The influence of Corporate Social Responsibility and the implementation of the CO₂-Performanceladder on the Delta Network Group

Jasmin Jusufovic

Bachelor thesis

International Business and Management Studies

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Jasmin Jusufovic

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Author: Jasmin Jusufovic

E-mail: Jasminjusufovic@gmail.com

Student number: 00041808

1st University Supervisor: Drs. Ing. Ton Hulstijn

E-mail: Ahulsti@hz.nl

Date: 

Signature: 

2nd University Supervisor: M.J. Audenaerde-Huibregtse

E-mail: Maja.audenaerde@hz.nl

Date: 

Signature: 

Company Supervisor: Arjen Jongepier

E-mail: AJongepier@dnwb.nl

Date: 

Signature: 
Summary

Research purpose:

This report discusses the acquirement of level three of the CO₂-Performanceladder, with the following main question; What does the Delta Network Group have to undertake, organize, collect and implement to be certifiable at level 3 of the CO₂-Performanceladder by May 31, 2014. To answer the main question in a correct fashion, the sub-questions have been divided into informative and practical sub-questions, the practical sub questions have to be answered first in order to be able to answer the main question.

Practical sub-questions

- What is the optimal organisational scope for the ambition of DNWG?
- What is the commercial and social value for DNWG to achieve an official certificate on the CO₂-Performanceladder and which costs, human efforts and other means are necessary to reach level 3 on the ladder?
- Indicate with an GAP – analysis which requirements are met by DNWG and which missing requirements have to be met to acquire level three on the CO₂-Performance ladder?
- How can this best be organized and secured in the organisation?

Theoretical framework:

The theoretical framework showed that CSR is practiced differently, with variations between the US, Europe and Asia, and also many different definitions. Because of the high influence of the EU, this report will refer to it as the main definitions and it also contain the five elements of CSR used across the world. “The responsibility of enterprises for their impacts on society”. To fully meet their social responsibility, enterprises “should have in place a process to integrate social, environmental, ethical human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders” (European Commission, 2011).

Furthermore the European Union is has committed itself to promote and stimulate the use of CSR by regulation and initiatives. As part of its sustainability objectives, the EU has provided member countries with guidelines on social public procurement and how to make
procurement more social and green. In addition to this the EU formulated objectives to reduce the greenhouse gasses by 40% in 2030 in comparison to 1995 and aims to reach 27% use of energy by renewable sources. As for how CSR should be implemented by organizations (Porter & Kramer, 2006) state that organisations should use the intersections between society and the organisation and that CSR initiatives should support the organisations strategy. The CO₂-Performanceladder is an instrument that is becoming more popular (400 organisations already certified) within the Netherlands in the procurement process to set sustainable requirements and for bidding organisations to show that they meet those requirements. The ladder has 5 levels and uses a maturity model (the higher the level, the better it is). The certifying institution uses the four aspects (CO2-insight, reduction, communication, initiatives) for each level with its own requirements to see if an organisation can obtain a ladder certificate or not.

Optimal organizational boundary:

The two organisational boundaries for certification are the DELTA Network group as whole and DELTA INFRA the service provider. DELTA Infra is the optimal organisational boundary for acquiring a certificate on the CO₂-Performanceladder. The optimal boundary has been chosen on the basis of four aspects of the Performanceladder; insight(CO₂ footprint), reduction, transparency (communication), cooperation (initiatives) and the applicability of the ladder in practice. The high footprint of DNWB caused by high grid losses plays a very important role in the decision of Infra as optimal organisational boundary. The footprint is approximately 20 times higher, it is very difficult to reduce the footprint and the communication is not transparent because the grid losses are very difficult to communicate to the external environment. Besides this DELTA infra is the service provider and will be using the ladder to acquire projects with sustainability requirements. The cost-benefit analysis shows that the estimated cost in the project phase (introduction) will be €50.000 and that the estimated cost in the management phase will decrease to €30.000. For benefits an estimated profit of €375.000 is expected and additional non tangible (concrete) benefits can also arise. An IST and SOLL situation provided a description of the current situation in IST and the SOLL situation describes the desired situation for acquiring level three on the ladder.
Deliverables:

The research shows that documentation is the key word and that the following four main documents have to be created; a CO₂ footprint of scope 1 & 2, an energy management plan which describes the objectives and how to reduce the energy consumption and thus the footprint, a communication plan which describes how the certifying organisation will communicate internally and externally about its CO₂-Performanceladder initiatives. A document which describes the sector and supply chain initiatives of the certifying organisation. These documents have to be linked to all the requirements of the CO₂-Performanceladder for level three in accordance to the list in the SKAO Handbook or as shown in (Appendix G, Page 21-22).

Conclusions, Recommendations, Implementation

DELTA INFRA is the best option for DNWG to acquire a certificate on the Performanceladder. The first step is to generate a CO₂ footprint of scope 1 & 2 emissions according to the SKAO and is part of the insight aspect. The second step is to create an energy management plan, which describes the actions which the organisations will be undertaking to decrease its emissions determined with the creation of the CO₂ footprint, the energy management plan also contains the people responsible for that action and the objective which the organisation wants to achieve and is part of the reduction aspect. The third document that the organisation has to create is an communication plan in which it describes how it will communicate internally and externally about its Performanceladder initiatives and is part of the transparency aspect. The fourth document is part of the cooperation (initiatives) aspect and has to describe the sector and supply chain initiatives the organisation is undertaking and participating in. All these documents have to be publicly available internally and externally from a central location. The implementation of the ladder has to be coordinated by an Project Leader which will have the responsibility for the implementation of the ladder. When the ladder is implemented, the finance and control division should become responsible for the monitoring and reporting alongside the financial reporting. For successful implementation there has to be good communication about the ladder for broad support from employees and sustainability can become part of the organisations culture. The DIVO education program, safety, and Performanceladder initiatives DNWG can serve as cornerstones of a future CSR strategy. When level three has been acquired, DNWG has to strive to acquire level 4 or 5 so it can differentiate itself from its competitors and be even more competitive.
# Table of contents

1. **Introduction** .................................................................................................................. 10
2. **Company Description** ................................................................................................. 11  
   2.1 Introduction .................................................................................................................. 11  
   2.2 DELTA NETWORK GROUP (DNWG) ............................................................................ 11  
   2.3 Mission ....................................................................................................................... 12  
   2.4 Vision ......................................................................................................................... 12  
   2.5 Strategy ...................................................................................................................... 12  
   2.6 DELTA INFRA ............................................................................................................. 12  
   2.7 DELTA Netwerkbedrijf ............................................................................................... 13  
   2.8 Findings ...................................................................................................................... 13
3. **Research purpose** ......................................................................................................... 14  
   3.1 Introduction .................................................................................................................. 14  
   3.2 Problem definition ....................................................................................................... 14  
   3.3 Main-question ............................................................................................................ 15  
   3.4 Sub-questions ............................................................................................................. 15  
   3.5 Objectives .................................................................................................................. 16  
   3.6 Research Methods ..................................................................................................... 16
4. **Theoretical framework** ................................................................................................. 18  
   4.1 Introduction .................................................................................................................. 18  
   4.2 Sustainable Development or Corporate Social Responsibility ............................... 18  
   4.3 Corporate Social Responsibility ............................................................................... 19  
   4.3.1 Definition and variations of CSR .......................................................................... 20  
   4.4 Triple bottom line (People, Planet, Profit) ................................................................. 22  
   4.4.1 People (social) ....................................................................................................... 22  
   4.4.2 Planet (Environmental) ......................................................................................... 23  
   4.4.3 Profit (Economic) ............................................................................................... 23  
   4.5 European guidelines .................................................................................................. 24  
   4.6 CSR and Strategy ...................................................................................................... 25  
   4.7 Findings ...................................................................................................................... 26
5. **The CO₂-Performanceladder in Practice** .................................................................... 27  
   5.1 Introduction .................................................................................................................. 27
5.2 The CO₂-Performanceladder ................................................................. 27
5.3 Levels and Aspects of the CO₂-Performanceladder .............................. 28
5.4 Similar organisations and the CO₂-Performanceladder ......................... 30
5.5 Internal Interviews .................................................................................. 32
5.6 Findings ................................................................................................... 33
6 Choosing the Optimal Organisational Boundary ....................................... 34
6.1 Introduction ............................................................................................. 34
6.2 Importance of the CO₂-Performanceladder ............................................ 34
6.3 Possible Organisational Boundaries ......................................................... 35
6.4 Optimal solution ...................................................................................... 36
6.5 IST – SOLL Situation ............................................................................... 39
6.6 Cost/ Benefit Analysis ............................................................................ 41
6.7 Risk Analysis ........................................................................................... 47
6.8 Findings ................................................................................................... 50
7 Discussion ................................................................................................... 51
7.1 Theoretical Framework ........................................................................... 51
7.2 CO₂-Performanceladder ........................................................................ 51
7.3 Necessary documents and implementation ............................................ 52
8 Conclusion, Recommendation, Implementation ......................................... 53
8.1 Conclusions ............................................................................................ 53
8.2 Recommendations .................................................................................. 55
8.3 Implementation ....................................................................................... 56
9 Bibliography ............................................................................................... 58
1 Introduction

This thesis describes a graduation internship at the Delta Network Group for the study International Business and Management Studies for the degree Bachelor of Business administration at the HZ University of Applied Sciences. The aim of the graduation internship is to combine the theoretical knowledge and the practical competences acquired during the study and put it to work in business to tackle a problem and find possible solutions for the benefit of the organisation. The research on the implementation of the CO₂-Performanceladder within the Delta Network Group came from the organisation itself as seen in (Appendix A, Page 4-6), the organisation wants to anticipate on the changing sustainability requirements in the industry and wants to achieve benefits of the ladder in the procurement process to be able to acquire projects that have certain sustainability requirements. During the internship period from 18th of November 2013 till the 31st of March 2014 research will be done on the acquirement of level three on the CO₂-Performanceladder by the Delta Network Group and how this can be achieved by the end of the second quarter in 2014. Level three has been chosen as an basis entering level because it is considered that the Network Group is able to comply with the requirements of level three on the ladder in the short term and with a ladder certificate is able to compete with other organisations in the procurement process. Furthermore this report will discuss Corporate Social Responsibility (CSR), and theoretical aspects that are part of CSR but the main focus will be the environmental aspect and therein the implementation of the CO₂-Performanceladder within the Delta Network Group.
2 Company Description

2.1 Introduction

This chapter will provide a description of the DELTA NETWORK GROUP. It will consist out of a description of Delta Network Group, mission, vision, strategy and its organisational structure.

2.2 DELTA NETWORK GROUP (DNWG)

The ‘ZEEUWSE Netwerk holding’ is the official registered name of the DELTA NETWORK GROUP which is part of the larger DELTA N.V.. DNWG consists out of Delta Infra B.V., Delta Netwerkbedrijf B.V. (DNWB) and the DELTA Netwerkgroep Staff B.V.. Because an reorganisation from the 1st of January 2014 all employees are part of the DELTA Netwerkgroep Staff B.V. because of juridical and financial benefits. The employees are outsourced form the DELTA Netwerkgroep Staff B.V. to DELTA Netwerkbedrijf B.V and DELTA INFRA B.V.. In this report the DELTA Netwerkbedrijf B.V. and DELTA INFRA will be referred to as the DELTA NETWERK GROUP (DNWG).

DNWG has its headquarters located in Goes and its 650 employees are responsible for the management, construction, maintenance of thousands kilometres of cables, gas pipes, electricity and water grids in the province of Zeeland. A detailed organisational structure of DNWG can be found in (Appendix B, Page 7) with the different divisions that DNWG has. The division Asset Management belongs DNWB. Divisions Projects, Operations, Total Utility and Metering Services are part of DELT INFRA B.V. and KLANT & MARKT is divided between the two.

![Figure 1. Zeeuwse Network Holding structure, 2014](image-url)
2.3 Mission
The ‘Zeeuwse’ DELTA Network Group guarantees an optimal performance of the networks assigned to the organisation.

2.4 Vision
DELTA Network group ensures an effective and efficient service to clients. This goal can be achieved through collaboration. Our Multi-utility approach assist in this. We want to make an contribution to local initiatives in the field of sustainable energy. We admire safety and craftsmanship. We are an open organisation, focused on learning and growing.

2.5 Strategy
Six strategic objectives have been established by the Delta Network Group, for a successful implementation of the mission and vision statements. The first being ‘DNWG ensures a safe working environment, it aims to achieve a comprehensive and proactive safety culture. The second is ‘DNWG ensures the availability of the entrusted networks’. Third ‘DNWG realizes a efficiency of its regulated activities that are better or equal to the market average, moreover the coverage ratio on the not regulated activities is positive’. Fourth ‘DNWG is known as an attractive employer where employees work with pleasure and pride; the organisation contributes to a high quality of employment and education in Zeeland’. Fifth ‘DNWG aims to achieve a culture of continuous improvement (supply chain related)’. Six ‘Clients acknowledge a high customer satisfaction to DNWG. Regulated activities are compliant to the standards, In addition DNWG wants its commercial activities to grow 5% a year (independently)’.

2.6 DELTA INFRA
DELTA Infra as service provider is responsible for the construction and maintenance of the electricity and gas grids. Besides this the organisation is responsible for the maintenance and water pipes of EVIDES and the cable networks for DELTA N.V.. Furthermore DELTA INFRA is also active in high-voltage and measurement techniques, technical infrastructure and industrial utility services. Its clients vary from grid operators, local and semi-governmental institutions and other commercial organisations such as Schiphol airport. It is located in Goes and has support centres located in Terneuzen and Ritthem (Utility services).
2.7 DELTA Netwerkbedrijf

DELTA Netwerkbedrijf is the ‘Zeeuwse’ grid operator, and performs its obligations independently as stated by law. The organisation is responsible for the management of electricity and gas grids in Zeeland. The construction and maintenance of the networks are outsourced within DNWG to its sister organisation DELTA IFNRA. This process and separation of tasks between the grid operator and service provider can be seen in graphical form in (Appendix C, Page 8).

2.8 Findings

For outsiders that are not familiar with DNWD, such as auditors, it can be said that the organizational structure of DNWG is relatively complicated as it consists of a division regulated by law, the grid operator DNWB which is responsible for the optimal functioning of the electricity and gas networks and also a commercial division DELTA infra which is the main contractor for DNWB for maintenance and placement of those grids but besides this is also has other clients such as TenneT, Stedin, Evides, thus the organisation has three different organisational structures (legal, organisational, operational) working together. To make it even more puzzling a special personnel entity has been created in which employees can be detached to both DNWB and DELTA INFRA. The whole reorganisation process will take some time till it becomes one coherent functioning organisation where employees know their task and the goal of this reorganisation becomes even more clear. These factors will also play a role in which organizational boundary to choose for acquiring a certificate on the Performancedladder. Also it has to be pointed out that there is an inconsistency in the vision and the translation to strategic objectives of DNWG. The ‘want of DNWG to contribute in local initiatives for sustainable energy’ which is mentioned in the vision, is not correctly translated to the strategic objectives of the organisation and is not specifically mentioned in the strategic objectives. Therefore, for DNWG to have a clear view of where it will be going in the future in regards to sustainability or sustainable energy it has to create a clear strategy and strategic objectives so those can be translated into solid actions.
3 Research purpose

3.1 Introduction

This chapter will discuss the identified problem, the main and sub questions and furthermore the objectives of the research and the used research methods.

3.2 Problem definition

Clients of the Delta Network Group (DNWG), particularly contracting authorities of the government but also more and more by commercial organisations, are seeing value in green procurement. The commercial contracting division of the Delta Network Group, Delta Infra B.V., has noticed that procurement process requirements are becoming more focused on sustainability. Marco Kwaak (Bid Manager) has made the following statements ‘In the near future this can become an issue that can lead to sustainability becoming an knock out criteria in rendering processes which can cost a lot of projects for the organisation’ (Appendix D, Page 9-11). Besides this one of the strategic objectives is for the commercial division to grow 5% annually and that implementing an sustainability in the organisation can assist to reach this goal.

For sustainability requirements there is not a national standard yet, because there is not a standard that is used, it is hard to anticipate to these requirements. But DNWG has noticed that in rendering processes within the Netherlands the CO₂-Performanceladder is gaining support in the public (governmental) and private sector. DNWG has no clear policy on sustainability yet, a consequence of this can be that in the future it gets behind on the competitors and less projects can be attracted and thus automatically the 5% annual growth cannot be realized. As reaction to the current and future sustainability criteria in rendering (procurement) processes, and seeing the performance ladder gaining support DWNG wants to anticipate on this and acquire level three on the C02-Performance ladder and so improve its competitiveness in the procurement process. The CO₂-Performanceladder is a tool which helps companies identify and reduce their C02 emissions in operations, projects and in their supply chain. The position on the ladder is often appreciated in rendering processes and thus has commercial value for the infrastructure division of DNWG. To be certifiable on level 3 of the CO₂-Performanceladder DNWG needs to comply with the requirements set by the SKAO for the ladder. This research will specify what has to be done, gathered, implemented and
which documents have to be produced to comply with the SKAO requirements and as a result achieve a level three certificate on the CO$_2$-Performanceladder.

### 3.3 Main-question

What does the Delta Network Group have to undertake, organize, collect and implement to be certifiable at level 3 of the CO$_2$-Performanceladder by May 31, 2014.

### 3.4 Sub-questions

The sub-questions are divided in the informative questions for the theoretical framework and the practical questions that have to be answered for DNWG to be able to acquire a CO$_2$-Performanceladder certificate.

#### Informative sub-questions

1. What is Corporate Social Responsibility (CSR) and what are the European guidelines on this?
2. What is the CO$_2$-Performanceladder, what can it mean for an organisation as DNWG and how does it apply in practice?
3. How did other, similar companies reach a ladder certificate, what were the gains and what can we learn from them?

#### Practical sub-questions

4. What is the optimal organisational scope for the ambition of DNWG?
5. What is the commercial and social value for DNWG to achieve an official certificate on the CO$_2$-Performanceladder and which costs, human efforts and other means are necessary to reach level 3 on the ladder?
6. Indicate with an GAP – analysis which requirements are met by DNWG and which missing requirements have to be met to acquire level three on the CO$_2$ Performance ladder?
7. How can this best be organized and secured in the organisation?
3.5 Objectives

This graduation internship has the goal to provide DNWG with the activities that it has to undertake to attain a certificate at level 3 on the CO₂-Performanceladder by May 31, 2014. When the internship is finished the necessary milestones and deliverables will be presentable. With reference to the SKAO checklist a conclusion will be made to see if this goal has been reached. Acquiring the certificate has to be commercially and socially viable for the organisation. By good communication internally and externally create broad support for the ladder. Use the SKAO requirements during the whole project and collect information on CO₂ emissions of DNWG and the certification process for a successful course of the project.

3.6 Research Methods

There are two kinds of research possible qualitative and quantitative, the difference between the two is that quantitative research involves large number of data and samples and is considered to be objective, quantitative and statistically valid whereas qualitative research is more into depth and can be described as, gathering, analysing, observing and interpreting of data and is more subjective by its interpretive characteristics.¹

This project will consist qualitative data to create a better understanding of the current situation. Exploratory research² will be used to get a understanding of the Corporate Social Responsibility concept, the CO₂-Performanceladder and what these mean for the Delta Network Group. The research will be in the form of desk research by analysing the available documents within the organisation concerning organisation and its sustainability policies, relevant theoretical books will be used to acquire the theoretical knowledge necessary. Scientific articles and papers which are available will be used to broaden the knowledge and provide with different insights and views on Corporate Social Responsibility, bench marketing of other organisations that have successfully implemented the CO₂-Performanceladder will be of high importance to learn and use the by conducting

¹ Anderson, J. D. (2006). Qualitative and Quantitative research. Retrieved from ICOE:
   http://www.icoe.org/webfm_send/1936

² Exploratory research. (2014). Retrieved from Business Dictionary:
   http://www.businessdictionary.com/definition/exploratory-research.html
unstructured interviews as well as available documents on the websites related to the performance ladder to see how and why the CO₂-Performanceladder has been implemented in their organisation. Furthermore a gap analysis will be created to see which of the requirements for the ladder are already met and which need to be updated to acquire level three on the performance ladder, this is done by the self-evaluation of the management team, the assessed information and documents within DWNG. A cost and benefit analysis will be created to see if the performance ladder can have commercial value to the organisation. By combining all the gathered information it will eventually give an insight into the expected deliverables and so to certification on level 3 of the CO₂-Performanceladder.
4 Theoretical framework

4.1 Introduction

In the following chapter the terminology of sustainable development and Corporate social Responsibility will shortly be described and explained how the two relate to each other and which view this report will take on the two concept and eventually be used and why. From there on Corporate Social Responsibility will be defined more into depth with an European perspective, how it is applied in practice and how it can be integrated in the strategy of an organisation.

4.2 Sustainable Development or Corporate Social Responsibility

There are many different views on the terminologies of Sustainable Development and Corporate Social Responsibility concepts what they are and what they mean. For this report it is important to have a clear view of what both are and how they fit together. Both sustainable development and corporate social responsibility are striving for a more sustainable world but are different and (Ebner & Baumgartner, 2006) have tried to explain this in the paper ‘The relationship between Sustainable Development and Corporate Social Responsibility’ The research states that scientists use both terms synonymously and out of their original context, which is argued as not correct. The research supports that the concept of sustainable development described in the following way ‘Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’ As defined by the (Brundtland Report, 1987) is correct. Later on the United nations World Summit in 2005 the UN starts to talk about the three interdependent pillars that Sustainable Development builds upon and refers to these pillars as economic development (Profit), social development (People), and environmental protection (Planet) which are based on the ‘Triple Bottom Line’ created by (John Elkington, 1995). The research further states that the concept of Sustainable development is focused on ‘Macro Level’ and that Corporate Social Responsibility can be seen as an implementation tool for the concept of Sustainable Development on corporate level, this report shares this view and will build further upon this.
4.3 Corporate Social Responsibility

The impact of organisations on society can be seen throughout history with the positive effects like prosperity to poor regions but also the negative effects they have, such as loss of nature. The correlation between organisations and society has not been defined till the beginning of the twentieth century with the rise of corporate responsibility, when scholars tried to describe this concept, by now we live in a time where the influences of organisations bad or good are discussed and analysed over and over again. The history of the concept is described by (Carroll, 1999) as he mentions that the term Corporate Social Responsibility is truly a product of the 20th century, to be more price the second half of the century. Although there were several mentions of social responsibility of corporations earlier, for modern era, the term was first coined in the book ‘Social Responsibilities of the Businessmen’ by (Bowen, 1953) since then it has become a widely known concept which has been researched and written about in numerous articles and books in the decades thereafter but also used in practice by large organizations. This is described by (Caroll,1999) in the following way; the 1960’s were marked by the concept of CSR growing in literature in which mainly a definition is given to CSR, this trend continued itself in the 1970’s and the definitions of CSR became more specific. In the 1980’s the interest in CSR grew and there was more research on how to measure and conduct research on CSR (Carroll, 1999). (Carroll, 1999) states that during the 1990’s there were no new definitions added and that the focus was on developing new frameworks such as corporate ethics, corporate social performance (Woods, 1991). (Carroll, 1999) further states that there was a trend which started earlier with an attempt to operationalise CSR on the definitions and theory developed in the decades before. (Carroll, 1999) also elaborates future expectations and which way CSR is headed and states that more research is necessary so the theory can be integrated in practical research for better use. (Carroll, 1999) furthermore states that the future for CSR is bright because it addresses the most important concerns the public has with the relationship between business and society.
4.3.1 Definition and variations of CSR

There are dozens definitions of CSR, all of those definitions have their own view or twist of Corporate Social Responsibility. To get a better insight in the definition of CSR this report will shortly discuss the research that (Dahlsrud, 2006) has conducted on 37 different definitions of CSR from recent history. The research shows that there are very different views on definitions for example he mentions that some say the following ‘We have looked for a definition and basically there isn’t one’ (Jackson and Hawker, 2001), contrary to this (Dahlsrud,2006) states that there is an abundance of definitions of CSR but none internationally recognized and used.

The conclusion that can be drawn from (Dahlsrud, 2006) research is that there are many available definitions that are referring to one of the 5 dimensions of CSR identified in the research but in different forms. The research also states that coming to one general Definitions of CSR is easier than it seems because they are all using at least one of the 5 identified dimensions (environmental, social, economic, stakeholders, voluntary basis) but are using different phrases. Furthermore it states that the definitions are describing a phenomenon but do not provide a framework how to react to the phenomenon and combine it with their business strategies.

Just as the amount of different definitions of CSR there also different interpretation, regulation and practices of CSR worldwide as argued by (Kolk, 2004). (Debroux, 2008) goes deeper into this and states that CSR practices mostly differs between the US and EU but that Asia contains a mix of both practices. The research states that Asia has no uniform approach because of the many different cultural and political differences. The view of the US on CSR is more focused on voluntary initiatives of organisations. The research states that in Europe, CSR responsibilities are divided into governmental, business and trade unions which have their own tasks in promoting, implementing and controlling CSR initiatives of organisations. Governments promote and stimulate CSR by regulation, an example of that is the (companies act, 2006) in the UK which asks of public listed companies to report on the impact on society and environment. The research of (Debroux, 2008) also mentions the importance of regulation as indicated by the Asian Development Bank, so that non-CSR measures will not outweigh CSR measures all the time because of financial attractiveness.
It has to be noted that different literature on CSR uses various types of terminology such as ‘Social Responsibility, Corporate Citizenship, Stakeholder Management, Corporate Ethics, Corporate Sustainability’ and more, this issue has been described by (Hopkins, 2000) and (Millar, 2011), because all these terms are overlapping and discussing practices of Corporate Social Responsibility or parts of it and how it should be practiced, this report will consider the different terminology identical under an umbrella of Corporate Social Responsibility.

Since the launch of the Green paper in 2001 by the European Commission (EC) and its CSR definition. The EC has taken on a role to promote and stimulate the use of CSR and to stay up to date with the developments regarding CSR in light of this in 2011 it launched a new overall CSR strategy and an updated definition of CSR. The new definition includes all 5 dimensions identified by (Dahlsrud, 2006). Because the ECs huge influence on organisations active within the EU and its commitment to CSR, because it contains all the five identified dimensions the updated CSR definition of the European commission of 2011 will be used in this report as main reference.

‘The responsibility of enterprises for their impacts on society. To fully meet their social responsibility, enterprises “should have in place a process to integrate social, environmental, ethical human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders.’ (European Commission, 2011).
4.4 Triple bottom line (People, Planet, Profit)

![Triple Bottom Line Diagram](image)

Figure 2. Triple Bottom Line, Wikipedia, 2014

In the traditional way organisations are familiar with only one way of accounting called the bottom line better known as financial accounting, with his book ‘Cannibals with forks’ (John Elkington, 1997) he introduced the concept Triple Bottom Line which puts an emphasis on the difference between People, Planet and Profit who represent the environmental, economic and social factors of Sustainable Development and Corporate Social responsibility. The triple bottom line takes a broader point of view than only financial accounting it also looks at a company’s responsibility further than its shareholders and their expectations but also to its stakeholders the society and environment. In this report short introductions will be given of the ‘Three P’s’ but the report will be focused on the environmental (Planet) factor of the triple bottom line.

4.4.1 People (social)

The first P is focused on the impact of organisations on the social environment of people it is present in it can be regionally focuses of sector focused. The ways such an organisation has influence in terms of labour (safe working conditions, no long hours, no child labour, salary) but also community influence it has in ways of employment, fair trade, contributing in education, healthcare and other social issues.
4.4.2 Planet (Environmental)

The second P has an emphasis on the environment and tries to minimize the impact organisations have on the environment. This is done by using renewable energy, waste management, and reducing energy consumption. An organisation which is supporting and working with the “Triple Bottom Line” principle is not actively using harmful or toxic materials that can damage the environment.

The Delta Network Group uses the ‘Trias Energetica’ principle to minimize its impact on the environment. The ‘Trias Energetica’ principle is developed by Stads Ontwerp en Milieu (SOM-1) under supervision of Kees Duijvestein as a three step strategy and later has been named ‘Trias Energetica’ by Erik Lysen in 1996. The concept has three basic principles, the first reducing energy demand. Second is use of renewable energy sources. Third is use of fossil fuels as efficiently and clean as possible. There will be a more into depth discussion on how DNWG can use and implement the ‘Planet’ into its organisation in (Chapter 5, The CO₂-Performanceladder in Practice, Page 18-24).

4.4.3 Profit (Economic)

The third P is focused on the economic profit and value that organisations create not in the traditional sense of the meaning which is only focused on the organisations and shareholders gain but within the triple bottom line it is seen as the benefit it can create for itself and society at large. Therefore it is a precondition for the other two aspects (People, Planet) to be implemented and used correctly in the organisation.

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3 http://dnwb.nl/dnwb/over-ons/dnwb-en-duurzaamheid.htm
4.5 European guidelines

It is important to identify the policies of the European Union towards CSR and what kind of influence they might have on DNWG and its organisation when these are translated to national level. The EC has published green papers on sustainable development and CSR, the first being in 2001 with the launch of the definition of CSR and stating its commitment to CSR within the EU. Going further in 2006 it published a new policy on CSR and was called the European Alliance for CSR and in 2011 it launched a new strategy and communication policy of CSR and also launched an updated CSR definition mentioned earlier.

In these green papers the EC emphasizes on the importance of CSR to meet treaty goal set for 2020, the strategic approach to CSR is increasingly important to the competitiveness of enterprises. Furthermore a European Commission research on competitiveness in 2008 states the following ‘It can bring benefits in terms of risk management, cost savings, access to capital, customer relationships, human resource management, and innovation capacity’ this view is also supported by (Porter & Kramer, 2006). In addition to the green papers the communication policy (Public procurement for a better environment, 2008) states a number of goals, one of which is that by 2010, at least 50% of all public procurement within the EU has to comply with certain environmental criteria where possible and also published a guide for member states for Socially Responsible Public Procurement. It has not been published if this objective has been achieved. It also aims to provide guidelines and indications without the administrative burden. In addition concerning environmental actions, the EU launched a green paper in 2013 with on the objectives for 2030 and current situation of energy policy and greenhouse gasses. Based on the green paper, on January, 22, 2014 the European commission published the framework for new climate and energy objectives for the year 2030. With the green paper it also published an overview of the results of the current energy and climate policy in the EU, stating that Greenhouse gas emissions in 2012 decreased by 18% relative to emissions in 1990 and that the share of renewable energy has increased to 13% in 2012.

The new policy and advice towards 2030 has as target to reduce the greenhouse gasses by 40% in comparison to 1990 and will have a binding target of 27% renewable energy use within the EU. If accepted at the end of 2014 by the European parliament these objectives will become legally binding for the member states of the EU.
4.6 CSR and Strategy

(McElhaney, 2009) states that it is very important to know where CSR in the organisations sector is going and claims that in the future is not a question in whether or not to participate in CSR but how to do it more smarter and more strategic and more successful than your competitors. (McElhaney, 2009) also states not to stress about the many different forms and interpretations of CSR but rather choose a name and best practice used in the sector of the organisation, implement and stand by it. (Porter & Kramer, 2006) argue for four general reasons to justify in CSR participation. The first being moral reasons that expects organisations to be good citizens and do good things, secondly organisations need permission or license to operate from society, thirdly the reputation of organisations and fourthly conducting CSR will improve their image and business as whole and finally sustainability of the organisation. Complement to these reasons to implement CSR in organisation, (Garriga & Melé, 2004) have identify four theories that are showing the same. First, Instrumental theories which sees a corporation as for wealth creation, Second, Political theories: which emphasize the relationship between society and corporation. Third, Integrative theories argue that organisations depend on the society and the other way around which also refers to organisations needing a license to operate. Fourth, ethical theories: these refer to the ethical and moral values of society and corporations and expecting them to do the right thing for them and society. (Porter & Kramer, 2006) also state that none of these four reasons and theories provide enough guidance for the decisions that leaders have to make and companies that participate in CSR have no ways to quantify the investment made in CSR and thus puts the CSR initiatives in danger. Furthermore they state that all these four reasons for CSR put emphasis on the tension between organisations and society and none are based on strategic reasons. Instead they claim that there should be an emphasis on the interdependence between profit seeking organisations and society this is somewhat contrary to what is argued by (Friedman, 1970) by claiming that ‘There is one and only one social responsibility of business, to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say engages in open and free competition without deception or fraud.’. The organisations strategy and business operations should be clear and supported by the CSR initiatives that an organisation is undertaking. To take full advantage of possible opportunities, social issues should represent shared value both for business and society. (Porter & Kramer, 2006) state that an organisation should identify social issues most important to the organisation, and divide them into Generic Social Issues that do
not affect the organisation or the other way around, Value Chain Social impacts which are highly influenced by the organisations business, and Social Dimensions of competitive context are external social factors that can have a great influence on the organisation. The Value Chain and the Diamond Framework of (Porter & Kramer, 2006) can be used to analyse and identify the social issues most relevant to the organisation. These initiatives have to address the identified social issues in a responsive CSR strategy.

4.7 Findings

The theoretical framework shows that CSR is a form of sustainable development on corporate level and furthermore indicates that CSR is still fully developing, meaning that there is not only one view or definition on how Corporate Social Responsibility can be used by organisations but that it is practiced differently from geographical region to region (Debroux, 2008). Although (Dahlsrud, 2006) has identified the 5 dimensions and one of those is that CSR is on voluntary basis, but (Debroux, 2008) mentions that the EU has a more regulatory tradition in comparison to the U.S., the EU has promotional and regulatory power that can reach many organisations. With CSR promotional activities it is trying to provide guidance in CSR participation by providing a definition of CSR. Using green public procurement and other form regulations to create a certain standardization of CSR. The objectives the EC has set regarding renewable energy and greenhouse gas reduction for 2030 will eventually influence organisations on local level, with more strict regulation and demands from governmental organisations, when we look at trends of CSR like the UK and the ‘companies act’ it shows that CSR is getting increasingly regulatory. Furthermore (Porter & Kramer, 2006) claim that CSR cannot be a stand-alone project within an organisation but it has to serve the general strategy of the organisation by selecting the social issues most important to the organisations value chain activities. Because CSR becoming more and more common across Europe and is supported and regulated by the EU (2030 objectives and Social public procurement), DNWG should focus on CSR and use it to promote itself as a socially responsible organisation. Furthermore for DNWG to move from the bottom line it has to formulate clear strategy and objectives for in regards to CSR. Therefore DNWG has to create a CSR strategy with initiatives that emphasizes on the intersections between society and DNWG’s activities to serve both the organisation and society in a win-win situation. After the CSR strategy is created it should be linked to Key Performance Indicators (KPI) so that DNWG can monitor the progress of its objectives and strategy.
5 The CO₂-Performanceladder in Practice

5.1 Introduction

This chapter will serve as an connection between Chapter 4, Theoretical framework, Page 19-26 described before and the practical foundation of the Chapter 6, Choosing the Optimal Organisational Boundary, Page 34-50. It will be focused on ‘Planet’ and the CO₂-Performanceladder instrument for implementing it within an organisation. Therefore the CO₂-Performanceladder will be described more into depth and how it can be applied in practice. Furthermore it will give an insight on how other organisations have implemented the ladder. By looking at the open interviews and a report on the implementation of the ladder by A. HAK.

5.2 The CO₂-Performanceladder

The CO₂-Performanceladder was developed by Prorail in 2009 and since that time is it used in the procurement process for the railway industry. It was clear that there was a huge potential to use the CO₂-Performanceladder for other organisations and industries. That is why in 2011 the SKAO took over the control and developed version 2.0 of the CO₂-Performanceladder with a far-reaching scope. The ladder can be described as an instrument that helps companies to reduce their own CO₂ emissions, within projects and supply chains of organisations and in addition to this it can also be used in the procurement process. The ladder uses two starting points, firstly it puts maximum focus on own initiative of companies, results and innovation. Secondly it stands for minimum obstruction by rules and regulations, so it gives companies lots of space for creativity and innovation so they can reduce their emissions and minimize their impact on the environment. Since the introduction of the ladder it has gained national attention and currently there are more than 400 organisations certified on the performance ladder with more than half having level three on the performance ladder and over 100 organisations having a level 5 certificate and 24 governmental and non-governmental organisations are committed using the ladder in the procurement process.
5.3 Levels and Aspects of the CO₂-Performanceladder

As seen in Figure 3, the CO₂-Performanceladder consists out of 5 levels, the first three levels are focused on the internal organisation and level four and five put an emphasis on the external environment. The ladder is based on a Capability Maturity Model (CMM), and each of the five levels of the performance ladder has its own maturity stage, it simply means the higher the level the higher the maturity stage and the organisation's activity on reduction of CO₂ emissions. The higher the level you have reached the better the indication a company has on emissions and the more innovative it can be in reducing emissions.

Each level has four aspects on which an organisation is reviewed on by the Certifying Institution (Auditor) to see if it meets the necessary requirements for that certain level. The first one is Insight (A) in own energy use, this means organisations have to convert the energy use into a CO₂ footprint with conversion factors that are assigned to each form of energy use, this based on the three scopes of the ‘Greenhouse gas Protocol’ (Appendix F, Page 20). The second being Reduction (B) of energy use and thus its CO₂-footprint this means that relevant and significant reduction objectives have to be set by the certifying organisation. The third is Transparency and Communication (C) which demands of the organisation that it has in place
a communication plan to communicate internally and externally about the CO₂-Perfomanceladder initiatives. The fourth being Cooperation (D) with other organisations in the sector or industry to reduce CO₂ emissions, active participation in the sector or industry initiatives starts from level three on the performance ladder.

The ladder also represents ‘award advantage’ for the position on the ladder what means that the if an organisation has a CO₂-Perfomanceladder certificate it can get a benefit in the procurement process, the height of such a benefit the ‘award advantage’ is decided by the client. This means that the higher the position on the ladder the more ‘award advantage’ can be earned in the procurement process. When the performance ladder is used in the procurement process, it does not mean that the most affordable option will be getting the project assigned, because of the additional quality criteria concerning sustainability the most sustainable option can acquire the project. Companies therefore can consider the performance ladder as an investment as it pays for itself in terms of lower energy costs, material gains, innovation and ‘award advantage’ in the procurement process.

As mentioned before the CO₂-Perfomanceladder consists out of five levels each level has its own certificate and requirements based on the four aspects (A), (B), (C), (D). Each of these aspects has a set of sub requirements (Appendix H, Page 23-27) shows all requirements for level 3. The requirements are evaluated by a Certifying Institution (Auditor) when an organisations meets the minimum requirements of a certain level it can get an certificate stating that is has acquired that certain level and a certificate is granted for three years but has to be evaluated annually to be valid, it is therefore important for organisations to use the ladder actively in the organisation after the certificate has been acquired.
5.4 Similar organisations and the CO₂-Performanceladder

To get a better insight in the actual implementation of the ladder within organisations three interviews were held with similar companies that already had acquired a certificate at level 4 or 5, those companies were Alliander, Joulz and Heijmans, the summary of the interviews can be found in (Appendix E, Page 14-19).

The interviews indicated that sustainability objectives played an important role within the organisations to choose for the implementation of the Performanceladder. All three organisations have had invested number of years in making and emphasizing on sustainability as an important factor in their organisational culture, it can be said that they are very progressive in sustainable development. It took several years to create support for sustainability throughout the organisation, it started with taking a position on sustainability and clear strategies and communication towards employees which eventually realized that it is a thing to stay and embraced it. The management sets reduction objectives and measures to lower their emissions. All three organisations involve the employees as much as possible, for example at Joulz the employees are asked to come up with ideas to reduce its CO₂ footprint which lead to submitting of over 200 ideas thus far, a similar initiative is also taking place at Heijmans. A milestone for Joulz was that the mechanics have started to accept sharing a vehicle instead of having one for themselves. Furthermore the organisations have secured the Performanceladder within certain divisions of the organisations that are responsible for monitoring and controlling the progress of reduction objectives and reporting them structurally alongside to the financial reporting, the ladder is also linked to KPI’s so the progress can be followed. It furthermore states that reducing emissions can lead to clear saving such as fuel or energy bills in the case of Heijmans with the producing of asphalt with lower heat needed. Out of the three organisations only Alliander gives award advantage to its contractors if they meet the CO₂-Performanceladder requirements, Joulz does ask of subcontractors to comply with their sustainability requirements but does not work with ‘award advantage’.

The interviews show that a clear commitment and strategy are necessary to create an organisational culture where sustainability is important and also the support within the organisation from top level management to employees in the field is very important if the
reduction objectives are to be reached. Good placement within the organisation for the monitoring, controlling reporting process and taking measures if necessary.

Besides the interviews the websites of the three organisations are also taken into account, which show a number of published documents that can be linked to the four aspects of the Performanceladder they are concerned with the CO₂ footprint (A), Energy management plan (B), Communication plan (C) and Sector initiatives (D), these documents are numbered according to the requirements provided in (Appendix H, Page 23-27) as example can be taken Alliander which refers to its energy management plan as 3.B.2⁴ the footprint has also been incorporated in the energy management plan and the communication plan as 3.C.1⁵. A. HAK has held a survey of eight organizations for the implementation of the CO₂-Performanceladder this survey shows that the implementation of the ladder is not visible on daily operations but that the reduction measures have influence the employees. The research furthermore shows that 5 organizations do reach their reduction objectives and 6 organisations believe that the reduction objectives can bring cost savings and that they had positive reactions of direct stakeholders. The most common reduction measures are; cleaner business vehicles, less paper use, movement sensors in office buildings, separate waste and buying local material. The survey shows that level three is a good entering position as most of the organisations have that level.

5.5 Internal Interviews

Interviews with Marco Kwaak (Bidmanager Infra) and Marieke de Wild (Communication DNWG) were held to get a better understanding of the needs and wants of DNWG concerning the CO2-Performanceladder and how it can be implemented to have as much as possible support and necessary changes to the organisation (Appendix D, Page 9-13). Marco Kwaak says that the need of the ladder at the moment it not that high because the set objectives are achieved with the current clients, but that when DNWG loses one of those clients the need of the Performanceladder will be enormous to compensate the huge loss in revenue. But when Marco Kwaak talks about the changing environment and the current criteria he is expecting that the ladder will become a ‘knock out’ criteria in the procurement process, currently 27 direct competitors of INFRA have a ladder certificate, to be able to compete in the procurement process it is necessary for INFRA to obtain a ladder certificate. He further states that the ladder can be very useful but that there should be a viable business case. In a conversation with Marieke de Wild she stated that within DNGW there is not only one organisational culture present. When asked if other implementation projects could be used as examples for implementing the ladder she stated that there is no uniform approach with introducing changes and new elements. Marieke stated the management has to create an clear sustainability strategy and vision which is publicly supported by the Management Team and is crucial for the successful implementation of the Performanceladder. The strategy should be translated to the managers of different divisions with operational objectives and then communicated to the employees that belong that that division and involve employees as much as possible in the process to create broad support and reduction measures can be more successful. In this whole process managers should show the right behaviour concerning the ladder and keep expressing the importance of the new measures to strategic objectives. This is not a short term obligation but will take time until it becomes part of the organizational culture, this view is supported both by Marco Kwaak and Marieke de Wild.
5.6 Findings

The CO₂-Performance ladder serves as a tool for organisations to get an insight in CO₂ emissions and the reduction of those emissions, but also the communication about the performance ladder and the participation in industry initiatives to reduce CO₂ emissions. Furthermore it can be used by the organisation in procurement processes to gain award advantage. As seen the ladder is used more and more by local governments and commercial organisations and currently there are just over 400 certified organisations on different levels, with level three being the most represented with 249 certified organisations and currently 24 commercial organisations or governmental institutions are dedicated to applying the ladder in their procurement process. For practical use Alliander, Joulz and Heijmans use the ladder to give form to their sustainability image and indicate to clients, in addition to this the ladder can lead to cost savings when the organisation is able to reduce its CO₂-footprint and thus also its energy consumption which also was came out the survey from A. HAK. Level three is a good choice as entering level for the reason that over 50% of the organisations are certified on it.

More and more semi governments and also organisations use the ladder in their rendering processes and over 20 direct competitors of DNWG already have an certificate on the ladder. The ladder therefore can be used in the procurement process by DNWG to show that it meets sustainability requirements as well as to compete with its competitors in those procurement process. For successful implementation DNWG has to start from the top of the organisation, The management has to create a sustainability strategy which is clearly communicated and supported in actions, then the strategic objectives should be translated into actions which can contribute to successfully reaching the objectives. DNWG has to keep account with the necessary cultural changes that have to take place within the organisation and the need to create broad support by communication and showing the good example. It will take some years before the CO₂-Perfomanceladder and sustainability are implemented correctly in the organisation and have become a part of the organisational culture.
6 Choosing the Optimal Organisational Boundary

6.1 Introduction

This chapter will discuss the practical use of the performance ladder within the DNWG, which organisational boundary will be the optimal option and why that option is the best. It will provide and IST-SOLL situation and a Cost/Benefit analysis of the implementation and management phase of the Performanceladder. Finally a risk analysis will discuss the potential risks of implementing the ladder.

6.2 Importance of the CO₂-Performanceladder

Clients are having more and more sustainability requests in the procurement process, and as can be seen on the SKAO website more organisations are using the ladder and Marco Kwaak (Bid Manager, DELTA INFRA) mentioned that possibility exists that in the future sustainability can become an ‘knock out’ criteria in the procurement process for governmental and commercial organisations. The CO₂-Performanceladder is currently the most used instrument in the Ground, Roads, Waterway industry to show that an organisation is complying with sustainability requirements of clients, besides this the ladder can have a positive effect on the energy consumption and plays a supporting role in giving form to the organizations sustainability image and the strategic objective to grow 5% a year. It is therefore important for DNWG to acquire a certificate on the Performanceladder so it does not lack behind on competition, obtain more projects and possibly achieve ‘award advantage’ in the procurement process.
6.3 Possible Organisational Boundaries

As mentioned before DELTA Netwerkbedrijf B.V. and DELTA Infra B.V. together form the Delta Network Group but DELTA infra also provides its services to other clients. The SKAO asks for a correct and reasoned organisational boundary for certification. The first step in attaining level 3 of the CO₂-Performanceladder, is creating the optimal organisational boundary for certification. The organisational boundary has to be supported by good arguments to the SKAO and the Certifying Institution (Auditor) since those organisations are constructing the regulation and approval for certification. Besides this it is also important that the boundary is commercially valuable for the organisation. Within DNWG there are two organisational boundaries possible for certification. The first option is to certify DNWG as a whole organisation as outlined red in figure 4. The second organisational boundary option is to certify Delta Infra as service provider outlined in green (the choice for DELTA INFRA as organisational boundary has to be supported by an AC-Analysis as seen in (Appendix K, Page 40). The ladder is an instrument that can be used in the procurement process, DELTA Infra as service provider can use the ladder to obtain new projects based on the CO₂-Performanceladder to clients such as Stedin, TenneT, Evides but also for potential new clients. To be clear DNWB cannot use the ladder because its responsibilities as asset owner and manager for the electricity and gas networks in Zeeland as regulated by law, therefore it does not render for infrastructure projects but it gives projects to service providers such as DELTA INRA.

Figure 4. Organisational model for the Asset owner, Asset Manager and Service provider
6.4 Optimal solution

Determining that DELTA INFRA is the optimal organisational boundary has been done on the basis of the four perspectives of the performance ladder: insight (CO₂ footprint), reduction (Objectives and measures to reduce the footprint), transparency (Intern and extern communication), cooperation (Participating in sector and industry initiatives). In addition to the four aspects, the practical use of the ladder has also played an important role in the decision for DELTA INFRA as the optimal organisational boundary.

1. **Insight:** the certified organisation has an insight in the organisations CO₂ footprint and how large it is. The footprint of DNWG is many times higher than that of Delta Infra because of the grid losses of transportation of electricity and gas, because of the huge difference in the CO₂-footprint is why INFRA in this case is a better choice as organisational boundary and for presentation to the external environment and in the procurement process. As seen in (Appendix I, Page 28-31) the estimated CO₂ footprint of DELTA INFRA is between 2.000 kg-ton CO₂ and 4.000 kg-ton CO₂ and of DNWG it is approximately 60.000 kg-ton CO₂. This does not represent a realistic view of the footprint because of the net-losses represent approximately 90% of total footprint and if the footprint of DNWG is compared to a larger competitor such as JOULZ which footprint was 11.821.47 kg-ton CO₂ in 2012⁶ it is clear that the better option to use the footprint of infra in the procurement process. The business activities of DNWB can also not be compared to the infra competitors.

2. **Reduction:** Within the reduction aspect, a special focus lies on the reduction objectives and the possibilities of the organisation to implement measures for its CO₂ reduction after a baseline measurement. DNWB’s high grid losses are the cause of the high footprint of DWNG and the few options to minimize those grid losses without high annual costs have played big role in choosing the optimal solution for this aspect. The optimal solution would be DELTA INFRA because the measures to reduce the CO₂ footprint are more cost effective and small measures can have a great impact on the reduction of the CO₂ footprint. Both options have been compared on basis of an estimated footprint and the impact of certain measures (Solar panels, Green energy, Car Renewal, Sustainable driving course, Central Heating) on the reduction of the

footprint, the estimated results can be seen in (Appendix J, Page 32-39). Besides the mentioned measures a number of other measures is also provided.

3. **Transparency (internal and external communication plan):** A communication plan has to be created in which is described how the certifying organisation will communicate externally and internally about the CO₂-Performance ladder, this has to be created for both organisational boundaries. That is why there is not a very large difference in this aspect. But when the CO₂ emissions are taken into account the estimated footprint of DNWG is approximately 60,000 kg-ton CO₂ and of DELTA INFRA it is between 2,000 kg-ton CO₂ and 4,000 kg-ton CO₂. This is not transparent because of the grid losses and leakages of DNWB are taken into account, this huge CO₂ footprint is very difficult to communicate to the external environment, which makes DELTA infra better option.

4. **Cooperation/Participation:** For this aspect it is important to look at the opportunities and possibilities for active participation in sector or industry initiatives with the certifying organisation. There is no noticeable difference between the two organisational boundaries, which is why both boundary options are considered equal.

5. **Applicability:** This aspect is concerned with choosing the organisational boundary that can use the performance ladder certificate in an effective and profitable way in the procurement process. For this aspect just as for insight, reduction and transparency the height of the CO₂ footprint is also playing a vital role for choosing DELTA INFRA as the optimal boundary. The high footprint of DNWG with the high grid losses is not representative for DELTA Infra as service provider in the procurement process. With certification, DELTA INFRA can make use of the ladder in the procurement process and demonstrate that it is active in reducing its CO₂ emissions and in this way it is able to obtain projects with sustainability requirements and possibly receive ‘award advantage’ for those projects as well.
Figure 5. is explained above and the height of the footprint and reduction measures in more detail in (Appendix I and J, Page 28-39)

<table>
<thead>
<tr>
<th>Category</th>
<th>DNWG</th>
<th>INFRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insight (CO₂ footprint; height of the CO₂ emissions)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Reduction (Reduction objectives, possibilities and impact)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Transparency (Intern and Extern communication)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Cooperation (Participation in sector and industry initiatives)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Applicability of the CO₂-Performanceladder in practice</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>

Figure 5. Optimal Solution for the Organisational Boundary
6.5 IST – SOLL Situation

In the following part an IST–SOLL situation will be described, it contains the mandatory requirements for the performance ladder. The IST situation will describe the current situation in regards to the ladder and the SOLL situation will describe the desired situation which will enable DNWG to obtain a certificate at level three on the performance ladder. It consists out of the four aspects of the ladder (Insight, Reduction, Transparency, Cooperation Initiatives).

**IST- Situation**

The IST situation is created by analysing the vision, mission, strategy, available documents of DNWG but also a self-assessment the management team has done for the in regards for the CO₂-Performanceladder with of all requirements of level three as seen in (Appendix H, 23-27).

**SOLL-Situation**

The SOLL situation is the desired future situation to comply with the requirements of the CO₂-Performanceladder. The SOLL situation is created by using the requirements of level three on the performance ladder. All the requirements for level three on the performance ladder according to the four aspects/insight can be found in (Appendix H, Page 23,-27) together with the interviews with similar organisation (Appendix E, Page 14-19) these have been used to create the desired situation (SOLL situation).

When DNWG achieves the SOLL situation, a clear strategy on sustainability has been formulated for the organisation. In addition to this it will have an overview of its energy consumption and thus a CO₂ footprint of scope 1 & 2. Subsequent to this, an energy management plan has to be created with clear relevant and significant quantitative reduction objectives, measures will be taken to reduce its footprint and reach the formulated objectives. It will also have a communication plan in which it describes its internal and external communication regarding the Performanceladder and documentation will be in place on its sector and industry initiatives. The responsibility for the Performanceladder should deployed within the finance and control division for management of the ladder. This means monitoring, reporting can be done along the financial reporting so it becomes a structural part of the organisation and if objectives are not reached, necessary actions can be taken in time. The created documents should be publicly available internally as well as externally.
<table>
<thead>
<tr>
<th>INSIGHT</th>
<th>IST</th>
<th>SOLL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Currently within DNWG there is only a CO₂ footprint for the grid</td>
<td>There is an central available document of the CO₂ footprint for scope 1&amp;2 (Appendix G, page 21-22) of the chosen organisational boundary and projects where fictional award.</td>
</tr>
<tr>
<td></td>
<td>operator, and the footprint for DNWG / DELTA INFRA is missing.</td>
<td></td>
</tr>
<tr>
<td>REDUCTION</td>
<td>DNWG has multiple reduction active initiatives concerning sustainability. (Solar panels, more sustainable cars), but these are not linked to CO₂ reduction objectives.</td>
<td>A central publicly available document ‘Energy management plan’ which describes quantitative objectives and reduction initiatives for chosen organisational boundary and projects.</td>
</tr>
<tr>
<td>TRANSPARENCY</td>
<td>Momentarily there is no communication plan regarding sustainability within the DNWG.</td>
<td>There should be publicly available communication plan that describes how the certified organisation will communicate internally and externally two times a year about the CO₂-Performanceladder.</td>
</tr>
<tr>
<td>INITIATIVES</td>
<td>DNWG is currently participating in sector and supply chain initiatives called ‘De Goese Proeftuinen’ but there is no clear objective formulated regarding sustainability and the organisation</td>
<td>There has to be a central publicly available document which describes how and which initiative the organisation is actively participating in but also one passive with a specific budget assigned for initiatives.</td>
</tr>
<tr>
<td>EXTRA</td>
<td>Clear strategy on sustainability/ CO₂ Performanceladder with periodical monitoring and reporting on progress the CO₂-Performanceladder and clear responsibility placement within the organisation.</td>
<td></td>
</tr>
</tbody>
</table>

Figure 6. IST- SOLL Situation : The current situation expressed in IST and the desired situation in SOLL.
6.6 Cost/ Benefit Analysis

To get an insight in the estimated costs and eventually the benefits of the certification on level three of the CO₂-Performanceladder a cost and benefit analysis has been conducted. The cost are divided in two parts the ‘project phase cost’ for initial implementation of the ladder and the ‘Management phase cost’ of the ladder when it is implemented in the organisation. Both the cost and benefits are estimations based on interpretations. The cost as described by (Mulder, 2010, 226) can consist out of personnel, materials, software, promotion, machines and buildings. The estimated cost that can be analysed are the personnel hours spent to gather information and create the necessary documents for the performance ladder and a range of promotional cost that have to be paid to the SKAO as contribution and auditor cost for the certifying institution. Determining the possible benefits is more difficult than determining the costs because benefits are less concrete (Mulder, 2010, 227). As for the implementation of the performance a number of benefits have been identified and will be described in the heading ‘Potential benefits’ (Chapter 6, Page 44-46).

Project cost for implementation

In the project phase the costs of implementation of the CO₂-Performanceladder is concerned with the creation of missing documents, time necessary, auditor costs and the contribution cost to the SKAO. For the estimated costs, a personnel month is estimated at 175 hours, and the personnel costs are estimated on €60,- an hour.
## Project Phase Cost

<table>
<thead>
<tr>
<th>Cost description</th>
<th>Estimated time</th>
<th>Cost in €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct an AC- Analysis</td>
<td>3 hours</td>
<td>€180</td>
</tr>
<tr>
<td>Create a CO₂ footprint manual INFRA</td>
<td>1 personnel month</td>
<td>€10500</td>
</tr>
<tr>
<td>- Create an energy management action plan, the plan has to consist out of the following elements</td>
<td>See topics marked with *</td>
<td>See topics marked with *</td>
</tr>
<tr>
<td>* Action plan; objectives, distribution of tasks and reduction plan regarding energy.</td>
<td>1 personnel month</td>
<td>€10500</td>
</tr>
<tr>
<td>* Per project: quantitative CO₂ reduction measures</td>
<td>follows out of the objectives regarding CO₂ reduction</td>
<td></td>
</tr>
<tr>
<td>* An overview of responsible persons for the taken measures</td>
<td>Created out of the tasks from the action plan</td>
<td></td>
</tr>
<tr>
<td>- An internal and external communication plan</td>
<td>1 personnel week</td>
<td>€2400</td>
</tr>
<tr>
<td>- Textual support of relevant sector and/or industry initiatives participation</td>
<td>- Minimum of 1 project 1 personnel day</td>
<td>€480</td>
</tr>
<tr>
<td>- SKAO-membership</td>
<td>- 1x time a year</td>
<td>€4250</td>
</tr>
<tr>
<td>- Auditor cost</td>
<td>- Total 1 week auditor 7000-10.000 € Advisor 6000-8000 €</td>
<td>€18000</td>
</tr>
<tr>
<td>Total estimated annual cost</td>
<td>-</td>
<td>€46310</td>
</tr>
</tbody>
</table>

Because the annual costs of the project phase is an estimate, the report will round up the number to €50.000 which is approximately 10% higher and is recommended to do, for unforeseen costs (Mulders, 2010, 227). (Appendix L, Page 83-84) provides an argumentation of the project phase cost.
## Management phase cost

<table>
<thead>
<tr>
<th>Cost Description</th>
<th>Estimated time</th>
<th>Costs in €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership SKAO</td>
<td>-</td>
<td>€4250</td>
</tr>
<tr>
<td>Create a CO₂ footprint + Adjust the current manual</td>
<td>1 personnel week</td>
<td>€2400</td>
</tr>
<tr>
<td>First audit</td>
<td>-</td>
<td>€2500</td>
</tr>
<tr>
<td>Strategic planning 2x year</td>
<td>1 personnel week</td>
<td>€2400</td>
</tr>
<tr>
<td>Plan and implement in the organisation</td>
<td>1,5 personnel week</td>
<td>€3600</td>
</tr>
<tr>
<td>Adjust the current documents + planning, implementation, execution and control.</td>
<td>1 personnel month</td>
<td>€10500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>+- 2 personnel months</td>
<td><strong>€25.650</strong></td>
</tr>
</tbody>
</table>

For the ‘Management phase’ the estimated annual costs are € 25.650. In this case as well approximately 10% will be added for unforeseen cost, therefore the ‘Management Phase Cost’ will be around €30.000. (Appendix M, Page 43) provides the argumentation for the Management Phase Cost.
Potential Benefits

Financial benefits: Increase in revenue

The financial benefits have been expressed by Marco Kwaak (Bid manager) for DELTA INFRA, by stating the following estimated financial benefits of the CO₂-Performanceladder in the procurement process. There is a potential to obtain €10 million in revenues for projects related to the CO₂-Performanceladder or sustainability requirements. The estimated success factor for DELTA INFRA to win a project is 25%. Which means that DELTA infra has the potential to acquire €2.5 million of revenue annually.

The standard profit margin for DELTA infra on the generated revenue is approximately 10%, thus on a revenue of €2.5 million the profit margin is €250.000. But as stated earlier, when the CO₂-Performanceladder is used in the procurement process there is an ‘award advantage’ possible. The estimated ‘award advantage’ by Marco Kwaak for level three on the CO₂-Performanceladder is 5% of the procured revenue of €2.5 million, which is €125.000.

The sum of the estimated profit margin €250.000 and the ‘award advantage’ of €125.000 comes out to be €375.000 as shown in the table below.

<table>
<thead>
<tr>
<th>Financial benefits</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential revenue related to the CO₂-Performanceladder</td>
<td>-</td>
<td>€10 million</td>
</tr>
<tr>
<td>Success factor</td>
<td>25%</td>
<td>€2.5 million</td>
</tr>
<tr>
<td>Profit margin of the €2.5 million</td>
<td>10%</td>
<td>€250.000</td>
</tr>
<tr>
<td>Estimated award advantage of the €2.5 million</td>
<td>5%</td>
<td>€125.000</td>
</tr>
<tr>
<td>Total benefit</td>
<td></td>
<td>€375.000</td>
</tr>
</tbody>
</table>

(Appendix D, Internal interviews with Marco Kwaak, Bid manager, Page 9-11)
Return on investment (ROI)

To determine if a project is profitable or not for implementation (Mulder, 2010, 228) states that the return on investment has to be calculated. For both of the phases of the project a positive return on investment

Project Phase

Return on investment (%) = (Net profit / Investment) × 100
ROI = 375.000-50.000/ 50.000= 6,5*100 = 650%

This a positive return on investment and means that every euro invested in the project will have a return rate of 650% on the investment.

Management Phase

Return on investment (%) = (Net profit / Investment) × 100
ROI = 375.000-30.000/30.000= 11,5*100 = 1150%

This a positive return on investment and means that every euro invested in the project will have a return rate of 1150% on the investment.

Benefits from investments

If DELTA Infra certifies on level three of the CO₂-Performanceladder, the requirements state that the certifying organisation has to take the relevant steps to significantly reduce its CO₂ footprint. The organisation simply has to become more sustainable, this can lead to concrete cost savings on for example energy and fuel by investing in more sustainable car’s, (Appendix J, Page 32-39) shows estimated reduction possibilities for a number of reduction measures that could be taken by DELTA INFRA. An estimated calculation for acquiring more fuel efficient cars. Because its large car park of approximately 280 cars and each of those cars drives 25.000 KM a year, it can be said that in 2012 DELTA INFRA has driven approximately 7 million km in total which is estimated on the low side because some cars drive a much higher amount of kilometres. The average fuel price is estimated at €1,45. The old cars driving 13 km per litter of fuel and the new cars are able to reach 16 km per litre of fuel. This would mean that the annual savings would be approximately €150.000 if the new car park of DELTA INFRA would drive 16 km instead of 13 km per litre fuel.
Organisational Image

By implementing the CO₂-Performanceladder in the organisation, DELTA Infra B.V can show that sustainability is of high importance to the organisation. The certificate can support this message and can be communicated externally to stakeholders.

Raising awareness

By good communication about the implementation of the CO₂-Performanceladder the organisation can create support and awareness among employees for the ladder. When employees are aware of the impact that they have on the energy use of DELTA INFRA and so the CO₂ emissions. This can lead to using less paper, electrical appliances in the organisation, heating and more of these kind of influences, which lead to savings and thus lower costs for the organisation.

Positive influence on the vision and strategic objectives

Sustainability is part of the vision of DNWG. The CO₂-Performanceladder is a way to give a meaning and form to sustainability within DNWG. Besides the sustainability improvement, the use of the ladder in the procurement process it is expected that the organisation will obtain more projects as indicated in the financial benefits and can thus more easily reach the strategically goal of 5% growth annually.
6.7 Risk Analysis

The implementation of the CO₂-Performanceladder within DELTA INFRA comes with 5 identified risks that could have direct impact on the certification on level three of the ladder. By analysing the available information of the SKAO, the manual, the brochure, websites related to the performance ladder the conversation with similar organisations the following risks have been identified that are relevant to the implementation of the CO₂-Performanceladder. The risk are divided in impact of the identified risk (No = 0, Small=1, Average=2, Large=3, Great= 4) and the probability that the risk will occur (p=0, p=0.2, p=0.4, p=0.6, p=0.8, p=1). The following formula; (Impact*Probability*2.5=) delivers a risk factor on a scale from 1 to 10 which mean that the higher the impact times the probability, the higher the risk factor will be and the organisation has to take this into account.

<table>
<thead>
<tr>
<th>Identified Risks</th>
<th>Impact</th>
<th>Probability</th>
<th>Risk factor</th>
<th>Organizational Boundary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Future changes to the SKAO Handbook (org. Bound)</td>
<td>4</td>
<td>20%</td>
<td>2</td>
<td>INFRA</td>
</tr>
<tr>
<td>2. Convincing the certifying Auditor</td>
<td>3</td>
<td>20%</td>
<td>1.5</td>
<td>Both</td>
</tr>
<tr>
<td>3. Level 3 not enough on long term</td>
<td>4</td>
<td>80%</td>
<td>8</td>
<td>Both</td>
</tr>
<tr>
<td>4. Few options for Sector and Industry initiatives</td>
<td>2</td>
<td>20%</td>
<td>1</td>
<td>DNWG</td>
</tr>
<tr>
<td>5. No support for the CO2-ladder among employees</td>
<td>4</td>
<td>60%</td>
<td>6</td>
<td>Both</td>
</tr>
</tbody>
</table>

Figure 6. Identified risks

1. The first identified risk is concerned with the organisational boundary. SKAO as regulator of the CO₂-Performanceladder can make adjustments to the requirements for certification on the performance ladder. The risk is that the SKAO makes such large changes that the organisational boundary for DELTA INFRA will not be possible anymore. If this occurs this will have a large impact on DELT Infra B.V. because all the activities and systems have to be adjusted to the new organisational boundary which will be DNWG. The impact will be large because the monitoring will not be systematic, new processes have to be identified to collect, report, use and analyse information regarding the CO₂ footprint in the new organisational boundary. Another consequence is that the grid losses of the DNWB will have to be added to the CO₂-footprint, which also has to be reduced, thus bringing huge costs along. Although the risk has been identified the probability that this will occur is very small.
2. The second identified risk is related to the beginning of the process, after the organisational boundary has been determined and prepared documents, it can turn out that the Certifying Institution (auditor) does not approve with the chosen boundary and documentation. The impact will be average, because the documents can be adjusted and refined to the requirements set. The probability that this will occur is small, because the boundary can be supported by an AC-Analysis. See (Appendix K, Page 82) for supplementary description of an AC-Analysis.

3. The third identified risk is the relevance of level three on long term for the organisation to be able to cope with the competition. Both the impact and probability that this risk will happen is very high, because the competition will also see the need to differentiate themselves what will lead to difficult situations in reaching the strategic objectives. Currently most organisations are certified on level three on the ladder which means that to differentiate themselves it is necessary to reach a higher level. In the interview with Heijmans Infra it was clear that on level 4 & 5 of the ladder it is already very difficult to differentiate yourself from the competition. It is therefore necessary to continuously work on improving the position on the ladder and reaching a higher level and using the ladder in innovative ways. Collecting more data internally and externally and making the ladder part of the organisation is there for necessary.

4. The impact and probability of risk four are both low. For level three it is necessary to actively participate in at least one sector or industry initiative. Which is not very difficult because DNWG as a whole is already participating in ‘De Goese Proeftuinen’ as indicated in the self-assessment of the management team (Appendix H, 23-27).

5. The fifth risk is internal and is concerned with support for the ladder of the employees and the management. If there is no good communication concerning the implementation of the performance ladder employees will not be aware and the possibility exist that reduction objectives where the employees have a lot of influence on will not be reached. When significant reduction measures are not met there is a chance that the SKAO will declare the certificate not valid or degrade the level of the certifying organisation. Therefore good communication and creation of support in the organisation is important to reach the set objectives.
Risk mitigation

To limit and soften the impact of the analysed risks it is important to meet precautionary actions.

Risk 1. Certifying organisations have no influence on the decisions of the SKAO, so if the risk appears it is important to act upon with the necessary changes. The process within the organisation should be implemented in such way that it is flexible and changes can be made quickly.

Risk 2. No influence is possible on the auditor, good prepared documentation with argumentation are needed.

Risk 3. After certification on level three, the organisation should work to improve the processes and prepare for an upgrade to level 4 or 5 if that is necessary.

Risk 4. To minimize the impact of the fourth risk it is necessary to keep up to date with new sector and industry initiatives by analysing the possibility and systematically incorporate the potential ideas of employees into meetings.

Risk 5. It is important to create communication plan and actions that will make people aware and excited about the CO₂-Performanceladder and their possibilities to help reduce CO₂ emissions. Interviews with JOULZ en Heijmans (Appendix E, Page 55-61) indicate that involving employees and asking for their ideas is very helpful to create support for the ladder, besides this the creation of an project group within different divisions to get new insights to the reduction possibilities is also possible to create awareness and support.
6.8 Findings

As indicated this chapter was concerned with finding the optimal organisational boundary for DNWG to acquire a certificate on the CO₂-Performanceladder. With the four aspects of the CO₂-Performance ladder and the applicability of the ladder in practice DELTA Infra came out as the optimal organisational boundary because its CO₂ footprint is lower, it does not include the high net losses of the grid operator which makes the organisational boundary more transparent and comparable to other infra organisations, furthermore both the reduction objectives and measures to reach the objectives are easier to establish without the high emissions of the net losses. An IST and SOLL situation was created to see where the organisation currently stands expressed in IST concerning the Performanceladder and what the desired situation is expressed in SOLL. The desired situation expresses the need for the Creation of a CO₂ footprint, and energy management plan with quantitative objectives and measures to reduce the footprint, an internal and external communication plan to communicate about the activities regarding the CO₂-Performanceladder and documentation which describes the sector and supply chain activities of the organisational boundary, these documents are also created by similar organisations such as Alliander, Joulz and Heijmans. The cost and benefit analysis indicates that the cost of in the project phase will be an estimated €50,000 and in the management phase will decrease to an estimated €30,000 euros annually. The benefits are expressed in financial benefit of €375,000 annual profit margin on project related to the Performanceladder as well as intangible benefits such as the sustainability image of the organisation, benefits that can arise with certain investments such as reducing fuel consumption, raising awareness of employees within the organisation and the positive influence the ladder can have on the vision and objectives of DNWG. Besides this the conducted risk analysis concerning the Performanceladder on level three indicates five different risks which can arise and have an influence on acquirement of an certificate. Four of those five risks can be mitigated by putting in the right effort and the right preparation of documents, the pitfall; support by the employees can be created by good communication, involvement and explanation in the process.
7 Discussion

This chapter will discuss the theoretical framework, the CO₂-Performanceladder and the implementation and deliverables that are necessary for level three on the Performanceladder.

7.1 Theoretical Framework

The theoretical framework which focused on Corporate Social Responsibility has shown that the concept of CSR is still fully in development all over the world with many different definitions and terms used to describe CS. It is not important which name or definition is chosen for Corporate Social responsibility (Choose a name closest and most used to the organisation) furthermore it is not a question why organisations should participate in CSR initiatives but how this can be done the most effective and beneficial way for the organisation. The theory showed that the concept is practiced differently between the US, EU and Asia. The research has looked more into depth towards the European Union’s view of CSR, which revealed that the EU is a frontrunner in the support of CSR and taking initiatives and regulation for CSR implementation within the EU. Both the (EU, 2008) and (Porter & Kramer, 2006) agree that CSR is good for business in terms of risk mitigation, cost reduction but also competitiveness or organisation. Corporate Social Responsibility is still very vague optional for organisations for it to have the positive impact needed for the benefit of the society. Therefore governments on international level such as the EU have to work with organisations to create certain standards that can be translated to different sectors and industries for monitoring and reporting purposes. Furthermore CSR is still too optional, regulation and stimulation are necessary to get organisations to fully commit and implement CSR and initiatives relevant to their industry and sector.

7.2 CO₂-Performanceladder

The chapter CO₂-Performanceladder in practice shows that the sustainability is playing an increasingly more important role in the procurement industry. Over 400 organisations have a certificate, this number is increasing and there is an increasing commitment to us the ladder in the procurement process. Which is making the ladder an important standard in the industry for give form to the organisations sustainability initiatives. It is therefore a necessity to implement the ladder to maintain competitive in the procurement process. Use the ladder in the procurement process and obtain additional benefits such as energy reduction.
7.3 Necessary documents and implementation

DELTA INFRA as the optimal boundary is determined by the four aspects insight, reduction, Transparency, Cooperation that are part of the CO₂-Performanceladder. The four aspects will also play a vital role in the implementation process of the ladder within the organisation. Each of the four aspects have their own requirement and set of necessary documents to be completed. These documents have to be publicly available online and via search engine with the companies and CO₂-Performanceladder, for the possible stake holders to access. For this Alliander, Joulz or Heijmans are taken into reflection to see what the available documents are and which have to be created for certification on the ladder, it is clear that the documentation is divided according the four aspects of the CO₂-Performanceladder.

Firstly for the aspect ‘insight’, the document that has to be created is the CO₂ footprint for the chosen organisational boundary according to (Scope 1 & 2) of the SKAO. Secondly, is the formulation of an ‘energy management plan’ document which describes the objectives set by the certifying organisation, as well as the measures that will be taken to reduce the energy use and thus the CO₂ footprint. Thirdly, creating an internal and external communication plan that describes the ways of communication for the organisation with the its employees to create an awareness, understanding and support for the implementation of the CO₂-Performanceladder, and informing external stakeholders about the DNWG’s efforts concerning the performance ladder. Fourthly, is a document that is focused on the efforts of the certifying organisation with regards to participating in sector and supply chain initiatives but also the awareness of the organisation of already on-going projects such as ‘De Goese Proeftuinen’. The cost and benefit analysis shows that the benefits will outweigh the cost for the implementation of the ladder.

What has to been taken into account is the implementation of the performance ladder at similar organisations such as Alliander, Joulz and Heijmans, sustainability in general plays an important role at those organisation. The use of the CO₂-Performanceladder effectively can be achieved with the right commitment and support from the management. Good communication and involvement have also led to large support in the organisation by employees which can make the whole process a lot easier and also to effective reduction of the CO₂ emissions.
8 Conclusion, Recommendation, Implementation

This research was centred around the implementation of the CO₂-Performanceladder within DNWG and based on the main question ‘What does the Delta Network Group have to undertake, organize, collect and implement to be certifiable at level 3 of the CO₂-Performanceladder by May 31, 2014.’ This chapter will draw the conclusions, provide recommendations and advise on the implementation of the ladder within DNWG.

8.1 Conclusions

To be able to answer the main-question, the practical sub-questions will be answered first. The first question in concerned about the optimal organisational scope for certification on the CO₂-Performanceladder. This is discussed in (Chapter 6, Paragraph 6.3, Page 35-38), the outcome for the organisational boundary is DELTA INFRA and is based on the four aspects of the Performanceladder and the applicability of the ladder in the procurement process. The high grid losses of DNWB which cause a very high CO₂ footprint play a very important role for DELTA INFRA as the optimal organisational boundary, because they cannot be decreased without high cost and are difficult to communicate and compare with competitors. The second question is concerned with and GAP-Analysis of the requirements from the CO₂-Performanceladder and which of the requirements are already met by DNWG and which still have to be acquired. The IST-SOLL situation (Chapter 6, Paragraph 6.3, Page 39-40) indicated the current situation and the desired situation for DNWG to acquire a certificate on the Performanceladder, this is also based on the four aspects of the ladder. The self-evaluation (Appendix H, Page 23-27) indicates for the aspect ‘Insight’ that DNWG does not have an complete CO2 footprint of scope 1 & 2 but has a good example how to create this with the handbook of ‘Netbeheer Nederland’. For the second aspect ‘reduction’ DNWG does have reduction measures which can reduce the CO₂ footprint but they are not linked to relevant reduction objectives. For the ‘Transparency’ aspect a specific communication plan regarding its sustainability actions has also to be created. For the ‘Initiatives’ aspect DNWG does already participate in different initiatives such as the ‘De Goese Proeftuinen’ but has not documented this correctly yet for the Performanceladder. These documents should be created according to the requirements in (Appendix H, Page 65-69) and clearly linked to the requirements for easy access by the Certifying Institution (Auditor).
The third question is about how the implementation can best be organised and secured within the organisation. The internal interviews and external interviews of similar organisations discussed in (Chapter 5, Paragraph 5.4, Page 30-32) show that to successfully implement the CO2-Performanceladder the Management Team has to choose a clear strategy for the organisation, it also has to show the right commitment and ‘good’ example in its actions and processes. Good communication and involvement of the employees in the process is necessary in order to reach reduction objectives and successful implementation. Reduction initiatives and its positive influence on the strategic objectives have to be made clear to employees for broad support and less resistance towards CO2 reduction initiatives. The interviews with external organisations showed that the monitoring and reporting should be placed within divisions such as finance and control and reporting should be done alongside the financial reporting in this way, actions can be adjusted on time if necessary.

The fourth question is concerned with the commercial and social the implementation and official certification will of the Performanceladder will have for DNWG and which costs, human efforts and other means are necessary to reach level 3 on the Performanceladder. This is discussed in (Chapter 6, Paragraph 6.6, Page 41-46) with the help of a Cost/Benefit Analysis for the implantation of the ladder within DNWG. The estimated cost divided into project implementation phase which are approximately €50.000 with an estimate of 400 hours of invested time and for the management phase of the cost will decrease to an estimated €30.000 annually and 360 hours invested time with the possibility to decrease further with an learning curve. The potential financial benefits of the implementation of the Performanceladder as described by Marco Kwaak (Bid Manager) can lead to an increase of €375.000 in profit annually. In addition to the financial benefits the DNWG can improve the organisation’s image, lead to the strategic objective of growing 5% annually, decrease its impact on the environment by the CO2 reduction initiatives which can also have financial benefits in terms of cost reduction, the reduction objectives should be focused on the long term so DNWG can monitor the progress and take additional measures if necessary. Furthermore the improvement of the sustainable image of DNWG, can lead to more satisfied and proud employees, but it also has the potential to attract new talented employees in the future. It gives an opportunity to obtain more projects related to sustainability, which are not possible if there is no ladder certificate, also taking into consideration that it may become a ‘Knock Out’ criteria in the future. A better sustainability image can also lead to more satisfied stakeholders such as the municipalities and province of Zeeland. DNWG should therefore
focus on participation or implementation of reduction initiatives which lie close to the organisation and have the potential to benefit both the organisation and society in Zeeland.

Answering the practical sub questions provided a good basis to answer the main question ‘What does the Delta Network Group have to undertake, organize, collect and implement to be certifiable at level 3 of the CO₂-Performanceladder by May 31, 2014’. Documentation is the key word for obtaining level three on the CO₂-Performanceladder by 31st of May 2014 DNWG. Because DNWG already has some reduction initiatives going on and is participating in sector initiatives. For certification it has to produce the following documents according to the requirements, and four aspects of the SKAO.

1. CO₂ footprint of scope 1 & 2 according to the SKAO handbook (Appendix G, Page 63-64) for the chosen organisational boundary.
2. Energy management plan with relevant reduction objectives and measures.
3. Communication plan for internal and external communication.
4. Documentation of participation initiatives for the chosen the organisational boundary.

8.2 Recommendations

In the course of the research it has been revealed that DNWG is active in a number of social activities, the first is DIVO recruitment and education program, the second are the initiatives, methods, and ambition of DNWG to provide a safe and pleasant working environment for its employees and the participation in the ‘De Goese Proeftuinen’ in which new concepts of sustainable energy and housing are tested and of course this research on the implementation of the CO₂-Performanceladder. These activities can serve the organisation as standalone projects themselves but can be used as cornerstones of Corporate Social Responsibility within DNWG and can benefit the organisation the organisation even better. Furthermore the trends within Europe and surrounding countries show clearly that there is an increase in regulation of reporting with regards to social and sustainable initiatives of organisations by the EU but also on national level such as the United Kingdom. Therefore it is important to monitor the changes in regulation so DNWG can adapt to it as quickly as possible. CSR initiatives of DNWG should be as close as possible to the organisations business activities so it can serve the organisation the best way possible. It is also important to stay up to date with new possibilities to decrease the net losses because this can save huge amounts of money.
8.3 Implementation

It is not a question for DNWG whether to acquire a certificate on the CO₂-Perfomanceladder or not, it is a necessity and has to be done. The three main reasons for certification are the sustainability criteria which are becoming more and more important in the procurement process and the competition of which 23 direct competitors already have acquired level 3 on the CO₂-Perfomanceladder or higher. Certification is therefore crucial if DNWG wants to compete in the bidding process and want to obtain projects with sustainability criteria. The third reason is the trend in which regulation of sustainability requirements and reporting is developing itself within the EU it going from optional to regulated by law. Therefore certifying DELTA INFRA is a necessity and level three is perfect as an entering level because it gives DNWG the possibility to compete with more than 50% registered organisations on the Perfomanceladder but it has to have the ambition to ultimately acquire level 5 to differentiate itself in the future. This gives it the possibility to gain the experience needed to certify DNWG as a whole on the CO₂-Perfomanceladder.

The implementation of the ladder can partly be adopted from organisations such as JOULS, Alliander, Heijmans and translated to the DELTA Network group as those organisations can serve as good examples because their experience and high certification. The first thing that has to happen for successful implementation is the support and backing of the Perfomanceladder by the Management Team which officially has to accept the implementation of the ladder and free the estimated budget of €50,000 for the project implementation phase, it also has to show its commitment to employees within the organisation by communication, initiatives and showing the good example.

Secondly, when this has been done an internal project leader has to be selected. The project leader will set out a course and plan for the implementation of the CO₂-Perfomanceladder. With the backing and support of the management the information should be easily accessible and provided to the project leader so the creation of the CO₂ footprint for DELTA INFRA and process can start.

Thirdly, based on the created CO₂ footprint the Management Team has to formulate relevant reduction objectives. Reduction measures and initiatives should be as close to the business activities as possible so it can benefit the organisation the most effective way and in turn the society in Zeeland. The objectives should be focused on long term reduction, because the
effects of certain measures will be noticeable later in the process. The necessary CO₂ reduction measures have to be taken by management to reach the formulated reduction objectives. A budget has to be determined that is needed for the measures to be implemented. The research has shown reducing the energy consumption of the car park of DELTA INFRA and partly buying green energy with certificates of origin will be the most effective in reducing the CO₂ footprint. In addition to these two measures large energy savings can be achieved in buildings with smart solutions such as ON/OFF sensors and behavioural change of employees. The tasks for implementing these measures correctly should be placed within the divisions who are most influenced by the taken measures.

Since there is already participation in sector and supply chain initiatives, only the right information has to be gathered to create the right documentation. One of the initiatives is ’De Goese Proeftuinen’.

Fourthly, when the CO₂ footprint has been determined, the reduction objectives and measures are formulated in an energy management plan and the documentation on the participation has been created. The information can be passed on to the communication department which than has to create a communication plan. The plan will discuss how, when, to whom and how many times the communication will take place in relation to the CO₂-Performanceladder. In addition to this, one of the success factors of the implementation of the ladder in organisations such as Joulz was the good communication and involvement of employees in the reduction process, this led to broad support among in the organisation and creative ideas for CO₂ reduction. It is therefore important for DNWG that the communication on the implementation is incorporated correctly in the communication plan so that the employees can contribute with their input.

Finally, when the documentation is finished. The responsibility for the monitoring and reporting process should be handed over to the finance and control department so that reporting on the progress can be combined with the periodical financial reporting. This will have the benefit that the progress of reduction measures can be closely monitored and steps can be taken if the measures do not have the desired effect to reach the formulated objectives.
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58


