its impact analysis (Høst-Madsen et al., 2014). NS was the first organization in the Netherlands that published their environmental impact on a financial basis by using an Environmental Profit and Loss account (NS, 2014). There were, of course, also some attempts that are criticized by the public. Microsoft, for example, actively sponsored devices in third world companies. This CSR initiative had the opposite effect however, and is seen as cynically self-serving (Smith, 2003). Apart from the companies that miss the point, the majority are focusing on how to reduce their environmental and social impact.

Several organizations, such as, TruePrice, TruCost and WBCSD, have started the debate and aim at a joint quest towards a relevant and sound standard to value impacts (WBCSD, 2015). In the Netherlands, a green deal with the goal 'transparency of social and natural capital' is signed by a coalition of 13 Dutch companies (Rijksoverheid, 2014). So far, no integral standard that prescribes how companies should deal with their impact and externalities has been developed yet (Sipkens et al., 2014; NS, 2014; WBCSD, 2015). So an integral standard is missing, both in literature as well as in practice, to value CSR effects, let alone how to evaluate it in the decision-making process.

In conclusion, CSR has never been more present in corporate strategy. Companies are actively reducing their environmental and social impacts and emphasizing the positive outcomes. As discussed, people are, thanks to the rise of information and communication technology, more aware of the negative effects companies could have on the environment and future generations (Saeidi, 2005). More importantly, people also realize that those companies do not foot the bill – society does. From this, the problem statement could be derived:

*Corporate Social Responsibility has gained increasing importance on the corporate agenda. Investment decisions have direct and indirect effect on a firm's CSR performance and during the decision-making process several trade-offs are at stake. Investment decisions are, however, mainly financially driven due to a lack of generally accepted evaluation framework that incorporates CSR in the decision-making process.*

## 1.2. KNOWLEDGE GAP

From the literature overview, it became clear, to the best of the authors' knowledge, that accurate methods to deal with the evaluation of Corporate Social Responsibility in the decision-making process of investments are not present in the state-of-the-art research. Many companies do not know how to cope with this relatively new and transparent way of doing business. This leads to the main objective of this research:

*To structurally design a framework that evaluates the impact of Corporate Social Responsibility of investments during the decision-making process of large organisations.*

### 1.2.1. RESEARCH GOAL

In order to achieve the main research goal, the following sub-goals need to be addressed:

1. Describe existing context and definitions of CSR and what it means to organisations;
2. Distinguish all aspects of CSR;
3. Explore which methods are currently available to measure and evaluate all aspects of CSR;
4. Describe what steps should be taken to properly evaluate CSR impacts of investments;
5. Assess what practical insights can be gained from applying the framework to AAS.

These sub-goals will be the basis of the research and they each form a single chapter in the research report. As it became clear from above-sated goal, the expected deliverable is a framework which enables decision makers to evaluate CSR aspects of investment decisions. The research starts from a general perspective and will map current trends and methods of how companies deal with CSR in the decision-making process. These outcomes will be used in the design of the evaluation framework.

The framework will be tested on a real-life case at Amsterdam Airport Schiphol. The lessons learned from the application will be combined with the insights and best practices from market reflection. Together, they will form the basis of the general conclusions and recommendations in order to feed the ongoing debate about the evaluation of CSR aspects including direct, indirect effects and externalities.

## 1.3. SCOPE OF THE RESEARCH

Within the scope of this thesis, a high level framework will be developed in order to evaluate decisions on the basis of CSR effects for any organisation in the Netherlands that wants to embrace CSR and view investment decisions from an holistic perspective. Note that these investments are reviewed from the perspective of a company and the effects it has on its surrounding and key stakeholders.

The aim of achieving greater transparency and insight into the impacts that investment decisions have on CSR is central in this research. The research is, therefore, focussed on investment decisions for large organisations in any sector in the Netherlands. CSR issues and norms in the Netherlands have been chosen as the focus since CSR is dependent on time and place. Methods, evaluation tools, and literature can, however, be off foreign origin, but special attention will be paid to what extent the data can be generalized. The framework will be tested on two investment decisions at Amsterdam Airport Schiphol. The investments are case studies in order to improve the framework and report about its applicability and practical usage.

In order to prevent ambiguity and misinterpretations, the following delineation of key concepts will be handled. Corporate Social Responsibility is delineated to People, Planet and Profit (Elkington, 1997). The key concept of the decision-making process is seen from the broadest perspective. This entails all activities from the emerge of a plan until the final decision. The decision maker is the person responsible for the decision and

additional trade-offs. The last key concepts that needs to be defined are effect and impact. An effect is an output of an service or good and an impact is an outcome. According to Maas (2014) an effect does not have to be an impact.

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### 1.3.1. SCHIPHOL: PEOPLE, PLANET & PROFIT

The reason to apply this case to Amsterdam Airport Schiphol is rather easy to explain. Schiphol is continuously in dialog with all its stakeholders who all have different interests. While airlines want to maximize profit and increase flight movements, residents want less nuisance. Besides these two obvious opponents, Schiphol also needs to deal with local and national government, travellers and business partners. Because of its public function, Schiphol's license to operate is dependent on its performance (Schiphol, 2015). Moreover, Schiphol has set a goal to become and remain Europe's preferred airport. An important condition to reach this goal is to have its own activities as sustainable as possible and to have an inspiring and push effect on its stakeholders (Schiphol, 2014). No wonder Schiphol has CSR high on its agenda. Since 2012, Schiphol has even incorporated CSR with people, planet and profit as its main focus, in its mission and vision to give real backbone to this topic.

People, planet and profit are continuously valued together and are in line with each other. A good example is the business case of Blueveyor baggage conveyors. Because of its efficiency gain of 60% and its recyclable usage, it is an improvement for people, planet and profit (Duurzaamheidskompas, 2014). Unfortunately, this is not always the case. Most of the investment decisions demand a trade-off, for example, the exploitation of the latest runway the Polderbaan, which was a necessity to ease travellers but an eyesore for residents. Besides the extra travel time, it also might be more polluting. Thinking this project through, there are more social and environmental costs than just the total costs of ownership – exploitation, maintenance and end of life costs (Schiphol, internal communication). Residents gain from less noise while travellers lose precious time. When all these costs, both positive and negative, are taken into account, the business case may have a positive outcome – or not. The problem is: Schiphol does not know.

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### 1.3.2. RELEVANCE OF THE RESEARCH

Achieving an objective way to evaluate decisions, which includes Corporate Social Responsible trade-offs, is of crucial importance for social welfare. Third parties are the recipients of countless effects which they has not chosen, such as, environmental damage, air pollution, resource depletion, but also child labour. These externalities are a real burden to society and its future generations. If the framework would be one step closer to transparency of all of the impacts that an investment entails, the decision-making process would be fairer.

The research proposed here is also of scientific relevance in two ways. As previously mentioned, there is a tendency towards Corporate Social Responsibility, but there are no standards yet either in the literature or in practise. First, an overview of best practices and methods used by companies is important to gain more experience on how to deal with this matter. Second, the framework which will be developed and tested on the Schiphol case could be extended or used to inspire others. In this way it will contribute in the joint quest towards transparency.

## 1.4. STRUCTURE OF THE REPORT

The research will start with an extensive description of the methodology in Chapter 2. The research can be divided into two parts: analysis and design. Each chapter in the analysis phase will start with an exploration of the scientific literature and then give practical insights gained from interviews. Since this master thesis is design-oriented, each chapter concludes with what it contributes to the design of the framework.

Chapter 3 will focus on the definition and related issues of CSR discussed in the literature and gleaned from the interviews. Chapter 4 will explore how the aspects of CSR are distinguished in the literature and what companies find important. The next chapter will discuss the advantages and assumptions each evaluation method entails and how it is used within the interviewed organisations. The design phase will start in Chapter 6 whereby outcomes from the literature will be combined with insights derived from the interviews and form the point of departure to start the design of the evaluation framework, which will be applied to Amsterdam Airport Schiphol in Chapter 7. Moreover, it will provide an overview of steps that need to be taken towards full integrated decision-making. A case study of two investment decisions at Schiphol will be used to validate the framework. Last, Chapter 8 discusses the outcomes, implications and limitations of the research and will give recommendations for future research, final conclusions and recommendations for implementation.

# 2.

## RESEARCH METHODOLOGY

In the first chapter, it became clear that there is, due to the complexity of CSR, focus on financial metrics and lack of global evaluation standard, a gap between current management information and the impact of business decisions. Evaluation of CSR impacts is necessary to make proper decisions. In order to reach the objective of this research, *“to structurally design a framework that evaluates the impact of Corporate Social Responsibility of investments during the decision-making process of large organisations”*, several methods will be used. Decisions concerning these methods will be discussed in this chapter. The coherence of the different methods is shown in figure 2-1.

### 2.1. RESEARCH DESIGN

The sub-goals, formulated in the previous chapter, are critically important for the design of the framework. As visualized in figure 2-1, the first, second and third sub-goal will be achieved by desk research as well as interviews, the fourth sub-goal is reached by development of the evaluation framework and the last sub-goal contains a case study and experts validation. Below the relation and how each sub-goal contributes to the design of the evaluation framework will be discussed.

The research will start with an in-depth exploration of literature to become familiar with key concepts and definitions (Verschuren & Dorewaard, 2010). The first sub-goal *‘Describe existing context and definitions of CSR and what it means to organisations’* forms with process criteria the foundation for the framework and ensures embedding in current CSR practise. The second sub-goal *‘Distinguish all aspects’* provides impact criteria by structuring, with the help of existing CSR schemes from the literature, the CSR aspects of companies and can be seen as point of departure. The third sub-goal *‘Explore which methods are currently available to measure and evaluate all aspects of CSR’* argues what method will be most suitable for the purpose of this research. This stage of the design process compares insights from literature, such as, advantages, principles and drawbacks with practical usability gleaned from interviews. Disadvantages and risks will be taken into account in the design process in order to mitigate risks and increase functionality. The fourth sub-goal *‘Describe what steps should be taken to properly evaluate CSR impacts of investments’* combines the previous outcomes (the process criteria, impact criteria and valuation method) by the development of the conceptual framework. The conceptual framework elaborates how CSR impacts of investments can be evaluated. The last step in this research is to test the framework with a real-life investment decision in a case study at Amsterdam Airport Schiphol. The fifth sub-goal *‘Assess what practical insights can be gained from applying the framework to AAS’* is of high importance to guarantee its feasibility and practical usage. The case study and expert validation give insight into the process of evaluating CSR aspects and making decisions based on information additional to current financial metrics.

The lessons learned from this application will be used to evaluate the framework and provide means to improve it. After this process is completed, conclusions and recommendations will be given with respect to the main research goal. The deliverable of this master thesis is an framework with instructions how companies can evaluate the Corporate Social Responsibility impact of their investment decisions.

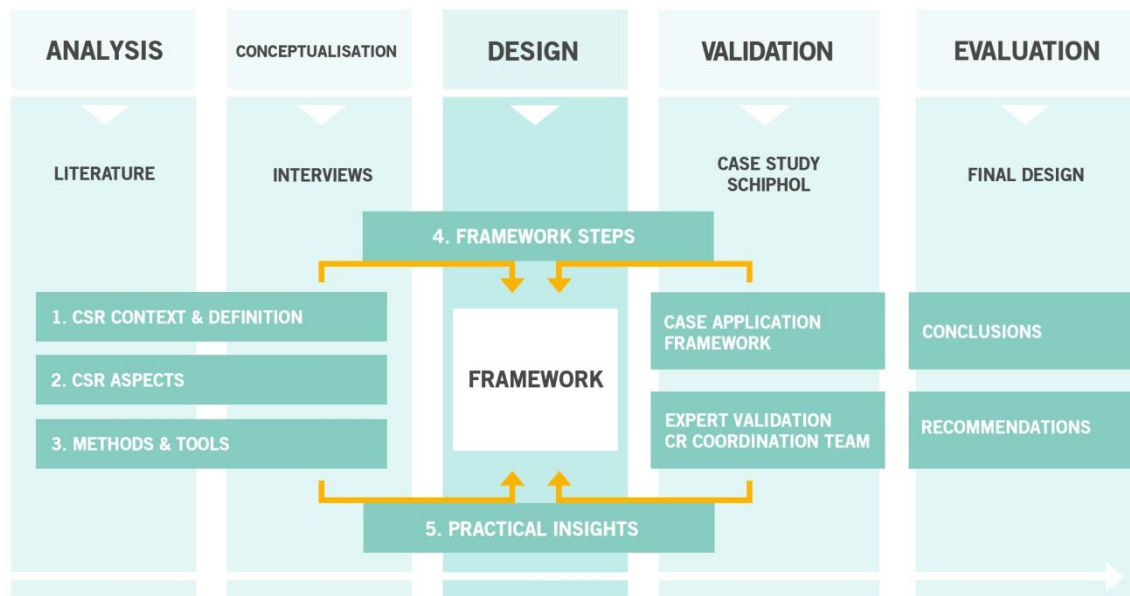


Figure 2-1 Research design: goals and methodology

## 2.2. DATA COLLECTION

The first step of the research is the data collection. The data collection contains desk research and interviews with experts and leading companies in the field of CSR. The next sections discuss how this is performed and what choices are made.

### 2.2.1. DESK RESEARCH

The research began with an exploration of the relevant literature. Overview papers proved to be very suitable for this (Verschuren & Doorewaard, 2010). Search terms like 'Corporate Social Responsibility', 'decision-making' and 'valuation metrics' were used in scientific search engines, such as Scopus, Google Scholar and Web of Science. As the research continued, searching terms were made more specific. Selection criteria to value the relevance of the literature were publication year and citation index. However, for a complete overview, the commonly named 'founding fathers', should not be left out. The selection criteria are, therefore, just a guideline and not a hard restriction.

Besides scientific literature, so-called grey literature was also consulted. The literature exploration was used as input for the interviews. The better the interviewer is informed, the more effective the interview will be (Baarda et al., 2007). News papers, reports of ministries and annual reports about best practises were also reviewed. Since the interviews were all with Dutch companies, search terms such as 'Maatschappelijk Verantwoord Ondernemen' and 'duurzaamheid' cannot be overlooked. As already mentioned, desk research was continued during the surveys. By this simultaneous approach, searching was more focused and optimized along the way. In meantime, the outcomes of the interviews were related to the literature. All literature is listed according to APA-style (American, Psychological Associations) and can be found in the references chapter.

## 2.2.2. INTERVIEWS

Interviews were explicitly chosen over a standard questionnaire for the following reasons. First, interviews can be used for explorative purposes. The practise and evaluation of CSR is relatively new, so a semi-structured set-up is considered most suitable (Baarda et al., 2007). Second, the open and dynamic character of interviews enables the interviewer to ask for clarification or to zoom in at relevant topics (Baarda et al., 2007). It is expected that all companies have a different view on this topic and use different methods to value CSR. Before an interview starts, the subjects of the interview are decided, but the questions and answers are still open.

The interviews were distinguished by the following two types:

- Informant interview: experts in the field;
- Elite interview: high performance companies.

Experts in the field with respect to the context of CSR, impact measuring and monetization were consulted during the design process. An overview of informant interviews can be found in appendix A. For the elite interviews the selection is made on the basis of availability, CSR practise and variety in sector the company is operating in. In order to design a framework that suits corporate behaviour of all companies, the CSR evaluation of companies needs to be examined industry-wide. The Transparency Benchmark (TB) and Dow Jones Sustainability Index (DJSI) are indices that rank companies on the basis of their relative sustainable performance based on annual reports. It should be noted that the index rankings of 2014 are just seen as an indication for the relative importance of CSR within the company. It is assumed that interviews with 10 companies would be sufficient for the purpose of this research (Baarda et al., 2009). The following 10 companies were interviewed:

- |             |  |
|-------------|--|
| • Achmea    | Largest insurance group of the Netherlands   Financial services              |
| • AkzoNobel | No1 in DJSI and No2 in TB   Chemical and materials                           |
| • Asito     | Nominated for sustainability manager of the year   Facility services         |
| • Eneco     | One planet thinking   Energy and gas   |
| • Heineken  | No9 in TB   Beverage Production  |
| • NS        | No1 in TB and first practitioner of EP&L in the Netherlands   Transportation |
| • PostNL    | No2 in DJSI   Delivery and logistics   |
| • Prorail   | 'Prorail prestatie ladder'   Construction and infrastructure                 |
| • Unilever  | No1 in DJSI and most innovative report in TB   Fast moving consumer goods    |
| • Wehkamp   | Market leader in online   Retail   |

An overview of the interviewees can be found in appendix A. Leading companies in the field of communication and information, agriculture and healthcare were unfortunately not available. It is argued that the variety of the 10 companies mentioned above would be sufficient for the purpose of this research.

Despite of the fact that interviews are highly time-consuming, a clear disadvantage of interviews is the subjectivity of information (Baarda et al., 2007). By transcribing the interviews, interpretation errors will be minimized which will benefit reliability. One option to increase the inter-coder reliability of information is to have new interviews with the same respondent (Baarda et al., 2007). It was deliberately decided not to repeat the interviews since the elite respondents had tight schedules. The validity of information was checked or completed with additional sources of information coming from so-called 'field documents' (Baarda et al., 2007). Articles, annual reports and press releases all contain CSR motives, actions and results. The transcripts and quotes used in this report were sent to the respondents for approval.

## 2.3. DATA ANALYSIS

The data derived from interviews and literature is analysed and compared. To reduce, structure and conceptualize the information gained from the interviews, the fragments were, by the use of content analysis provided with codes and labels. An important aspect of content analysis is the inter-coder reliability.

### 2.3.1. CONTENT ANALYSIS

During the analysis, it is important to keep in mind the main goal of the research. The goal of the interviews with elite respondents was to find out what is meant by CSR and how they value it. The ‘aspects of CSR’ and ‘valuation methods’ are descriptive and ‘meaning of CSR’ is rather explorative. Qualitative research has its foundations in grounded theory (Glaser & Strauss, 1967). Its existence evolved into two different theories. A systematic approach with validation criteria of Strauss & Corbin (1990) was chosen. Within this research methodology, explanatory models out of the collective data is constructed instead of using existing theories.

Since the goal of the research is descriptive and explorative instead of testing, a predefined coding scheme was unnecessary. The intention was to conceptualize the data and find underlying patterns. It was, therefore, a good idea to start the interviews with an open mind. Despite of the different goals, the methodology of both applications of content analysis is similar. After each interview was transcribed, relevant fragments were highlighted or summarized with some keywords. The relevance is determined by the focus of the research goals, but it could also be for other reasons. Some statements or concepts could, for example, be repeated by different respondents, surprising or similar to previously published articles (Löfgren, 2013). Note, that this is an iterative process and subject to the perceptions of the researcher. When all interview fragments were summarized and provided with codes, the structure of labels, known as axial coding, is determined and were interpreted (Strauss & Corbin, 1990). Box 1.1 provides an overview of the used codes. An explanation of the axial coding can be found in appendix B.

#### Box 1.1 – Content analysis

- A – Aspects
- C – CSR
- M– Valuation method
- D – Decision-making
- W – Why

Before analysing the data, it is necessary to check the validity of the conceptual coding scheme (Baarda et al., 2009). Until all codes were labelled and the scheme fully covered the data, the coding scheme could be subject to change. After the coding scheme was proven to be valid, labels were categorized and core themes were discovered. Afterwards, it was important to examine how inter-subjective the results were and assess to what extent the results are dependent on the researcher (Baarda et al., 2009). The best way to do that was by letting another researcher label the same fragments with the designed label scheme. Any analysis without validation measures becomes meaningless (Mouter & Vonk-Noordegraaf, 2012). To fully check the reliability and replication, two peers, a fellow master student and an employee of Schiphol, both with different backgrounds, readings and interpretations were asked to duplicate one coding activity. It was assumed that 10% of the total content was sufficient for the validation check (Lombard et al., 2004). The duplication activities can be found in appendix C. Eventually, an inter-coder subjectivity coefficient could be rounded to 80%. In literature, there is no consensus about the score of the inter-coder reliability test. Several methodologists state that, as a ‘rule-of-thumb’ a score greater than 0.8 would be acceptable in most situations (Neuendorf, 2002). From this, it is concluded that the coding and labelling activities of qualitative data derived out of the interviews are limited to a minimum level of subjectivity and therefore within limits of qualitative research.

After it was determined that the data of the interviews is within the limits of qualitative research, the discovered themes were analysed. The hierarchies of themes and values are visualised in tables in the report (Löfgren, 2013). Finally, the results of the interviews were interpreted in the light of concepts and existing literature. Practical tips and best practises were taken into account in the design of the conceptual framework.



## 2.4. DESIGN FRAMEWORK

The purpose of this master thesis is to structurally design a framework that evaluates CSR. The actual framework will be developed in Chapter 6, but as discussed in the research design, every sub-goal contributes to the design of the framework. Figure 2-2 shows the content relation and information flow between the chapters.

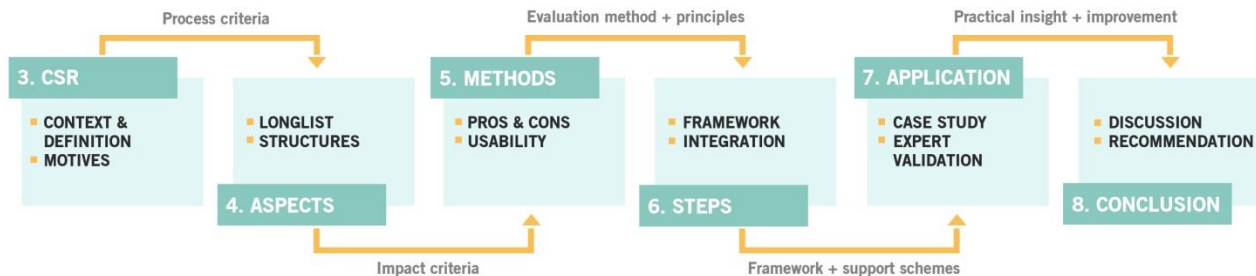


Figure 2-2 Research design: information flow chapters

Definitions and motives from literature were combined with outcomes of interviews provide process criteria. The CSR aspects derived from interviews with leading companies were structured by insight from literature in order to create a CSR longlist. This longlist was the starting point for the conceptual framework and from that the impact criteria were derived. Available methods and impact pathways from the literature were reviewed on the basis of practical use and feasibility during interviews with experts and companies. Suitable measuring tools and evaluation methods were concluded and added to the framework. The conceptual framework consist of a step-by-step guide with principles to distinguish the CSR impacts, how they influence each other, and more importantly, how to value them. The concepts of the framework were tested on a real-life investment decision in a case study. In addition to the case study, in-house experts validated the practical use and applicability of the framework. From this, the conclusions and recommendations were derived.

### 2.4.1. CASE STUDY AND EXPERT-VALIDATION

The goal of the case study was to validate the framework. It is argued that a true validation is not possible, since the impacts of CSR are unknown. Therefore, the validation in this research aims to analyse the practical use and completeness of the framework. The validation process contains a framework application, meetings with in-house experts of Schiphol and a presentation and group discussion with the CR-coordination team.

First, the designed framework was applied to the core business op Amsterdam Airport Schiphol. It was key to select those aspects from the framework that were of most value to Schiphol's operations and its stakeholders. These research choices were based on field documents, interviews with in-house experts and some recent investment decisions. The aspects that were very important or had a high impact were considered. The application process gave insight into the usefulness of the tool and what management information could be expected. Sensitivity of parameters and drawbacks of the tool were also included in the stage. A manual on how to use the tool and which investment decisions were appropriate to feed the framework are concluded in appendix D. Second, the framework was validated by decision makers at Schiphol and the CR-coordination team. They gave feedback on the completeness of the framework, to what extent it captured all relevant CSR themes and how to interpret the outcomes. Moreover, the generalization of outcomes of this single case study is handled carefully (Flyvbjerg, 2006). Finally, outcomes of the content analysis and the lessons learned from the case study were combined into conclusions and recommendations useful for CSR investment decisions across all industries.

# 3.

## CORPORATE SOCIAL RESPONSIBILITY

Corporate Social Responsibility, as stated in the problem exploration, is a complex concept and has a different meaning dependent of the time, place and stakeholder. To fully understand its dynamics and trade-offs, it is key to have a clear interpretation of the concept of CSR. This chapter begins with an investigation of its definition and application in the literature in 3.1. Afterwards practical insights gained from interviews with leading companies will be given in 3.2. Finally, this chapter concludes by achieving the first sub-goal: *‘describe existing context and definitions of CSR and what it means to organisations’* which provides input necessary for the development of the framework. An overview of the design process is shown in figure 3-1.



Figure 3-1 Overview: chapter 3

### 3.1. LITERATURE OVERVIEW

Over the past decades, the definition of Corporate Social Responsibility evolved. The highlights are shown in figure 3-2. In literature, Global Sustainability is seen as the starting point of CSR. The first written and most frequently quoted definition can be traced back to the year 1987 when the World Commission on Environment and Development (WCED) convened by the United Nations, published ‘Our Common Future’. The report, better known as The Brundtland Report, named after its Chairman, Gro Harlem Brundtland, defines sustainable development as follows: *“development which meets the needs of the present without compromising the ability of future generations to meet their own needs”* (WCED, 1987, pp. 45). The Brundtland Report is seen as the first attempt that placed environmental issues on the political agenda.

#### 3.1.1. EVOLUTION OF DEFINITION

‘Sustainable Development’ is widely used and, due to its flexibility, internationally adopted by various stakeholders for their own purposes. This strength is, at the same time, also a weakness. The ideal concept suffers from ambiguity and vagueness and has a clear gap in implementation (IISD, 2010). In response, John Elkington introduced the three pillars of sustainability: *People, Planet & Profit*. (Elkington, 1997). This Triple Bottom Line is the first real definition of CSR. It expands traditional reporting on financial performance by

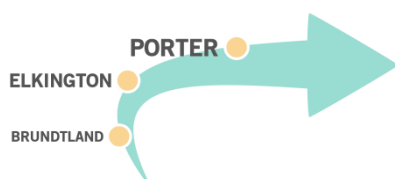


Figure 3-2 Evolution of definition

taking into account social and environmental performance too. This school of thought argues when that the three P’s are not balanced properly, success is based at the expense of the other two. If, for example, the emphasis is on *profit*, *people* and *planet* will then suffer from poor labour conditions and destruction of natural capital. While ‘Sustainable Development’ highlights the integration of economic development and sustainability, the Triple Bottom Line actually

emphasises the trade-offs. The latter theory advocates a balance between the three pillars. During the World Summit on Sustainable Development in 2002, the United Nations adjusted their definition which resulted in a major shift from sustainability in terms of environment towards social and economic development (IISD, 2010). This shift was driven by the Millennium Development Goals and changed the third 'P' from *profit* into *prosperity* in order to highlight the welfare component.

Besides the shift in focus from environment to social, the definition also evolved from a political issue to a significant issue for businesses. The social emphasis used to be on future generations, but for companies, the direct neighbour and employees were indicated as direct stakeholders. The World Business Council for Sustainable Development defines the first 'real' Corporate Social Responsibility definition as *"the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large"* (WBCSD, 1998, pp. 3). From that moment, several meanings of the concept emerged, and presently, there is no consensus about its definition. Studies that reviewed the consistency in the definitions concluded that it can be reduced to five key concepts shown in figure 3-3. These are namely: stakeholder, social, economic, voluntariness and environmental dimensions (Dahlsrud, 2006). For almost a decade, there have not been any significant changes in CSR thinking.



Figure 3-3 Key concepts of CSR

### 3.1.2. CREATING SHARED VALUE

The latest research that triggered CSR at a whole new level, can be attributed to Michael Porter, Harvard Professor and leading authority on competitive strategy. *"The purpose of the corporation must be redefined as creating shared value, not just profit per se"* (Porter & Kramer, 2011, pp. 1). Porter's theory is expected to reshape capitalism and drive the next waves of innovation and productivity. Shared Value is explained 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"* (Porter & Kramer, 2011, pp. 6). Porter argues that many CSR initiatives are often uncoordinated, philanthropic and separated from the firm's strategy, which result in a huge loss in opportunity. The idea behind this theory is that the companies who are able to create a win-win situation for both business and society, will have a unique competitive position and much more impact (Porter & Kramer, 2006).

The world's best example of Creating Shared Value is Nestlé's approach to work with small farmers when it entered the Indian market (see box 3.1). This strategy resulted in local prosperity and, at the same time, higher quality of Nestlé's supply chain at lower costs. The strength of this strategy is that it transforms a local weakness into an opportunity that creates shared value – for the business as well for its surroundings. Whereas all other theories focus on tension, it seems that Creating Shared Value seeks to find shared opportunities. The concept of Creating Shared Value received positive reactions and has been widely accepted. The new approach is clearly visible in corporate strategies and has even been adopted by the European Commission (EC, 2011). The European Commission recognises the importance of the core business strategy as key for the long term success of the enterprise (EC, 2011).

**Box: 3.1 - Creating Shared Value: Nestlé**

When Nestlé opened its first factory in 1962, there were 180 local farmers that supplied milk. The situation in the region was severe. There was poverty, no medical care, poorly irrigated land, and due to the lack transportation, milk was of bad quality and perished quickly. Nestlé supplied expertise, education and medicine to the farmers. Increased irrigation and knowledge improved milk and crop yields which raised income and enabled the region to develop. Today Nestlé has 75,000 milk suppliers in more than 650 villages. Because of increased living standards of the region, Nestlé's product market expanded. Both parties has prospered (Nestlé, 2012).

Besides the positive reactions, there are also some contesting theories and criticisms. The column Schumpeter places sceptical notes about Porter's bold claims that Shared Value will be the solution to tackle capitalism. They agree that climate change can damage the bottom line of organisations, but argue that this thinking is not new (Schumpeter, 2011). Numerous efforts have been made to convince companies of the benefits of emerging markets and lowering pollution. The Shared Value theory has some similarities with Hart (2005) and Emerson's concept of Blended Value. Crane (2014) also accuses Porter, not only of being unoriginal, but of being very selective and ignoring state-of-the-art literature (Crane,

Palazzo, Spence & Matten, 2014). Porter's main premise, that the only purpose for companies is creating economic and shareholder value, is very narrow. Not only has Milton Friedman's statement "*The Social Responsibility of Business is to increase its profit*" been criticized in the literature, Stakeholder Theory also advocates that an increase in stakeholder value creates shareholder value (Freeman, 2004). Furthermore, Shared Value theory is criticized as being naïve about business challenges and ignoring the tension between social and economic goals (Crane et al., 2014).

The argument of unoriginality seems to be less problematic. This might indicate that there are implicitly more adjacent theories or concepts of Shared Value that advocate the same principle – cooperating with direct surroundings can be profitable. The success of this theory and embracement of both the literature as well as several multinationals can be attributed to the fact that it is written in appealing managerial language and has survived several CEO round tables. The most concerning point is that Porter and Kramer's approach encourages companies to cherry-pick success stories regardless of the negative impacts of its core product and markets. Crane (2014) states that "*companies such as Coca-Cola and Nestlé have been lauded as pioneers of shared value in some aspects of their operations while simultaneously castigated for deliberately addicting consumers to high contents of sugar, salt, and fat in their main business*" (Crane, 2014, pp. 138).

Crane may have a good point, 'fair-trade tobacco' or 'recyclable guns' are unwanted. But that is the problem with all CSR initiatives misused for communicational and branding purposes. The 'big idea' of Shared Value is that each corporation should seek the social opportunity close to its core business and improve the status quo. No single corporation, how powerful it might be, can solve the world's biggest problem nor bear the costs (Porter & Kramer, 2011). Organisations that try to solve problems they are not responsible for or are not within the scope of their core business, will only tackle symptoms, which is a waste of resources (Porter & Kramer, 2006).

In conclusion, Corporate Social Responsibility has been subject to a real transition in past decades. The concept started from an environmental and political perspective and slowly included social effects and the contribution corporations make. Even though there was a long time lag, both Porter as well as Brundtland emphasize the needs of direct stakeholders. Despite the similarities, there is still little consensus about the definition of Corporate Social Responsibility. Since the concept is internally complex and dynamic overtime, a proper definition is critically important. This is especially true within an organization where a lack of consensus about its definition leads to different views and conflicting activities concerning CSR.

When organisations have a clear definition of CSR, they can seek ways in which it can be integrated strategically in the core business and hopefully create Shared Value. The following paragraph will zoom in on the motives, stages and usage of CSR to give more insight into its exploitation.

### 3.1.3. MOTIVES FOR CSR

Apart from the theory and its definition, it may also be interesting to examine what is driving these corporations. According to the virtue matrix (Martin, 2002), there are two forces that generate Corporate Social Responsibility. The first is the civil foundation consisting of norms, customs and laws that drive behaviour. This could be either by choice, from ideology perspective, or in compliance. A good example of a compulsory transition is the high-end consumer producer Nike. The intense pressure of activists forced Nike to take a critical look at its supply chain (Zadek, 2004). The second force tends to be intrinsic rather than instrumental and could have a structural or strategic nature. This is where innovations take place (Martin, 2002). The difference can be explained by the following example. While Wal-Mart and FedEx provided disaster relief after hurricane Katrina in 2005 (Matten & Moon, 2008), Puma examined its footprint. By creatively using more recycled materials, Puma reduced its environmental impact and saved costs at the same time (Sipkens et al., 2014). This example of strategic CSR is where innovation takes place and when it gets interesting for both businesses and environment.

### 3.1.4. INTEGRATION OF CSR: STAGES

These inspiring best practises, however, demand some serious resources, creativity and perseverance. The four 'typical' stages of CSR are: compliance, engaged, integrated and transformational and are shown in figure 3-4. Organisations that have little interest in CSR are in the 'compliance' phase. The ambition level is extrinsically oriented and the goal is obeying the law and protecting the firm's reputation. The operation is straight forward and goes well with Friedman's statement "*The business of business is business*" (Friedman, 1962, pp). These corporations have little interest in stakeholder engagement and efforts for employees are very basic. This stage can be seen as the bottom of the CSR pyramid (Carroll, 1991) and is in accordance with the virtue matrix (Martin, 2002).

At the second stage, firms are engaged with CSR but are still quite reactive. One realizes the quick wins in waste and resource efficiency. Companies in this phase also mitigate risks on the level of health, safety and environment, often to exceed the law and secure its license to operate (Zadek, 2004). The communication with stakeholders is extended but most usually lacks capacity (Mirvis & Googins, 2006). The focus is still externally oriented and CSR is mainly used strategically for reputation management. Box 3.2 describes a strategic reputational based defence. Marketing campaigns and charity are often used to enhance image and create leverage in case of a crisis (Porter, 2006).

**Box 3.2 – Shell's response** in the mid-90s to environmentalists and social activists was to form a cross-functional, multi business team to study the larger issues of Shell's role in society. This strategic move, typically for this stage, was to protect Shell's reputation and their license to operate. Over the past years, Shell's citizenship broadened and it innovated by being the first large public company that issued a sustainability report. These efforts, however, were not in line with transparency development and, as misstatements came to light, it harmed its reputation even more (Mirvis & Googins, 2006).

The extensive body of literature has clearly become mature with respect to charity. The pyramid of Corporate Social Responsibility entails the fulfilment of a firm's responsibility to be profitable, obey the law, be ethical, and on top of this, be a good corporate citizen (Carroll, 1991). Meaning philanthropic responsibility to improve the quality of life in communities by providing financial and human resources. While charity was for pioneers in the early 90s, now it has become mainstream and its effectiveness is questionable. Poorly coordinated philanthropic activities with a lack of logical connection to a firm's goal have little impact nor strengthen the long term performance (Rangan, Chase & Karim, 2015). Porter (2011) points out that shared value is not about redistribution of value already created by the firm, but it is about expanding economic and social value. The

**Box 3.3 - The effectiveness of Fair Trade**

Fair trade aims to redistribute the proportion of revenue by paying farmers a higher price for the same crops. Strategic CSR focuses not on the profit of farmers, but the efficiency, yields and product quality. While Fair Trade increases income by 10% or 20%, studies of cocoa farmers have shown that investments in growing techniques and local clusters can increase income by more than 300% (Porter, 2011).

different perspectives are explained by the Fair Trade movements in box 3.3. It is not being said that Fair trade itself is a bad idea, but that a greater return for both business and society is possible.

In the next phase, CSR activities have moved from uncoordinated ad hoc projects, most often initiated by Public Relations or communication departments, to a systematic integration into the core business. The key to fuel this process is active CEO engagement (Rangan et al., 2015). Without full CEO support, CSR will be represented insufficiently on the corporate agenda and, therefore, deepening its involvement

will become tough (Mirvis & Googins, 2006). With full support of top management, CSR is often translated into programs, goals and target setting. It is also subject to auditing and reporting (Visser, 2010). Social and environmental reporting is very common for large organisations, but a small percentage of these reports are subject to external verification. The companies that have transparency at the heart of their CSR and disclose, aside of its success stories, risks and failures (Mirvis Googins, 2006). Innovation and organisational learning are characteristic for this stage. This is also clearly visible in increased stakeholder participation. The stakeholder theory's main premise is that values are necessarily and explicitly a part of doing business (Freeman, 1994). Following this logic, the focus is on two core questions, namely: 'what is the purpose of the firm?' and 'what responsibility does it have to stakeholders?' (Freeman, Wicks & Parmar, 2004). Consultation phases and several round table meetings are often organised to improve stakeholder communication and mutual influence. This is in order to increase the understanding and needs of the stakeholders. However, according to Porter (2006), the CSR agenda of companies should not be empowered by stakeholders solely. It is argued that the stakeholders view is crucial, but that they can never fully understand the organisation's capabilities, trade-offs nor address the importance of these issues (Porter & Kramer, 2006).

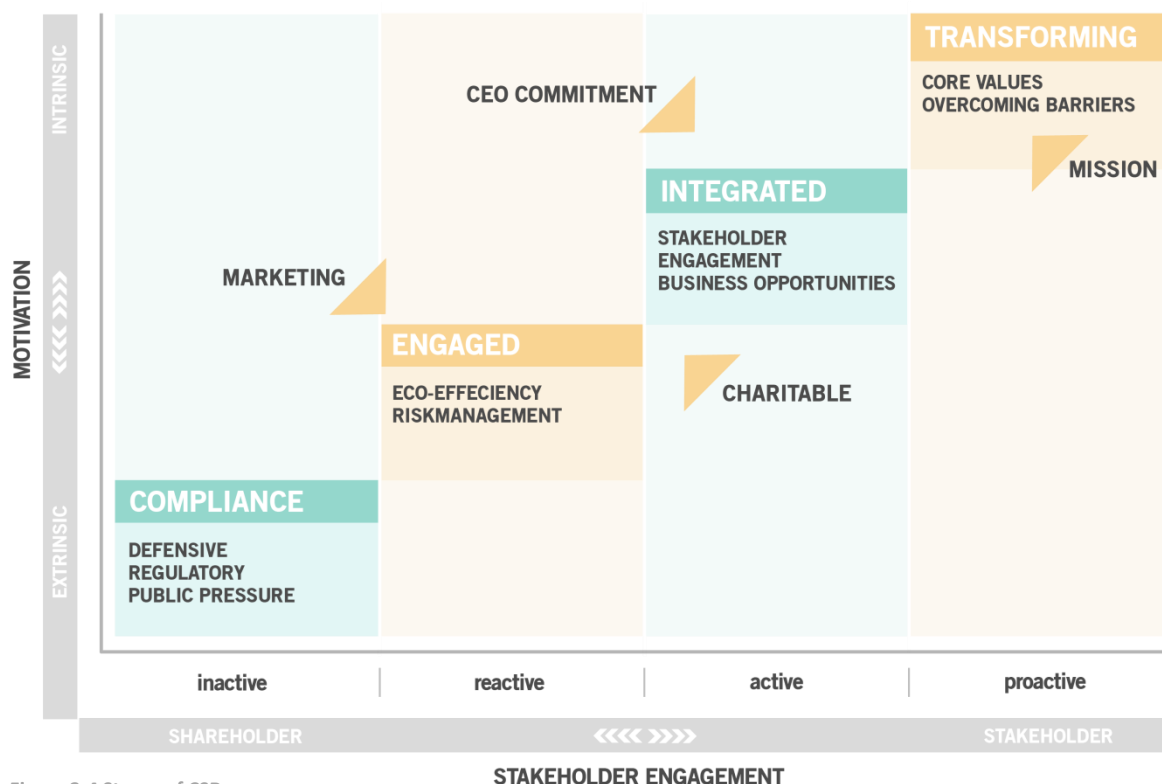


Figure 3-4 Stages of CSR



The last phase, transforming, is seen as the highest level of Corporate Social Responsibility. It moves beyond charity and mitigating harmful impacts (Porter & Kramer, 2006) and is also known as systemic or holistic CSR in the theory of sustainability 2.0 (Visser, 2010). A study of CEO's in twenty companies in this stage concluded that they were motivated to make the world a better place (Mirvis & Googins, 2006). These ambitions may sound woolly, but they certainly are not. It is about hard core business, decisions concerning multiple trade-offs with one clear goal: business longevity. Linear business models of 'take-make-dispose' are not sustainable (Ellen MacArthur Foundation, 2015). Circular Economy with its foundations in cradle-to-cradle (McDonough & Braungart, 2002), is increasingly being acknowledged. Strategic CSR closes loops, inspires employees and forces corporations to think, and constantly rethink, the long term impacts it has on society and its surroundings (Smith, 2011).

Stakeholder interaction is in this stage reached at the highest level. Companies with aspiration to 'change the game' rarely operate independently (Mirvis & Googins, 2006). Besides stakeholder dialogues, these organisations team up with partners, NGO's and community groups to increase their influence even more. The theory of 'a fortune at the bottom of the pyramid' explains the opportunities of tailoring local solutions and, at the same time, creating buying power (Prahalad & Hart, 2002). A good example is Unilever's lifebuoy which can be found in box 3.4. However, it definitely is not simple. Doing business with the poorest 4 billion people, demands some serious innovations that only multinationals with global reach and sufficient resources can manage (Prahalad & Hart, 2002).

#### Box 3.4 - Transformation change: Unilever

Unilever is widely noted for its effort in emerging markets. It made the Lifebuoy soap affordable for the poor and partnered with government agencies and NGOs to leverage expertise about hand washing and, therefore, legitimize their efforts. The affordable personal care brands combined with hand washing commercials reduced diarrheal diseases by 30% and increased income and welfare. (Mirvis & Googins, 2006).

The organizational stages of CSR, as discussed above, are accompanied by increasing stakeholder involvement and intrinsic motivation. The organizational CSR stages from compliance, engaged, integrated to transforming, are also accompanied by a internal movements (Maas & Liket, 2015). CSR is not only adopted in the corporate strategy, it has deeper roots within the organisation as shown in figure 3-5.



Figure 3-5 Intern involvement CSR (Maas & Liket, 2015)

As of today, there is no consensus as to the definition of Corporate Social Responsibility, or how it should be practised. From the literature overview, it became clear that the focus has evolved from nature to social and from political perspective to the corporate agenda. Due to the wide variety of issues the different sectors struggle with, one definition will never be agreed upon in the literature. What matters most is that organisations should have a clear definition and mission regarding CSR. Key for this transition is CEO alignment. Without integration in the strategy, many CSR initiatives are often uncoordinated, philanthropic and separated from the firm's strategy, which result in a huge loss of opportunity. Both strategic CSR, as well as, holistic CSR, emphasize the importance to stay close to the core business and stakeholders, in order to, transform threats into opportunities for humanity and nature.

## 3.2. BUSINESS PERSPECTIVE

In this section the dynamics of Corporate Social Responsibility will be discussed from the perspective of the companies. Interviews were held with leading firms with respect to CSR. The sample can be found in appendix A. On the basis of content analysis, the qualitative data derived from the interviews is structured and summarized (Strauss & Corbin, 1990). The labeling process and inter-coder reliability can be found in appendix C. Conclusions derived from content analysis is summarized in tables. The goal is to discover what is driving these companies and how they view and evaluate CSR effects in decisions. It is, therefore, not necessarily stated what conclusions can be attributed to which company. However, examples and quotes from the interviews will be used to illustrate the results.

### 3.2.1. DEFINITION ISSUE

During the interviews, it became clear that there was an issue, just as in literature, with the definition of Corporate Social Responsibility. Table 3-1 shows that companies either perceive a narrow interpretation of the definition, or argue for a wide interpretation of definition and all concepts mean the same.

Table 3-1 Interpretations definition CSR companies

INTERPRETATION OF DEFINITION		
Wide interpretation	Narrow interpretation	
Broad and holistic	Sustainability	CSR
Nature + social	Nature / green	Social / extern

The majority accepted the fact that there was not one commonly used definition. This group handles a wide interpretation and perceived no difference in how it is called because everyone knows what it is about. Corporate Social Responsibility is interpreted holistic in its broadest sense and is viewed as a container concept which includes both aspects of social and nature.

For the minority, it can be said that, due to the narrow interpretation, the definition did make a significant difference. These companies interpret CSR as something completely different from sustainability. Sustainability is perceived as care for nature, efficient use of resources and considered as 'green'. CSR is specifically recognized as value to human beings, such as, direct stakeholders but also future generations. One out of the ten interviewees perceived sustainability as an internal activity. In that view, responsibility is considered an obligation to the world outside the company and is seen as an external activity. From this it can be derived that there is both in the scientific literature and in practice no consensus about a clear definition.

Besides the interpretation, there was also no consensus in the way the companies handle the definition. Table 3-2 shows that companies use their own definition, different definitions, or do not use a definition but have CSR fully integrated in their business. One thing is clear, all companies relate CSR to their core business.



Table 3-2 Use of definition CSR companies

USE OF DEFINITION		
Relate to core business		
Use own definition	Use different definitions	Fully integrated
Clear for internal stakeholders	Different answers internal stakeholders	No special attention to CSR

Some companies use their own definition. Unilever, for example, has created a ‘Sustainable living plan’ and Heineken has set the strategy for ‘Brewing a Better World’. Some companies even integrated CSR in their slogan. Eneco, for instance, refers to itself as ‘Eneco – the sustainable energy supplier’. Wehkamp does believe in Corporate Responsibility, but rather calls it ‘Corporate involvement’ (Van den Bogaart, personal communication, June 11, 2015) emphasizing the difference between intrinsic and extrinsic motivation. It was argued that responsibility sounds like an obligation, while involvement is perceived to be about motivation. One argued: *“Whatever you choose, it should be clear and consistent within one company”*.

It is also possible to use different definitions. Asito, for example, stated that *‘What CSR means? If you ask different people, you get different answers!’* (Haas, personal communication, June 3, 2015). This conception is in line with the broadest sense of the definition.

The last option to handle definitions is to fully integrate it in business. Achmea argued not to have an existing definition or a strategy anymore. Nowadays, CSR is fully integrated into its business operations. It even argued to be content with the fact that, if you ask a random employee about the CSR strategy, it might take some time, but eventually they know what it means for Achmea to be a responsible and responsive organization (Dalmeijer, personal communication, June 16, 2015). CSR is fully integrated, not only in the annual report but also in the mindset of employees. Meaning that the subject does not receives special attention, it is now part of the business strategy (Dalmeijer, personal communication, June 16, 2015).

Despite how companies define CSR, they all relate it to their core business. It is remarkable that even though they all handle different definitions, the content is always translated into what is particularly important for that type of business. ProRail, for example, defines CSR as sustainable travelling, working and living, while Wehkamp describes responsible purchasing, shopping and operations. The CSR aspects that are important for online retail are very different from rail infrastructure. Both have issues with their supply chain, but from very different aspects. Whereas retail worries about child labor and human rights in factories, the infrastructure sector cares about sustainable concrete and re-use of raw materials. These are the areas that have the biggest impact on the respective companies.

Besides the difference in sector the company is operating in, the type of company is also of importance. PostNL, for example, is one of the largest employers in the Netherlands. The policy concerning personnel has a direct impact on the society.

### 3.2.2. MOTIVES OF CSR

Despite the definition, companies also have different motives for corporate responsible behavior. As shown in table 3-3, CSR can be reduced to two core reasons: responsibility and continuity. Responsibility is categorized by existence of the company, society and the planet. Continuity can be explained by motives like long term strategy, risk and changed public opinion. Note that companies can have more motives.

Table 3-3 CSR motives companies

RESPONSIBILITY		
Existence company	Society	Planet
Shareholders	Being a role model	Climate change
Culture	Media pressure	Resource shortage
CONTINUITY		
Long term strategy	Risk management	Changed public opinion
License to operate	People: employees & customers	Value creation
License to grow	Planet: shortage & pollution	No depletion

First, companies argued they behave responsibly because of the existence of the company. NS and ProRail are state funded. Both companies have the feeling they have 17 million shareholders and speak in terms of 'B.V. the Netherlands' (Van den Bosch; Kinds & Coenen, personal communication; June 1; June 13, 2015). Responsible behavior of Achmea can be explained by the reason the company came into existence 200 years ago; as a co-operative to secure 40 farmers to protect their properties against fire (Dalmeijer, personal communication, June 16, 2015). Just one company, Asito, is driven by intrinsic motivation. It is part of their culture (Haas, personal communication, June 3, 2015). Responsibility with respect to society and the planet is discussed rather blandly. The responsibility motive seems to be in line with the civil foundations from ideology, with respect to society and nature, and the existence of the company can be related to the in compliance motive of the virtue matrix (Martin, 2002).

Responsibility to society is seen as more externally focused. Companies either feel responsible as role models or anxious because of media pressure. Those who felt responsible for the planet argued to care about climate change and resource shortage. Second, it is concluded that the majority acts responsible because of the relationship to the continuity of business. They argue that there is a direct link between sustainability and long term strategy. They are convinced that sustainability is a core part of their license to operate. Focusing on the near future would not be sufficient to secure their license to grow.

Sustainability also has, according to the interviewed companies, a direct link with risk management. Due to the increased importance of sustainability in the public opinion, unsustainable behavior could harm the business twofold. First, it is expected that sustainability becomes more important in the decisions of people. It is argued that, having an un-sustainable business makes the company less attractive for future employees and customers. The second risk is attributed to the planet. Some businesses are highly dependent on certain resources, such as, water. Others have a large impact on the environment in terms of pollution and emissions. Changes in waste management or the Emission Trading System could have a large impact. Therefore, pollution and resource shortage are included in risk management. Both motives of continuity can be related to the virtue matrix as intrinsic motivation with an strategic nature (Martin, 2002).

The last aspect that is seen as critically important for the continuity of companies is the changed public opinion. People used to focus on how much companies turned over. The more they produced, the higher the companies were valued. The interviewed companies noticed that this public opinion is changed. Currently, it is more

important what a company contributes to society and its environment. Depletion of resources or human capital is valued negatively.

3.2.3. INTEGRATION OF CSR IN BUSINESS

All the companies that were interviewed have embraced CSR and integrated it into their corporate strategy - some more than others, but they all acknowledge its importance. From the analysis of the interviews, it became evident that there are three relevant aspects with respect to corporate strategy, to know: integration in organization, embedding in management and communication, as shown in table 3-4.

Table 3-4 CSR and corporate strategy

CORPORATE STRATEGY		
Integration in organization	Embedding in management	Communication
Top-down	CEO/CFO Awareness	Transparency & GRI
Bottom-up	Targets & Bonus	Benchmarks

First, CSR should, according to all interviewed companies, be fully integrated in the organization. The vast majority prefers a top-down approach. It is argued that structured and consistent CSR behavior has the most impact. One company, Asito, disagreed. They welcome all initiatives that arise from the organization. This bottom-up approach is seen as the way to motivate people to incorporate CSR in the daily business (Haas, personal communication, June 3, 2015). They believe that, if CSR is imposed by management, it might demotivate their workers. Opponents of this theory argue that uncoordinated CSR activities do not contribute to the corporate strategy and quickly become pet subjects (van den Bogaart, personal communication, June 11, 2015).

Second, the goal is to have all divisions and departments aligned. To achieve this, it is agreed that CSR should be fully embedded in management. As already stated in the scientific literature, CEO or CFO awareness is also seen by all companies as a key success factor. Without active support of the board, CSR will never be part of the corporate strategy. Furthermore, CSR should, according to some, be present in target setting. AkzoNobel argues that it should also be part of the bonus structures. *“In this way CSR is fully integrated into the thoughts and actions of people”* (Smits, personal communication, June 3, 2015).

The last aspect that has gained attention, is the way organizations should communicate about CSR. The first aspects that have been highlighted are the need of transparency and usefulness of Global Reporting Initiative (GRI). It has become clear that annual reports are a common distribution channel for CSR. Direct stakeholders prefer to be kept informed about initiatives and goals. No one disagreed that sustainability has a positive influence on the firm’s reputation. How CSR should be communicated is very important. Transparency is key in this. The use of GRI is seen as a helpful tool to focus and to set priorities. Another strategy that has gained ground is the to use of external benchmarks to set focus, such as the Dow Jones Sustainability Index and Transparency Benchmark. The practical use and reliability of these ratings, however, are questioned by some, including those who have high rankings. It is argued that these benchmarks should not be used as beauty contests but it can be helpful to create awareness for some topics (Vosmeer, personal communication, June 11, 2015). The relation of CSR and annual reports is unremarked in the literature. Only Visser (2006) emphasizes the importance of transparency and GRI.

The success of CSR in the corporate strategy is, however, dependent on its focus. On the basis of content analysis, it is concluded that companies coordinate CSR by focusing on the basis of three elements: core business, key stakeholders and a win-win situation. The related aspects are shown in figure 3-5.

Table 3-5 CSR focus companies

CSR FOCUS		
Core business	Key stakeholders	Win-win situation
Influence	Materiality	No philanthropy
Impact	Collaboration	Business case

The first link of focus is with its core business. It is argued that CSR activities should be related to core business since that is where the company has the most influence and can make the biggest impact. Unilever, for example, has chosen to focus on 'health and wellbeing'. They are aware of the issues with respect to food waste, but because they are not the biggest player in the food industry, they have chosen not to take food issues into account. Besides the power to influence, there should also be a significant impact. Heineken, for instance, has transformed all its buildings into green buildings. By reviewing its total footprint, they discovered that the green buildings have a negligible impact on the total footprint (Vosmeer, personal communication, June 11, 2015). Therefore, the focus is on production, packaging, distribution and cooling. The responsibility of Heineken does not stop at the finished product, it includes its entire supply chain. Heineken, for example, also facilitates energy efficient refrigerators for customers since cooling is part of their impact (Vosmeer, personal communication, June 11, 2015).

The second important aspect for the focus of companies is their stakeholders. First, the CSR activities should be material to the key stakeholders. If one puts effort into something nobody cares about, it is a total waste. Stakeholders are roughly divided into primary stakeholders, such as, shareholders and employees, and secondary stakeholders, like, society, governments and NGO's (Tideman, personal communication, June 14, 2015). Second, collaboration is key for the success of CSR. Collaboration with stakeholders is of critical importance to increase impacts. ProRail, for example, argues that the biggest impact is in its value chain (van den Bosch, personal communication, June 1, 2015). The 'ProRail prestatie ladder' is a good example of the impact joined forces can have.

The last aspect relevant for the focus is the goal of a win-win situation. Primarily, CSR should not be related to philanthropy. It has not been said that companies should stop donations. Not at all. NGO's and activist groups need funding, but philanthropic activities should not be misunderstood to be CSR. The problem with charity is that it is always dependent on donations and what one considers to be charity (Vosmeer, personal communication, June 11, 2015). Moreover, it will never achieve the same amount of impact that a CSR project can. This is due to a positive business case. That is also the second reason why there should be a business case for CSR to create a win-win situation. If, and only if, CSR creates new opportunities by tackling problems concerning communities or the environment, the innovation is sustainable. *"It is not about the business case for sustainability, it is the sustainability of the business case"* (Reinhoudt, personal communication, June 12, 2015). NGO's and activists attacking multinationals for issues on which they do not have influence have clearly been disapproved by both the scientific literature and companies. *"Corporations are not responsible for all the world's problems, nor do they have the resources to solve them all"* (Porter & Kramer, 2006, pp. 8).

Without deliberately asking about future perspectives, multiple companies related CSR to their long term strategy. As shown in figure 3-6, two striking phenomena were discovered.

Table 3-6 CSR future perspective companies

CSR FUTURE	
Change business focus	Shift in CSR focus
Remain relevant	Resources
Side activities	People

The future perspective that is gleaned from interviews is the change in business focus. The goal of changing business focus is to remain relevant and create side activities. PostNL, for example, is dealing with a declining mail market. As the biggest employer of the Netherlands, it is unable and unethical to lay off all postmen. Because PostNL drives through every street of the Netherlands everyday, they have seen opportunities to increase their role in social security. To remain relevant, PostNL is looking for new side activities and innovative ways to keep their employees in the labor market (Spronsen & Rodenboog, personal communication, June 2, 2015).

The second aspect of a shift in focus of future perspectives of companies is associated with change in resource use or a change in policy concerning people. A clear example of a shift in resource use is related to Eneco's goal of transitioning renewable energy. The main focus at the moment is to decrease their CO<sub>2</sub> emissions and to stay within the '2 degrees scenario' of climate change. Eneco is confident of reaching their goal but also realistic about the shift in focus. The transition to renewable energy is associated with decentralized energy production of wind mills and solar panels. By the year 2050, CO<sub>2</sub> emissions will not be their main concern anymore. They expect that the focus will shift to depletion of resources and minerals (Meijer, personal communication, June 8, 2015).

The literature pays too little attention to the future perspective of organization. It, indeed, highlights the strong relation of CSR and long term strategy, but it does not provide structural implications nor how to tackle CSR in decisions and integrate in the strategy. As stated by some, companies are on several levels ahead of science which is focusing too much on the past.

### 3.3. SUB-CONCLUSION

From the first sub-goal 'Describe existing context and definitions of CSR and what it means to organisations' it is concluded that CSR is more and more related to long term strategy and business continuity. There is, however, no consensus about the definition of CSR. It seems to be impossible to have a definition that covers all industries, but still touches upon a company's core business. It is, therefore, argued to handle Elkington's definition, *People, Planet and Profit*, as a point of departure for the framework which will be designed further in this research. From the analysis it is concluded that companies should determine their own CSR definition which includes the core business and key stakeholders in order to focus their CSR activities. Philanthropic activities separated from the core strategy do not have considerable impact.

Besides a clear, company specific CSR focus, CEO awareness is key to get CSR fully integrated in the business strategy. Only if a company has CSR at heart it is able to create win-win situations which benefits close stakeholders and meantime ensures business longevity.

From this, the following process criteria are derived as CSR should:

- Relate to core business;
- Involve direct stakeholders;
- Incorporate material aspects;
- Be acknowledged by CEO.

Figure 3-6 shows how this chapter contributes to the design process of the CSR evaluations framework.



Figure 3-6 Design process: Chapter 3

# 4.

## ASPECTS CORPORATE SOCIAL RESPONSIBILITY

In the previous chapter it became clear that both in literature and in practice there is no agreement about the definition of Corporate Social Responsibility. Companies care less about precise definitions and rather define their own strategy. Nonetheless, it is agreed that CSR activities should relate to core business in order to create win-win situations. Only in that case, companies can make considerable impact and create shared value. The questions, however, are what is 'impact' and what impact do companies have? These issues will be discussed in relation to the scientific literature in 4.1 and interviews in 4.2 in order to approach the second sub-goal: 'Distinguish all aspects of CSR'. Figure 4-1 shows the relation between this chapter and the rest of the report.

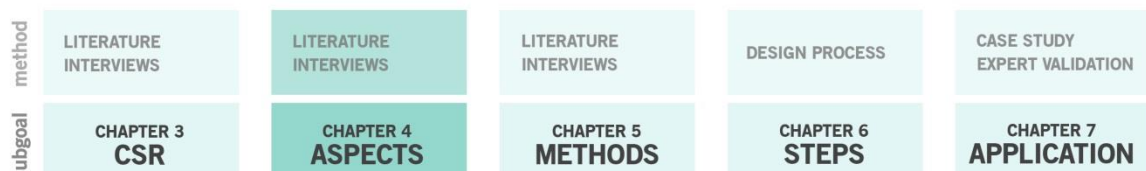


Figure 4-1 Overview: Chapter 4

### 4.1. LITERATURE OVERVIEW

John Elkington's (1997) definition of the triple bottom line distinguishes *people*, *planet* and *profit*, but does not provide any further guidance. As has become clear from the interviews, during the exploration phase of what impacts companies have, it is determined they keep a close eye on the needs of its direct stakeholders and surroundings and what is perceived as material. Before CSR aspects can be distinguished, it should be made clear what is exactly meant by impact and materiality. Later, methods that help focusing like GRI and benchmark will be reviewed. This section closes with an exploration of CSR structures and existing frameworks.

#### 4.1.1. MATERIALITY OF NON-FINANCIAL ASPECTS

There is a close link between the sustainability and reporting. From the interviews, it was determined that the GRI guidelines, the world's most accepted guidelines for social reporting, are found useful to prioritize a company's impact on its surroundings. The main difference between GRI 4 and its previous version is that it aims for a lean and relevant report by focusing on materiality (GRI, 2014). The materiality matrix, that maps per subject the relevance to stakeholders against the relevance to the organization, helps to focus on the subjects that really matter. It is commonly known that duplex printing does not have significant impact, but what is, is sometimes hard to tell. Materiality of non-financial aspects indicates its importance, just as the meaning in auditing and accounting where it generally is used, relates to the importance of and the amount of transaction (PWC, 2014). In non-financial reporting the term materiality is defined as: "*material aspects are those that reflect the organization's significant economic, environmental and social impact; or substantively influence the assessment and decision of stakeholders*" (GRI, 2013, pp. 7). However, it should be noted that what might be material for one company will be less for others, or less so for the same company at a different time or place (APS, 2008).

#### 4.1.2. IMPACT

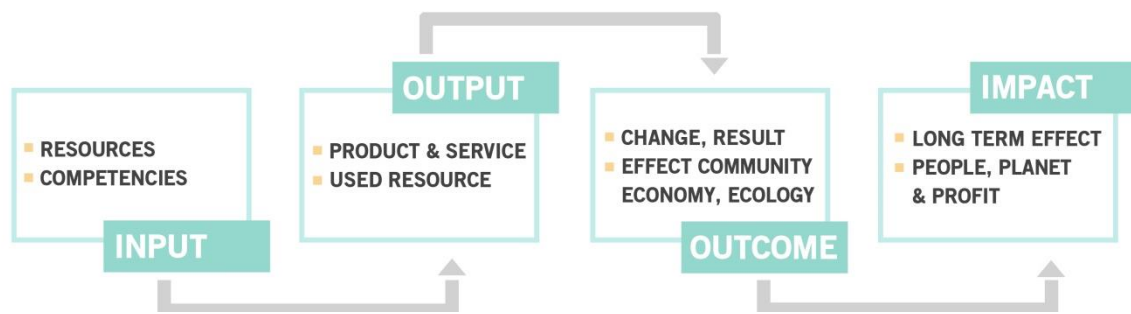


Figure 4-2 Impact value chain

The materiality of an aspect is also determined by the impact. An effect should have a significant impact to be material. This will be explained by the following two examples. Figure 4-2 shows the impact value chain (Maas, 2014). Impact can either be positive, value creation, or negative, value destruction. Value Creation is defined as *“the process that results in increases, decreases or transformation of the capitals caused by the organization’s business activities and output”* (IIRC, 2013, pp. 33). From figure 4-3, it becomes clear that an outcome, a change or result, should have a long term effect on people, the planet or profit to become an impact. The world’s best example of Creating Shared Value is the soap of Unilever (Tideman, personal communication, June 10, 2015). Figure 4-3 shows the impact value chain of Unilever’s Lifebuoy soap in India.



Figure 4-3 Impact value chain Unilever

A negative impact can be created, for example, by CO<sub>2</sub> emissions by the manufacturing process of a product (output), resulting in climate change (outcome), which leads to a decrease in ecosystem quality (impact). This example emphasizes the difference between outcome and impact. If the CO<sub>2</sub> emissions did not have a negative influence on climate change, no one would bother. The same outcome, therefore, can have a different impact depending on time and location. Construction work, for example, has noise as outcome, but in rural areas and in absence of breeding grounds, it will not lead to impact. While the same activity and outcome might have an impact in urban areas, namely, lower quality of life due to nuisance.

Another aspect that has gained significant importance in the GRI4 is the impact that might be outside the scope of the company but are material, for example, during consumption or in the downstream supply chain (GRI, 2014). By the use of these guidelines, companies are challenged to include integrated thinking and different value creation models in their report. King, Chairman International Integrated Reporting Council, endorses this method and argues that *“Integrated thinking requires all factors to be considered in a holistic manner, such that a company can understand, and make decisions based on, the overall impact it has on all its stakeholders and generally on society, the environment and the economy”* (PWC, 2014, pp.2). Following this logic, one becomes able to not only show the realized impact, but also, and maybe even more importantly, to obtain insight into the impact which has or has not been realized, enabling to learn what impact can be improved (Maas, 2014).



The GRI 4 guidelines are very useful, but it is not a one-size-fits-all checklist (GRI, 2013). Porter also argues that annual reports or sustainability reports rarely offer a coherent summary of CSR activities. Instead it often is a collection of uncoordinated (philanthropic) initiatives described in the number of reductions or volunteer hours spent – but almost never in terms of impact, let alone strategic and forward looking CSR commitments (Porter & Kramer, 2006). The sustainability reports, however, are not only viewed by activist groups and NGO's, but also by rating agencies. The increasing need for sustainable information has become important to improve the non-financial risk profile (PWC, 2014). Financial markets have created several indices to measure the sustainability of companies. Shareholders want sustainable growth, which is completely different from the present value of the future cash flows.

From the interviews discussed in Chapter 3, it is also concluded that another way to prioritize CSR aspects is the use of benchmarks. The Dow Jones Sustainability Index (DJSI), a family of indices evaluating sustainable performance of the 2500 largest companies, is an example of a powerful index tool. Both Heineken and AkzoNobel agreed that the index is far from perfect, but they also argued that the end justifies the means (Vosmeer; Smits, personal communication, June 3, 2015; June 11, 2015). That is to say, if the index draws attention to subjects which were previous not on the agenda; it has accomplished its goal. Examining these indices more closely, it seems to measure all sorts of things – except Corporate Social Responsibility (Chatterji & Levine, 2006). First, it has way too few resources to audit complex CSR activities worldwide. Therefore, it uses easy available data even though it might not be an appropriate proxy. The DJSI, for example, uses the size of the board to indicate community involvement – something which is completely unrelated. As well, it has very low validity because of the difficulties concerning measuring sustainability. Social impact is usually based on self reported company data with insignificant statistically ratings (Chatterji & Levine, 2006).

Up until now, it has been determined that companies have impact on communities and ecology by creating positive or negative value. In the journey to find out which impact is material, organizations use materiality matrices and stakeholder dialogs on which to focus and GRI 4 and benchmarks to evaluate performance. The next paragraph summarizes the most commonly used frameworks.

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#### 4.1.3. CSR STRUCTURES

As stated in the beginning of this chapter, to the best of the author's knowledge, it can be said that the scientific literature does not provide any helpful descriptions of what CSR entails other than *people, planet* and *profit* (Elkington, 1997). The exploration continues in the so-so-called grey literature, which exist of multiple guidelines and frameworks. Besides several councils and initiatives that have emerged, large accounting firms also respond quickly to the increasing demand of holistic reporting and developed models to help companies in this journey. Even though it is not scientific, it is of considerable importance to the relevance of this research to tie in with existing frameworks.

The IIRC identifies six capitals of value: financial, manufactured, intellectual, human, social and relationship, and natural capital (IIRC, 2013). This framework is a good point of departure and the definition and explanation of the six capitals can be found in table 4-4.

Besides the six capitals defined by the International Integrated Reporting Council (IIRC), there also other schemes available, some are included in appendix C. KPMG's True Value methodology distinguishes six material externalities, positive and negative - economic, social, and environmental effects (van Bergen et al., 2014). In addition to IIRC, the effects in this framework are attributed with a judgemental value, positive or negative. An advantage of this framework is that it is more detailed about some capitals. Economic capital, for example, is divided by taxes, dividends, interest and wages as positive and avoided taxes and corruption as negative economic capital. Even though it is more detailed, it does not tackle CSR completely. It captures only externalities, while CSR impacts also entail direct and indirect effects.

FINANCIAL	MANUFACTURED	INTELLECTUAL	HUMAN	SOCIAL	NATURAL
OBTAINED THROUGH: DEBTS, EQUITY OR GRANTS	BUILDINGS	PROPERTY: PATENTS, SOFTWARE, RIGHTS	ETHICAL VALUES	NORMS, VALUES & BEHAVIOR	AIR, WATER, LAND, MINERALS & FORESTS
	EQUIPMENT		UNDERSTAND STRATEGY	KEY STAKEHOLDER RELATIONS	
GENERATED THROUGH: OPERATIONS, INVESTMENTS	INFRASTRUCTURE	ORGANIZATION TACIT KNOWLEDGE, SYSTEMS, PROCEDURES	LOYALTIES AND MOTIVATIONS	BRAND AND REPUTATION	BIODIVERSITY AND ECO- SYSTEM HEALTH

Figure 4-4 IIRC Values: 6 capitals (IIRC, 2013)

Besides the True Value Methodology, The Total Impact Measurement and Management (TIMM) framework of PWC includes four different impacts, namely: social, environmental, economic and fiscal impact (PWC, 2014). In this framework, related to others, the emphasis is more on tax because it is explicitly set apart of economic value. Other frameworks have tax included in economic capital. Furthermore, the TIMM methods is, just like the True Value Methodology, more detailed and also takes into account health, education and livelihoods. In line with the IIRC, it also captures intangibles. Lastly, TruePrice clearly makes a distinction between human and social capital (Sipkens et al., 2014), which is again more in accordance with the International Integrated Reporting Council's framework.

In conclusion, over the past two years, due to the increasing demand of integrated reporting, several high level frameworks came into existence. All frameworks have at least financial, social and natural capital in common and vary in other aspects. Yet, for the most part, they are quite similar and a good starting point to structure CSR aspects. The goal of this research is to design a framework which evaluates CSR in investment decisions. The existing frameworks are all very generic and at company level; this will not be sufficient for investments. Meanwhile, the frameworks form a sound basis.

## 4.2. BUSINESS PERSPECTIVE

In Chapter 3, it became clear that the companies use stakeholder dialogues and materiality matrices to focus and set CSR strategies or even better, integrate CSR in the corporate strategy. In this section, it will not be discussed how companies deal with CSR but what aspects of CSR can be distinguished.

#### 4.2.1. MATERIALITY

During the interviews, several important topics, like CO<sub>2</sub>, water, waste but also integrity and fair taxation passed the revue. All these aspects were labeled and, if necessary, additional information was gathered by written annual reports. All aspects were gathered and a collection of CSR aspects is shown in figure 4-5, which has been generated on the basis of frequency. The frequency is directly related to the size of the aspect. It became clear that sustainability was mentioned most frequently.



Figure 4-5 CSR longlist

From this longlist, a couple of conclusions can be made. First, from the interviews, the word ‘sustainable’ is apparently more popular than ‘responsible’. As it has become clear from Chapter 3, responsible is more often related to people effects of CSR and sustainable more to planet effects. Second, there is also a misunderstanding about the aspects of CSR. The companies clearly view the aspects of CSR in the broad sense of the term. Aspects, such as, ‘stakeholder dialogue’ and ‘efficient logistics’, can respectively also be seen as a method to focus and a solution to improve outcomes.

The last conclusion to be made from this longlist is the importance of certain aspects. Without doubt, carbon dioxide is the most frequently stated aspect. All companies perceive CO<sub>2</sub> as important, some even problematic. CO<sub>2</sub> can, for these companies, be seen as a systemic problem. Other important topics are resources, safety, integrity and water. From this, it can be concluded that all companies have different focus areas and other abstraction levels. Companies that do not have a polluting production process or logistics will focus, for example, more on people rather than environment. Besides the difference in impacts, there might also be a difference in abstraction level. Wehkamp, for example, deals with sector-wide problems with human rights and

child labor in the supply chain. ProRail, on the other hand, is a large consumer of concrete and steel. Changes in purchasing behavior will have major effects on the total impact of ProRail. Even though the outcomes are different, the value chain is, for both companies, material.

#### 4.2.2. STRUCTURING CSR ASPECTS

On the basis of content analysis, the CSR aspects in the longlist are structured in order to find underlying themes as shown in figure 4-6. Based on the features the labels have in common, the labels are grouped and the number of labels can be reduced. This axial coding process can be found in Appendix B and was repeated until final core themes were discovered. The hierarchy structure can be summarized, as shown in table 4-1, in three core themes, namely, economic, natural and social effects.



Figure 4-6 Structuring process of CSR

The three capitals each contain two or more sub-themes. Besides economic performance, which is the net result of an investment, it also contributes to welfare. Wages and the tax a company pays, minus the subsidies it subtracts, are direct improvements in welfare (Sipkens et al., 2014). Natural capital contains pollution and resource usages, which both have a negative impact. The aspects in this capital can be further elaborated. Air quality, for example, is not exhausting. Different emission types, such as, PM<sub>10</sub> and NO<sub>x</sub> can be distinguished. The same applies for climate change, which is related to greenhouses gases, such as CO<sub>2</sub>.

The last one, social capital, is the largest of the three. Compared to the other frameworks in the literature, there are some fundamental differences. First, none of the other frameworks hold customer satisfaction. While in practice, as discovered through interviews, aspects such as quality and speed of operation are balanced against CSR. According to Visser (2010) and Porter (2006), the most strategic CSR can be accomplished by revealing direct threats for the core business and transform this into opportunities for both the business as well as for its surroundings. This will, however, never be achieved if CSR behavior is viewed independently from the core business. Besides, CSR often entails trade-offs. Without a proper integration of the two, these trade-offs will never be revealed or taken seriously.

Second, the other frameworks often make a distinction between human and social capital and sometimes even intellectual capital. This might be a good addition since social capital is quite comprehensive in the longlist in table 4-1. Safety, health and good employment are related to direct stakeholders, such as, employees, customers and direct neighbors and can also be seen as human capital. Stakeholder relations and sustainable sourcing are relevant impact for the supply chain and long term relationships. These aspects can be attributed to social capital and can be seen from the perspective of society at large. A last difference is that the longlist does not capture any intangible aspects, such as, tacit knowledge or brand reputation, while existing frameworks in the literature do.

Table 4-1 CSR Longlist: impact criteria

Economic capital	<b>Economic performance</b>	Net result Investment Innovation
	<b>Welfare</b>	Wages Subsidies Fair taxation
Natural capital	<b>Pollution</b>	Air quality Climate change Water Final waste Noise
	<b>Resource use</b>	Land Water Materials Energy
Social capital	<b>Customer satisfaction</b>	Quality & reliability operations Speed operation Privacy
	<b>Safety &amp; health operations</b>	Employers Consumers Environment
	<b>Stakeholder relation</b>	Core business effects Transparency Long term partnership Sponsoring
	<b>Sustainable employment</b>	Career & coaching Diversity Responsible redesign Limited access labor market
	<b>Responsible supply chain</b>	Sustainable sourcing Human rights Grow with communities

### 4.3. SUB-CONCLUSION

From the longlist developed in this chapter, it is concluded that the materiality and abstraction level of aspects differ per company or even sector. Some aspects, such as climate change, are important for the business as a whole, but there are also company or sector specific problems that should be tackled. It should be kept in mind that CSR aspects can also change in time or place. Companies should, therefore, make a materiality matrix to map stakeholder impact following the value chain against organizational impact. From the frameworks examined in this chapter, it is derived that the definition, *People, Planet and Profit*, handled in this research can be divided into *financial, social, natural, human, manufactured and intellectual capital*. To approach the second sub-goal 'Distinguish all aspects of CSR' the following sector-wide aspects can be concluded:

- Economic performance;
- Contribution to welfare;
- Pollution;
- Resource use;
- Customer satisfaction;
- Safety & health;
- Stakeholder relation;
- Sustainable employment;
- Responsible supply chain.

Figure 4-7 shows how this chapter contributes to the development of the framework. The CSR aspects derived from the longlist in this chapter will function as impact criteria for the framework that will be developed in Chapter 6. The six capitals discussed in this chapter will be used to relate to CSR and structure impacts.



Figure 4-7 Design process: Chapter 4

# 5.

## MEASURING AND EVALUATING CSR

In the previous chapter it became clear what aspects of Corporate Social Responsibility can be distinguished. The aspects of various companies and sectors differ in abstraction level, but all have the same facets: *financial, natural, social, human, manufactured* and *intellectual* capital. CSR is included in the corporate strategy and embedded in management. The majority of organizations set targets and some even control sustainability performance with bonus structures. However, when it comes down to measuring and monitoring the real impact companies have, there is little consensus. This chapter zooms in on measuring and evaluating of CSR from the perspective of the literature in 5.1 and from business perspective in 5.2. The last section will approach the third sub-goal: ‘*Explore which methods are currently available to measure and evaluate all aspects of CSR*’. Figure 5-1 shows how this chapter is situated in this research.



Figure 5-1 Overview: Chapter 5

### 5.1. LITERATURE OVERVIEW

Reporting guidelines and materiality matrices, as has become clear from Chapter 3 and 4, might be good instruments to help companies focus and incorporate CSR into the core business, but it does not provide information about the height nor the impact of effects. During the decision-making process, investments and additional effects need to be analyzed in order to make informed trade-offs. Analysis, the process of breaking a complex topic into smaller parts to gain understanding, is key for proper decision-making.

According to Sage and Armstrong (2000), the most convenient way to systematically analyze a system and understand its interrelations is by the use of a model. A model is defined as: “*a set of assumptions that describes how something works*” (Sage & Armstrong, 2000, pp. 181). A model can be iconic, a physical representation, visual, a graphical representation, or symbolic, which is syntactic or mathematical (Sage & Armstrong, 2000). Prior to evaluation, the effects need to be measured. According to Director of MVO studies at Erasmus School of Economics “*there is no single tool or method that can capture the whole range of impacts or that can be applied by all corporations*” (Maas & Liket, 2011, pp.9). In this case, the ‘model’ needs to consist of a framework which measures CSR effects and evaluates CSR impacts. In the next section, scientific literature is reviewed in order to find suitable tools or principles for impact measurement and evaluation.

#### 5.1.1. MEASURING EFFECTS

Maas (2011) argues that the lack of consensus about the definition of social and environmental impact hampers both scientific literature as well as the use of these methods (Maas & Liket, 2011). This lack of consensus is clearly visible in the number and the wide-spread purposes of impact measurement tools. A list of

the 50 most commonly used environmental and social impact tools is documented in appendix C. This list is not exhaustive, but is included to provide a quick overview of the variety and availability of different methods.

The majority of the tools are analytical. Maas & Liker (2011) argue that quantitative methods are needed for companies to make intangible impacts on social and environment more tangible in order to value these impacts in decision-making and eventually to control. These impacts are related to social and natural capital. Natural capital can be defined as *“the world’s stocks of natural assets which includes geology, soil, air, water and all living thing”* (WFNC, 2015, pp.1). The term social capital is relatively new and refers to *“the collective value of all social networks”* (HKS, 2012, pp.1). It also has a close link to human capital which is defined as *“the knowledge, skills, competencies and attributes in individuals that facilitate the creation of personal, social and economic well-being”* (OECD, 2009, pp.4).

## SOCIAL CAPITAL

There are no tools present in the management literature that include all CSR impacts. There are also very few tools that capture both social and environmental impacts. From appendix D, it is concluded that just a small minority of the listed tools actually measures impact, since the majority focuses on the evaluation of social impact. This can be explained by the fact that social output, for example, the number of employees or households hindered is not hard to obtain, but the impact of these output is. Evaluation of the impact will be elaborated in section 5.1.2.

## NATURAL CAPITAL

For natural capital, the literature provides several measuring methods. Natural capital measurements can roughly be divided into tools that measure natural resources, tools that measure natural impact or both (Finnveden & Moberg, 2005). Material Flow Accounting (MFA) is a family of different methods which focus on material flows and is seen as natural capital measurements (Fischer-Kowalski et al., 2011). The underlying principle of MFA is the interrelation of the economy as a subsystem of the environment. The subsystem extracts water, raw materials, air from the natural environment, transforms it into products and is eventually re-transferred as output, waste and emissions. MFA studies the constant throughput of energy and materials for a region or nations and is often used at a national level with respect to imports and exports.

Another method that also focuses on the natural capital but is applied on different levels, is Ecological Footprint (EF). EF measures human yearly demand of the natural capital of a region or company (Wackernagel & Rees, 1996). Most commonly used EF, measures the amount of water and land needed, or waste and carbon dioxide produced, per citizen or product. A criticism of EF is that the footprint analysis is too unilateral to interpret. Analyses of densely populated areas or production processes that have low water consumption but are highly energy-consuming give a distorted view. It is argued that a footprint can only be of value if it has set the scope globally (Gordon & Richardson, 2000). Methods that only measure impact, such as, Risk Assessments (RA) of, for example, accidents or chemicals, are used for very specific purposes and are, therefore, not of interest for this research (Finnverden & Moberg, 2005).

Methods that have incorporated natural resources as well as natural impact can be categorized in Life Cycles tools and tools derived from Natural Capital Accounting economics. Life Cycle tools quantify environmental impacts of products and services associated with the complete lifecycle from cradle to grave. This includes all impacts from raw material acquisition through processing, manufacturing, transportation, usage, maintenance until disposal (Guinée et al., 2014). By quantifying all input and output, products and services can be compared with respect to a full range of environment impact. Its main premise is that products are compared on the basis of functional units.



The functional unit defines the service delivered by the system which enables a fair comparison. Paint, for example, can be compared on the basis of painted surface. Double opaque paint is per litre probably more polluting than regular paint, but looking at quality and painted surface, it might have less impact (RIVM, 2015). It uses impact categories to structure the impact of the so-called 'endpoints' (Guinée et al., 2004).

Some Natural Capital Accounting tools are change-oriented and use marginal data. These tools, however, usually bare specific purposes like site or location evaluation, which does not suit the goal of this research (Finnveden & Moberg, 2005). Input-output Analysis (IOA) is a well-established tool within Natural Capital Economics. IOA is usually used for sectors or broad product groups. Input and output matrices describe trade between industries. IOA can actually be compared to MFA tools but, in addition to these studies IOA adds, for example, emissions coefficients to value impacts (Miller & Blair, 2009). The translation from effect to impact will be discussed in the next section.

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### 5.1.2. EVALUATE IMPACTS

When social and natural effects are identified, several tools can be used to evaluate these effects and provide it with a value. Social and ecological evaluation tools can roughly be divided into two categories: quantitative and monetary information (Maas & Liket, 2011). Comparing quantitative information can be done on the basis of one unit or several. For a quantitative comparison by several units, also known as multi-criteria, these tools often make use of preferences or goal optimization (Ragsdale, 2011). In the case of one unit, for example, in life cycle tools, all different impacts are converted into one equivalent. The advantage is that different products or services can be compared, but the disadvantage is that it is very hard to interpret. Another option to evaluate effects in the same unit is to monetize all the effects. Both tools, monetization and Multi Criteria Decision Making (MCDM), are discussed in the next sections.

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### MULTI CRITERIA DECISION MAKING

Multi Criteria Decision Making is a study of methods by which multiple conflicting criteria can formally be incorporated in the decision-making process. It structures and rationalizes the decision by mapping criteria and alternatives against each other and provides the decision maker with an integral overview of the current trade-offs (Ragsdale, 2011). It helps to select between alternatives with considerable social and environmental impact by appraising criteria and stakeholders' opinions (Beria, Maltese & Mariotti, 2012). MCDM can be divided into two schools of thought: Multi-Objective Decision Making (MODM) and Multi-Attribute Decision Making (MADM), which have subsequently a continuous and discrete decision space. The success of MCDM is closely related to the rapid development of computing technology, which enables analysis of complex multi-criteria decisions.

Despite the numerous and different methods, this theory argues that there is not one unique optimal solution, because of the conflicting criteria. Instead of arguing about 'the best' alternative, it distinguishes non-dominated solutions which is related to Pareto efficiency. Solutions are Pareto optimal if it improves the current situation without sacrificing at least at one other criterion (Ragsdale, 2011). An important feature of MCDM is the incorporation of stakeholders which enables democratization, fairness and helps to get more widely accepted policies (Jordan & Turnpenny, 2015).

The importance of criteria can roughly be applied to expected utilities or weightings. Preferences or utilities provide accurate and comprehensive outcomes, but there are also some disadvantages. An incredible amount of data, accompanied with specific weights and strong assumptions, is needed in every step (Velasquez & Hester, 2013). This intensive request for data is not available or even necessary for all decision-making problems. The largest drawback of this theory is the fact that the outcome may not be conclusive. Due to

uncertainties in judgments, subjectivity, and difference in preference among decision makers, different outcomes can be generated (Xu & Yang, 2001).

Reflecting the MCDM tool to the purpose of the framework, MCDM provides accurate and comprehensive outcomes and especially because CSR impact consist several stakeholders with different objectives, MCDM is proven suitable. As already stated, MCDM is rather data-intensive. The advantage of varying preferences over different stakeholders makes it also quite difficult and specific research is needed to assess the right parameters for each stakeholder group.

## MONETIZATION

The other evaluation category is based on monetary information. Translation of effects into one single currency enables companies on the one hand to compare all impacts of an investment and on the other hand, integrate impacts in the one and only langue of business: money (van Bergen et al., 2014). Monetization provides an integral ex-ante overview of all costs and benefits of a project. All different levels of a company, varying from specialists to managers, understand the value of money. It provides the means to integrate with current management information and one can, just like financial data, make projections over time (Scholte, personal communication, June 9, 2015). By monetizing impacts the magnitude of effects are clear and trade-offs become visible.

Monetization, with its foundations in the welfare economics, uses indicators for shadow prices since most of the CSR effects do not have a market price. The hypothetical pricing approach is obtained by several valuation techniques. In order to use convenient shadow prices, the concept of valuation methods needs to be properly understood and can be found in appendix D (de Bruyn et al., 2010). By the use of shadow price indicators, effects are combined in a cash flow and discounted over a certain period of time (Boardman et al., 2013). Future costs and benefits are, by this means converted into the present value. This has been done because people are time-inconsistent and risk-averse, meaning that one rates the value of money today higher than tomorrow (Boardman et al., 2013). The choice of the discount rate is rather subjective. A low discount rate favors the project with the highest benefits, irrespective of when they occur. A higher discount rate implicitly means that future costs are less important and is by many seen as unfair to future generations (Weitzman, 1998).

The advantage of monetary comparison so that all effects can be valued against each other is, at the same time, a disadvantage. It implicitly assumes that one is indifferent about the effect, as long as they have the same monetary value. It should be noted that whatever valuation technique is used, it is always an approach rather than a real value. One should, therefore, be careful with using indicators and always examine what valuation technique has been used. Moreover, there is an extensive body of literature criticizing the principles of monetization. Generally, the two main objections are: “it is unethical to price a human life” and “the intrinsic value of nature has been ignored” (appendix D). The goal is not to convince those against monetization, but to note that it is not the intention to value human life or nature as such (Malin et al., 2013). First, it is about marginal changes in risk associated with the Value of Statistical Life (VOSL), and not the value of one specific life. Besides, decisions regarding risks of human life are not immoral. People make implicit decisions about their OSL everyday, for example, by the choice of transportation mode (Blaeij et al., 2003). Second, it is not about the value of nature, indeed the value as such is infinite, but it is about marginal changes in the quality of nature that companies need to make every day (Malin et al., 2013). The tool rationalizes marginal changes and risks, which are made every day, but does not value human or nature as such.

Aside of implicit assumptions, there are also some risks concerning monetization as evaluation tool. From the infrastructure sector, hard lessons are learned with respect to misuse of such monetization tools. When the tool is used as selection tool, it gives incentives to managers to present the project as favourable as possible (Flyvbjerg, 2002). One should beware that misuse can be due to a strategic agenda but can also be unintended. Opportunistic behaviour and tunnel vision often occur when people are really committed to the project. Moreover, results should always be interpreted relatively, since impacts are marginal changes, thus should not be interpreted in absolute sense. The power of integration with financial management information could also be risky. Monetized impact should not be confused with the real economy. Keep in mind that the prices are hypothetical and will not be added to the financial profit and loss account.

**Box 5.1 Decision tool instead of decision rule**

“When the tool is used as selection tool, it gives incentives to strategically present the project as favourable as possible”

An further discussion about monetization risks can be found in appendix D (Arvidson et al., 2010; Beukers et al., 2012; Boardman et al., 2013; HSE, 2015; Flyvbjerg, 2002; Fujiwara, 2015). The most important risks of monetization in the light of the evaluation framework are as follows:

1. Balancing subjectivity and proportionality;
2. Accuracy and availability of data;
3. Strategic or unintended misuse of monetization tool;
4. Conclusions and interpretations of outcomes.

### 5.1.3. MCDM VERSUS MONETIZATION

It is concluded that both tools, MCDM and monetization, give in a systematically way insight into the complexity of decisions and the consequences on multiple dimensions. Trading between different objectives is difficult and as discussed before, both tools have their pros and cons. For the informed reader, the features discussed in this study can be seen as superficial or even incomplete. The goal of this chapter is, however, not to go in depth into the debate about MCDM and monetization, their assumptions and weaknesses in general. The aim is to select the most suitable method for the purpose of this research: the evaluation framework. The discussed risks can be used to understand the methods and if possible to develop ways or principles to deal with it. For a more detail discussion about methodologies please consult (Annema, Mouter & Razaei, 2015; Gamper, Thöni, & Weck-Hannemann, 2006; Munda, 2004).

Comparing MCDM to monetization for the design of the evaluation framework in the next chapter, the following can be said. MCDM scores better in the participation of stakeholders. In literature, MCDM is even recommended to be used if consensual solutions, to resolve conflicts are, needed (Jordan & Turnpenny, 2015). The inclusion of stakeholders is seen as a crucial factor for successful implementation (Beria et al., 2012) The aim of the framework is, however, not to resolve conflicts or increase stakeholder acceptance, it is to include the impact for direct surroundings in the decision-making and trade-

**Box 5.2 Order magnitude**

“It is a social or environmental construct and should never be perceived as reality. an approximation and only the magnitude should be valued”

offs. So direct stakeholder perceptions are useful but the scope remains from the company’s point of view. The way monetization handles different stakeholder perceptions, is less accurate than MCDM, but seems for the goal of this research sufficient. Nevertheless, MCDM is preferred over monetization in complex situations with multiple potential competing objectives and value systems, which cannot easily be quantified. For example, intangible aspects, such as, cultural or psychological (Jordan & Turnpenny, 2015). Other challenges regarding the handled data of monetization is the accuracy. One should keep in mind that it is an approximation and only the magnitude should be valued. The risk lies in the fact that one might attach great importance to high level outcomes. Moreover, it should have been said, and this applies to all models, it is a social or environmental construct and should never be perceived as reality, or even worse, prediction (Arvidson et al., 2010).

With respect to its usage, MCDM modelling has not received such wide-spread governmental legal backing as some monetization tools have. Cost Benefit Analysis (CBA), for example, is legally prescribed for infrastructure projects in the Netherlands and the UK (Rijksoverheid, 2015). MCDM, however, is gaining ground, but the technical complexity of modelling and difficulties with standardizations due to a lack of inter-comparison between case studies make monetization more easily applicable (Gamper & Turcanu, 2007). The simplified logic of monetization provides an easy and straightforward comparison of impacts (Beria et al., 2012). Since the framework, developed in the next chapter, is designed for companies sector-wide, it should be applicable for a large and varied group of people. Therefore, the framework should enable an insight in CSR effects which can be obtained quick and easily. So MCDM performs better on the basis of stakeholder involvement and monetization is more generic but easier to use and integrate with management information.

Unfortunately, both methods are more commonly used in governmental policies instead of private companies' decisions. Before the method is chosen, further research with respect to practical usability and implications is needed. The choice of method is critically important for the feasibility and success of the framework since it determines its applicability. Methodological risks or limitations of the methods have a direct influence on the effectiveness of the framework and should be taken into account properly. The next section discusses how companies value CSR impacts in decision-making and what methods are most commonly used.

## 5.2. BUSINESS PERSPECTIVE

In the previous section, the measuring methods and evaluation techniques available in the literature are discussed. This section elaborates what methods are currently used by companies and what practical advantages or drawbacks can be discovered. Several companies argued that aspects that were quantified and monitored were perceived to receive more attention than goals, which were lacking quantitative criteria. Aspects lacking concrete quantifications are often vague and multi-interpretable (Van den Bosch, personal communication, June 1, 2015).

### 5.2.1. METHODS USED BY COMPANIES

By content analysis, the following methods are reduced to three main concepts: Ecological Footprint (EF), goals & criteria and impact measuring, as shown in table 5-1.

Table 5-1 Methods used by companies

METHODS USED BY COMPANIES		
Ecological Footprint	Goals & criteria	Impact measuring
Upstream	Law and regulation	LCA
Downstream	Science-based targets	EP&L

The majority of, if not all, the interviewed companies measure their Ecological Footprint. The EF for carbon dioxide is most commonly measured footprint but water and waste are also possible. Depending on what is material to that company, the footprint is based on upstream or downstream measuring. Measuring of EF is seen by the companies as valuable because it gives insight in the environmental performance. It is seen as a solid exercise and is a standard topic in annual reports. It, however, is just a measurement method, and not able to value impact. Therefore, little attention is paid to EF during the interviews.

The second evaluation approach used by companies is, based on goals and criteria, the investment's contribution to the company's goals. These criteria can be related to laws and regulations. AkzoNobel, for example, relates the minimum environmental criteria of its new factories to environmental restrictions (Smits, personal communication, June 3, 2015). Targets can also be based on science. Eneco has set its carbon targets on the basis of their maximum emission related to the 'two degree' scenario. Eneco argues that laws and regulations are lagging behind and the only way to stop climate change is to refer maximum emissions to the capacity of the earth (Meijer, personal communication, June 8, 2015). Moreover, benchmarks have incorrect reference. *"Who can assure us that the effort of the number one in the rankings is sufficient?"* (Meijer, personal communication, June 8, 2015).

The third evaluation method that has been used by the interviewed companies is impact measuring. There are two specific types of impact measuring tools discussed during the interviews: Life Cycle Assessment (LCA) and Environmental Profit and Loss account. LCA is a well-established measuring and evaluation tool, which is used by several companies, especially those with large supply chain and intensive environmental production processes. The second method to value CSR impacts is with the help of monetization. A new trend in this domain is the Environmental Profit and Loss account. The EP&L compares the different impacts a company has on the basis of monetary values. AkzoNobel and Achmea used the EP&L to respectively evaluate a business unit in Brazil and the added value of share economy. NS even used the method to evaluate the contribution of the whole company to Dutch society. The rest of the interviewed companies are still undecided what to do. The

potential power of this relatively new tool has been recognized, but the fact that there is no commonly agreed standard yet is a deal breaker for the majority of the interviewed companies.

Impact measuring will be examined in more detail due to the following two reasons. First, impact measuring enables a comparison of several CSR aspects, in contrast to Ecological Footprint, which measures the current amount of one impact. Second, impact measuring is chosen at the expense of goals and criteria evaluation, since it has a compulsory nature rather than Shared Value.

### 5.2.2. IMPACT MEASURING

Impact measuring, as shown in table 5-2, is divided into two key methods: Life Cycle tools, mostly used as Life Cycle Assessment (LCA), and Monetization, used in EP&L and pricing of externalities.

Table 5-2 Specifications Life Cycle & Monetization

LIFE CYCLE		
Usage:	Advantages:	Disadvantages:
Products	Informed choice	Lacks social implication
Services	Impact categories	Data/ time intensive
MONETIZATION		
Usage:	Advantages:	Disadvantages:
EP&L	Shows added value	No standard / consensus
Pricing externalities	One language	Potential risks

The first method, life cycle, assesses the environmental impact. It is generally used for products and services. Unilever argues that LCA empowers each of us to map all impact over the value chain and make informed choices (Mauser, personal communication, June 24, 2015). There is a clear risk that companies make plans that emerge from beautiful initiatives and hobby-horses but are not directly related to the firm’s strategy or make an impact. It is therefore argued by Mauser (2015) that decision should be made on the basis of correct information.

The clear advantage of LCA is that it enables a company to make informed decisions and provides exact insight into the products’ impact. Unilever discovered that 70% of the impact of their products is at the consumer’s home (Mauser, personal communication, June 24, 2015). Therefore, if Unilever wants to reduce water usage, it can better focus on influencing consumer behavior rather than improving its production process. Impact measuring is perceived as the basis of CSR decisions and companies should know what and the amount of their impact in order to efficiently use its resources. Life cycle analyses are often used by manufacturing companies with extensive supply chains (Erkelens personal communication, July 6, 2015). One of the main criticism of LCA is that it generally lacks social implications. Besides, a proper execution of a Life Cycle Analysis is quite data-intensive and time-consuming. Many LCA trees become, with over 2000 processes, very large (Goedkoop et al., 2013). Regarding to all impact measuring tools, Managing Director of

**Box 5.3 Proportionality**

“The time and resources needed for the analyses in order to make informed decisions should at all time be proportional to the decision that need to be made”.

Sinzer states that the analysis should be proportional to the decision that needs to be made (van Dijk, personal communication, June 13, 2015). A clear balance need to be found. Moreover, it is necessary to determine what scope is do-able regarding available data and affordable with respect to time and resources. Proportionality is key in this. The analysis should not be more time-consuming than the project it self.

Monetization, the process of evaluating CSR on the basis of monetary values, is recognized by the interviewed companies in the form of EP&L and for pricing externalities. MVO Nederland agrees with the use of monetization to internalize externalities in order to tackle risks, but is also emphasizing the potential danger of the tool. *“There are things in life that cannot be expressed in money”* (Reinhoudt, personal communication, June 12, 2015). Moreover, it is stated that monetization compares apples with pears. NS argues that the possibility to compare apples with pears makes the tool so powerful. *“How do you know where to focus on?”* (Kinds & Coenen, personal communication, July 13, 2015). Because of the monetization of several impacts, NS found that the waste impact it has, is negligible compared to the impact of energy consumption of trains. For internal decision-making, a green energy supply contract was very easily to justify now.

Besides the negative impact, monetization enables companies to evaluate their contribution to society in the form of added value. Because of its property to compare several impacts in one single language, it can be very helpful in making trade-offs. With the help of this study, NS also discovered that ‘useful spending time’ during train trips has a significant higher impact than previously thought. An investment in, for example, Wi-Fi has, therefore, a higher positive contribution to comfort than a few more seats (Kinds & Coenen, personal communication, July 13, 2015). The social and environmental value of each euro can thus differ per investment.

With the help of monetization, the different values and impacts become visible. Even though TruePrice co-owner Michel Scholte advocates the great potential of the tool, he also explains the risks. A danger is the risk of so-called ‘netten’, destruction of natural capital should never be justified by positive benefits of other capitals (Scholte, personal communication, June 9, 2015). It is clear that companies should be encouraged to have an

**Box 5.4 Separation of capitals**

“Value destruction at one capital should never be justified by value creation at other capitals”.

overall positive bottom line, if not, there would be a serious problem, but it is not a goal itself. The purpose is to gain insight into all impacts of a company over the whole value chain in order to increase its contribution and reduce the negative impacts (Scholte, personal communication, June 9, 2015). This way of interpreting the outcomes is in line with how NS aims to expand the EP&L and use it as a guiding mechanism in management decisions (Kinds & Coenen, personal communication, July 13, 2015).

Companies prefer quantitative analyses over qualitative. It enables the decision maker to make informed evaluations, which is necessary for proper decision-making. In order to measure and evaluate future CSR impacts due to project intervention, a suitable method should be chosen. For the evaluation, there are several tools and methods available, but none of them capture integral evaluations of all CSR impacts (Maas & Liket, 2011). It is, therefore, argued to combine methods to eventually evaluate all CSR aspects determined in this research. Besides the advantages, there are also some risks discussed in this chapter. The most important ones are highlighted by the grey boxes (5.1 until 5.4) in the text and mechanisms are designed in order to lower, or if possible to prevent, the risks. These so-called principles, introduced in this chapter, will be integrated in the design of the framework in the following chapter and is of high importance for the feasibility and acceptance of the proposed framework.



### 5.3. SUB-CONCLUSION

The third sub-goal ‘Explore which methods are currently available to measure and evaluate all aspects of CSR?’ is critically important for the choice of method for the framework. MCDM, LCA and monetization are all available methods. It is concluded that for the goal of this research, to structurally evaluate CSR aspects, monetization is the most appropriate evaluation technique. MCDM provides accurate and comprehensive outcomes but is rather data-intensive and complex. Besides, conclusiveness due to uncertainty and subjectivity, is not guaranteed. Life cycle tools are, because of the lack of social impact and data dependency, solely not sufficient for the goal of this research. The foundations of LCA, all impacts of the value chain from cradle to grave, are however, very interesting. Monetization, on the other hand, is cost-effective and quickly gives insight in the order of magnitude of all effects of an investment. Risks concerning monetization and the lack of standard and consensus are seen as disadvantages. Monetization, however, is also recognized as a potentially powerful tool and is becoming more widely accepted. It is therefore argued to integrate the following evaluation principles:

1. Proportionality
2. Separation of capitals
3. Order of magnitude
4. Decision tool  $\neq$  decision rule

To conclude, monetization of impacts is suitable for the purpose of this research goal, but it is also argued that there are some disadvantages and risks. By the use of the above stated evaluation principles, the framework, designed in the next chapter, can acknowledge the limitations in order to empower its benefits and mitigate possible risks. Figure 5-2 shows what this chapter contribute to the design of the evaluation framework.



Figure 5-2 Design process: Chapter 5



# 6.

## DESIGN OF CSR EVALUATION FRAMEWORK

In the previous chapters it became clear what CSR means, what aspects can be distinguished and what method is suitable to evaluate CSR impact in the decision-making process. This chapter elaborates how companies are able to evaluate CSR aspects in investment decisions. The CSR evaluation framework is designed and presented in the first paragraph. Section 6.2 discusses how previous conclusions are integrated in the design process of the framework and what steps need to be taken in order to reach the fourth sub-goal: *'Describe what steps should be taken to properly evaluate CSR impacts of investments'*. Figure 6-1 shows how this chapter relates to the other sub-goals discussed in this research.



Figure 6-1 Overview: Chapter 6

### 6.1. CSR EVALUATION FRAMEWORK

On the basis of the previous sub-conclusions, the framework is developed and is visualized in the figure 6-2 below. The figure shows that the framework contains of 5 steps that should be taken. For step 2, impact pathway, and step 4, monetization, mid and end points, supporting schemes are also designed. Overall, the principles consisting of proportionality, separation of capitals, order of magnitude and decision tool, should be kept in mind. How the previous sub-goals are related to this framework is discussed in the next section.

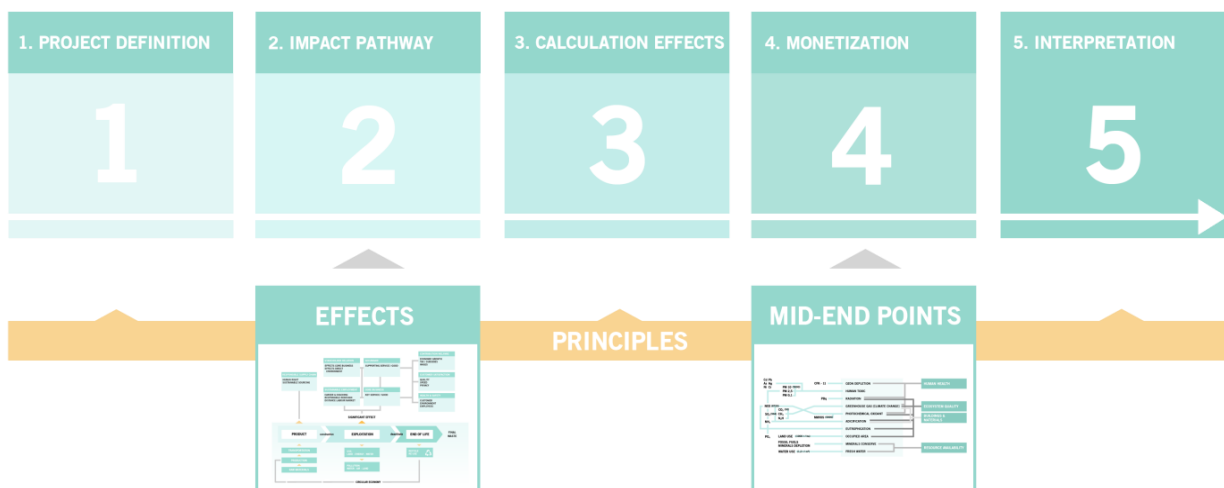


Figure 6-2 CSR evaluation framework

From Chapter 3 it is gleaned that due to the lack of consensus about the definition of CSR and its practical implication, companies should develop their own CSR statements. The process criteria, found in this chapter, are key for companies to have a significant impact and reduce negative effects. The process criteria: *relation to core business, involvement of key stakeholders, incorporation of material aspects* and *CEO awareness* are therefore seen as a requisite.

From interviews and scientific literature in Chapter 4, nine CSR aspects over *financial, natural, social, human, manufactured and intellectual capital* were found. The CSR aspects distinguished in the longlist in Chapter 4 are summarized in the following sub themes: *economic performance, contribution to welfare, pollution, resource use, customer satisfaction, safety & health, stakeholder relation, sustainable employment* and *responsible supply chain*. The CSR aspects form the basis for the design and are used as impact criteria.

#### Box 6.1 –Principles:

1. Proportionality
2. Separation capitals
3. Order of magnitude
4. Decision tool  $\neq$  decision rule

Chapter 5 discusses the powerful characteristics of monetization and life cycle thinking. It, however, also elaborates the potential dangers of monetizing impacts. The design principles introduced in Chapter 5 will further be elaborated in this chapter and integrated in the design steps. The five steps in combination with the principles will be explained in detail in the next section.

## 6.2. CSR EVALUATION STEPS

This section elaborates, as shown in figure 6-3, how to structurally evaluate CSR aspects of investments. Special attention is paid to mitigate risks that might occur during the analysis and interpretation of monetized impacts.

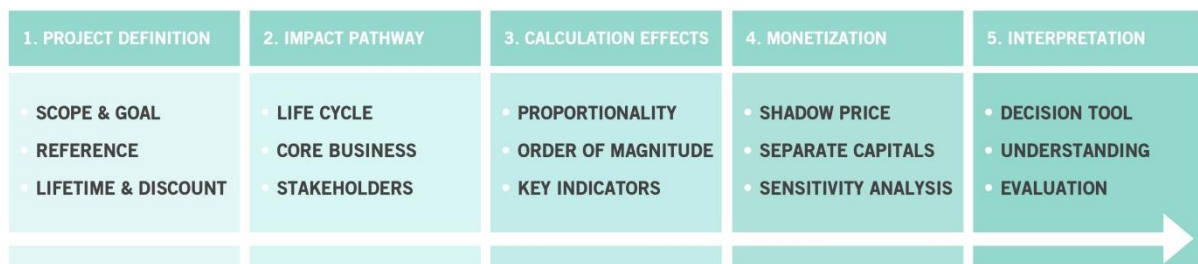


Figure 6-3 Evaluation steps

The evaluation process contains of 5 steps that will be discussed herewith.

### 1. Project definition

The evaluation process starts by defining the project scope and its purpose. The goal is to gain insight into the order of magnitude of all CSR impacts due to a project intervention. The company should assess what investment will be evaluated and what project boundaries and value chain boundaries it will handle (NCC, 2015). Specifically important in this phase is defining the reference. The reference is the central point of departure for the analysis. The project intervention and possible alternatives are compared to the reference phase.

In addition to scope and reference, one should also decide on the project's lifetime and discount rate. A discount rate of 2.5% is generally used as a risk-free discount rate, and depending on the perceived risks, this could be increased by 3% (Rijksoverheid, 2012). It is recommended to use the same discount rate and lifetime as the financial business case. However, it is possible to deviate from the parameter used in the financial business case. Social discount rates are typically lower since it places emphasis on future generations and

businesses tend to demand a higher rate of return (Khan & Greene, 2013). One should always be transparent about it and argue why this decision is made.

## 2. Impact pathway

The goal of the analysis is to evaluate impacts of investments. Meaning, that it basically analyses additional effects due to the investment. One should, therefore, determine, via the social impact pathway scheme in figure 6-4, what impacts might occur because of the intervention. The impact pathway will qualitatively map all CSR effects of an investment. As became clear in Chapter 3, what aspects are relevant can differ per company. Note, that this is a general impact pathway and should be translated to the operation of the company in particular. The material impacts can be determined by stakeholders and GRI. Following the logic of the impact pathway, one could easily determine all effects of a project and diminish the chance of double counting or overlooking important effects.

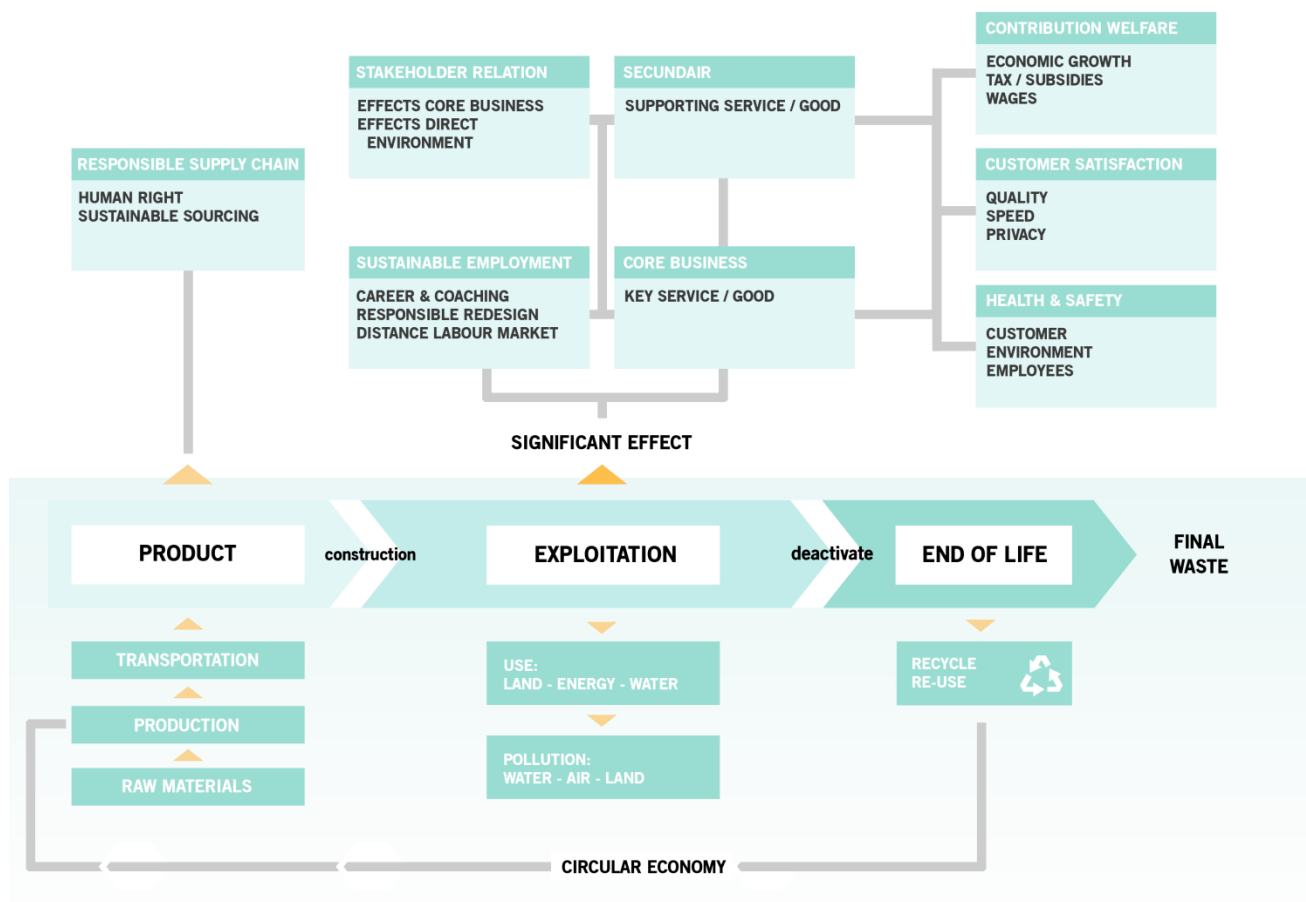


Figure 6-4 Impact pathway

The lower level of the impact pathway, visualized in figure 6-4, is based on life cycle thinking and captures the natural design criteria from the longlist in table 4-1. Based on life cycle thinking, all possible effects that can have an impact on people or the planet during the life time of an investment are visualized in a process scheme. All effects from the production process, distribution, exploitation and the end of life should be determined (Guinée et al., 2004). One aspect that is added to the LCA is the feedback loop from end of life to production, which illustrates recycling or re-use of materials. This loop changes the linear process from cradle to grave into a circular process from cradle to cradle (Ellen MacArthur Foundation, 2015). Final waste, residuals that remain after several processes, are not included in one of the LCA's impact categories. Especially because landfilling of 'not-final' waste, in other words, waste which can be disposed or recycled, is prohibited in the Netherlands, it is added to the life cycle (de Bruyn, 2010).

Comparing the LCA in figure 6-4 with the longlist in figure 4-1, it is concluded that all ecological aspects are taken into account, but that life cycle thinking is indeed lacking social or economic effects. All social effects, related to a company's core business, direct stakeholders, customers and environment should be taken into account as well. Therefore, the upper level of the impact pathway consist the social impact criteria. The last impact that has not been mentioned yet is economic capital. All effects of economic capital are on the basis of accounting principles already incorporated in the financial business case, so these effects need to be valued differently.

### 3. Calculation of effects

From the impact pathway, ecological and social impacts are determined. For all CSR effects, one should consider if there is a significant change in the current situation. All effects are related to the reference phase determined in step 1. If the goal of the analysis is to assess what type or product scores better on CSR aspects, it is very different than when one wants to discover the impact of an intervention compared to the status quo. Note that the choice of reference determines the complexity of the analysis. For example, a package delivery company wanting to assess the impact of fleet replacement by electric vehicles, the life cycle of the electric vehicle and operational gains, such as, fuel savings and local air quality, should be taken into account. The upstream value chain will not be taken into account, since there are no changes in number of kilometres or routing. It is not about the service itself, but about significant marginal changes compared to the current situation or other alternatives. Computing the difference between two alternatives is less time-consuming than calculating two complete impact pathways of alternatives and afterwards determining the difference. Besides, keep in mind, that the analysis is proportional to the investment.

For the calculation of effects, it is common to use known key figures since it is about the magnitude of the effect. Unless there are indications that it is absolutely not in line with the effect, key figures are sufficient. This phase is highly dependent on design choices and, therefore, prone to subjectivity. It is recommended to consult in-house experts and involve stakeholders.

### 4. Monetization of effects

In the previous step, all effects are identified and quantified. This step converts all effects with various units into one single unit in order to ease comparison. In this exercise, commonly shadow prices are used. These prices are included in appendix D and derived from scientific literature. Especially on natural capital, there is an extensive literature body and relatively high consensus about monetization figures (Erkelens, personal communication, July 16, 2015). As shown in figure 6-5, one can pick the shadow price varying from mid-points and end-points corresponding to the available data. Social capital is somewhat more controversial and relatively new in the monetization literature. Managing Director of Sinzer highlights the importance of subjectivity in these kind of proxies. *"The danger is that these proxies objectify effects while some values are subjective"* (van Dijk, personal communication, June 13, 2015). Van Dijk gave an example concerning the subjectivity of effects of training and education. Shadow prices derived from studies are averages and not company specific. If the specific effect is seen as highly important for the analysis and available shadow prices are not complying, it is argued to further analyse the shadow price of this effect for the population in particular (van Dijk, personal communication, June 13, 2015). Note, that whatever valuation technique is used, it will always be an approach rather than its real value. One should therefore be careful with using key figures and always examine what valuation technique is used. Guidance on how to price some of the social effects is documented in appendix D.

As well as difficulties with subjectivity, there shall always be some effects that simply cannot be valued by a price. As it is learned in the previous chapter, valuing human life and nature as such is perceived to be controversial and immoral. In scientific literature, shadow prices of human life concerning risks due to, for example, traffic movement or emissions, are available. Problems within the supply chain are, however, hard to

value since it often concerns specific lives due to violation of human rights or child labour. In my opinion, valuing specific human lives is not the intention and is even immoral. It undermines social equality principles and suggests that violation of human life can be commuted. The same applies for damage to natural capital. Decisions concerning marginal environment quality are considered rational, but real damage, such as dumping of chemicals, should not be approved. This is where a clear line is drawn. If there are indications of immoral activities in the supply chain which are against the company's values, one should reconsider doing business with such a party. No model is needed to evaluate these kinds of effects.

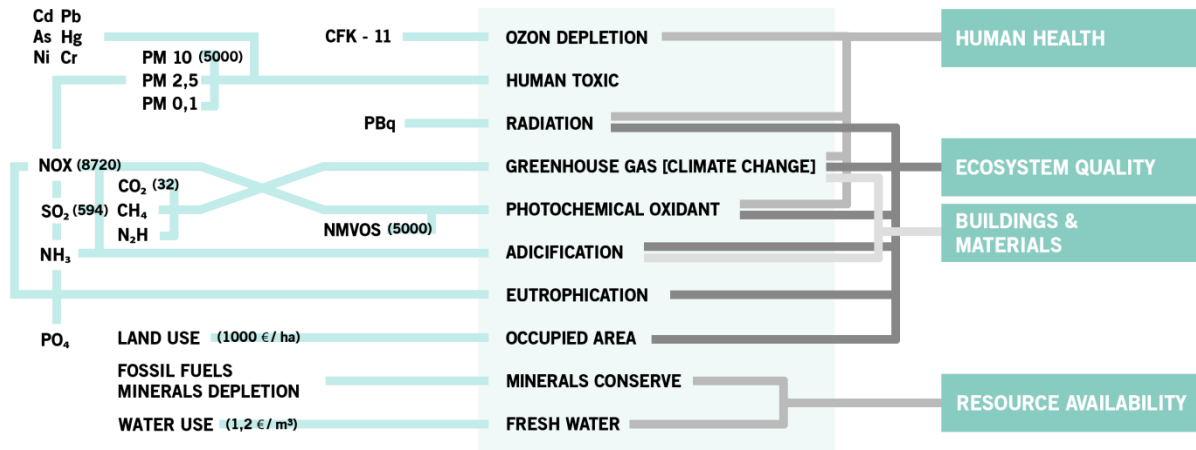


Figure 6-5 Mid-points and end-points (€/ton)

Lastly, shadow prices should always be reviewed on the basis on publication year, relevance, and units. Every few years, research publishes new and updated shadow prices on these topics. Shadow prices can be outdated because of changes in supply and demand or because new topics gain increasing importance. An example of a change in supply and demand is depletion of resources and an example of emerging topics is, for instance, the relative importance of a Wi-Fi connection related to travel convenience (Kinds & Coenen, personal communication, July 14, 2015). The shadow prices that are not outdated can be indexed to the year of analysis. See appendix D how to keep shadow prices up to date. More importantly, all prices should have the same reference basis. Special attention should be paid to CO<sub>2</sub> and PM. CO<sub>2</sub> is currently a topic of debate and the world has focussed its attention on the climate top next fall. Research has recently discovered that PM<sub>0.1</sub> has a large impact on human health. These conclusions are not yet incorporated into shadow prices. It is expected that new shadow prices will take this into account.

The monetized effects identified in the previous step enable the decision maker to make an integral and full comparison of the investment. To decrease the chance of strategic behaviour to manipulate the tool or unintended misinterpretations, it is highly recommended to use the tool as a decision tool, rather than a decision rule. As discussed in the previous chapter, it should support the decision-making process to gain insight into the order of magnitude, not to decide. If two projects are mutually exclusive, one does not necessarily need to choose the project with the highest Net Present Value (NPV). In real life, the NPV might not always be the best case, other aspects, such as budget, feasibility or efficiency might play a role in decision-making (Boardman et al., 2013).

Due to time and resource efficiency, the concept of 'roughly right' rather than precise analysis was chosen. It is, therefore, useful to evaluate the order of the magnitude of impacts and not to analyse precise outcomes. The risk lies in the fact that one might attach great importance to high level outcomes. Moreover, it is a social or environmental construct, this actually applies to all models, and should never be perceived as reality, or even worse, prediction (Arvidson et al., 2010). It is recommended to round the outcomes to the nearest ten in order to lower 'false certainty'. The outcomes are based on averages and key figures and it should not suggest that they are precise.

An important note that needs to be made, is that the tool does not justifies destruction of one capital because of gains in other capitals. It, therefore, is advocated to keep the six capitals: *human, intellectual, manufactured, economic, natural* and *social* at all times separated.

## **5. Interpretation of outcomes**

The last step of the evaluation framework is the interpretation of results. For this step it is of importance to realize the goal of the analysis: to gain insight in the CSR impact. As previously discussed, the intention is to support decisions, not to force decisions. Therefore, it is recommended to use the framework as a decision tool and not as decision rule. Besides, it is also important to fully understand what the outcomes can and cannot tell. As mentioned, the model cannot provide detailed information about the level of impact. If, after evaluating the CSR impacts, it becomes clear that more and detailed information is needed to make proper decisions, further research is recommended. Sensitivity analysis is also very useful in this process. By systematically changing parameters in the model, one can determine to what extent factors in the model are sensitive. If it turns out that the outcomes are highly dependent on uncertain assumptions, it is argued to examine those aspects more carefully. Conversely, if uncertain data appears not to be of high influence, there is no point in future research. Besides the uncertainty of the model, one can also learn what parameters have a large influence on the system as a whole, which can be of value to management.

If it is concluded that the outcomes are valid and at desired abstraction level, the evaluation can be made. In order to interpret the final outcomes, one should understand both the input as well as the output of the model. It is highly recommended to discuss outcomes with experts who were consulted in previous stages. If, and only if, the limitations of the data are acknowledged and the under or over estimations are known, one can make informed decisions and truly evaluate CSR impacts.

### 6.3. SUB-CONCLUSION

The framework proposed in this chapter consist of the five steps in combination with the evaluation principles and supported by process schemes. The process schemes, an impact pathway and mid- endpoints, developed in this chapter, help companies to structure all natural CSR impacts from cradle to cradle and social impacts relevant for its core business and direct stakeholders. The fourth sub-goal: *'Describe what steps should be taken to properly evaluate CSR impacts of investments'* provides the following 5 steps:

1. Project definition
2. Impact pathway
3. Calculation effects
4. Monetization
5. Interpretation

To mitigate risks and ensure practical usage, the following design principles should be taken into account: proportionality, separation of capitals, order of magnitude, decision tool  $\neq$  decision rule. Figure 6-6 shows how the previous chapter 3, 4 and 5 contribute to the development of the framework and the design activity from this chapter. From the figure it also becomes clear that the design process is not finished and there is one step left to fully design the evaluation framework. The last step, testing the framework in a case study combined with an expert validation will be discussed in the next chapter.

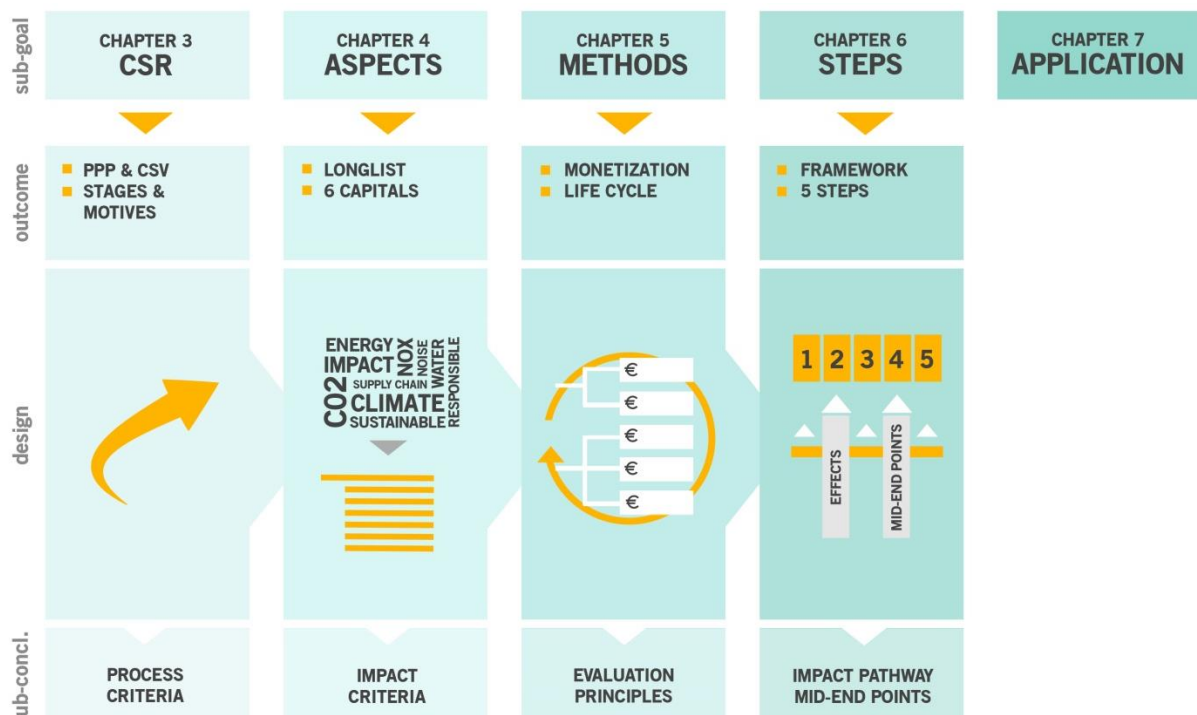


Figure 6-6 Design process: Chapter 6



# 7.

## CASE: AMSTERDAM AIRPORT SCHIPHOL

The framework designed in the previous chapter will be tested on Amsterdam Airport Schiphol. Central in this chapter is the last sub-goal: ‘Assess what practical insights can be gained from applying the framework to AAS’ which is critically important for the usability and reliability of the designed evaluation framework. First, CSR policy of Schiphol is reviewed in section 7.1. Afterwards, the designed impact pathway needs to be applied in section 7.2 to Schiphol’s operation. When the framework is specifically suited to Schiphol’s core business, it will be used to evaluate two investment decisions: solar panels and the biodigester. The process and assumptions of the case application can be found in 7.3 and section 7.4 will discuss the interpretation of the framework. Section 7.5 elaborates the expert validation. Last, this chapter concludes by describing results and insights gained from the case study and expert validation. Figure 7-1 shows that this chapter is the last step necessary to structurally design the evaluation framework.

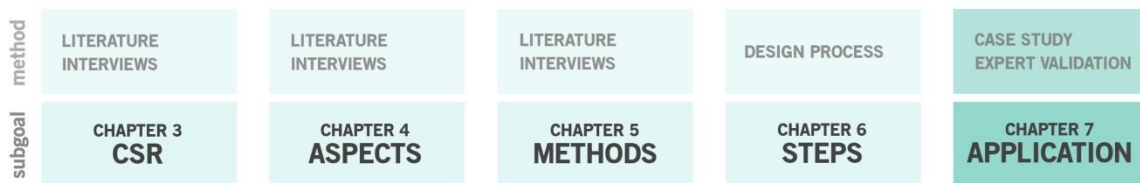


Figure 7-1 Overview: Chapter 7

### 7.1. CSR POLICY AT SCHIPHOL

This section relates Schiphol’s mission, vision and day-to-day policy of CSR to the outcomes derived from the literature overview and interviews in this report. Note that Schiphol handles the term ‘CR’ for internal usage to define its corporate behaviour. The concept of CR, therefore, refers to Schiphol’s specific policy and CSR is rather general and focuses on results derived from scientific literature or interviewed companies.

Schiphol’s mission: “Connecting the Netherlands: Permanently connecting the Netherlands to the rest of the world in order to contribute to prosperity and well-being in this country and elsewhere” (Schiphol Group, 2015). On the one hand, it is argued that this statement focuses on the positive contribution, which is in line with Porter’s theory of Creating Shared Value (Porter & Kramer, 2006). On the other hand, it is argued that it might be too general, “contribute to this country and elsewhere” does not sound like a specific focus or target group.



Figure 7-2 Schiphol strategy themes (Schiphol group, 2015)



From the interviews, it is concluded, that the biggest value creation can be obtained via a company's core business. If, and only if, it is a win-win case, it is sustainable. Meaning that it will last for a longer period. Related to Schiphol, it has set the ambition: *"to develop Schiphol into Europe's preferred Airport for travellers, airlines, and logistic service providers alike"* (Schiphol Group, 2015). From this strategy, as shown in figure 7-2, four strategic themes are identified: *top connectivity, excellent visit value, competitive marketplace, and sustainable performance*. The first two themes have direct relation to travelling and its 'connecting mission' of contribution to welfare. 'Competitive marketplace' is directly related to the direct environment. The last strategic theme, 'sustainable performance', should be related to how it operates. The term 'people, planet, profit' is generally used in the literature to indicate all aspects of CSR, but in this context, it is quite meaningless.

However, the CR themes, are very specific and relate to Schiphol's core business. Schiphol has formulated the following six CR themes: sustainable employment, commodity shortage, environmental friendly aviation, accessibility, air quality, community and noise and overall supply chain management (Schiphol Group, 2014). These themes are related to day-to-day business. The advantage is that it not only explains what it wants to achieve, but also how. It acknowledges the negative effects, such as, noise and carbon dioxide due to flight movements and transportation to and from the airport. It however, does not show the real trade-offs. In fact, it captures the whole operation of Schiphol without a clear focus. While it has been concluded that, if a company wants to create impact, it has to set a clear focus. Organisations do not have to solve, nor do they have the resources to solve all the world's problems (Porter & Kramer, 2006). Moreover, it has been argued that fragmented CR activities, which are disconnected from the corporate strategy, have low or even no impact. The 6 themes might also be internally conflicting, but it does not capture the business trade-offs, such as, customer appreciation or quality. In this way, CR tends to be more of an obligation rather than a way of doing business. In the mission statement, the trade-off is clearly visible, but is rather vague.

However, there is a link between the two. Namely, these 6 CR themes contribute to Schiphol's vision: *Becoming Europe's Preferred Airport*. Sustainability is seen as a precondition or means to become Europe's preferred airport. This self-serving thought is endorsed by the scientific literature; it connects sustainability with the corporate strategy and fully integrates it. Both the literature and the interviewed companies confirm the importance of a business case, and without a win-win situation impact will never be achieved.

Figure 7-3 Schiphol stakeholder relation (Schiphol Group, 2015)



Impact is distinguished in economic, natural or social capital. Another key element of CSR, which is gleaned from the interviews, is the relationship with stakeholders. Looking at Schiphol's stakeholder map in figure 7-3, it is remarkable that the impact on people is merely related to direct stakeholders. In contrast to the mission and vision, the stakeholder map is very specific. From this it is concluded that Schiphol's impact is merely on direct stakeholders but its mission and vision are related to 'this country and elsewhere'. Therefore, the link between the CR strategy and the corporate strategy is missing. As argued by MVO NL *"it is not about the*

*business case for sustainability, it is about the sustainability of the business case*”. (Reinhoudt, personal communication, June 12, 2015)

According to the virtue matrix, Schiphol has both key ingredients to become a real game changer: intrinsic motivation and stakeholder engagement (Martin, 2002). Generally, CSR initiatives are initiated by public relation departments or communication. At this stage, companies discover that CSR has more potential and it misses a direct link with the core business. Most often, CSR is transferred to corporate strategy and CEO commitment is key in the acceptance process. At Schiphol, CR has been reorganized and is now placed with corporate development. It has been embraced more by the CFO than the CEO, which is remarkable because, in the literature, CFO commitment has been seen as the next step (Maas & Liket, 2013).

In conclusion, there is a gap between the mission and vision and the 6 day-to-day CR themes. The mission and vision bear the overall trade-off but misses the link between CR and the core business. The CR themes are company specific but are too broadly oriented. These ambitious plans may result in fragmented CR activities with no clear link to the corporate strategy. It is suggested to focus on the aspects where Schiphol has the most impact and to include business trade-offs in the CR strategy. The emphasis should be on the dependencies most relevant for business and its stakeholders (NCC, 2015). By doing this, it is able to transform difficulties in opportunities, which is how innovation takes place. Schiphol has all key ingredients to become a real game changer, it only needs to focus and face the real trade-off. A supportive CFO is a very promising prospective.

## 7.2. FRAMEWORK APPLICATION SCHIPHOL

The described steps in the previous chapter, need to be taken to evaluate CSR impact of investment decisions. In order to structurally map a company’s specific impacts, the impact pathway as shown in figure 6-4, needs to be applied to Schiphol’s core business in order to determine the impacts.

The lower half of the impact pathway is generally applicable to all companies and, thus does not have to be changed. At Schiphol, roughly half of all investments are assets (Schiphol Group, personal communication). Per investment, one can determine what raw materials are used, how they are shipped and used, or, if available in the literature, one can use a LCA indicator. All effects the investment has during its lifetime, the resources (water, land, and energy) it uses and the pollution (air, land & water) it creates, are already included in the impact pathway. Along with these impacts, something might change structurally. This probably will only occur in the case of large investments. This determination demands a subjective consideration and might require some expert judgements.



Figure 7-4 Materiality matrix (Schiphol Group, 2015)

As concluded from the interviews, only effects that are material to Schiphol’s core business or its stakeholders are of significant impact. For this exercise, Schiphol’s materiality matrix, stakeholder map, and impact creation model are consulted (Schiphol Group, 2015). From the matrix, shown in figure 7-4, it can be determined that the

most material aspects are indicated at top right. Those impacts that can be influenced by an investment are included in the impact pathway. Schiphol's core business has been related to 'top connectivity' and this includes the network of destinations and frequency (Kangur, personal communication, August 10, 2015). Secondary, but also very important, is the (landside) accessibility, which is divided into accessibility for passengers and commuters (Janssen, personal communication, August 24, 2015).

The combination of top connectivity and accessibility influences the visit value and significance for the region. The impact for the region is twofold. First, the region benefits from job creation and second, residents are harmed by noise nuisance of the airplanes. The business as a whole in the competitive market place has a positive influence for the competitive position of the Netherlands (Ommeren, 2014). This can be translated as higher productivity and economic growth. Cost Benefit Analysis, commissioned by the Dutch government, defines a direct relation between the productivity and economic growth to the number of flight movement (Decisio, 2008). A change in the number of flight movements does not influence a loss or gain in welfare because it is assumed that passengers will be redistributed and travel to and from other airports nearby. The number of flights, however, is also a proxy for safety and emissions (de Bruyn, 2008). There are statistics of perceived risks of a statistical value of human life. For emissions, CO<sub>2</sub> has a worldwide effect and NO<sub>x</sub> and PM<sub>10</sub> locally. It is, therefore, common, to prevent double counting, to attribute half of the CO<sub>2</sub> emissions to the Landing and Take-Off (LTO) cycle because Schiphol is either the originating airport or the destination. For NO<sub>x</sub> and PM<sub>10</sub> emissions, only landing and take-off contribute to local emissions (Ommeren, 2014). The same applies to landside transportation. Passenger kilometers is a proxy for safety and can be used to calculate landside emissions. The impacts discussed are visualized in the impact pathway in figure 7-5.

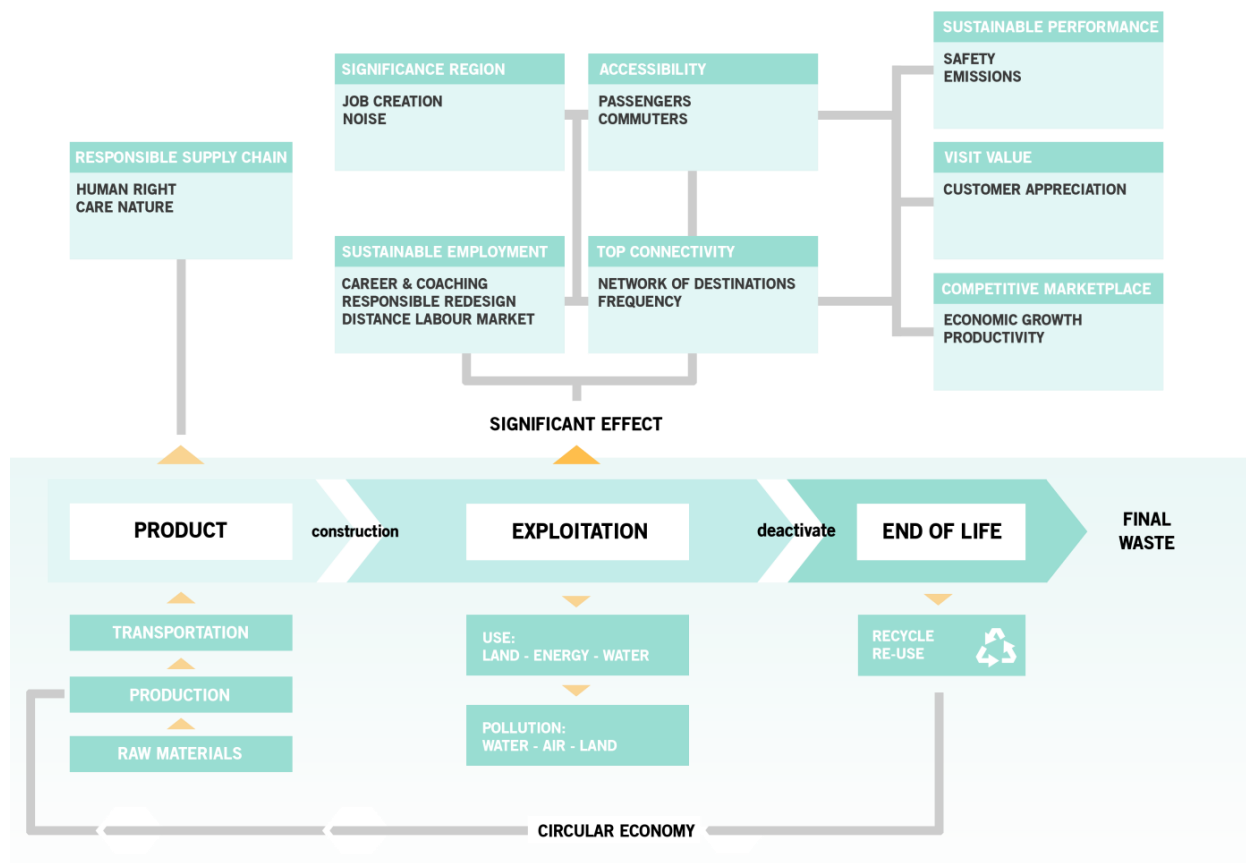


Figure 7-5 CSR Impact pathway Schiphol

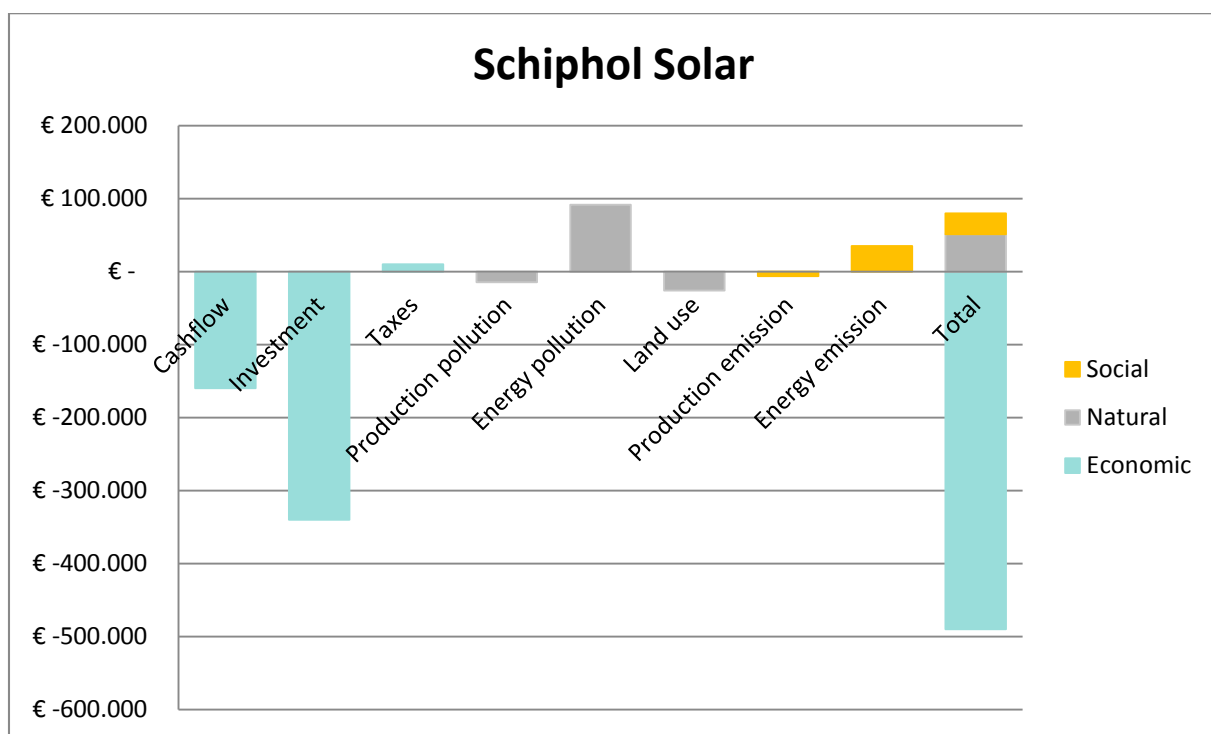
### 7.3. CASE APPLICATION SCHIPHOL

In this section, the impact pathway applied to Schiphol's core business and key stakeholders was used to evaluate two investment decisions. The results of the solar panels and biodigester are discussed in section 7.3 and 7.4.

#### 7.3.1. CASE I: SOLAR PANELS

The first case that is handled is 'Schiphol Solar' as shown in table 7-1. Schiphol has set the ambition to generate 20% of its own energy needs locally (personal communication, Schiphol Group). In order to achieve this goal, Schiphol has explored its options. Due to strict requirements with respect to aviation, renewable energy from solar panels is an interesting option. Unfortunately, due to the economies of scale and currently low energy prices, the business case is not profitable. Let's take a look at what effects other than financial can be identified.

Table 7-1 Schiphol Solar



#### LIFE CYCLE

The financial parameters are already known but are valued differently than according to current accounting principles. Three financial parameters: cash flow, investment and taxes are taken into account. This project results in a negative net flow for Schiphol because operational costs of solar energy are higher than conventional energy which is currently bought (Schiphol, intern communication). The second parameter, investment, includes the capital expenditure at the beginning of the project. The last financial aspect, taxes, is valued positively. Although taxes might be negative for Schiphol, seen from a welfare theory perspective, the taxes due to this investment contribute to social welfare. The other capitals are also evaluated on the basis of the same lifespan of 26 years and a discount rate of 6%.

## Production

By the use of figure 7-5, the following effects of production, exploitation and end of life can be found. The photovoltaic module's main ingredients are glass, aluminium and silicon (Fthenakis, Kim & Alsema, 2008). Silicon is produced from sand, so none of the main ingredients are in shortage. It is, therefore, assumed that the price of raw materials equals the social price, and no welfare supplement is needed. However, the emissions and chemicals released during the production process are typical externalities which are not included. It is unknown how many emissions can be attributed to the production process of solar panels since it is highly dependent on the type of process the manufactory handles (SVTC, 2014). Key figures available in literature argue that the CO<sub>2</sub> gains of renewable sun energy compared to grey power should on average be lowered by 80 gram per produced kWh (Stimular, 2011). Via Gross Energy Requirement values (GER) published by Rijksdienst Voor Ondernemend Nederland (RVO, 2015), the energy consumption is related to emissions derived from grey energy mix in the Netherlands (Otten & Afman, 2015).

It is uncertain if this number also captures the transportation of the modules and transmitters from respectively China and Germany. Due to the long life span of the PV field, the production is an one-of costs and is, therefore, argued not to have a significant effect (Van Beek, personal communication, September 2, 2015).

## Exploitation phase

During the lifetime of the PV field, it does not use electricity, it generates energy. Compared to electricity coming from power stations, it has a large climate change gain. As already discussed, this gain is lowered for the compensation of the production of the PV modules. Due to the use of renewable energy, consumption of energy coming from fossil fuels will be lowered. This results in avoided emissions which has a positive influence on the local air quality of the power station (Otten & Afman, 2015). Maintenance and cleaning is negligible (Siezenga, personal communication, August 31, 2015) therefore, it is argued that the panels do not use anything other than the land during its exploitation. The natural capital opportunity of the ground is, unlike the economic opportunity, very low. Due to safety reasons with respect to aviation, the land is restricted to zoning. The land use is, therefore, devaluated by 50% compared to opportunity of a forest (Hein, 2011). A forest has never been a real option.

## End of life

The end of life of the solar panels needs to be taken into account to be able to evaluate all impacts it has on the environment. The photovoltaic modules are fully recyclable. Moreover, several factories even recall panels after their lifetime. Because of the fully recyclable image of panels, no social costs are associated with the end of life process. If new panels are produced from recycled ones, this will result in a natural capital discount of energy and emissions at the beginning of the life cycle of new solar panels.

## INFLUENCE OPERATION

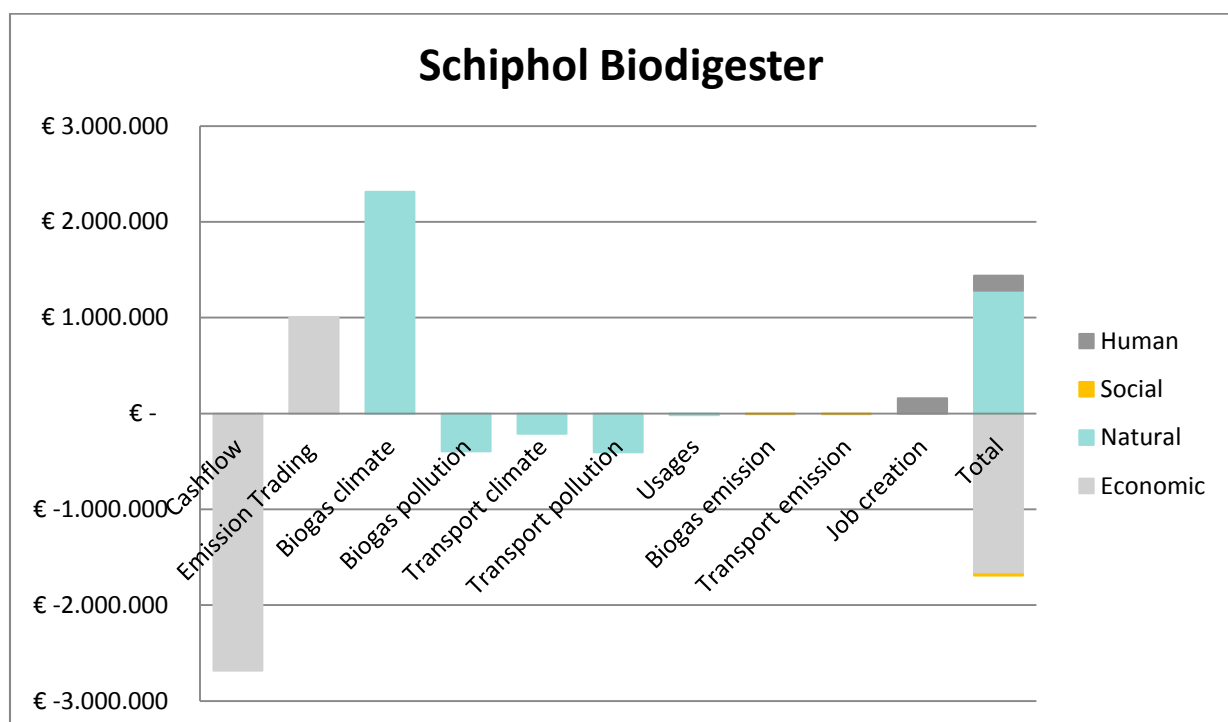
In order to complete the exercise of the total impact of the PV field, it is examined whether the investment has significant impact other than its life cycle. Looking at the top right of the impact pathway, it is argued that the PV field does not interfere with traffic, consumers or aviation. Reviewing the top left, it might have an impact on Schiphol as an employer. The construction of the PV field requires manpower. However, it is argued that this project does not create structural employment and is, therefore, not taken into account (Hofstede, personal communication, August 26, 2015). It is assumed that the labour costs are incorporated in the business case. The last impact that might be of relevance is supply chain. This impact, due to ethical reasons, is provided with a monetary value. If there might be indications of severe labour conditions or environmental pollution in the supply chain, it should be questioned if Schiphol is able to improve the situation and if not, it should be questioned to what extent would one wants do to business with such a party.

### 7.3.2. CASE II: BIODIGESTER

The second case handled in this case study is ‘Schiphol biodigester’ which is shown in table 7-2. In comparison to solar panels, a biodigester could provide a larger part of the needed renewable energy due to higher production and efficiency (Schiphol group, intern communication). Because of the Purchase Power Agreement (PPA) with the operator, it is very likely that the project of the biodigester will be executed. Although the project is a sustainable solution for the increasing dependency on fossil fuels, it is inevitable that there are also some negative or side effects. At the moment, the decision-making process is mainly based on financial parameters and gut feeling.

This case has been chosen because it touches upon several other aspects and is very interesting to examine in the light of the framework. In contrast to the previous case, this project is more cost-effective but also contains more indirect effects.

Table 7-2 Schiphol biodigester



### LIFE CYCLE

For economic capital, the net result of the biodigester for Schiphol is negative due to the higher energy price of biogas and, therefore, is seen as unprofitable (Schiphol, intern communication). Avoided Emission Trading Systems costs (ETS) are seen as positive. Because of the PPA, Schiphol has not received any subsidies nor had to pay any taxes. The other capitals are also evaluated on the basis of the same lifespan of 12 years and a discount rate of 6%.

### Production

The designed impact pathway is used to structure the effects. The high-level life cycle of the biodigester is shown in figure 7-2. As already stated in the previous chapter, this execution is highly dependent of the quality of available data. A reputable study has concluded that the production of biogas has a negative net impact on climate change (Croezen, Odegard & Bergsma, 2013), meaning that the net CO<sub>2</sub> emission is positive in

reference to natural gas. The organic material has distracted more carbon dioxide from the air than the process of biogas contributes (Bergsma, Kampman, & Croezen, 2010). The level of the net CO<sub>2</sub> gain is highly dependent on the type of biomass and its application. The number of CO<sub>2</sub> win can be found in appendix D and contains the whole life cycle of biogas production. Thus, it includes the production of the biodigester and infrastructure needed but does not include the transport of the biomass to the digester. The sources of the data are examined carefully in order to prevent 'double counting' of effects.

On the basis of the number of average calculated traffic movements, it is determined that the silo will be supplied by small to medium trucks (WikiMobi, 2014). Efficiency is key for the profitability of the process; it is, therefore, assumed that the truck occupancy is relatively high. It is decided not to compensate for empty trucks on their way back since the key figure emanated from an average truck has a low occupancy. The key figures for wheel-to-wheel emissions of the trucks and assumptions can be found in appendix D.

Unfortunately, life cycle data of biogas is only available for CO<sub>2</sub> emission. However, it is assumed that other emissions have considerable impact too, especially because the emissions are local. From a national perspective, these emissions are transferred from a conventional gas station to Schiphol and, therefore, will have a net impact of zero. But since the scope is Amsterdam Airport Schiphol, this transfer has a direct impact on the local air quality and is, therefore, included in the analysis. The gas from the micro-organism are converted to biogas and added to the conventional gas network. Other than CO<sub>2</sub>, the emissions that will be released during the process are compared to that of natural gas and can be found in appendix D. Actions will be taken to mitigate the negative effects (Gemeente Haarlemmermeer, 2012). NO<sub>x</sub> will be captured and stored, which results in a zero impact with respect to mono-nitrogen oxides.

### **Use and pollution in exploitation phase**

During the exploitation phase, several other effects are of importance. Energy and use of excipients in the production process of biogas and gains due to the substitution of natural gas are already taken into account in the Life Cycle Assessment of biogas (Croezen et al., 2013). It should be compensated for the water it uses. The water price is already incorporated in the business case since water has a market price, but the social price for the shortage of water is not included. Water shortage in the Netherlands is not material yet (TrueCost, 2013). The social price of water is, therefore, extremely low (WRI, 2013). Nevertheless and with an eye on the future, it should be taken into account and water scarcity needs to be monitored.

Water contamination due to the production process is excluded from the analysis because the effluent will not be discharged in sewage or surface water (Gemeente Haarlemmermeer, 2012). To mitigate the risk of ground contamination, several soil protections, such as, waterproof and hardening of the floors, will be executed. These actions, to prevent harm to natural capital, are associated with real costs; therefore, social costs are not necessary. The relation to land use is rather complex. On the one hand, evaluation of the land use on the basis of the opportunity of natural capital should be compared to a forest (Hein, 2011). This comparison, however, does not feel right. Land at Schiphol cannot be compared to a forest because that has never been a real option due to strict aviation constraints. At the moment, the area is just fallow land. Looking from renewable energy opportunities, land in the Netherlands that is suitable for renewable energy purposes and does not harm residents directly, is very scarce (Van Beek, personal communication, August 14, 2015). Land made available by Schiphol for renewable energy could strengthen the transition in the Netherlands. This noble thought clearly is of great value, but currently it is not possible to put a price tag on the use and purpose of this piece of land. Further research is needed. For the moment, land use is valued qualitatively.

In the case of biogas, one does not want to live near a biodigester because of the smell of rotten eggs (Leenes, 2010). According to dispersion calculations, smell for nearby residents is negligible (SCM Milieu, 2011). This might have to do with the fact that the biomass contains residuals, GFT or grass, which smells very different



than manure, for example. Besides the fact that the social price of smell is hard to determine and quite ambiguous, smell is proven not to have a significant effect at Schiphol.

### End of life

The last aspect of the life cycle that is evaluated is the end of life phase. The first aspect that makes it hard to review the end of life stage is the uncertainty of the lifespan. Contracts with the operator and suppliers are to be signed for 12 years, the minimum length of the subsidies. It is uncertain what will happen after 12 years since the project is dependent on the involved stakeholders and there is no insight into the profitability after that time. According to the project manager, there will be preventive and corrective maintenance to enlarge its lifetime when possible (Siezenga, personal communication, August 31, 2015). Moreover, it is not clear what percentage can be re-used and recycled or need to be discharged as waste. In general, the digester contains asphalt, silo, building and concretion, all of which are suitable for re-use of materials. So it can be argued that Schiphol has the intention to keep the digester in operation after the contracts are expired but is dependent on other actors and there is no clear view of what will happen after 12 years. Due to the uncertainty, it is not possible to evaluate the end of life phase.

## INFLUENCE OPERATION

Besides the life cycle impact from the biodigester, it might also have an indirect impact on business related processes. In this paragraph, the significance of these impacts is investigated

There are three indirect effects identified. First, the biodigester influences the supply chain. The operation of the biodigester is outsourced. Besides that, the biomass residuals will be collected from several suppliers. For efficiency reasons, these suppliers should be located near Schiphol. Both operator and suppliers are Dutch companies so the chance violation of human rights or direct threats for the supply chain is seen as negligible and further research is unnecessary (Siezenga, personal communication, August 31, 2015). The second effect is based on the increase in traffic movements needed to provide the digester with biomass. Research has shown that the supply will create 54 extra traffic movements on average, half of which will be freight (Gemeente Haarlemmermeer, 2012). This increase will not play a significant role in congestion nor influence safety. However, the local emissions, due to the extra traffic movement, are taken into account in the life cycle phase. Lastly, the biodigester has a positive effect on Schiphol's theme of 'sustainable employment'. Namely, due to the increase of two FTE, this investment will strengthen the significance of the region (Schiphol Group, 2015). The positive impact of job creation is part of human capital. Calculations can be found in appendix D.

### 7.3.3. SENSITIVITY ANALYSIS

Sensitivity analysis is executed for the following reasons. First, to assess the robustness of the model, in order to examine under what conditions and uncertainty the model generates the same outcomes and to what extent the same conclusions are derived (Eijgenraam et al., 2000). Second, it increases understanding of the relationship between the input and output of the model. The importance of certain parameters can be assessed. The sensitivity of the model is tested on numerical sensitivity and discount rate. As discussed, the choice of discount rate is rather subjective and some argue that discounting natural or social capital is immoral to future generations (Kahn & Greene, 2011). It is therefore, critically important to examine what influence the discount rate has on the final net result.

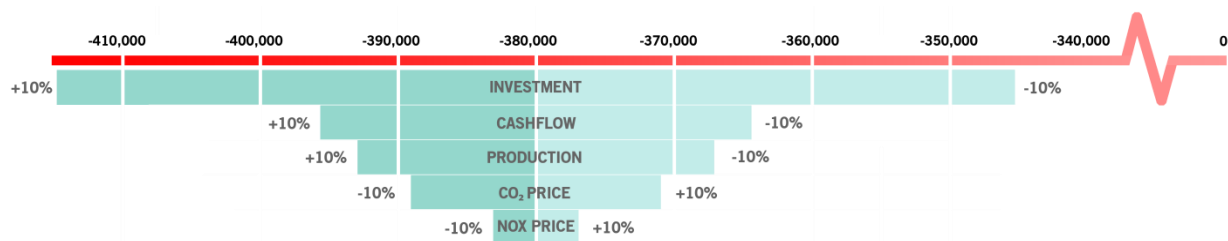
The outcomes of the sensitivity analysis are displayed in a tornado graph. This graph shows the relative change of the monetized impact of the investment around the net result.



## SOLAR PANELS

From the sensitivity analysis, see table 7-3, it is concluded that the model is quite robust. All changes within plus 10 and minus 10 percent, do not have a large impact. The biggest influencer is the total investment. This can be explained by the fact that the total investment is paid in the first year and is, therefore, not subjective to a discount rate. The second impact the model is sensitive to is the financial cash flow. The cash flow is mainly determined by the gap between the price of grey energy and solar power. It is concluded that the uncertainty of PV investment is mainly driven by financial parameters. These changes, however, do not change the final outcome, from welfare perspective solar panels are not cost-effective.

Table 7-3 Tornado graph: solar panels



The other factors had a negligible impact on the total net result and are, therefore, excluded from the graph above. It is assumed that an impact, due to a change of 10% of one factor, of less than thousand euro on the total net result is negligible. The outcomes of the sensitivity analysis can be found in appendix D.

As shown at the left side of table 7-4, the lower the discount rate, the less negative the net result. This can be explained by the fact that the emphasis of the investment costs is at the beginning of the project, while the benefits are distributed over its lifetime. Note, that the social costs of production and transportation of solar panels, so the use of raw materials, energy consumption in the production process and transportation, is not determined as one-off costs, but as fixed yearly costs. This is because of the availability of data. A discount rate of 2.5 percent seems not to be suitable, since it would imply a risk free investment. It is argued that a lifetime of 26 years is not risk free. From the right side of table 7-4 it is concluded that different discount rates to the various capitals have a low influence on the total net result.

Table 7-4 Sensitivity discount rate: solar panels

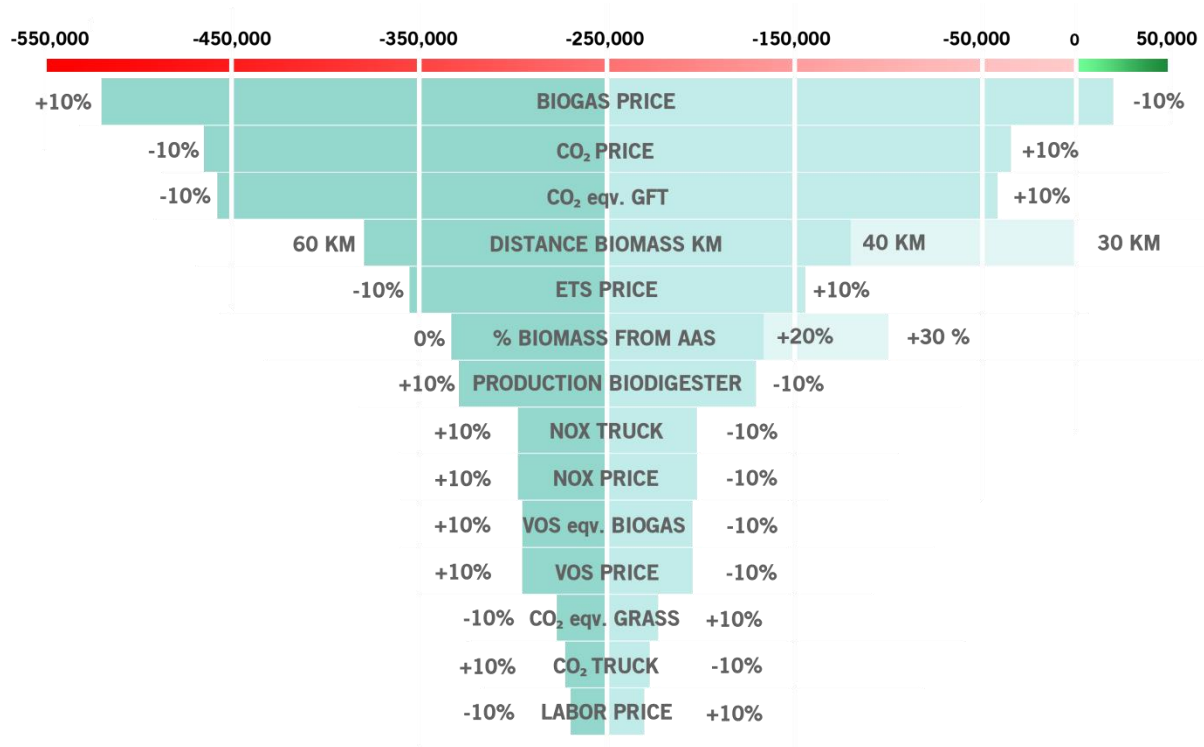
SENSITIVITY ANALYSIS NPV: SOLAR							
Economic	Natural	Social	Total NPV	Economic	Natural	Social	Total NPV
6.0%	6.0%	6.0%	€-380,590	6.0%	2.5%	4.5%	€-330,340
4.5%	4.5%	4.5%	€-264,670	6.0%	2.5%	2.5%	€-330,140
3.5%	3.5%	3.5%	€-168,160	4.5%	2.5%	2.5%	€-232,400
2.5%	2.5%	2.5%	€-52,080	4.5%	2.5%	4.5%	€-232,600

The outcomes from the sensitivity analysis do not have a significant effect on the distribution of the graphs. For a complete overview of the sensitivity of the present value to the discount rate, the graphs can be found in appendix D.

## BIODIGESTER

From table 7-5 it is derived that the model is sensitive to several parameters. The biggest influence is the biomass price. It is argued that this price is not uncertain since it is a fixed price agreed between Schiphol and the operator in the PPA.

Table 7-5 Tornado graph: biodigester



A really important factor in this model is the CO<sub>2</sub> equivalent and CO<sub>2</sub> price. The social carbon price ranges from 27 to 147 euro per ton in the scientific literature (CDP, 2014). In this research a very low, conservative social carbon price of €32/tCO<sub>2</sub> was chosen. This is done to prevent 'wishful thinking' and create a so-called worst case scenario (Scholte, personal communication, June 9, 2015). If the business case is positive in case of the most conservative CO<sub>2</sub> price, it can be said with certainty that the investment is socially cost effective. In this case, however, a carbon price of €35.84 is sufficient to flip the case from negative to positive. The CO<sub>2</sub> equivalent, which is multiplied by the carbon price, is derived from a life cycle study of biogas wheel-to-wheel. It is transparent which aspects are included in this number, but it still is an average. The disadvantage of annualisation, using average prices yearly, is that costs that occur at the beginning are underestimated. Especially because this number includes a social discount for the production of the biodigester. Normally production is seen as one-off costs and will therefore, not be discounted. The reason why the CO<sub>2</sub> equivalent from GFT is more influencing than the grass equivalent, is because 90% of the biogas is produced out of GFT and only 10% out of grass. Since the model is sensitive to CO<sub>2</sub> equivalent and price, it is recommended to further investigate this number.

From the sensitivity analysis, it is also possible to derive means to positively influence the welfare business case. If Schiphol, for example, increases the flow of biomass originating from its own location, by producing biomass or lobbying for more biomass out of waste, less biomass needs to be imported elsewhere. More effectively is to find biomass suppliers within a range of 40 or even 30 kilometres instead of the now given maximum range of 50 kilometres.

Moreover, the model is also quite sensitive to the choice of discount rate, as shown in table 7-6. An decrease in discount rate results in a higher negative net present value, because the annual costs are higher than the benefits. The sensitivity to carbon is also present in a positive net result due to the lower discount rate of natural capital, as shown at the right side of the table.

Table 7-6 Sensitivity discount rate: biodigester

SENSITIVITY ANALYSIS NPV: BIODIGESTER									
Economic	Natural	Social	Human	Total NPV	Economic	Natural	Social	Human	Total NPV
6.0%	6.0%	6.0%	6.0%	€-252,420	6.0%	2.5%	4.5%	4.5%	€46,670
4.5%	4.5%	4.5%	4.5%	€-274,540	6.0%	2.5%	2.5%	2.5%	€65,950
3.5%	3.5%	3.5%	3.5%	€- 290,940	4.5%	2.5%	2.5%	2.5%	€-81,000
2.5%	2.5%	2.5%	2.5%	€-308,840	4.5%	2.5%	4.5%	4.5%	€-100,230

The sensitivity analysis shows to what parameters the model is sensitive and what parameters are of importance to management information. Besides sensitivity of the model, it is also important to assess the range of uncertainty in order to ease the interpretation of the outcomes.

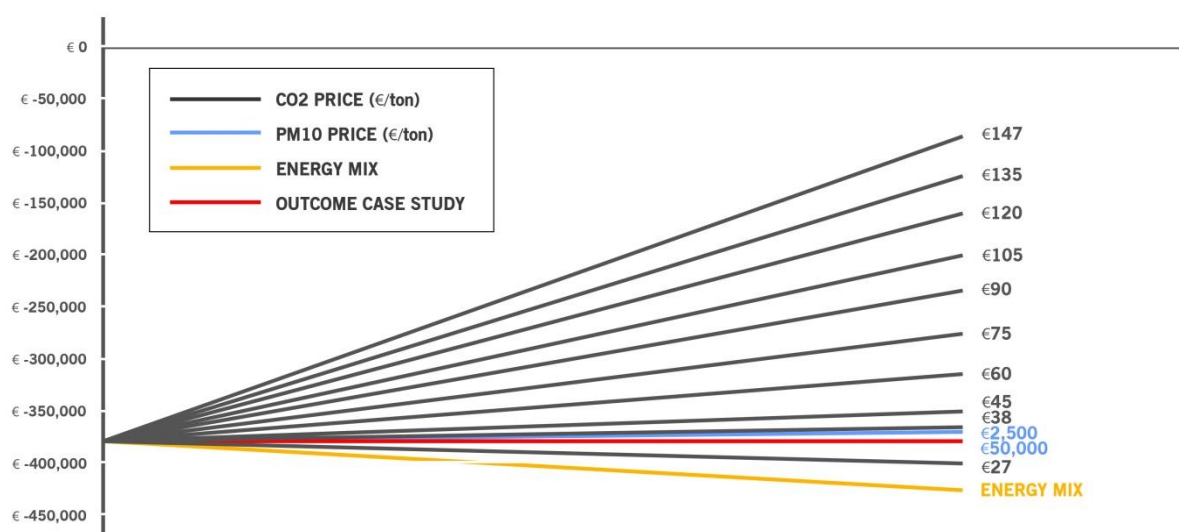
#### 7.3.4. ERROR PROPAGATION

The propagation of error is the uncertainty, or error, of the outcome of a function due to the uncertainty of the different input variables. Uncertainty is caused by imperfect information. If the correct number of a variable is known, there would be no error and the uncertainty would subsequently be zero. Unfortunately, the model consist of parameters with several assumptions and is based on imperfect information. The confidence limits cannot be derived since the statistical probability distribution of the variables nor the standard deviation  $\sigma$  is known (HU, 2007). Therefore, the error of a quantity, the absolute error  $\Delta x$  cannot be obtained.

In order to say something about the uncertainty of the outcomes, the range of variables will be assessed. The error propagation is assessed for those factors a range is known in literature. Note, since the distribution of these numbers is not known, the error propagation is not obtained simultaneously for all factors, but per input variable apart. It would not make sense to assume, as what is done in a normal error propagation analysis, that all variables have a minimum or maximum error at the same time. This chance is negligible and there is for this reason chosen to generate outcomes and keep the other parameters stable.

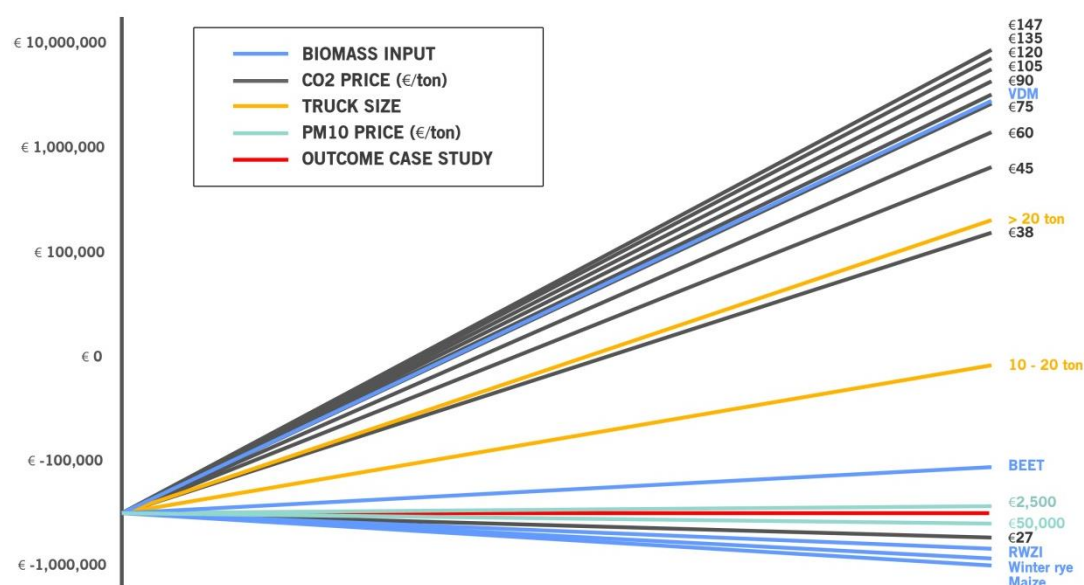
The error propagation of solar panels case is shown in table 7-7. The red line represents the outcomes of the case study. For the following two shadow prices the range is known. As already stated, the shadow price of CO<sub>2</sub> varies from €27 per ton to €147 per ton CO<sub>2</sub> (CDP, 2014). The lower as well as the upper bound is simulated in order to see what effect it has. For PM10, in literature the range is between €2,5 to €50 euro per kilo (Schroten et al., 2014). Another important factor is the choice of reference to grey energy, a commonly used Dutch energy mix. In literature, non-earmarked energy is also available (Otten & Afman, 2015).

Table 7-7 Error propagation solar panels



The error propagation of the biodigester case is shown in table7-8. For the biodigester, the same analysis for CO<sub>2</sub> and PM10 is done as for solar panels. Besides shadow prices, the model is also based on input variables, such as, assumptions and key figures. For the transportation, for example, it is assumed that the biomass is transported by a small truck of 2.5 to 10 ton (WikiMobi, 2014). The error propagation shows what impact larger trucks have. Last, the effect of different biomass input is assessed. Instead of GFT and grass, the effects of winter rye, maize, beet pulp, manure and waste silk are examined (Croezen et al., 2013).

Table 7-8 Error propagation biodigester

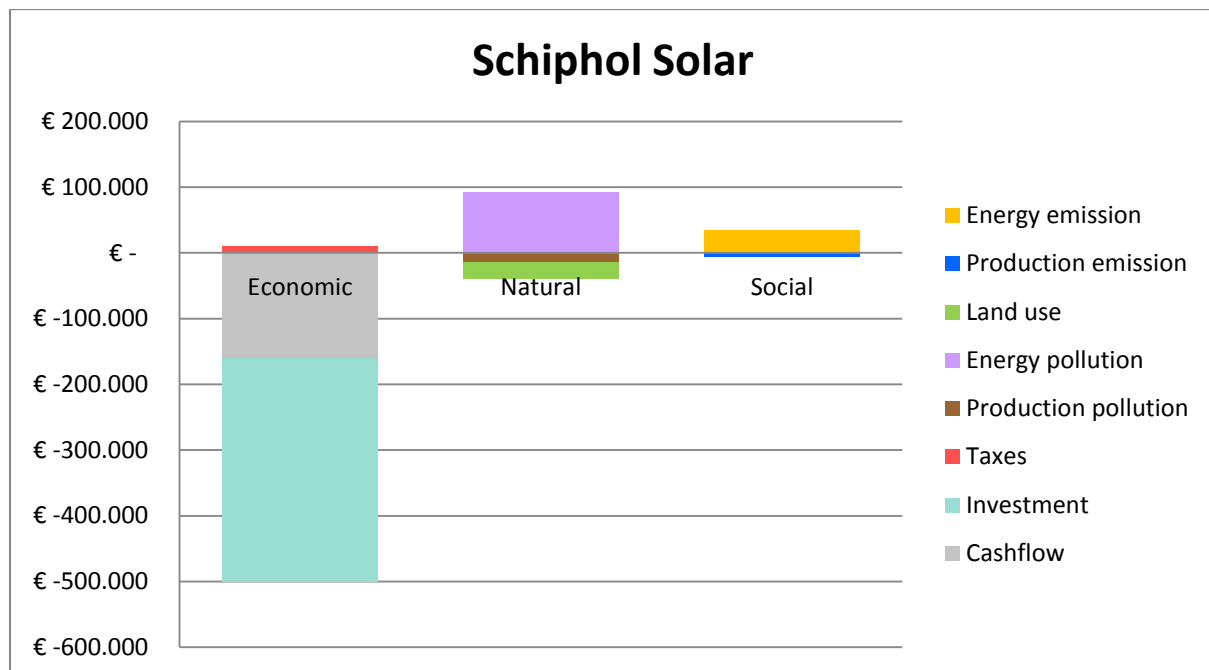


The graphs above show that varying input variables results in a large range of outcomes. As already stated, input data for both case studies is chosen very conservative. This is clearly visible in the graph since the red line, the case outcome, is at the bottom of both graphs. Meaning that the majority of parameters has a error which results in a more positive social business case. The error propagation analysis includes only those factors which contain a clear range in scientific literature or have alternative assumptions available.

## 7.4. CASE: INTERPRETATION RESULTS

In the previous section, the framework application was tested on two case studies. The projects were defined and impact pathways were made. During the calculation phase, some assumptions were necessary. It was expected that the assumptions would be of negligible impact. Two experts at Schiphol in the field of energy efficiency and resources & residuals were interviewed. This was seen as very valuable information. It definitely is recommended to consult in-house experts. The outcomes are summarized, with separation of the different capitals, in the following graphs 7-9 and 7-10. Because the decision tool is not directly a decision rule, this section zooms in at the interpretation phase.

Table 7-9 Summary impact solar

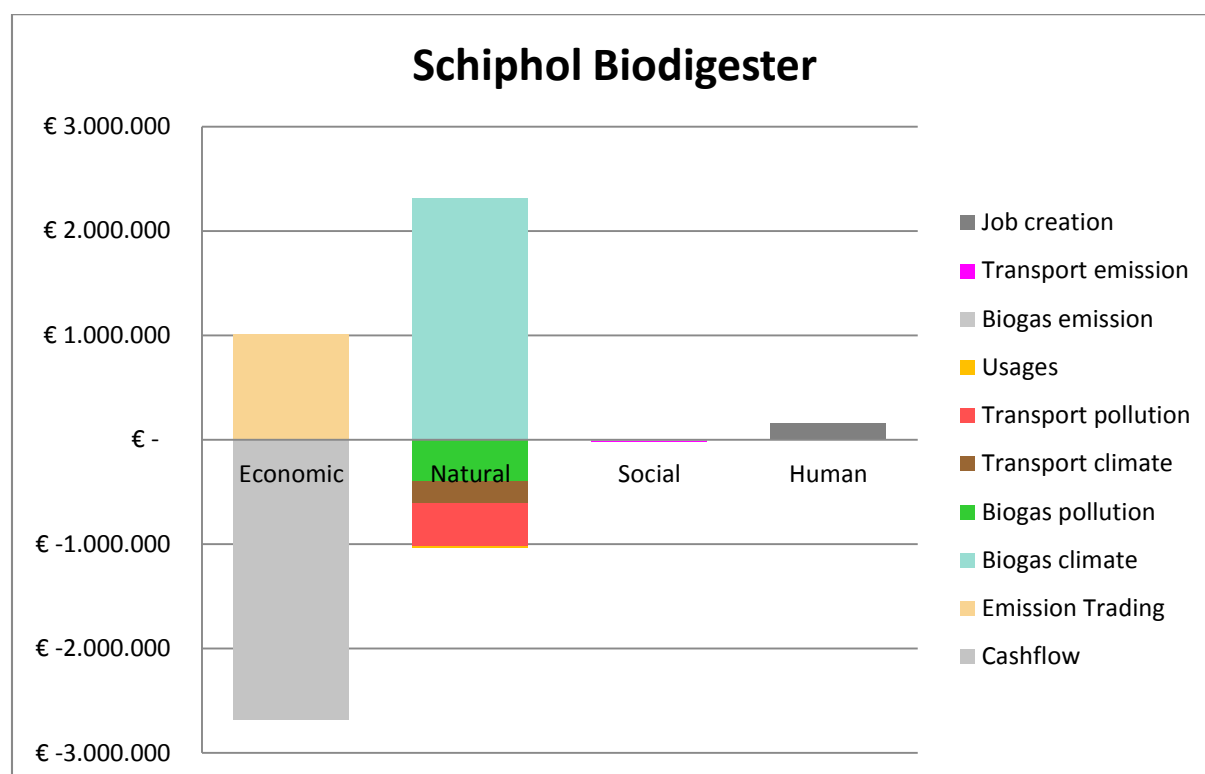


From a welfare perspective, it is concluded that a PV field is not really profitable at Schiphol. It is argued that, for natural and social capital, it is indeed an improvement, but at high costs. The reason why it is economically unprofitable is because new infrastructure is needed, which indicates increasing investment and there is a negative cash flow. This means that every solar kWh is more expensive than that of grey energy. Note that this number is referred to the current energy prices while the lifetime is 26 years. The price of grey energy is expected to increase, due to shortage of resources in the long term because of its non-renewable character (Croes & Kangur, personal communication, August 10, 2015). It is, however, too uncertain to extrapolate a higher expected energy price (Kangur, personal communication, August 10, 2015). The price of oil has even decreased last year, so using a higher price would actually be wishful thinking. Nevertheless, it is expected that the difference will decrease over the long run, but it is doubtful if the current gap could be bridged. Since the model is proven to be quite robust and still is negative in best case scenario, it argued that solar panels are from a welfare perspective not cost-effective at the location Schiphol.

Schiphol is actually still considering solar panels. Aspects which are not visible in this chart are the positive contribution to reputation and promotional value (Pronk, personal communication). This value is extremely subjective, hard to measure, and prone to risks, but apparently very important for Schiphol. It has even been argued to place a PV field at a less profitable, but more visible location (Van Beek, personal communication, September 2, 2015). Companies with profit motive would never consider this option. Schiphol, however, has

set the ambition to increase energy consumption from renewable resources to 20%. In order to achieve this target, budget is made available, the question is: how much?

Table 7-10 Summary impact biodigester



The biodigester, as opposed to solar panels, is almost 'even' from a welfare perspective. Especially, since it is concluded from the sensitivity analysis that the model is prone to changes in carbon price. Since the most conservative carbon price was chosen, the case as presented above should be seen as the worst case. The reason why this alternative scores better than solar panels, is because biogas is climate neutral and has a higher efficiency rate. Besides the negative cash flow, due to a higher price of biogas than natural gas, it also saves 'real' costs, namely emission trading (Siezenga, personal communication, August 31, 2015). Also, it is expected that the biodigester will have a positive contribution to manufactured capital, that being the availability of land for the purpose of biogas. Moreover, end of life is seen as a negative impact for natural capital. During the analysis, it became clear that it was not possible to value both aspects.

As with solar panels, it is expected that this economic gap will decrease and emission trading may even rise. Moreover, from table 7-10, it is concluded that transportation of biomass has a considerable impact. It could be argued that, for natural capital, it is beneficial to actively look for suppliers close by, lobby for a higher percentage of biomass from the company's own operation or invest in less polluting transportation. Another insight is the negligible negative impact for human capital at the location. Because the transformation process of biogas into natural gas quality is moved from a power station to Schiphol, it was argued that this might have a considerable negative impact. Previous studies have proven, based on the number of residents in the area, that the decrease of local air quality is not of considerable impact (Gemeente Haarlemmermeer, 2012). The outcome in kilos or even in tons is hard to interpret for the decision maker, let alone to estimate the impact on biodiversity or human health. By the use of shadow prices, all impacts from an emission are translated in one price and gave insight into the amount of relative impact.

Reactions from Schiphol were very positive. "It definitely gives more insight in the order of magnitude" (Hofstede, personal communication). About the interpretation, no one was surprised that both projects were

not cost-effective. It was seen as a confirmation of what had been speculated. If renewable energy was already profitable, it would be implemented on a large scale already. Just as all innovations in the beginning, being the first and leading in the field, does not make money, it costs money. Moreover it is stated that *“it is actually funny that the graph represents the difference in efficiency between the both alternatives very clearly. I mean, we knew that biogas is more efficient than solar energy, but I did not expect that the difference would be so visible”* (Siezenga, personal communication).

## 7.5. VALIDATION SCHIPHOL

By the help of the designed framework, it is stated that there is more insight in the total impacts of investment decisions. The outcomes of the model, however, are dependent on the validity of the framework and the content analysis. As already known, the labelling process is within inter-coder subjectivity limits of qualitative research. For the framework, the validity is more difficult to assess, since all impacts of the investments are unknown. The validity is, therefore, related to the completeness of the framework, whether it captures all relevant aspects, and the usefulness, whether it enables the decision maker to better value all aspects of CSR. During the design and test phase, several formal and informal meetings were held. A list of in-house experts is included in appendix A.

Half way into the design phase, expert meetings with Schiphol’s CR-coordination team were organized. It should be noted, that the CR-coordination team is a diverse selection of employees over several divisions, but all have a close link to sustainability or corporate responsibility. The setup of the meeting was semi-structured. The meeting started with an informative presentation to introduce the topic of monetization and the designed framework in order to increase the quality of discussion. After the introduction, the first case study of solar panels, the process and outcomes were discussed. There was some time scheduled for feedback, questions and answers. All reactions, feedback and questions were written down, summarized and clustered in appendix E. The results are discussed in the next section.

### 7.5.1. CR-COORDINATION TEAM

During the expert meeting with the CR-coordination team, the added value of the graphs was recognised. It is argued that *“normally, during the investment decision process, we only see the left side of this graph, the economic capital. Very interesting to see the impact at other levels”* (CR-coordination team, personal communication, August 27, 2015). Besides the advantages, it was also directly asked if it was also applicable to procurement procedures, as replacement or as counter method for EMVI (Economisch Meest Voordelige Inschrijving).

One argued the potential power of this method, to support Schiphol in forming its opinion about relevant topics. The newest fiscal trend is to in-source operational personnel, for example, cleaning staff. It has been made more efficient by the government to in-source personnel because it would secure jobs and increase happiness of workers due to permanent contracts and securities. However, this is not something you decide overnight. The potential of the tool is explained as: *“With this tool we can get more insight in all aspects and form our own opinion to make informed decisions what we think is important. We simply cannot bend with the wind”* (CR team, personal communication, August 27, 2015).

At first sight, both proposals are good uses for the CSR evaluation framework. The goal of this research is to focus on investment decisions, but other purposes are not excluded. Monetization of companies’ impact is still in infancy (Sipkens et al., 2014). It is recommended to start small, and if it is proven to be helpful, slowly expand to other purposes.



Surprisingly, none of the questions during the CR-coordination team meeting were subject to the method or fundamental monetization principles. One, however, questioned how to communicate about these matters. Some of the aspects are very sensitive topics for residents. For example, with regard to noise, it was argued that *“we cannot say: sorry for the noise, but all together it is not that bad. People are harmed by noise nuisance, I think they would think very differently about it”* (CR-coordination team, personal communication, August 27, 2015). This statement captures four very important aspects at once.

First, there is a big difference between internal decision-making and external reporting. Those two need to be handled very differently (Scholte, personal communication, June 9, 2015). The methodology of impact measuring and pricing of effects is upcoming and subject to very different and opposing views. One should definitely be very careful about communicating outcomes. As previously discussed, intern decision-making is, aimed at keeping the different capitals separated. Nevertheless, it should never be used to play down impacts.

Second, the shadow prices that are used are from independent studies. Those figures are not invented, they are subject to large research for the aviation sector in particular. Also, it does not aim to value the price of someone who wakes up or is annoyed by the noise; it is about noise contours around Schiphol and the relative change due to investments. Those figures are already published in annual reports. The only ‘new’ thing is that it is valued by an externally reviewed shadow price in order to indicate the order of magnitude. NS agrees that the use of this type of data is not about specific lives of people. *“This is ‘cold-hearted’ data. We already publish the number of accidents and mortality. Now, the only difference is that we multiply it by a value derived from independent research”* (Kinds & Coenen, personal communication, July 14, 2015).

Another aspect discussed during the CR-coordination meeting is the Public Relation (PR) or reputation value of solar panels to Schiphol. This is already covered briefly in the interpretation phase of the previous chapter. The extra intangible value for Schiphol is mentioned by several people. It is, therefore, argued that it might be of importance to Schiphol. Unfortunately, no key indicator exists for these kinds of matters. *“The danger of using objective general indicators for such specific subjective topics is that these number make absolutely no sense”* (van Dijk, personal communication June 16, 2015). Reputation or the value of being an early adapter is very different for every company and needs to be examined carefully. It should also be assessed to what extent there is a causal relation and what can be attributed to this single investment.

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### 7.5.2. IN-HOUSE EXPERTS

Surprisingly, the designed impact pathway itself has received very little feedback. Advisor Resources & Residuals argued that the lower half captures at least the most important aspects (Croes, personal communication), which suits the goal of proportionality. Croes argued, however, that the release of heavy metals and emissions during the production process might have a considerable impact as well. It is assumed that these aspects are present in key indicators of Life Cycle Assessment, since it captures an impact category. The excel model has been reviewed by the Energy Efficiency specialist at Schiphol and no irregularities were discovered (Van Beek, personal communication, September 2, 2015). The upper level of the graph, the social aspects related to core business and key stakeholders, is approved by CR advisor of Schiphol (Pronk, personal communication).

The majority of the comments were actually with respect to usage and how to interpret the graphs. It was asked how to read the graphs (Croes & Janssen, personal communication, September 4, 2015). This might be a disadvantage because, without prior knowledge, it is hard to interpret these numbers. There are numbers included that are ‘real’ costs, but the model also contains costs that will never be part of the real economy. Comments varied widely. Some argued *“yes but in the end we do not have to pay the social costs, so what are we doing this for?”* (Koelemijer, personal communication). The answer is to gain insight in the different impacts. When Schiphol needed to choose between two passenger bridges, one produced in China and the



other one in Spain, it was not able to compare transportation, maintenance and operational usage (de Jong, personal communication, August 18, 2015). The goal is not price impact itself, but to make a translation in order to compare the different impacts.

Someone else was right to note that there was no benchmark, and argued *“to what number can these outcomes be related?”* (Croes, personal communication). The answer is: we do not know. For a so-called zero situation, the current impact of Schiphol, is not measured, which would actually be of considerable help to interpret these numbers. Currently, one is able to compare impact to other impacts or to those of different alternatives. If the current impact of Schiphol, as a whole, is known, the decision maker can determine what the contribution of the investment is.

Moreover, the monetized investment decision in present value should be assessed as a ‘movie’ rather than as a static ‘picture’ (Croes & Kangur, personal communication, August 10, 2015). Risks, uncertainties and ranges can indeed be included. In the case study in the previous chapter, perceived future changes with respect to depletion of fossil fuel prices were taken into account qualitatively. Quantitative determination is definitely possible, but should be handled carefully because of optimistic bias and strategic behaviour. One came up with the idea to add positive values to the business case to get a go (Kangur, personal communication, August 10, 2015). The idea was to increase social capital, by, for example, creating structural jobs for occupationally disabled people in order to justify economic losses for a sustainable investment. Even though the intentions were good, it is against the principles. Since monetization is prone to misuse, it is recommended to use the model, especially in the beginning, for gaining insights in impact only. The goal is to make informed decisions, not to shape investments to enforce decisions.

Another fair question came from financial control: *“who is going to use this tool and where in the decision-making process?”* (te Grotenhuis, personal communication, August, 24, 2015). Initially, the tool was intended to be a supplement to the TCO (Total Costs of Ownership) business case, but then it only captures CAPEX investments. It is not clear to what extent OPEX decisions suit the framework. Along the way, small improvements have already been made to improve the readability. Emissions are, for example, divided into those harming social capital, local and global natural capital (Pronk, personal communication). Because it is very confusing to have three types of emissions, they have been referred to respectively as emission, pollution and climate (Hofstede, personal communication). Moreover, monetization terminology, like positive pollution, works counter intuitively, especially for those who are not familiar with monetization jargon.

## 7.6. SUB-CONCLUSION

Both investments were suitable for this exercise and relevant data was available. From a welfare perspective, the natural and social gain of the biodigester in contrast to the solar panels is, per invested euro, much more. So even though they both are not financially profitable, if Schiphol chooses to invest in renewable energy because of its strategy, the biodigester is, in every respect, a more cost-effective and profitable option. The one aspect that was not able to be valued was the PR or reputation value. Overall, it can be said that a vast majority of the consulted in-house experts supports the use of this evaluation framework. The advantages of insight into the impact of investments are acknowledged, but many more purposes were discovered. For now, it is recommended to start with the investment tool and, if necessary, it can be extended. The lower level of the impact pathway is verified by two specialists from Resources & Residuals and Energy Efficiency and both concluded that the most important aspects are included. The upper level was approved by CR advisor at Schiphol.

From this validation process, it is concluded that there are difficulties with interpretation and prior knowledge. It is, therefore, of critical importance to make a more intuitive layout or legend for graphs and improve the knowledge gap with respect to monetization, its foundations and purposes. Moreover, it is also concluded the principles, as designed in the previous chapter, were not highlighted enough. Note that a large group of people, from different disciplines and backgrounds needs to work with the tool. The success of the implementation of the framework, principles and usage is key for the acceptance within organisations. Besides, it should also be elaborated how one should communicate about outcomes. Noise may be specific for Schiphol, but every company, in some way, has a negative impact on a group of stakeholders and should be handled carefully. This is not only of relevance at Schiphol, but it is applicable to almost every company. As figure 7-6 shows, we have come to the end of the design process. The outcomes and conclusions will be discussed in the next chapter.

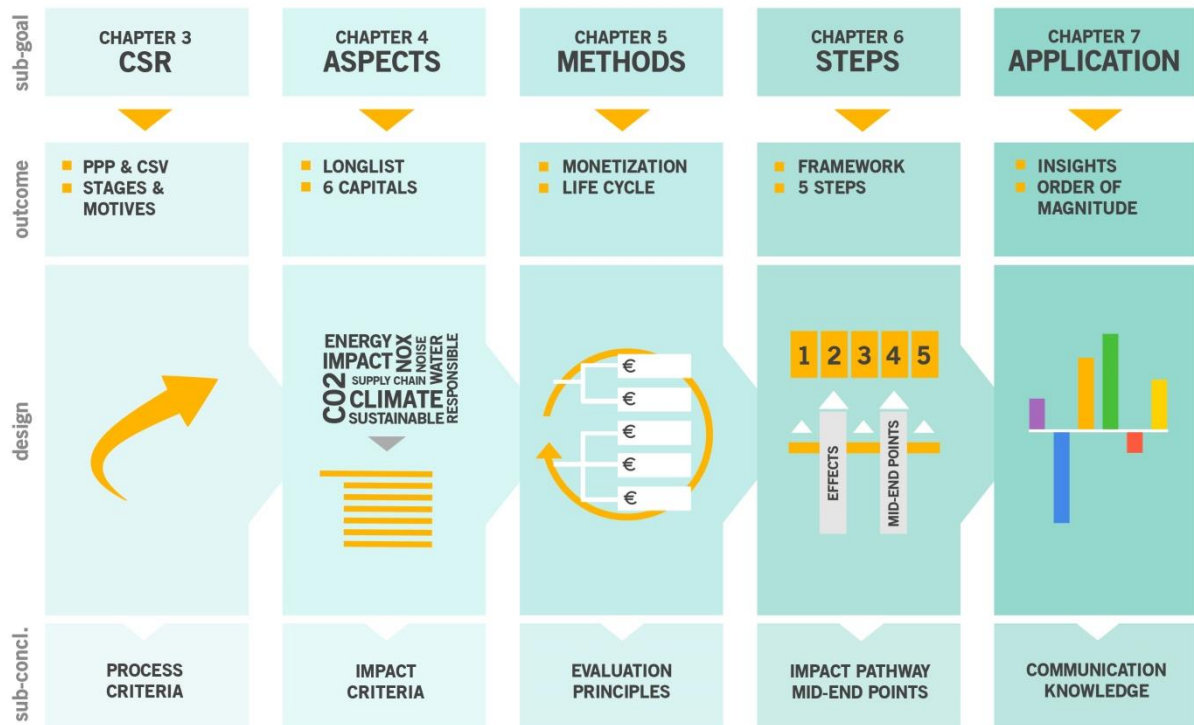


Figure 7-6 Design process: Chapter 7

# 8.

## DISCUSSION & CONCLUSION

This final chapter will gather outcomes gleaned from the interviews, scientific literature, case study and expert validation in section 8.1. This section discusses outcomes, implications and limitations of the framework and design process and ends with recommendations for future research. Section 8.2 concludes by giving all sub-goals and relating them to the main research goal: *“to structurally design a framework that evaluates the impact of Corporate Social Responsibility of investments during the decision-making process of large organisations”*. After the final conclusions are given, recommendations for implementation, in general and for Schiphol specifically, will be elaborated in section 8.3. Finally, section 8.4 reflects, more personally, upon what research choices have determined this design process and outcomes.

### 8.1. DISCUSSION

Corporate Social Responsibility became more and more present in the corporate strategy and is an important factor for business performance. However, the decision-making process of investments is still mainly based on financial factors instead of CSR impact. This research aims to design a framework that enables companies to evaluate investment effects. The outcome of this master thesis is a framework that structures and values CSR effects in order to evaluate possible impacts of a project intervention during the decision-making process of investments.

This section will briefly discuss the main findings of this research and how it contributed to the final design. The outcomes are related to literature, learnings from this study and personal beliefs. The discussion is focussed on the two most important subjects of this study, namely, the deliverable and the design process.

#### 8.1.1. DISCUSSING: FRAMEWORK

This paragraph zooms in on the deliverable of this thesis: the evaluation framework. First, it is discussed that the lack of a specific definition might not be as problematic as described in literature. Second, it will be discussed that the CSR aspects, distinguished in this research, may not always be in line with all 6 capitals. Lastly, two important design choices are introduced: evaluation method and expert-validation.

#### CSR Definition

First, the meaning and definition of CSR is examined. John Elkington’s definition of People, Planet and Profit is handled in this research (Elkington, 1997). For CSR in general this definition is satisfactory, but for CSR, in particular, for companies it is quite meaningless and very abstract. That is actually the problem with Corporate Social Responsibility in literature. The concept is internally contesting, dynamic and, to make it worse, changing over time (Campbell, 2007). Moreover, dependent on the person and place, it has a very different meaning (Matten & Moon, 2008). So how can we expect that the scientific literature has all the answers? How is it possible to have a definition like one size fits all? Especially because CSR is such a complex concept, it seems to be impossible to have one coherent definition that covers all industries but still touches upon a company’s core business. Because that is what CSR is about: impact for direct stakeholders and surroundings (Porter & Kramer,

2006). From interviews with companies it is learned that companies do not care about the scientific definition, but rather define their own company-specific CSR statements. Companies should handle a clear and consistent definition within the organisation, but what it is exactly about, can be different for each company. So both literature and companies agree that there is a lacking definition, but the difference is that companies do not perceive this, in contrast to literature, as problematic.

### CSR aspects

Second, it is examined what aspects of CSR can be distinguished. From interviews a longlist with 9 aspects is derived and can be structured in *economic*, *natural* and *social* aspects, which is in line with *People, Planet* and *Profit* (Elkington, 1997). These aspects, with corresponding sub-aspects, are in the research used as impact criteria. The longlist, as the word already gives away, is very long. This is actually not surprising, since not every single aspect on that list is, and should be, applicable to every specific company. Companies, as discussed above, have very different impact and should assess, by a materiality matrix, what is important for their business and stakeholders. The 6 capitals, *financial*, *natural*, *social*, *human*, *intellectual* and *manufactured* (IIRC, 2014) are commonly referred to in literature and in line with current trends of impact thinking and integrated reporting (Sipkens et al., 2014). The emphasis of outcomes of the framework is, however, mainly on *financial*, *natural*, *social* and *human* capital. So the further distinction in *human capital* derived from the IIRC is seen as an addition to the three P's. It is questionable if *intellectual* and *manufactured* is suitable for the evaluation framework. Especially since the focus of this research is on investments, it is hard to argue what percent of the investment can be attributed to, for example, brand name or patents.

### Evaluation method

Third, the evaluation method, which forms the basis of the evaluation framework is determined. From the analysis, it became evident that monetization, despite of its risks and disadvantages, was the most suitable tool for the purpose of the framework. Monetization enables an integral ex-ante comparison of different effects in the one and only language of business: money (van Bergen et al., 2014). Especially because CSR is so complex, dynamic and goes beyond several divisions of an organisation, it is important that the tool is easy and quick to understand. Monetization, however, is because of its fundamental assumptions criticised in the public debate. This will be discussed in the next section in more detail.

### Expert validation

Lastly, the framework is designed and consists of 5 steps, supporting schemes and evaluation principles. The design is tested in two case studies and has been subject to expert-validation. In-house experts were very enthusiastic about the outcomes of this research. The framework offers a quick overview of the impact, how to positively influence investment decisions and it provides answers with respect to the distribution of impacts in time and per stakeholders. During the meeting with the CR-coordination team two difficulties with communication and interpretation were discovered. Tips how to cope with this will be discussed in the recommendations for implementation at the end of this chapter.

#### 8.1.1.1. IMPLICATIONS FRAMEWORK

As stated in the problem exploration, there is a lack of a global standard for impact measuring and impact evaluation (Sipkens et al., 2014). The framework proposed in this study enables companies to evaluate the impact investments have. The added value of this framework is that all investments are valued in the same systematic and consistent way. It is a means to structure and objectify the decision-making process. Therefore, the decisions, for example, choosing between several alternatives, is not dependent on personal beliefs and intrinsic motivation anymore. Investments can from now on be compared and valued in the same coherent way. This section discusses the managerial implication, framework applicability and scientific implication.

## **Managerial implication**

The framework could play an important role in facilitating a sustainability wave. Guidance in how companies can evaluate CSR can help create more efficient CSR strategies. According to Schiphol, the framework gives insight in the impact of investments. It provides answers to questions which were previously unanswered. Schiphol, for example, did not know what the impact of a biodigester was. Is it, from a welfare perspective, more cost effective than solar panels? What is the impact of production in relation to CO<sub>2</sub> gains in exploitation? How are the different impact categories distributed? And even more important, what influence does the decision maker have in order to increase positive impact and decrease negative impact of project interventions? All these questions can now be answered. If companies have more insight into the impacts of investments, they are able to make informed decisions about CSR in the business trade-off and can by this means increase their positive impact which will benefit competitiveness and business longevity.

## **Framework applicability**

The question, however, is for what type of decisions and companies is this framework useful and applicable? First of all, the framework is applicable to all sorts of companies, whatever industry it is operating in. The goal was to design a generic framework. The interviewed companies, therefore, all represented another sector. The type of company, small or big, service or goods, private or public, does not matter. From the virtue matrix (Martin, 2002) and interviews, it is gleaned that companies have different motives why they perceive corporate social behaviour important. So whether the company gives high priority to CSR because it is publicly accountable or because of intrinsic motivation or competitiveness, does not make a difference. Companies can use this framework if they want to increase insights into their impact. What does make a difference, is what type of investment decisions and what kind of decision-making process the company has. During the decision-making process, there should be room for these kind of methods. The formal decision maker, management or the board of directors, should support this methodology and also have the knowledge to read the outcomes. Recommendations how to tackle this and increase internal acceptance will be discussed in the recommendation for implementation.

So what really matters is the type of investment. The framework is designed for generic investment decisions but might not suit all. The investment is based on an financial business case. So the investment should be expressed in money, and not for example in time or resources. It should be noted that it is also applicable to non-sustainable investments. The case study of solar panels and biodigester in this research are not the only possible applications. The framework is also relevant for assessing the impact of, for example, buildings, like a parking lot or a bridge. The emphasis is on the value chain from cradle to grave, and if possible from cradle to cradle. This applies to all asset investments. Non-asset investments, such as, services or procurements should be reviewed per case and cannot be guaranteed. Besides, it should be clear that the framework is not finished yet, in the sense that not all purposes and cases are tested.

## **Scientific implication**

The framework is of added value to companies since it provides the means to structure, objectify and evaluate CSR impact of investments. Besides that, it is also interesting to scientific literature. It is, to the best of the author's knowledge, one of the first researches that actually examines how to perform corporate behaviour from the perspective of companies. Most studies focus on the tension between companies and society and argue that companies should behave corporate responsibly, but not how this behaviour can be realized. The biggest complain, also stated in literature, is that the concept and definitions are very vague, abstract and do not provide implications nor instructions what CSR means and how companies should handle it (Campbell, 2007; Margolic & Walsh, 2003). Literature that is focussing on the positive relation between firms and CSR is mainly explorative. It proves causal relations between CSR and firms, their performance, stock markets, employee valuation, marketing and so on, but fails to prescribe how (McWilliams & Siegel, 2000; Weber, 2008).

So most scientific studies miss the link to what is practical and useful for companies. This research, therefore, seeks to close the gap between literature and practice by approaching this subject from the business perspective.

Another aspect which I find literature has paid too little attention to, is the place of CSR within the bigger picture. As discussed above, all sorts of positive causal relations are proven but only at its own domain and in relation to others. It is too much seen as separate, while this study argues to look at the greater whole. In my opinion, it is both by literature and government too much a forced goal rather than a means. From the interviews it became evident that companies, who believe in CSR, are triggered by possibilities, innovations and competitive advantage. Those companies that truly have CSR at heart, see it as a means to remain relevant and secure business longevity. They see their company as part of a bigger functioning system. It is not about duplex printing and energy efficiency anymore, it is about doing good for key stakeholders and direct surroundings and in the meantime increase sales or improve market position.

Porter and Kramer (2011) and Visser (2010) tend to place CSR in the bigger picture, but is in my opinion too much focused on the human capital. As discussed in literature, since the mid 90s, there is a shift in focus from nature to social capital. As numerous projects from leading companies show, like, Nestlé in developing countries, there is a fortune at the bottom of the pyramid (Nestlé, 2014). Prahalad (2002) states that only the best and most innovative companies are able to do business with the poorest 4 billion people worldwide. Tailoring local solutions, economic development is stimulated, living standards increase and it creates buying power for communities, which generate incomes for the company in particular. But is it really CSR? Yes, those projects are a clear win-win situation for both local communities and the company (Porter & Kramer, 2011). If these villages, however, keep expanding at the same rate, can we, as society, handle it? Can the planet bear it? What if the third world countries are, in the near future, consuming at the same speed as Europe, or even worse, America? Research showed that the United States, with only 4 percent of world's population, consumes 25 percent of the planet's energy resources (Prahalad, 2002). Prahalad (2002) argues that multinationals can be leading in leapfrogging to products that do not make the same mistakes as developed countries did years ago, but is that the responsibility of companies? Is it desirable that companies have such responsibility and power? I find these theories very intriguing. On the one hand, these companies are lifting billions of people out of poverty and make money out of it. Which is a good thing, because without a business case the impact would be much smaller and maybe not even occur, but at the other hand, how can we be sure that it is the right thing to do?

This research does not advocate sustainability or prescribes that all investments should be natural capital cost effective. Not at all. What this study argues is the need for informed decisions. Proper decisions concerning the impact to environment or other people's quality of life cannot be made uninformed. Note that the outcomes from the framework are high level and imperfect, but is at least one step closer to the value of impact. It can be helpful in the joint quest towards transparency. It offers a new structured way to value a firm's impact, looks beyond the trade-off and see how CSR is interrelated with business performance. The proposed method use, monetization, is well represented by governmental bodies and is commonly employed in the infrastructure sector. Monetization, however, is rarely used in sectors other than in the public domain. Before, monetization did not seem to be of interest for companies. In this sense, the method proposed by this research is not new, but how it should be used, is new.

#### 8.1.1.2. LIMITATIONS FRAMEWORK

The framework is currently only applicable for asset investments, since other purposes are not tested yet. The limitations of the framework will, therefore, be based on asset-based investments. Below, the applicability and usability will be discussed. Last, it will be discussed how during the validation phase missing aspects were discovered.

## Applicability

The goal of the research is to design a framework that provides insights into the order of magnitude of effects. The framework does not provide in-depth, accurate impact measurements, which can by some be seen as a limitation. This design choice is made since it is assumed that proportionality in time and resources needed for the analysis does not outweigh the extra level of detail. It is argued that if in some cases, more detailed information is needed to make proper decision, further research is recommended.

## Usability

Another possible limitation of the framework, derived from the expert-validation, is the lack of an intuitive character which can harm interpretation of results. People tend to see monetized impact, which is based on hypothetical shadow prices, as money used in a real economy. These fundamental issues should not be present in the decision-making process supported by this framework. A weakness with respect to the use of this framework is the need for prior knowledge. Even though the framework has incorporated all relevant risks of monetization and designed evaluation principles to tackle these risks, it is up to the users to comply by these rules or ignore them. So, everything within the power of the design is done to prevent the tool to be used wrong, but cannot be guaranteed.

## Missing aspect

From the case study it became clear that all CSR impacts were present in the evaluation framework but that there was still one crucial factor missing. It was difficult to assess what that 'thing' was, that was so important in the decision-making process. The process is therefore discussed in this section. Until today, the extra intangible aspect has not been clarified and is called PR (Public Relation) value. The process of how the PR value has been assessed is indeed of significant importance and will be explained below.

During the expert validation it is argued that the framework captures all aspects of CSR impact. Nevertheless, it was stated that the Public Relation (PR) value was missing. The PR value is not part of CSR performance but has a close link and appeared to be very important in the decision-making process. The CR-coordination team stated that sustainable solutions may serve as an example to the rest of the world. Meaning that a 'green' image might inspire others. The problem with this, is that the causal relations are difficult to determine. Not to mention, how many of the 'green image' can be attributed to one single investment in solar panels? During meetings with in-house experts, the PR value was again a subject of debate. One argued that this value should not be quantified. *"By doing that, you make the decision subjective to personal preference. The power of monetization is the use of objective numbers, these aspects do not belong in this method"* (Croes, personal communication, September 4, 2015). Others argued that it is critically important. *"Apparently, there is some added value for Schiphol, otherwise we would not have decided to do it, when the business case is so negative. Or people are really foolish"* (Kangur, personal communication, August 10, 2015). *"If I recall the decision concerning solar panels, made in change board, it was argued that internally it would provide good learning"* (Reinders, personal communication). After several discussions with people from different backgrounds, readings and professions at Schiphol, it became evident there might be something missing. It cannot be, that all these people, argue for an extra value simply because they want the business case to be positive. There seems to be an intangible aspect, a feeling, a thought, something which is clearly present in the decision-making process but cannot be defined as CSR nor valued.

So, clearly there is something missing. Schiphol is willing to invest a large amount of money and is considering commitment of 24 years for solar panels which are not cost-effective. Why is that? Is it because of public pressure? Reputation management? Intrinsic motivation? License to grow? Is it fair to say that all the examples discussed indicate the same impact? Is it just related to sustainable investments, or even sustainable energy itself? What this value is and whether it is suitable and recommended to monetize should be examined. This



problem will not only occur at Schiphol, but more companies might encounter this problem. It should not only be questioned what this value is, but also if it is possible to quantify or even monetize it. No matter how badly we want to know everything, decisions will never be made entirely based on rational and objective thinking. Personal preferences, norms and beliefs will always play some role in decision-making. It might ease the decision-making process if these values can be monetized, but further research is definitely needed.

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### 8.1.2. DISCUSSING: RESEARCH DESIGN

The first part of the discussion zoomed in at the outcomes, implications and limitations of the framework itself. Another substantial part of this research is determined by the design process and the design choices that shape the process. First, it is reflected on how some design choices influenced the process. Second the most important implications will be discussed. Last, this section will be devoted to limitations of the research with respect to data collection, analysis and conclusions. It will be discussed how the problem delineation, point of departure in literature and validation shaped the design process.

#### **Problem delineation**

The first choices are made in the problem delineation. The decision-making process is explicitly focussed on investments. From the identified problems, the need for a generic framework is born. The generic and sector-wide applicability of the framework is implicitly based on the lack of a global standard. If the problem delineation was, for example, focussed on a specific sector, such as, aviation, different interviewees were selected.

#### **Point of departure literature**

Second, the data collection and data analysis is based on desk research and interviews. Literature and elite interviews were constantly compared and related to each other. The definition of People, Planet and Profit is handled as point of departure (Elkington, 1997). The theory of Creating Shared Value is also very dominant in this study (Porter & Kramer, 2006). While, Elkington describes the trade-off between the three pillars of the Bottom Line, Porter focusses on the opportunities rather than the tension. This fundamental difference did not cause any difficulties, since this research does not focus on how CSR should be handled but how to get insight into the impacts. Nevertheless, the point of departure in literature might influence the outcomes of this study. Especially the process criteria, such as, focus on core business, derived from Chapter 3, have large similarities with Porter's theory and is an important factor in the designed framework. Another point of departure in literature might affect the designed framework.

#### **Validation**

Last, the validation process has also been an important influencer. The two case studies were chosen on the basis of data availability and relevance for Schiphol. Both cases were asset-based investments which have shaped the outcomes with respect to applicability. Another important aspect is the expert-validation. The experts were either CSR or content specialists. Experts of other disciplines might have different perspectives which may lead to different feedback and recommendations. Due to the limited time span of the research, such design choices were necessary. Research design alternatives are further elaborated in the section recommendation for future research.

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#### 8.1.2.1. IMPLICATIONS DESIGN PROCESS

An important, if not the most important, determining factor of the evaluation framework is the choice of method. The emphasis of the design is on monetization. There are more evaluation methods currently



available. In this section it is, therefore, questioned if monetization is still considered to be most suitable for the purpose of the framework.

### Rethinking monetization

The practical usability, time and resource efficiency were decisive in favour of monetization during the design phase but the limitations of monetization were also taken into account. Additional principles were designed aiming to tackle the following risks:

Monetization risks	Principles
Analysis can become time and resource consuming	1. Proportionality
Shadow prices are generic numbers, it should not be presented as true or certain	2. Order of magnitude
Strategic behavior and misuse can occur if the tool is too powerful	3. Decision tool and not a decision rule
‘Netten’: destruction at one capital should be justified at other	4. Separation of capitals

Nevertheless, the principles proposed in this research can simply not solve all difficulties concerning monetization nor does it provide answers to the public debate about its assumptions. There are some fundamental assumptions with respect to monetization that need to be accepted. By the use of monetization it is implicitly assumed that:

- One is indifferent about trading effects against each other
- Effects, also regarding human life and quality of nature, can be expressed in monetary values
- All effects should be discounted over time

So, after testing the framework, it is questioned whether the choice of monetization is still valid. Do the benefits, argued for in the design phase, still outweigh the disadvantages? Are the principles and fundamental assumptions a deal breaker for decision makers? And lastly, do other evaluation methods need to be reconsidered? First of all, none of the decision makers found the methodological limitations an issue. The principles and fundamental assumptions were clearly communicated and as already discussed, during the expert-validation meeting, no questions about the methodological choices were asked.

Second it should be questioned if different methods would have had better outcomes. LCA and MCDM were also considerable options. If LCA was chosen as evaluation method, the outcomes were probably more accurate, but at the expense of the applicability (Guinée et al., 2004). Life cycle tools provide accurate outcomes, but also have some extensive data requests. Besides, LCA is not able to handle social impacts and is mainly focussing on products and services (Erkelens, personal communication, July 6, 2015).

If MCDM was chosen, this could have had a positive effect on the evaluation of other effects, such as, the PR value or impacts that are now taken into account qualitatively. Since MCDM is based on options, scorings and weights, instead of monetary values, it can handle a wide range of criteria and qualitative impacts (Beria et al., 2012), something which turned out to be more complicated for monetization. Besides, the preference of various stakeholders are valued differently. MCDM is widely acknowledged in literature for the inclusions of different stakeholders and opinions (Beria et al., 2012). One of its strengths is the ability to integrate stakeholders in the decision-making process (Macharis & Bernardini, 2015).

MCDM, however, also has some negative effects. Problems concerning the use of MCDM are inclusiveness, subjectivity and double counting (Beria et al., 2012; Macharis & Bernardini, 2015). This inclusion might be

beneficial for acceptance of the project but makes the decision-making process also more complicated. MCDM uses preferences instead of Willingness to Pay. The preferences of various stakeholders need to be assessed and can be very difficult. Moreover, investment decisions might not always have alternatives, which is the basis of MCDM. Last, one of the main reasons why monetization is chosen, is the ability to value different aspects against each other and to gain insights in the amount and distribution of the different impact categories. It is questioned if MCDM is able to show these trade-offs as clearly as current framework does.

In conclusion, LCA is still not an option since it is unable to value impacts other than natural capital. MCDM, however, might provide better insights in intangible impacts, as, for example, the PR value. By the use of MCDM, instead of monetization, these impacts can probably be evaluated. After the framework is tested it turned out that the order of magnitude is sufficient to increase insight in the decision-making process and more accurate outcomes are not necessary. It is therefore argued that the increasing complexity of the method and data requests of MCDM does not outweigh the extra benefits of stakeholder inclusion and the ability to value more intangibles and qualitative impacts. Monetization was chosen since it is less data intensive, easier to use and to integrate with current management information. These arguments are still valid. So it is argued that MCDM might provide more insights in qualitative impacts but makes the framework also unnecessarily complex. It is therefore concluded that the benefits of monetization outweigh the disadvantages, and monetization is still preferred above other methods.

#### 8.1.2.2. LIMITATIONS RESEARCH DESIGN

Lastly, this section discusses the limitations of the research design and methodological choices. The limitations are mainly based on the data collection and case study.

##### **Data collection**

A possible weakness of this study is that the content analysis is based on ten interviews. Meaning that data per sector is based on one interview. A higher number of interviews per sector could increase the level of detail and reliability. Besides, the elite interviews might give a distorted view. It is commonly known that there is a clear link between business performance and sustainability. This study focusses mainly on what can be learned from leading CSR practitioners. It might also be interesting to examine how non-leading companies in the field of CSR perceive this and what difficulties should be tackled. Another limitation with respect to validity is the number and variety of case studies.

##### **Validation**

As already discussed in the previous section, both case studies were asset-based investments. More insights could have been assessed, if the case study was also based on non-asset investments or even better, at another company or sector. The goal of the study was to develop a general applicable framework, in theory this is accomplished, but this should become evident in practise. The same applies for the group of in-house experts and the expert validation meeting. An expansion of this group in the number and specialisations can increase the quality and level of detail of comments. Within Schiphol, there is spoken with several employees and experts from different divisions and levels of the organisation. It should be noted that repetition of comments already occurred. It is therefore argued that the research can be improved by validation by users or experts outside Schiphol. Moreover, in this study the inter-subjectivity of the researches is tested, not the outcomes of the analysis.

### 8.1.3. RECOMMENDATIONS FOR FUTURE RESEARCH

The outcomes, implications and limitations of both the deliverable of this master thesis and the research design are discussed. This paragraph concludes by proposing new venues for future research with respect to: data collection, data analysis, design process and validation phase. This research subject contains several prosperous aspects for future research. This research has a narrow scope and includes the CSR impacts of investments for large organisations. This research can be extended by taking into account the decision-making process and include different type and investments. Besides, the point of departure in literature is dominated by Porter & Kramer (2011). Other theories may provide different perspectives on process criteria and impact criteria which can be a valuable addition to this research and the practise of Corporate Social Responsibility.

Second, the research can also be improved by increasing the number and variety of interviews. A higher level of detail of the CSR longlist and consequently the framework, can be obtained. It is possible to analyse this data with the use of content analysis, as done in this research. Furthermore, it can also be tested whether the aspects on the longlist is exhausting. This longlist can serve as the axial coding scheme which can be tested with content analysis (Strauss & Corbin, 1990). The Q-methodology can also be useful to obtain further insights into the inter-rate comparisons. Q-factor analysis reduces individual viewpoints to a few factors (Exel & de Graaf, 2005). The difference with content analysis is that the Q methodology's premise is that people tend to relate aspects to others, rather than evaluate aspects in isolation.

Third, the limitations of data used in the framework can be improved. The goal of this study and the short time span demand the use of key indicators and shadow prices. The outcomes should, therefore, be interpreted in order of magnitude and relativity rather than in absolute sense. The annual multiplication of averages is, so to say, quite basic. A better integration with financial data or connection with risk management can be gained by expanding the model with indices, scenarios and error ranges (PWC, 2013). By doing so, one can gain more insight into the risks and uncertainties of CSR impacts. Risks can be specified and monetized in order to incorporate it into the business case (Sipkens et al., 2014).

Besides, it might be interesting to determine what other aspects, such as, the PR value, are relevant or even definitive in the decision-making process that can currently not be valued. It is suggested to test more investment decisions at different companies and sectors. This can be used to validate the framework and possibly improve its applicability. New CSR aspects, relations or implications can be added. Moreover, new principles or guidelines can be found useful. It is suggested to examine the extent in which the model can be improved or extended in order to increase understanding of the impact of CSR. Besides, the framework can also be upgraded to a hybrid model, by adding priorities to the CSR aspects. The shadow prices are then multiplied by the relative importance to the company. The priority in ranking should be determined every period of time by, for example, the board of directors or management team.

The evaluation method chosen could also be researched further. For example, by examining more closely the difference between Multi Criteria Decision Making (MCDM) and monetization. The decision to include monetization in the framework is based on literature and content analysis. However, an experiment whereby both methods are used on the same case to gain insight into the CSR impacts of investments could give additional insights. By the use of this experiment, the evaluation methods can be compared to each other in real life. By doing so, it can be examined what insights are obtained by the different methods. Besides, the applicability, usability and complexity of both methods can also be assessed.

Last, the validation phase can be improved. Besides the expert validation, the research is based on a single case study. Even though the disadvantages are known and taken into account during the generalization of conclusions (Flyvbjerg, 2006), the data and validation remain one-sided. More case studies, especially different types of investments and companies, would increase insight in the general applicability of the framework.

## 8.2. CONCLUSION

This thesis describes the design process of a step-by-step evaluation of Corporate Social Responsibility impacts a company has on its direct stakeholders and surroundings. Each chapter is devoted to one of the five sub-goals in order to come to the final research goal in a structured way. The outcomes will be discussed below.

The research started by the first sub-goal: *'Describe existing context and definitions of CSR and what it means to organisations'*. This chapter concludes that there is no consensus about the precise definition of CSR nor about its implications. For the concept in general, this research handles John Elkington's definition of *People, Planet and Profit*. It, however, is argued that companies should assess what material impacts they have on their key stakeholders and direct surroundings and create their own CSR statements. Furthermore, it is concluded from the interviews, that it is necessary to have CSR on the CEO's agenda to relate to a company's core business in order to avoid uncoordinated, philanthropic activities, which are a true waste of time and resources. Moreover, it is critically important to measure and evaluate CSR impacts in order to make informed decisions. Only if CSR is incorporated in the firm's strategy, it seems to be able to transform threats into business opportunities, in order to create positive impact and secure a firm's longevity. These process criteria form the basis for the conceptual framework.

After the meaning of CSR is clear and a definition for this research is chosen, the second sub-goal can address what CSR entails by: *'Distinguish all aspects of CSR'*. CSR impact can differ by time and place, meaning that materiality of effects can vary per sector or even per company. Companies should, therefore, assess what impact they have on which stakeholder. Overall, a longlist is designed whereby the following aspects were distinguished: *economic performance, contribution to welfare, pollution, resource use, customer satisfaction, safety and health, stakeholder relation, sustainable employment and responsible supply chain*. The CSR impact is categorized into *economic, natural, social, human, intellectual and manufactured capital*. The aspects extracted from the longlist were used as impact criteria to develop the evaluation framework.

The third sub-goal is focused on: *'Explore which methods are currently available to measure and evaluate all aspects of CSR.'* It is concluded that monetization is, because of its quick and cost-effective character, the most suitable evaluation method for the goal of this research. It enables an integral evaluation over various impacts in the one and only language of business: money. Besides, life cycle thinking, the total effects of the value chain from cradle to grave, is also considered to be relevant. Life cycle thinking is used in the framework to structure impact pathways. Monetization, with its foundations in welfare economics, assumes that all effects can be valued against each other. The method, however, is prone to risks and strategic behavior. In order to mitigate the risks and increase the usability, the limitations were acknowledged and the following evaluation principles are proposed to overcome these limitations: proportionality, separation of capitals, order of magnitude and decision tool. Moreover, in order to prevent strategic behaviour, the framework is intended to be used as decision tool, rather than decision rule.

Outcomes from the first three sub-goals were used as direct input for the framework by the design of the fourth sub-goal: *'Describe what steps should be taken to properly evaluate CSR impacts of investments'*. From this stage, it is concluded that companies should assess 5 steps, as visualized in figure 8.1, supported by two process schemes. Alongside the five steps, the evaluation principles, proposed in Chapter 3, are integrated in the framework. The evaluation process should start with project definition by setting the goal, scope and reference. Secondly, the impact pathway, including all material effects of the core business from cradle to cradle, for its key stakeholders and surroundings should be assessed. The third step entails the calculation of effects by the use of key indicators. Note, that it is about the order of magnitude and not about precise and accurate figures. The fourth step consists of the translation from effects to impact by the use of shadow prices. The impact at different capitals should be kept separate, since gains at one capital should not be used to justify the destruction of others. It is recommended to analyse the outcomes using a sensitivity analysis and, if

possible, an error propagation analysis. The fifth and last step is the interpretation phase. The key to this stage is understanding the graphs and outcomes.

The last sub-goal: ‘Assess what practical insights can be gained from applying the framework to AAS’ bridges the theoretical and practical gap. By analysing two investment decisions at Amsterdam Airport Schiphol it is concluded that the framework is of a practical use and gives insight into the order of magnitude of CSR impacts. Besides, there might be some effects, other than CSR impacts, which are of importance for the decision-making process but cannot be captured in the framework. The framework application is validated by in-house experts. From the validation meeting with the CR-coordination team, it is concluded that there are, due to a knowledge gap, some difficulties with the interpretation and communication of results. Special attention will be paid to these topics in the recommendation for implementation in the next section. Overall, a vast majority of the consulted in-house experts, supports the use of this evaluation framework and argues that it indeed gives more insight into the impact and trade-offs for CSR investments.

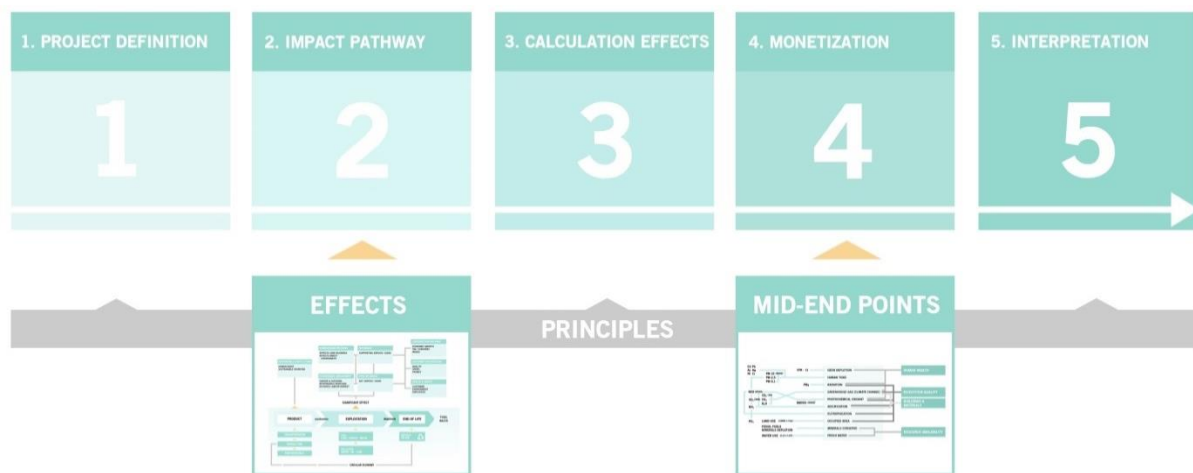


Figure 8-1 CSR Evaluation framework

From this, it is concluded that the main research goal: “to structurally design a framework that evaluates the impact of Corporate Social Responsibility of investments during the decision-making process of large organisations” is met. The framework, as shown in figure 8-1, consists of 5 steps supported by two schemes and evaluation principles. By the designed framework in this research, companies are able to generate a specific impact pathway to their core business and assess what impact investments have on their key stakeholders and surroundings in order to evaluate all CSR aspects of investment decisions and thus make informed decisions. The framework is designed to structure and objectify CSR impacts in order to give an quick overview of the trade-offs and support the decision-making process of investments.

## 8.3. RECOMMENDATIONS FOR IMPLEMENTATION

Based on the results of this study it is concluded that the designed framework is a valuable addition to the decision-making process of investments that also contain CSR impacts. Aside from the scientific and managerial implications, it should also be practical and feasible in order to guarantee its usage. This section, therefore, zooms in on the practical recommendations, in general in section 8.3.1, and afterwards for Schiphol specifically in section 8.3.2. The general recommendations are focussed on the difficulties concerning communication and the possible knowledge gap discovered during the expert-validation phase of this research.

### 8.3.1. PRACTICAL RECOMMENDATIONS

Before the framework can be subject to implementation, a few design choices need to be made. The shadow prices, evaluation techniques and main assumptions should be related to the level of ambition of the organisation. Unfortunately, there are no market prices available. Instead, companies should choose and evaluate shadow prices. The carbon price, for example, varies roughly from 27 to 147 euro per tonne CO<sub>2</sub> in the scientific literature (CDP, 2014). It is important that organisations choose the price that fits the company's goal, ambition and relative importance of the topic. Other aspects, such as, discounting natural capital and at what rate, should be decided upon.

Since it is still in its infancy, it is recommended to discuss the outcomes, evaluate the framework and on occasion, adjust it. It is possible that after some investment decisions it is argued that, for example, some prices were chosen to be too ambitious or the net present value turned out to be too conservative. The framework proposed in this study is one of the first attempts that evaluates all aspects, both social and natural, over the value chain and find what is generally applicable. Besides, it should be noted, that impact measuring, especially within companies, is new. So it is possible, that some shadow prices are not able to assess yet. Moreover, from the case study at Schiphol it was learned that there might be some company specific effects that are important for the decision-making process but not captured within the framework. These effects can then be taken into account qualitatively.

#### **Knowledge**

Pioneering with impact monetization means trial and error. The key in this is to be transparent and consistent. For a proper implementation of the framework, it is critically important that everyone who is going to use, or work with results of the CSR evaluation framework is fully informed. Understanding the data, concepts and limitations is key for interpretation of the results. Workshops, information and brainstorm sessions can be organized. It is advocated to keep a database or wiki where decision makers can place notes at key figures and add new research or updates. It is also recommended to appoint someone to keep an overview and to track progress and difficulties. You will see: practise makes perfect.

#### **Communication**

Communication is very important. It is argued that transparency, sharing and evaluation is a necessity for a quick and solid implementation of the CSR evaluation framework. On the one hand, it is encouraged to communicate about monetization exercises and let the world know what you are doing. It can be of great value for the common goal and help your company, or others, on this journey. On the other hand, it has been argued to share information carefully. Outsiders might not understand the business trade-offs or may be personally harmed. The goal of the designed CSR evaluation framework is to gain insight into business trade-offs and not valuing human and nature as such nor to be used for marketing purposes. Think about the story you want to share, how it might be relevant and in what order of magnitude it provides useful business insights to others.

In conclusion, in order to implement the proposed framework successfully, the above mentioned tasks are recommended in the suggested sequence shown in figure 8-2. The first step is to finalize the framework. Each company should assess, based on relative importance of the topic within the organisation, what prices, evaluation techniques and discount rate will be handled. After a few case studies are executed, the research design choices can be adjusted. It is suggested to keep up an database from the beginning. After the pilot is proven to be successful, the framework can be implemented to a division, or even the whole organisation. Information and knowledge sharing is very important in this phase. Everyone working with or using the tool should be informed about the implications and limitations. It is recommended to standardize the evaluation framework in order to simplify the process even more. For the long term, the use and application of the framework need to be monitored. Difficulties should be discovered, evaluated and finally be improved to ensure real embedding in the organisation.



Figure 8-2 Next steps

### 8.3.2. RECOMMENDATIONS TO SCHIPHOL

It turned out that there are some very ambitious people at Schiphol with respect to Corporate Social Responsibility. To them, I would like to say: if you want to go fast, go slow. Meaning that you can better start small and make sure the tool works optimally and meets its intended goal, than that it is all of a sudden mandatory but unsupported. Schiphol is an very large and sometimes a bureaucratic and political organisation. You have one chance to do it right. This tool has some serious implications in the decision-making process of investments and in the thinking of decision makers. It needs some time. Impact thinking and especially impact monetization is gaining ground, but it is not yet fully proven and recognized. There are some very sceptical people on this topic, its theory and practise. Although this research has given some guidelines, the tool is easy to manipulate. Besides, the used shadow prices and fundamentals are controversial and sometimes ambiguous. Another aspect which is critically important to guarantee its usage, is a solid embedding within the organisation of Schiphol. It should be clear when and by who the evaluation framework needs to be used. It is argued to determine what type of investment decisions should be considered. Besides, it is recommended to pay attention to internal branding. A catchy name and intuitive layout helps to get people on board and increase understanding.

So it is recommended to give the decision makers some time to get used to this new thinking and evaluation method. The framework is designed to be very time and resource efficient. When decision makers are becoming familiar with the concepts of impact measuring by monetization and acknowledge its advantages, it can be a very powerful tool.

## 8.4. REFLECTION

This section will be devoted to reflection of the process and content. With regard to the process, I can be short. Everything went very smooth, I think the way it should be. The greenlight meeting was two weeks earlier than planned, but I think I have managed it quite well. Beforehand, I thought that the biggest challenge was to balance this research between Schiphol and the TU. I have to say, both were very helpful and this did not cause



any problems. I am very grateful that a graduation internship is one of the possibilities during my master thesis project and that Schiphol gave me this opportunity. I definitely think that this experience is a valuable addition to my Master degree. Furthermore, I want to zoom in on the content, that is what it's all about. I would like to reflect on how the research choices I made influenced the research process and outcomes. Note that outcomes, limitations and recommendation are already discussed in the beginning of this chapter. Looking back at my research proposal that was written beforehand of the graduation project, there are a few differences. First, the goal and heretofore sub-questions, are less focused in the kick-off document. I think it is normal in any research. In my opinion, the research goal is definitely achieved, but still there are some differences to explain. The main difference is that I was intended to plan some interviews with 'colleagues' of Schiphol, such as, Heathrow, Aéroport de Paris, Frankfurt etc. and with more experts in the field of impact measuring of monetization. Below, I will discuss the most important research choice and explain why the previous two mentioned intentions were not realized.

The first explicit choice is the research design. I chose interviews because of its explorative character. At first, I thought that finding and planning the interviews would be a real challenge during the summer holiday and might even cause some delay. This was not a problem at all. On the contrary, the planning of interviews went very rapidly. I really enjoyed all the interviews with inspiring people from leading companies. I am glad I have chosen to transcribe the interviews so accurately. Although I have slightly underestimated this activity, it was very useful and I learned much more than I would with desk research only. The interviews with airports did not take place because, on the one hand, the interviews turned out to be more time consuming than previously thought, on the other hand, I delineated the project to Dutch companies. From the literature study it became clear that CSR is dependent on time, place and stakeholder, so interviews with foreign companies would not make sense anymore. Besides, the research was also focussed on a sector-wide approach and not airports only. Interviews with companies, in this case several airports, in the same industry were thus avoided.

As already mentioned in the discussion, the most important choice for the framework is the evaluation method: monetization. A controversial method which can be very powerful but is also criticized by many. I found it hard to find a proper balance between discussing the different methods, advantages, drawbacks and their assumptions, and going into detail about premises and compounding in the public debate. The last was absolutely not the intention. Especially because none of the interviewed companies used MCDM, but as it is known as a sound evaluation method in literature, it was hard to make a fair comparison including MCDM and LCA. Eventually I choose to split literature and content analysis to make clear where the information is derived. The risks and disadvantages of monetization were taken into account in the design phase in order to tackle the risks. By doing this, I stayed close to the goal of this research: to design an evaluation framework.

Another important choice with respect to the research design is the case study and validation meeting. The case studies were chosen on the basis of available data and interest at Schiphol. The fact that the two cases were both energy related had its advantages and disadvantages. Since they are in the same domain, the framework has proven to be very suitable and provided useful insights. Both cases could be compared to each other. This was very useful because both cases did not have a reference case or alternative. If the cases were focussed on different domains, it would have had given more results about the possible usages. As already stated in the discussion, it is recommended to further examine and appraise the CSR evaluation framework. With respect to expert consultations, beforehand I did not know that Schiphol had so many experts in-house. So, instead of external expert-validation, I organised several meetings with in-house experts at Schiphol. Besides, it was more time effective, I also learned more about the decision-making process and practical implications within a large, sometimes, bureaucratic organisation.

Overall, I am actually quite impressed by the work I have done, the inspiring people I have spoken to and the results I have achieved. Schiphol is going to implement the proposed CSR evaluation framework, and asked me to further develop it, which is an absolutely crowning glory to my master thesis project.



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# Corporate Social Responsibility in practice: identifying Critical Success Factors how companies should incorporate CSR within business.

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## ABSTRACT

Corporate Social Responsibility (CSR) has gained increasing importance on the corporate agenda and in the public opinion. There is, however, no consensus about the definition of CSR nor about its implications. The open rules of CSR application and different views create confusion around responsibilities which might lead to conflicting CSR activities and prevent productive engagement. This article provides an overview of Critical Success Factors (CSFs) by means of literature study and elite interviews. The lack of a proper definition of CSR is explained by the fact that it seems to be impossible to have a definition that covers all industries and still touches upon a company's core business which is necessary for win-win situations and successful CSR practice. CSFs for effective CSR strategies, which were found in this research are: full integration in strategy, clear CSR focus and transparent communication. This will lead to clear, coherent CSR definitions and behavior of firms which benefits business longevity and closes the gap between companies and public opinion. Future research in the practice of CSR within non-elite companies and deviations per sector can generate extra insight in the implications of CSR in business.

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## 1. Introduction

Today, Corporate Social Responsibility (CSR) holds an important place in annual reports and has never been as present in the corporate strategy before. Driving forces like transparency and increase of information technology are making both consumers and organisations more aware of the planet's limits and consequences of climate change, resource depletion and population growth (NCC, 2015). However, the practice and to what extent companies are responsible for direct or indirect effects vary widely.

The increasing demand for transparency puts pressure on organisations. The trend towards integrated reporting shows that companies are favourable to becoming more transparent, but it also makes them vulnerable. If they do not act as they communicate, trust of consumers will be distorted (Sipkens et al., 2014). Besides, people are currently empowered with more distribution channels to voice their opinions and confront companies with issues they had not previously thought of (Bergen, McKenzie, & Mackintosh,

2014). For example, packaged food companies were held responsible for obesity and bad nutrition. Multinationals were also targeted for issues for which they may only have little impact. Water bottling companies, for instance, were held responsible for access to fresh water, while 70% of the world's annual supply is inefficiently used for agriculture irrigation, but then there is not one single party to blame (Porter & Kramer, 2006).

The problem resides in the fact that CSR is very complex with multiple interdependencies and interpretations. Although the concept of CSR has become, both in theory and practice, well represented in management literature, there is no general agreed definition (Margolis & Walsh, 2003). Although the interpretations vary in detail, the majority focuses on voluntary actions of firms in order to improve social and environmental impact (Campbell, 2007; Dahlsrud, 2008).

The inconsistency of how to define CSR and the lack of consensus can be problematic. The open rules of CSR application can create confusion surrounding responsibilities and CSR can therefore

be less effective (Matten & Moon, 2008). Moreover, competing definitions with diverging biases might lead to different interpretations and thus prevent productive engagements (Dahlsrud et al., 2006). Since the concept is internally complex and dynamic overtime, a proper definition is critically important (Capbell, 2007). This is especially true within an organization where a lack of consensus about its definition leads to different views and conflicting activities concerning CSR.

Despite the numerous attempts to define CSR and its implications by, for example, Dahlsrud (2006), Matten & Moon (2008), Porter & Kramer (2011), Visser (2011), the efforts of these authors do not provide effective practical implications for business strategy regarding CSR. This article seeks to contribute to existing literature on the topic of Corporate Social Responsibility, business strategy and practical implications by enriching the discussion from a business perspective. Therefore, the following main research goal will be addressed: *“provide an overview of Critical Success Factors for companies on how they should incorporate CSR in business performance”*.

In order to achieve the main research goal, the following sub goals need to be addressed:

- Explore the existing scientific context and used definitions of CSR;
- Describe the practical implications of CSR for companies;
- Provide Guidance to companies how to deal with CSR practice.

The main research question will be answered on the basis of a literature study and content analysis. Both methods will be discussed in the next section. Section 3 will discuss the definitions of CSR available in scientific literature. Section 4 will provide an overview of necessities given by companies practiced in the use of CSR. Important features will be grounded with examples and quotes from the business. Section 5 and 6 will conclude with Critical Success Factors for CSR strategy and highlight the potential of a coherent definition within firms.

## **2. Research methodology**

This analysis starts with a systematic, in-depth exploration of scientific literature. Search terms like ‘Corporate Social Responsibility’, ‘corporate strategy’ and ‘definition’ were used in scientific

search engines, such as Scopus, Google Scholar and Web of Science. The literature study for CSR is mainly based on Porter & Kramer (2006). Various other articles were used and the selection criteria to value the relevance of the literature are publication year and citation index. However, for a complete overview, the commonly named ‘founding fathers’, such as, Brundtland and Elkington should not be left out. The selection criteria are, therefore, just a guide and not hard restrictions.

The second part of the analysis is based on elite interviews with leading companies in the field of CSR. Semi-structured interviews were chosen over a standard questionnaire because of the explorative and descriptive purpose of this study. A clear disadvantage of interviews is the subjectivity of information (Baarda et al., 2007). The interviews were transcribed and sent to the respondents for approval in order to lower interpretation errors and increase reliability. Explorative qualitative research has its foundations in grounded theory (Glaser & Strauss, 1967). Its existence evolved into two different theories. A systematic approach with the validation criteria of Strauss & Corbin (1990) was chosen. Within this research methodology, one does not use an existing theory, but constructs explanatory models out of the collective data. Relevant fragments of the transcripts were summarized and provided with codes and labels. The relevance of fragments was determined by the research goal, but also by other reasons, such as, repetition of concepts, remarkable statements or similarities to recent published articles (Löfgren, 2013).

The validity of the structure of labels is assessed by applying the axial coding to different interviews until the scheme has fully covered the data (Baarda et al., 2009). Note, that this is an iterative process and subject to perceptions of the researcher. Therefore, the inter-subjectivity of results is determined because any analysis without validation measures becomes meaningless (Mouter & Noordegraaf, 2012). The validation check is done by two peers, both with different backgrounds, readings and interpretations, duplicating one coding activity. It was assumed that 10% of the total content is sufficient for the reliability check (Lombard et al., 2004). Eventually, an inter-coder subjectivity coefficient could be rounded to 80%. In literature, there is no

consensus about the score of the inter-coder reliability test. Several methodologists state that, as a 'rule-of-thumb', a score greater than 0.8 would be acceptable in most situations (Neuendorf, 2002). From this, it is concluded that the coding and labelling activities are limited to a minimum level of subjectivity and therefore within limits of qualitative research.

### 3. Literature overview

From the problem exploration it became clear that the concept of Corporate Social Responsibility is internally complex and dynamic over time. Therefore an in-depth literature review with respect to its definition will be executed.

#### *Sustainable development*

Over the past decades, the definition of Corporate Social Responsibility evolved. In literature, *Global Sustainability* is seen as the starting point of CSR. The first written and most frequently quoted definition can be traced back to the year 1987 when the World Commission on Environment and Development (WCED), convened by the United Nations, published 'Our Common Future'. The report, better known as The Brundtland Report, named after its Chairman, Gro Harlem Brundtland, defines sustainable development as follows: "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, pp. 45). The Brundtland Report can be seen as the first attempt that placed environmental issues on the political agenda.

#### *People, Planet and Profit*

'Sustainable Development' is widely used and, due to its flexibility, internationally adopted by various stakeholders for their own purposes. This strength is, at the same time, also a weakness. The ideal concept suffers from ambiguity and vagueness and has a clear gap in implementation (IISD, 2010). In response, John Elkington introduced the three pillars of sustainability: *People, Planet & Profit*. (Elkington, 1997). This Triple Bottom Line is seen as the first real definition of CSR. It expands the traditional reporting on financial performance by taking into account social and environmental performances too. This school of thought argues when the three P's are not balanced properly, success is based at the expense of the other two. If the emphasis is on profit, then people and planet

will, for example, suffer from poor labour conditions and destruction of natural capital. While 'Sustainable Development' highlights the integration of economic development and sustainability, the Triple Bottom Line actually emphasises the trade-offs. The latter theory advocates a balance between the three pillars. During the World Summit on Sustainable Development in 2002, the United Nations adjusted their definition, which resulted in a major shift from sustainability in terms of environment towards social and economic development (IISD, 2010). This shift was driven by the Millennium Development Goals and changed the third 'P' from profit into prosperity in order to highlight the welfare component.

#### *World Business Council for sustainable Development*

Besides the shift in focus from environmental to social aspects, the definition also evolved from a political issue to a significant issue for businesses. The social emphasis used to be on future generations, but for companies, the direct neighbour and employees were also indicated as direct stakeholders. The World Business Council for Sustainable Development defines Corporate Social Responsibility as "the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large" (WBCSD, 1998, pp. 3). From that moment, several meanings of the concept emerged, and presently, there is no consensus about its definition. Studies that reviewed the consistency in the definitions concluded that it can be reduced to five key concepts, namely: stakeholder, social, economic, voluntariness and environmental dimensions (Dahlsrud, 2006). For almost a decade, there have not been any significant changes in CSR thinking.

#### *Creating shared value*

The latest research that triggered CSR at a whole new level, can be attributed to Michael Porter, Harvard Professor and leading authority on competitive strategy. "The purpose of the corporation must be redefined as creating shared value, not just profit per se" (Porter & Kramer, 2011, pp. 1). Porter's theory is expected to reshape capitalism and drive the next waves of innovation and productivity. Shared value can be explained 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”* (Porter & Kramer, 2011.). Porter argues that many CSR initiatives are often uncoordinated, philanthropic and separated from the firm’s strategy, which result in a huge loss in opportunity. The idea behind this theory is that the companies who are able to create a win-win situation for both business as well as society, will have a unique competitive position and much more impact (Porter & Kramer, 2006).

#### *European Commission*

Whereas all other theories focus on tension, it seems that Creating Shared Value seeks to find shared opportunities. The concept of Creating Shared Value received positive reactions and is widely accepted. The new approach is clearly visible in corporate strategies and has even been adopted by the European Commission (EC, 2011). The European Commission recognises the importance of the core business strategy as key for the long term success of an enterprise (EC, 2011). According to the European Commission, CSR can be explained as: *“a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment”* (COM, 2011, pp. 4) by integrating *“social and environmental concerns in their business operations and in their interaction with their stakeholders”* (COM, 2011, pp.6).

From the above given definitions, it can be inferred that CSR is a contribution to the firm’s environment and stakeholders. However, it does not give any insight into what a good contribution is nor how it should be incorporated in business operations. Despite the fact that the meaning of CSR varies at different places and in different times, it is also dependent on all stakeholders who may have different interests and objectives (Campbell, 2007). Besides the lack of practical implications, the definitions are very generic and abstract. It is therefore necessary to also examine the business perspective, alongside scientific literature.

#### **4. Business perspective**

This section examines what CSR means to companies and how they deal with it. Leading companies in the field of CSR are interviewed and

on the basis of content analysis conclusions are drawn.

#### *Interpretations of CSR*

From the interviews it is gleaned that companies either perceive the concept of CSR broadly or narrow. For the minority of the interviewed companies, the definition did make, due to the narrow interpretation, a significant difference. These companies interpret CSR as something completely different from sustainability. Sustainability is perceived as care for nature, efficient use of resources and considered as ‘green’. CSR is specifically recognized as value to human beings, such as, direct stakeholders but also future generations. One out of the ten interviewees perceived sustainability as an internal activity. In that view, responsibility is considered as an obligation to the world outside the company and is seen as an external activity. The majority of the companies, however, accepts the fact that there is not one commonly used definition. This group handles a wide interpretation and perceives no difficulties in its application, because everyone knows what it is about. CSR is interpreted holistically in its broadest sense and is viewed as a container concept which includes both aspects of social and natural capital. From this it can be derived that there is, both in scientific literature and in practice, no consensus about a clear definition, but the majority of the interviewed companies does actually not care about the lack of a proper definition.

It is remarkable that even though they all handle different definitions, the content is always translated into what is particularly important for that type of business. ProRail, for example, defines CSR as sustainable travelling, working and living, while Wehkamp describes responsible purchasing, shopping and operations. The CSR aspects that are important for online retail are very different from rail infrastructure. Both have issues with their supply chain, but with respect to very different aspects. Whereas Wehkamp worries about child labor and human rights in factories, ProRail cares about sustainable concrete and reuse of raw materials. These are the areas that have the biggest impact on the respective companies. Besides the difference in sector the companies are operating in, the type of company is also of importance. PostNL, for example, is the second



largest employer in the Netherlands. A change in policy concerning PostNL's personnel has, compared to others, a very different impact on society.

#### *Win-win situation*

The impact companies have on their surroundings thus varies per sector and type of company. Nevertheless, how these companies should handle CSR, is equal for all the different companies. From the interviews it is gleaned that CSR should be a win-win situation. This is clearly in line with Porter's theory of Creating Shared Value (Porter & Kramer, 2011). Primarily, CSR should not be related to philanthropy. It is not said that companies should stop donations. Not at all. NGO's and activist groups need funding, but philanthropic activities should not be misunderstood to be CSR. The problem with charity is that it is always dependent on donations and what one considers to be charity (Vosmeer, personal communication, June 11, 2015). Moreover, it will never achieve the same amount of impact that a CSR project can achieve. This is due to a positive business case. That is also the second reason why there should be a business case for CSR to create a win-win situation. If, and only if, CSR creates new opportunities by tackling problems concerning communities or environment, the innovation is sustainable. *"It is not about the business case for sustainability, it is the sustainability of the business case"* (Reinhoudt, personal communication, June 12, 2015).

#### *Full integration of CSR in corporate strategy*

In order to create win-win situations and enable a real sustainable impact, it is important that CSR is fully integrated in the corporate strategy. The two main ingredients for a successful integration are, according to the interviewed companies: top-down approach and embedding in management.

For a total integration in the corporate strategy, the vast majority of interviewed companies advocates the necessity of a top-down approach. Structured and consistent CSR behavior is argued to have the most impact. One company, Asito, disagrees. They also welcome all initiatives that arise from the organization. This bottom-up approach is seen as the way to motivate people to incorporate CSR in the daily business (Haas, personal communication, June 3, 2015). Asito

believes that, if CSR is imposed by its management, it might demotivate their workers. Opponents of this theory argue that uncoordinated CSR activities do not all contribute to the corporate strategy and quickly become pet subjects (van den Bogaart, personal communication, June 11, 2015,).

Besides the top-down approach, alignment of divisions and departments is key for full integration of CSR in the corporate strategy. To achieve this, it is agreed that CSR should be embedded in overall management. CEO or CFO awareness is seen by all companies as a necessity. Without active support of the board, CSR will never be part of the corporate strategy. Furthermore, CSR should, according to some, be present in target setting. AkzoNobel, for example, argues that it should also be part of the bonus structures. *"In this way CSR is fully integrated into the thoughts and actions of people"* (Smits, personal communication, June 3, 2015).

#### *Clear focus of CSR*

By integration of CSR in the corporate strategy, win-win situation can be obtained. The success of integration of CSR in the corporate strategy is, however, dependent on its focus. On the basis of content analysis, it is concluded that the CSR focus in the strategy of companies should be linked to: core business and material aspects.

The first link of focus is with its core business. It is argued that CSR activities should be related to core business since that is where the company has the most influence and can make the biggest impact. Unilever, for example, has chosen to focus on 'health and wellbeing'. They are aware of the issues with respect to food waste, but because they are not the biggest player in the food industry, they have chosen not to take food issues into account. Besides the power to influence, there should also be a significant impact. Heineken, for instance, has transformed all its buildings into green buildings. By reviewing its total footprint, they discovered that the green buildings actually had a negligible impact on the total footprint (Vosmeer, personal communication, June 11, 2015). Therefore, the focus is on production, packaging, distribution and cooling. The responsibility of Heineken does not stop at the finished product, it includes its entire supply chain. Heineken, for example, also facilitates energy efficient refrigerators for customers since cooling is

part of their impact (Vosmeer, personal communication, June 11, 2015).

The second important aspect for the focus of companies is materiality of aspects. The materiality is determined by its key stakeholders and surroundings. CSR activities should be material to the key stakeholders and environment. If one puts effort into something nobody cares about, it is a total waste. Stakeholders can be roughly divided into primary stakeholders, such as shareholders and employees, and secondary stakeholders, such as society, governments and NGO's (Tideman, personal communication, June 14, 2015). Moreover, collaboration is key for the success of CSR. Collaboration with stakeholders is of critical importance to increase impacts. ProRail, for example, argues that the biggest impact is in its value chain (van den Bosch, personal communication, June 1, 2015). The 'ProRail prestatie ladder' is a good example of the impact that joined forces can have.

#### *Transparency in communication*

The last aspect that has gained attention, is the way organizations should communicate about CSR. Transparency in communication about CSR within the firm and to outside is critically important.

On the one hand, CSR strategy should be clear within the whole firm in order to get a real spine for the topic. A clear and coherent definition is key for embedding it in the rest of the organization.

On the other hand, clearness and consistency in thinking and actions of CSR helps communicating about it externally. There is an increasing need for transparency. *"Greenwashing? I don't think so. Businesses are not all of the sudden transparent. No, the world is transparent. They do not have a choice"* (Reinhoudt, personal communication, June 12, 2015). NGO's and activists attacking multinationals for issues on which they do not have influence on, have clearly been disapproved of by both scientific literature and companies. *"Corporations are not responsible for all the world's problems, nor do they have the resources to solve them all"* (Porter & Kramer, 2006, pp. 8).

#### **5. Discussion**

This study is based on literature research and interviews with leading companies in the field of CSR. From the analysis it is derived that there is no

general agreed definition of Corporate Social Responsibility. Besides the fact that the concept CSR is internally complex and varies in time and place, practical implications also differ per company, sector and core business. In literature practical implications and guidance for companies how to deal with CSR are missing. The lack of a proper definition of CSR can be explained by the fact that it seems to be impossible to have a definition that covers all industries, but still touches upon a company's core business. Companies tackle this problem by creating their own clear and company specific CSR mission. From content analysis it can be gleaned that a company's CSR strategy should be related to their core business and key stakeholders. Because that is where they have the biggest impact and influence to create a win-win situation for both business and surroundings.

The interviewed companies actually perceive the lack of a proper generic definition not as problematic. They argue that a clear definition within firms is far more important. Transparency is critically important. It is recommended that companies should define their own CSR statement and communicate it clearly, both within the firm and externally, in order to prevent misunderstandings about responsibilities.

#### **6. Conclusions**

From the above it is concluded that the lack of a general definition is not perceived as problematic, as long as companies themselves, define their own CSR statements relevant for their core business. It is argued that companies should handle a clear strategy within their organisation and communicate outside, one coherent CSR definition. For a sustainable implication of CSR a win-win situation is needed, which can be obtained by the following Critical Success Factors:

1. Full integration of CSR in corporate strategy
  - Top-down approach
  - Embedding in management
2. Clear focus of CSR
  - Core business: impact & influence
  - Materiality: stakeholders & environment
3. Transparency in communication
  - Intern: clear definition
  - Extern: clear responsibilities

Guidance in how companies can cope with CSR can on the one hand help create uniformity within

firms and efficient CSR strategies. If companies have CSR fully integrated in the firm's strategy, the win-win situation enables a shift from depletion of natural and social capital to value creation. This may lead to sustainable corporate behaviour and securing business longevity by increasing competitiveness. On the other hand, it closes the gap between companies and the public opinion to what extent companies are and should be responsible for their impact.

This study contributes to science since it makes a translation between exiting literature and practical implications of companies. It is, to the best of the author's knowledge, the first research that actually examines how to perform corporate behaviour from the perspective of companies. A possible weakness of this study is that the content analysis is based on ten interviews. This research can be improved by including more interviewees and increasing the variety of companies over more

sectors. This results in different views and a higher level of detail can be obtained. Moreover, the goal of the content analysis was explorative and descriptive. An test experiment can be used to validate the outcomes. Besides, the elite interviews might give a distorted view. It is commonly known that there is a clear link between business performance and sustainability. This study focusses mainly on what can be learned from leading CSR practitioners. It might also be interesting to examine how non-leading companies in the field of CSR perceive this and what difficulties should be tackled. Last, it should be noted that the point of departure in this research is the urge of a win-win situation, which is in line with Creating Shared Value (Porter & Kramer, 2011). Other theories may provide different perspectives on Critical Success Factors which can be a valuable addition to this research and the practice of Corporate Social Responsibility.



