

MASTER

How ambidexterity contributes to the development of the corporate social responsibility strategy of Enxsis

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Mariahout, February 2013

**How Ambidexterity Contributes
to the Development of the
Corporate Social Responsibility
Strategy of Enexis**

Measuring and Optimising Ambidexterity

by

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I. Preface

How would it be for a football player to play with both legs with equal ease? He would probably outperform the other football players, which have one specific favourite leg. Pavel Nedvěd, Pedro Rodríguez, and Paolo Maldini are striking examples of players which are born with this ability. How would it be for a snare drummer, who has to learn to play his piece starting with either left or right, to use both hands with equal ease? Would it not provide him a major advantage compared to the other snare drummers, who do not have this capability? How would it be for a snooker player to reach farther across the table, since he is able to play with either hand? The other players lacking this ability will have to use the rest, or they should move into awkward positions. Indeed, Ronnie O'Sullivan is unique amongst the current ranks of top snooker professionals: he is able to play the world standard with either hand. These three examples - there are many more - illustrate that being ambidextrous can provide great benefits to individuals, they often outperform their competitors.

In a similar way, this logic can also be applied to organisations. How would it be for a company to exploit and improve its current business activities in order to increase efficiency and profits, while it is simultaneously able to search for new ideas and activities, in order to create a competitive position and a sustaining future? This capability of doing two things at same time is described as organisational ambidexterity, which is the main theme within this Master thesis.

*"The ability to hold two competing thoughts in one's mind
and still be able to function
is the mark of a superior mind" (Fitzgerald, 1956)*

During my graduation project, I received support of many different people. First of all, I want to thank my supervisors of the university; Jimme Keizer and Geert Verbong, and my supervisors of Enexis; Sander Molenaar, Henk Visser, and Peter Simons, for their valuable ideas, insights, and further help. For my research, I obtained most of the required information by means of interviews. Since I held more than thirty interviews, I cannot mention all the names of the interviewees here, but I want to thank all of them for their cooperative support and open attitude towards my research. Within Enexis, I received all the required freedom and help to perform my Master thesis. Finally, I want to thank my friends and family, who shown interest in my research and its progress. This all helped to keep motivated and enthusiastic.

This Master thesis provided a great opportunity to apply the knowledge, skills, and theories of the Master program Innovation Management into practice. It was a great learning experience. I hope this thesis will contribute to the debate, discussions and insights about ambidexterity in general, but also in relation to CSR. Furthermore, I hope it will contribute in strengthening the strategies of Enexis, and possibly also to that of other grid operators, in order to meet the current and future energy demand of consumers and companies in an optimal way.

Mariahout, February 2013

Martijn Rooijakkers



II. Executive Summary

Introduction

In the last decades, Corporate Social Responsibility (CSR) gained increasing attention of organisations all over the world. There is an increasing belief that to be sustainable and successful in the long run, firms must do more than only embrace the concept of the triple bottom line (People, Planet, Profit). In times of the Dutch unbundling of energy production and distribution in 2009, Enexis took over the CSR policies of Essent Netwerkbedrijf. Currently, Enexis' CSR strategies and policies are fairly pragmatic and ad hoc. The specific problem which the Strategy & Regulation department of Enexis faces is that the CSR ambitions are higher than the actual level of CSR. Within the pragmatic approach some steps were taken, but the challenge is now to create a more structured and coherent approach, incorporating the right balance between incremental and radical activities.

This Master thesis therefore aimed at providing answers to these questions from the perspective of ambidexterity. Organisational ambidexterity describes the ability of an organisation to embrace and balance different and contradicting approaches to strategy at the same time. Particularly, it is the ability to balance the twin concepts of exploitation (incremental improvements) and exploration (radical innovations); it is the capability of exploiting existing competencies and exploring new opportunities simultaneously. In light of CSR, exploitation is referred to greening, whereas exploration is referred to sustainability. Further, different ambidextrous viewpoints can be used. The Balance Dimension of ambidexterity approaches the concept as maintaining a close relative balance between exploitative and exploratory activities. On the other hand, the Combined Dimension of ambidexterity approaches the concept as a combined magnitude of both exploitation and exploration. This study applied those concepts with the ultimate goal to provide an optimal solution to the research problem of Enexis.

Research Purpose and Question

The major aim of this research was to develop appropriate frameworks to measure and optimise the ambidextrous balance of an organisation. In the case of Enexis, it was aimed at providing concrete answers of how to develop and strengthen their CSR strategies using these insights. Consequently, this resulted in the following research question:

How can the current and the optimal ambidextrous balance between greening and sustainability be determined, and how can it strengthen the CSR strategies and the leading position of Enexis?

Theoretical Framework

Ambidexterity is a rising research topic, which gains increasingly interest of researchers and practitioners. Although the advantages are obvious - ambidexterity leads to increased firm performance, enhanced competitiveness, and it is a crucial element for a sustaining organisation - little or no attention has been paid to measuring and optimising a firm's ambidextrous balance. Hence, based on the existing literature, this study proposed two new theoretical frameworks that filled in those research gaps. In order to measure the ambidextrous balance, three measures were proposed: 1) the number of greening and sustainability initiatives, 2) the financial resources dedicated to greening and sustainability projects, and 3) the labour effort allocated to greening and sustainability projects. These three measurements provide the opportunity to relatively easily measure the ambidextrous balance of a company. To determine the optimal balance for a company, a framework consisting of five factors was proposed, namely: 1) firm strategy, 2) type of industry, 3) environment, 4) legal form, and 5) firm size. It was proposed that on the basis of these five factors and the application of the best performing project portfolios, an organisation can determine its main optimal direction concerning the ambidextrous strategies Pollution Prevention, Product Stewardship, Clean Technology, and Base of the Pyramid.

Validation

Most of the required data was obtained by means of interviews. To prevent many potential biases that could occur by using this data collection method, a proper validation was important. Therefore, multiple validation sources were consulted in order to ensure correct information. Examples are external validation interviews, the consultation of additional information sources, financial checks, and asking feedback to the elaborations of the interviews. All these validation checks were chosen to reduce the risk of biases as much as possible.

Redesign

After measuring the current ambidextrous balance and determining the optimal ambidextrous balance portfolio of Enexis, a redesign was presented. The optimal solution for Enexis was designed to fulfil all the set requirements, and especially to bridge the gap on the Sustainability Spectrum (the gap between the current and desired CSR level). Detailed analyses led to the recommendation of starting minimally 7 new sustainable initiatives (to 15) within the upcoming four years. Specifically: 3 to 6 new Clean Technology projects ($\approx 27.5\text{-}32.5\%$), 0 to 2 new Base of the Pyramid projects ($\approx 20\text{-}25\%$), 4 to 7 new Pollution Prevention projects ($\approx 22.5\text{-}27.5\%$), and 0 to 1 new project classified as Product Stewardship ($\approx 20\text{-}25\%$). This redesign led to an optimal solution. It started from the best performing average project portfolio, whereupon five the factors were used to determine the customised optimal direction for Enexis. Most importantly, it provided a solution of bridging the gap between the current and the desired CSR level of Enexis.

Besides this main contribution, additional recommendations were presented. As a main conclusion concerning the organisational context of Enexis, it is recommended to continuously and consistently apply the 'Enexis Manier van Werken' at all levels of Enexis. The following suggestion for improvement can, when desired, further enhance the current high performance context of Enexis (although not necessarily needed). That is, the initiative of the employees for their own personal development can be more emphasised by their managers. In addition, it is recommended that Human Resources monitors the organisational context via the two-yearly Employee Satisfaction Survey, and responds when a certain group underperforms the others.

Implementation Plan

The above redesign of the sustainable initiatives portfolio can be implemented through five (sequential) steps. First, Enexis should use the presented Sustainable Value Framework in their managerial decisions in order to monitor ambidexterity. Secondly, Enexis should make someone responsible for managing this sustainable portfolio. A logical suggestion would be the CSR Coordinator, and probably the Strategy Manager too. Thirdly, new projects have to be searched that fill in the optimal ambidextrous portfolio. Fourthly, an ambitious but realisable time period should be set in order to achieve the optimal portfolio. Four years appears to be an appropriate goal. Finally, the CSR strategies should be further integrated into the corporate strategy. In addition, recommendations for inter alia further improving the organisational context were given in order to foster ambidextrous behaviour.

Conclusion

An overall conclusion which can be drawn is the importance of measuring and actively managing ambidexterity. As literature almost unanimously describes the relevance, benefits, and necessity of creating an ambidextrous organisation, the importance of taking into account an appropriate balance should be known by all managers of all organisations. Hence, the major contribution of this Master thesis is providing practical tools for managers and decision makers, while at the same time filling in an important academic research gap. By means of measuring the firm's allocated resources and by means of using the Sustainable Value Framework as a project portfolio, managers can obtain insight in the ambidextrous balance of their organisation. Subsequently, they can determine their optimal ambidextrous portfolio and then, they can take corresponding actions with the aim to achieve the optimal ambidextrous balance for their firm.

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1. Introduction

This introduction will firstly provide a concrete problem statement. What problem can be identified at the Strategy & Regulation department of Enexis? Next, the academic and practical research goals will be given, whereupon the research question and delineation will be described.

1.1. Problem Statement

The specific problem which the Strategy & Regulation department of Enexis faces, concerns the difference between the desired level of Corporate Social Responsibility (CSR), and the actual level of CSR. CSR is fairly recently introduced at Enexis, and therefore not fully integrated into corporate strategies. Particularly, the challenge is to create a more structured and coherent approach. What kind of activities should be taken to further evolve on the Sustainability Spectrum (see Dunphy et al. (2007))? Moreover, it is not clear whether this step can be achieved by small, incremental steps, or whether more new, radical steps are required.

Currently, the CSR strategies and policies are quite pragmatic and ad-hoc. There are some guidelines, but no real principles which provide a broad supportive base for the CSR strategy. This can be quite effective and efficient, but it can also prevent a clear overview of the activities which are undertaken and of which direction to take. There are no clues or activities that indicate Enexis will develop on the Sustainability Spectrum in the upcoming period. Besides, there are no specific plans to make developments on the spectrum actually happen. There are some planned activities, like the issue of confronting employees with their energy behaviour, analysing the whole supply chain and preparing the grid for the energy transition, but these plans do not specifically contribute to the further development on the Sustainability Spectrum.

Taking a first glance at the different CSR activities which Enexis undertakes, it seems that a considerably amount of activities are exploitative, such as greening office buildings, reducing grid losses, reducing emissions, and a green gas vehicle fleet. All these examples illustrate incremental activities. That does not mean there are no explorative initiatives, but the focus appears to be on the exploitative activities. This presumption will be evaluated in this research.

1.2. Research Goals

This section sets the research goals. Goals for both academic research and practical application will be given. Following the problem statement, corresponding research goals can be formulated.

1.2.1. Academic Research Goal

Academically seen, this study can deliver insights into the contribution of ambidexterity (balancing exploitation and exploration) to CSR strategies. Very little literature has devoted attention to this possible connection, so this study can enhance the understanding of this conjunction. One goal is thus to deliver insights in how ambidexterity can support the CSR strategies of an organisation. Enexis is a public utility, so there exists a large overlap between the corporate strategy and CSR. The insights can therefore also be applied to corporate strategies.

Another academic research goal is to provide a first exploration of how to determine the ambidextrous balance of a company. Since how to measure ambidexterity is an open research problem, and since an integrated (and “balanced”) measure of it does not exist yet (Martini, Aloini, Dulmin, Mininno, & Neirotti, 2012), one of the major academic purposes of this study is to develop measures which are able to determine the current balance between exploitation and exploration of a firm. Another main academic research purpose is to deliver a framework which is able to determine an optimal ambidextrous balance for an organisation. On the basis of those measures and assessments, an advice can be given about whether the current balance is optimal for a specific company. Since both methods are not or very limited described in literature, they deliver a first total framework in exploring the measurement side of the balance issue.

1.2.2. Practical Research Goal

Viewed from a practical perspective, the major research goal is to provide solutions for Enexis in how the desired CSR position of Enexis can be achieved, using the insights of ambidexterity. How can Enexis develop and maintain their leading position amongst the grid operators? Consequently, the goal is to measure and map the current balance between exploitation (greening) and exploration (sustainability), in order to determine whether this balance is desirable and optimal for Enexis, and how it can contribute to the CSR strategy. In the context of CSR, *greening* is focussed on existing products and processes, whereas *sustainability* is focussed on new technologies and markets. Besides, another goal is to investigate whether the organisational context at Enexis is appropriate to support and foster ambidextrous behaviour.

These insights should give an answer to the question of how Enexis can evolve on the Sustainability Spectrum, and therewith in how they can develop and strengthen their leading position in the Dutch energy market (in light of CSR). Specifically, recommendations and design solutions will be given which propose adjustments in the current balance and the organisational context of Enexis; so that those design propositions can be followed and applied at Enexis.

1.3. Research Question

Derived from the research problem and goals, a research question can be formulated that can be used to obtain a solution for the main research problem. The major research question is:

How can the current and the optimal ambidextrous balance between greening and sustainability be determined, and how can it strengthen the CSR strategies and the leading position of Enexis?

Section 4.2 will further outline this research question by means of creating eight specific research areas. Together, those areas form the core of the above described research question. In other words, they provide the total design which is needed in order to adequately answer the research question.

1.4. Research Delineation

In order to prevent investigating a too broad research subject, this chapter will delineate the research into a realistic scope. In the following paragraphs, the research is delineated step by step, to eventually arrive at an executable research scope, given the limited time and resources.

1.4.1. Business Level

First, the scope will be at a *business level*. Viewed from a broad perspective, the ambidextrous question can also be investigated in light of a global problem; the worldwide (prospective) ecological energy crisis. It should therefore be noted that the emphasis will lie at the business level, since the global problem is situated beyond the business level and therewith beyond the scope of this study program. This means that specific attention will be paid to how Enexis can deal with the current trends which take place. Nowadays, the attention to and the emphasis on CSR and the energy transition are increasing, so this research study will focus on what influences that has on the strategy of Enexis.

1.4.2. Corporate Social Responsibility

Secondly, within the business level, the focus will be on *CSR*. The CSR strategy is part of the corporate strategy of Enexis. Both strategies are mainly integrated, although CSR has still a special chapter within the strategic plan of 2010-2014. As indicated by different authors, CSR should be interwoven into the corporate strategy (Moir, 2001; Kurucz, Colbert, & Wheeler, 2008; Dunphy, Griffiths, & Benn, 2007; MVO Nederland, 2012). The research will respect the interdependence of the two strategies, but it will exclude innovations outside the scope of CSR. For instance, an incremental innovation for an existing electricity cable, which has no environmental impact, will be without the scope of this research.

1.4.3. Ecological Sustainability

Finally, within CSR, the focus will lie on *ecological sustainability*. CSR entails both the aspects of ecological and human sustainability. Whereas human sustainability concentrates on contributing to and upgrading human knowledge and skill formation, ecological sustainability implies that resources are economically recycled or returned to the environment in a form which is not destructive of environmental value, or restores the damaged environment (Dunphy, Griffiths, & Benn, 2007). Given the research topic of ambidexterity, it is more valuable to look at the ecological side, since here exists the largest contradiction between exploitation and exploration; translated in greening versus sustainability. Although the study will focus on the ecological side, it does not mean that human sustainability is not important. However, this theme has a smaller match with the topic and can therefore benefit less from investigating the relevant issues. Thus, the scope within CSR will comprise ecological sustainability.

Consequently, as already mentioned before, the above delineation implicates that exploitation and exploration are applied in the context of CSR. The general concepts exploitation and exploration are broader than the delineation of CSR and ecological sustainability. Therefore, the ambidextrous application of Hart (2011) is used in this thesis (which is also closely related to the ambidextrous frameworks of Rothaermel & Alexandre (2009) and Russo & Vurro (2010)). This approach illustrates the distinction between incremental continuous improvement (greening) and discontinuous creative destruction (sustainability). This distinction will be further explained in section 3.4. Concretely, it means that other incremental and radical innovations concerning general innovations will be outside the scope of this research.

Figure 1 visualises the overall research delineation. Above the upper left corners of the quadrangles, the main scopes are illustrated, while the upper right corners show key concepts within these scopes. In order to prevent ambiguity, the clear definitions and distinctions between the scopes should be complied, especially between the corporate strategy, CSR, and ecological sustainability. Though, the interdependencies should be respected. For clarity; the research scope is within the lower right corner, in the rectangle of ecological sustainability.

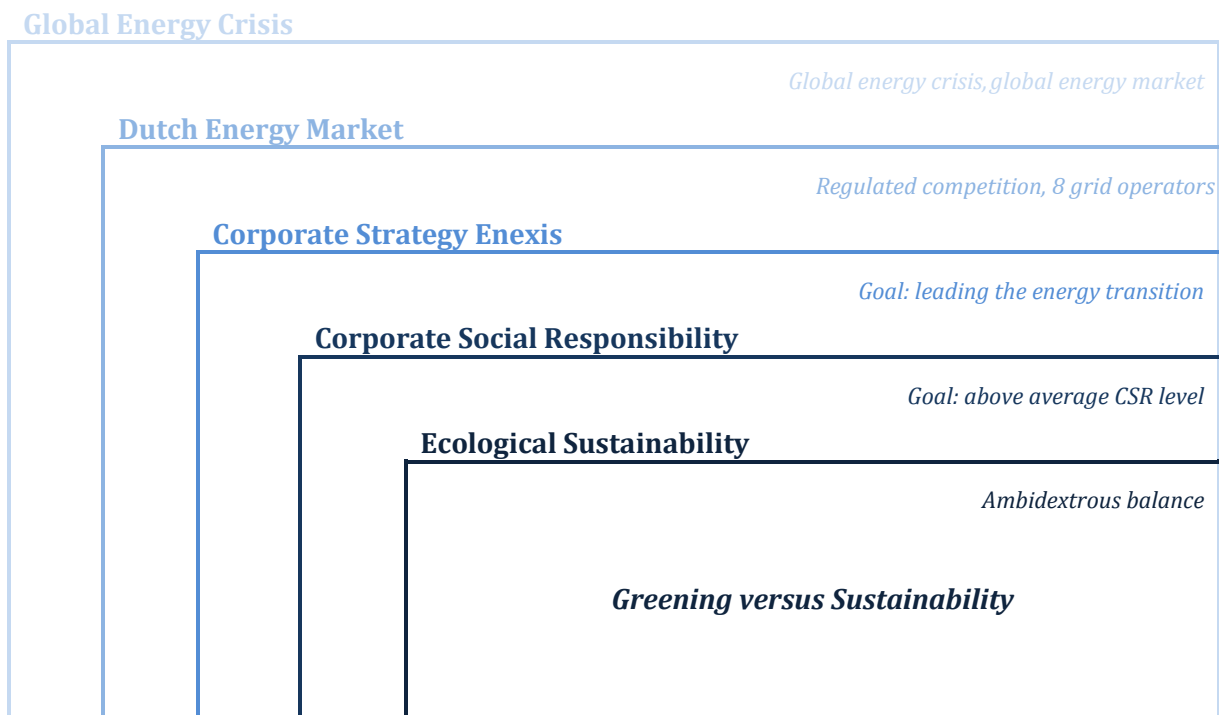


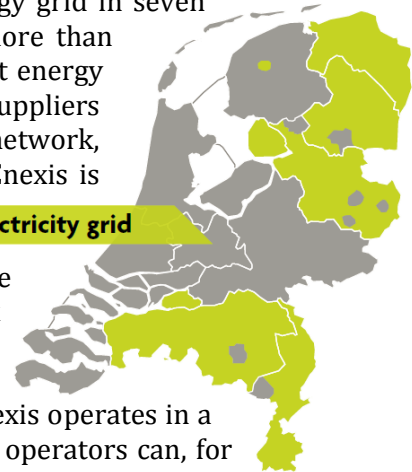
Figure 1: Research Delineation

2. The Energy Sector in Transition

To describe the context in which Enexis is operating, a company description, the energy transition and transition theory will be provided in the next sections. These descriptions are intended (and relevant) to enhance further understanding about the underlying research problem, and to describe what influence the energy transition has on Enexis.

2.1. Company Description

Enexis B.V. is a regional network operator, managing the energy grid in seven provinces of the Netherlands. Enexis distributes energy for more than 100 years, 24/7. The main objective for Enexis is to ensure that energy (electricity and/or gas) is safely transported from the energy suppliers to the homes and premises. In the case of a disturbance in the network, Enexis will rectify the problem as soon as possible. Further, Enexis is responsible for the connections to around 2.6 million households, businesses, and official agencies. In the Netherlands, one cannot choose the network operator, but one can choose the supplier. The only time that the network operator will change is when one moves house to a region where the network is managed by a different grid operator. Although one has no choice in choosing a network operator, Enexis operates in a market of regulated competition. That means that the different operators can, for instance, conduct a take-over, but that the yearly maximum price developments are regulated. Foreseeing trends in the future, Enexis is constantly working on creating a better, smarter, and more efficient energy grid that is ready for the future. Looking at KPIs, the Enexis energy network is one of the best in the Netherlands (Enexis, 2012).



Organisationally, Enexis is geographically dispersed in the North, East, and South of the Netherlands. The head office is situated in Rosmalen, along with regional offices in Venlo, Zwolle, Groningen, and Maastricht, amongst others. In total, Enexis has about 4,100 employees. The hierarchy is rather flat, with the staff supporting the executive tasks. Roughly half of the employees work in mechanical functions, which fall under the department Infra Services. The majority did intermediate vocational education and they are generally little aware of strategies and/or policies. At the top level, the Annual General Meeting of Shareholders is the highest decision-making body at Enexis. At this General Meeting of Shareholders, decisions are taken including the written report of the Board of Directors, the discharging from the Executive Board and the Supervisory Board, the determination of the annual accounts, and the destination of profit. Further, the Board of Directors is responsible for managing Enexis. The Board of Directors establishes the operational and financial goals for the company, defines the strategy that is required in order to realise those goals, and defines the parameters that apply to the strategy. The organisation chart of Enexis can be found in Appendix I: Organisation Chart Enexis.



2.2. The Energy Transition

The environment of Enexis changes quite quickly. According to Rotmans (2012) the Netherlands is in the middle of an energy transition, which unfolded itself in the last decades. The chairman of the Dutch top sector energy, Mr. Boersma, highlights this statement and recognises the crucial role which grid operators play in the energy transition. According to his view, the transition is not only a technological, but above all a social transition (NetbeheerNederland, 2012).

But what does this energy transition mean for Enexis? In general, this (prospective) transition entails two major changes. Firstly, it is the transition from the use of fossil fuels to sustainable energy sources. The need to make this transition becomes increasingly stronger, mainly because of climate change reasons and corresponding (health) problems (McMichael, Powles, Butler, & Uauy, 2007). According to Jacobsson & Lauber (2006), “[t]o arrest climate change, a transition to a low-carbon economy must take place quite rapidly, within a century at most.” (Jacobsson & Lauber, 2006, p. 257). When fuel prices keep rising and governments put pressure (by means of policies) on sustainable energy sources, it becomes interesting for the energy market to look for alternative, more sustainable energy sources. As a consequence, sustainable energy sources, like for instance solar panels, wind farms, and biofuels, are increasingly used in the last decades. Secondly, it is the transition of a centralised power supply to a (more) decentralised power supply. This is related to the first feature, since the conventional fossil fuel system is driven from large, central power plants. From there, the energy is transported to the homes and premises. In the sustainable energy system, energy is generated more often locally, at the homes and premises itself. These buildings have installed solar panels on their roofs and use heat pumps, while windmills and digesters are placed in the neighbourhood. In this system, energy is to a large extent produced and consumed locally. However, a central supply still remains necessary, because of inter alia the variability and unpredictability of the sun and wind (Rotmans, 2012).

According to the American economist Jeremy Rifkin, this unfolding transition can be called the beginning of a third industrial revolution; the energy revolution. This revolution is based on individual initiatives and it is triggered by awareness of energy and sustainability. Because of the power and established interests of large energy companies, and because of the inhibitory effect of the government, local corporations and initiatives are seen as the driving force behind the energy transition. Individuals that become aware of the limited amount of fossil fuels want to become suppliers by themselves. They are driven by sustainability, but many of them are mainly economically driven as well. This is obvious, because generating one’s own energy saves money from the energy bill. When people see their electricity meter turning backwards, they become even more enthusiastic and they want to know what they can do further in saving energy (Tegenlicht, 8 October 2012). A common counterargument in the energy sector is that this bottom-up transition cannot solve the energy problem. According to Rotmans (2012), this is true. There are many initiatives, but they are still too small to make a relevant difference. Though, this trend forces the larger energy companies to switch to sustainable energy sources more quickly. Rotmans (2012) sees the energy transition as the means to achieve a sustainable society. However, it should also be noted that the predicted sustainable energy transition is still uncertain. It is not clear whether the sustainable niches will eventually break through.

The sustainable, decentralised energy production with the consequent varying power supply, and factors like the possible increase of electric cars, can lead to drastic changes in the energy demand and supply. To deal with these changes, a number of solutions can be thought of. One simple option that appears to be obvious is the reinforcement of the current electricity grid. However, this is a very expensive option and besides, this will not provide a real solution in balancing the energy demand and supply side. Due to the reason that locally generated energy causes unpredictable peaks in the network and since these peaks cannot be stored, simply reinforcing the existing network will not balance the energy flows. In this way, the network should have the capacity of the largest peaks in the energy grid. Hence, as another solution, the current capacity of the network can be used in a smarter way. This means that the peaks and off-peaks can be flattened through inter alia user incentives, IT interventions, and ‘smart’ technologies that make sure energy is used at the times it is produced, in order to balance the energy flows (Slootweg, 2012). A study shows that the combination of wind power, solar power, and electrochemical storage can power up a large grid system (72 GW) from 90 to 99.9% of the time. This can be achieved while minimising the costs; at costs comparable to that of today. However, this is only possible if the mix of generation and storage technologies is optimised (Budischak, Sewell, Thomson, Mach, Veron, & Kempton, 2013). Despite of this large potential, this is currently not incorporated into global policies or technological feasible.

The current sustainable energy transition already has its roots in the 1960s and 1970s. A long-term multiple analysis study of Verbong & Geels (2007) investigates the developments that took place from 1960 to 2004. This period knew rather radical changes in rules and social networks of the Dutch electricity system. For instance, the production and distribution have been separated by the 'Wet Onafhankelijk Netbeheer', companies have been privatised, and new actors with new roles were created. Moreover, the energy sector is nowadays (mainly) driven by liberalisation and Europeanisation. From a technical point of view, gas turbines and renewable energy sources came up, enabling a rapid expansion of decentralised energy production.

However, many niche-innovation trajectories also have failed (e.g. wind in the late-1970s, PV in the mid-1990s). Failures can be due to social and technological barriers, but when an experiment fails, a new niche-innovation will be tried. The long-term multiple analysis study concludes with the suggestion that radical niche-innovations are seeds for major environmental efficiency gains in the system. The authors argue for a simultaneous focus on incremental and radical developments in the energy sector, as they state: "Environmental benefits of [] adjustments in existing systems can be substantial. This means that we do not agree with all the rhetoric that major sustainability gains can only be achieved through major shifts to new systems. This does not mean, however, that transition policy should only support incremental adjustment options. It is also important to keep the other, more radical options alive, and facilitate learning processes and network building." (Verbong & Geels, 2007, p. 1036).

During the many interviews conducted in light of this research, I asked the interviewees (internal as well as external) about their future visions of the energy sector; what does the energy market look like in about 20 to 30 years from now, and what is the role of Enexis at that time? This provided interesting insights in the possible results of the energy transition. Although this was not directly related to my research, I would not withhold those ideas and visions. Therefore, they are presented in Appendix II: Future Visions.

2.3. Transition Theory

Using transition theory, the understanding of the above characteristics of the energy transition can be enhanced by means of [Figure 2](#). At the left side, one can see the current socio-technical regime, which can be linked to the conventional fossil fuel driven system. It exists of large established energy suppliers, but also of cultures, policies, and laws that are in favour of the fossil fuel system. This prevailing regime can be opened up by landscape developments and technological niches. In this case, the landscape developments cover the (global) ecological energy crisis, which entails climate change, citizen initiatives, and political and public pressures. These developments shape windows of opportunities for new, radical technological niches. Examples of technological niches are wind power, solar solutions, electrical vehicles, and smart grids. Both the landscape developments and technological niches put pressure on the current energy regime. Those landscape developments and technological niches are able to radically change the current regime, what ultimately can lead to a new socio-technical regime; a sustainable energy system in this case. This new system may be climate neutral, for instance by means of renewable energy sources and circular economies. Gradually, the new system influences the landscape, for example with new policies that support the sustainable energy system.

The transition process can also be recognised as creative destruction (Foster & Kaplan, 2005). Within this transition, organisations look for completely new ways of doing their business. This new ways can (partly) destroy their current activities, but on the other hand, it can create new opportunities which are needed to be successful in the future. The ability of an organisation to do this can also be recognised as dynamic capabilities (O'Reilly & Tushman, 2008). Though, it are generally not the large, established firms that start with a transition. It are often the new, small start-ups and entrepreneurs that see new opportunities in radically changing the existing system/regime (Rotmans, 2012).

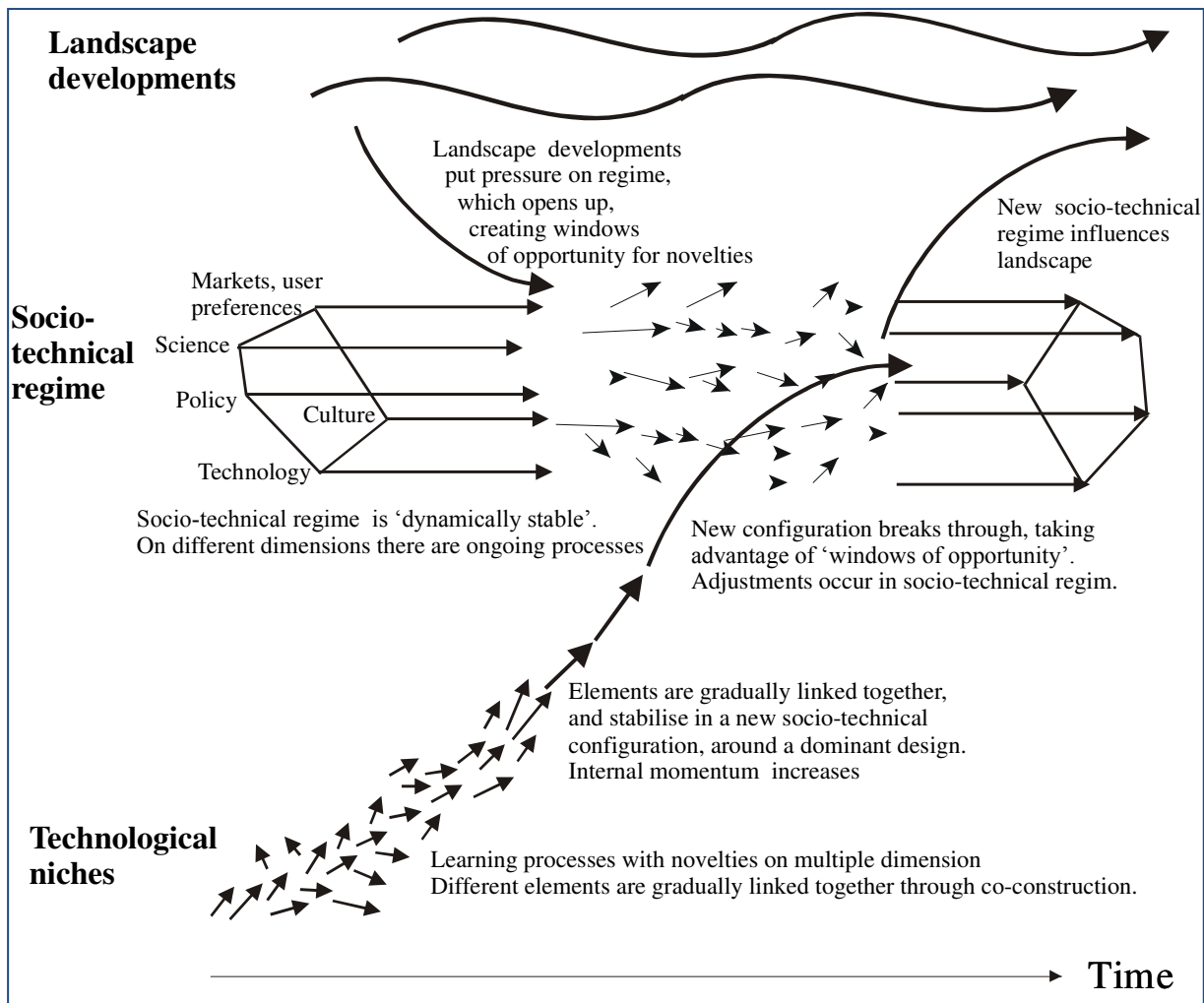


Figure 2: Dynamic Multi-level Perspective (Geels, 2002)

When there are weak signals that the current system has reached its limits to growth and that it is going to decline, one should start thinking about new, radical ideas which can lead to a new S-curve; a new system (van Eijnatten, 2004). When companies do not signal those weak signals and do not respond to changing environments, they will become inert and will have less capability to change and adapt (O'Reilly & Tushman, 2008). Therefore, firms should look for ways to achieve the required structural changes. However, no one knows what the new system will be or how it will look like.

Because of the uncertain road to this new situation, the energy market (suppliers and grid operators) is facing a period of non-linear growth. The development of energy systems can be described by S-curves, see Figure 3. The system of conventional resources has reached its limits to growth, which creates opportunities for a new, sustainable system, in which new ideas should be developed. For both the quadrants III and IV (see Figure 3), the focus is on generating those new ideas. They both concentrate on new thinking; on exploring radical innovations (van Eijnatten, 2004). To create structural changes, new opportunities should be explored. As stressed above, some authors state that in order to achieve this radical paradigm shift, radical change is needed (Hart & Milstein, 1999; Elkington & Love, 2012; Foster & Kaplan, 2005). Focussing on greening will possibly not lead to creative destruction, since this will not overcome the giant leap between the current and the future regime. Therefore, in times of a transition, it can be argued that more attention should be paid to exploration, and in this particular case to sustainability, but while also sufficient attention to exploitation and greening should be paid. Assuming this statement, this has implications for Enexis, since they are expected to facilitate the energy transition.

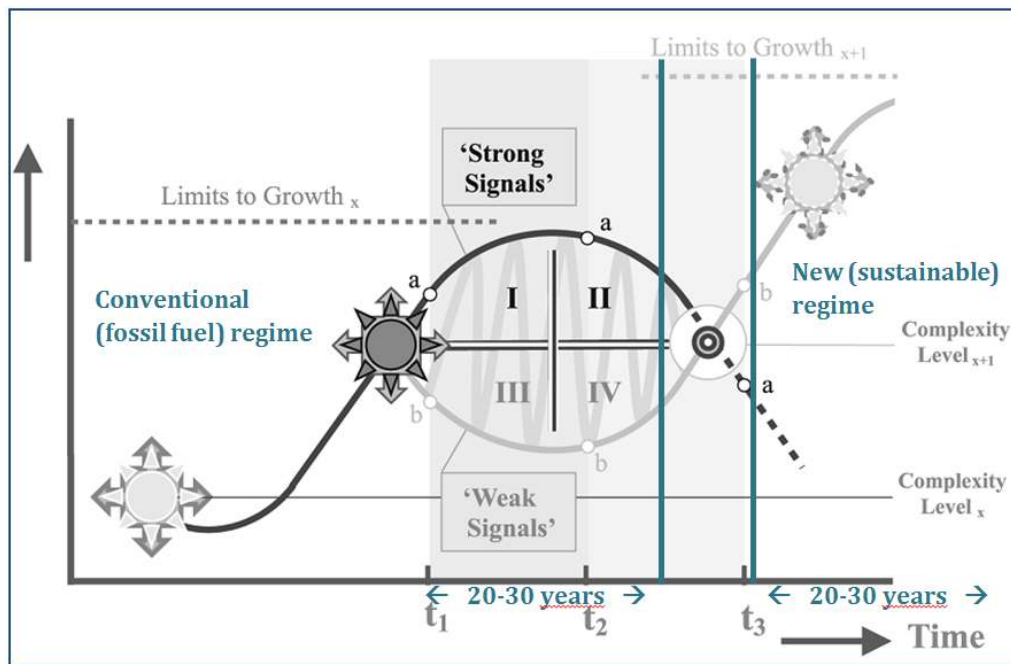


Figure 3: Transition between S-curves (adapted from: Van Eijnatten, 2004)

According to Rotmans (2012), the energy transition is now arrived at a tipping point. Looking at Figure 3, research from the Dutch Research Institute for Transitions (DRIFT) indicates that the energy sector can be placed between the blue lines at the moment, just before t_3 . The space in between represents about a decade, the predevelopment took about two to three decades. The crude oil production peak indicates a limit to the growth of conventional energy sources. For the last years to decade(s), no major radical innovations occurred within this conventional energy system, which indicates a limit to the complexity level as well. On the other hand, new sustainable energy sources are already developed and available on the market (e.g. wind and solar power). Although these initiatives are often at a small scale, started by individuals or corporations, they gain increasingly influence on the current regime, since the amount of sustainable energy initiatives increasingly rises through the country. It should be noted that the timescale of the above picture includes several decades. Since the energy sector is a large, relatively inert industry, it can take still more than a decade until the new regime significantly enters the old regime. In general, such a complete transition takes two generations, about 50 years to fulfil (Rotmans, 2012).

This chapter provided a brief insight in the energy transition and the underlying theory. But why is this relevant in this research? And how can this be related to the Dutch grid operators? According to grid operator Stedin, in 2025 about 15 to 20% of the households will produce their own energy. Others think this trend will elapse even faster and they expect that in 2025 one of the four households generates their own sustainable energy. The grid operators want to contribute to the national aim of 16% sustainable energy in 2020. The energy grids are an important precondition to allow sustainability and energy savings. Moreover, the grid operators are in the position to accelerate the energy transition (Netbeheer Nederland, 2012). For the grid operators (and many other parties), this means an enormous change in culture. Firstly, from a technical perspective, they have to adapt their assets to obviate too high loads on their grids. They should be able to manage the more variable and unpredictable power supply, to continuously guarantee a reliable energy grid. Secondly, from a cultural perspective, they have to cooperate with a lot more (other) parties than before. Citizens, consumers, energy suppliers, corporations, municipalities, architects, banks, construction companies, and property developers are all examples of parties that are expected to cooperate in a higher extent (Rotmans, 2012). Therefore, these insights from transition management provide valuable background information in the assessment of the ambidextrous balance of Enexis in this context.

3. Theoretical Background

This chapter will introduce the key concepts within this research study; exploitation, exploration, and ambidexterity. These concepts will be frequently used in this study, so a deeper understanding of the underlying theoretical background will be valuable. Besides, this chapter will also give a brief introduction about Corporate Social Responsibility, since the central question in this thesis is how ambidexterity can contribute to the Corporate Social Responsibility strategy of Enexis.

3.1. Exploitation

According to March (1991), who introduced the twin concepts of exploitation and exploration to the management literature as two ends of a single continuum, *exploitation* can be characterised by the key words refinement, choice, production, efficiency, selection, implementation, and execution. Other features are centralisation and tight cultures (Benner & Tushman, 2003). Exploitation is aimed at extending the current knowledge, at seeking greater efficiency and improvements to enable incremental innovation (Andriopoulos & Lewis, 2004). Furthermore, exploitation focuses on incremental change to create value through existing competencies, and therefore it reduces the risk for and increases the efficiency of the organisation. In other words, it is aimed at the short-term goals of the firm (Bodwell & Chermack, 2010). Concluded, exploitation considers “activities and learning through a specific search, a fine-tuning and improvement of what already exists.” (Moreno Luzon & Pasola, 2011, p. 927).

When a firm only focuses on exploitation, the organisation can be locked-in to a suboptimal equilibrium (local maximum). In this way, it cannot adapt itself to changing circumstances (Lamberson, n.d.). This will certainly not give rise to a sustainable future for any firm. Since the dynamic environment often changes rapidly, this demands the organisation to adapt itself to the new environment; otherwise their sustainable competitive advantage will be lost (Cao, Gedajlovic, & Zhang, 2009). This was already recognised by March (1991), as he stated that “established organizations will always specialise in exploitation, in becoming more efficient in using what they already know. Such organizations will become dominant in the short-run, but will gradually become obsolescent and fail.” (March, 2003, p. 14). This is highlighted by the organisational ecology, which argues that most organizations are largely inert and ultimately fail, because they too much focus on the short term (O’Reilly & Tushman, 2008; Walrave, Oorschot, & Romme, 2001).

“Most organizations are largely inert and ultimately fail, because they too much focus on the short term”

3.2. Exploration

On the other hand, *exploration* “entails the development of new knowledge, experimenting to foster the variation and novelty needed for more radical innovation.” (Andriopoulos & Lewis, 2004, p. 696). According to March (1991), it can be characterised with the terms search, variation, risk taking, experimentation, play, flexibility, discovery, and innovation. Compared to exploitation, exploration is more experimental in nature, highly uncertain, and also long-term oriented (Vanhaverbeke, Beerkens, & Duysters, 2003). Further, exploration aims at developing breakthrough, radical new products. Hence, exploration considers “learning through completely new processes, planned experimentation and play” (Moreno Luzon & Pasola, 2011, p. 927).

When a firm only focuses on exploration, the organisation has the costs of experimentation, but without any of its advantages. This will lead to undeveloped ideas and little distinctive competence (Lamberson, n.d.). Furthermore, returns to exploration are more uncertain, more distant in time, and can be a threat to existing organisational units (O’Reilly & Tushman, 2008). Therefore, firms which are focussing only on exploration are highly inefficient, which will hinder their operational profits in the short-term.

“The organisation has the costs of experimentation, but without any of its advantages”

3.3. Ambidexterity

As a general term, *ambidexterity* means “an individual’s ability to use both hands with equal ease” (Rothaermel & Alexandre, 2004, p. 759). The pioneer in the field of ambidextrous organisations; Duncan (1976), was the first to apply the term ambidexterity in an organisational context. He argues that organisations implement dual structures to manage trade-offs emerging from a simultaneous focus on alignment and adaptation (Duncan, 1976). Later, ambidexterity is described by Bodwell & Chermack (2010) in the following way: “At its core, the concept of organizational ambidexterity describes the ability of an organization to embrace and *balance* deliberate and emergent approaches to strategy at the same time.” (Bodwell & Chermack, 2010, p. 193). Although the concept is relatively new and the amount of published articles is limited, “[t]he general agreement in this literature is that an ambidextrous firm is one that is capable of both *exploiting* existing competencies as well as *exploring* new opportunities, and also that achieving ambidexterity enables a firm to enhance its performance and competitiveness.” (Cao, Gedajlovic, & Zhang, 2009, p. 781). Section 3.3.3 will explain the balance issue of ambidexterity.

3.3.1. Structural Ambidexterity

There are two main types of ambidexterity. The first, *structural (or architectural) ambidexterity*, “proposes dual structures and strategies to differentiate efforts, focusing actors on one or the other form of innovation; [] on either exploitative or exploratory innovation.” (Andriopoulos & Lewis, 2004, p. 696). Within this form, different employees or business units focus on one single type of innovation (Benner & Tushman, 2003). According to Birkinshaw & Gibson (2005), this type of ambidexterity is useful, but not sufficient to create the most efficient organisation. This is because separation of both tasks can lead to the undesired isolation of business units.

3.3.2. Contextual Ambidexterity

The second most described type of ambidexterity is *contextual ambidexterity*. This concept is first defined as “the capacity to simultaneously achieve alignment and adaptability at a business-unit level.” (Gibson & Birkinshaw, 2004, p. 209), and later also as “ambidexterity that derives from the creation of a context that allows employees to pursue exploratory and exploitative activities.” (Güttel & Konlechner, 2009, p. 153). The difference with structural ambidexterity is the use of behavioural and social means to integrate exploitation and exploration. This means that top management should synchronise their social and task processes, which ultimately leads to a balance between exploration and exploitation (Andriopoulos & Lewis, 2004). Thus, employees and business units which master contextual ambidexterity are focused on exploitation as well as on exploration.

3.3.3. The Balance Dimension and the Combined Dimension of Ambidexterity

The prior and most mentioned dimension of ambidexterity in literature is the *Balance Dimension (BD)* of ambidexterity (Martini, Aloini, Dulmin, Mininno, & Neirotti, 2012). This dimension “corresponds to a firm’s orientation to maintain a close relative balance between exploratory and exploitative activities.” (Cao, Gedajlovic, & Zhang, 2009, p. 781). As argued by the latter authors, BD reduces the performance damaging effects of too much focussing on exploitation to the detriment of exploration, or vice versa. However, it later turned out that BD does not cover all the aspects of ambidexterity. As an example, [Table 1](#) illustrates four different firms that all have different ‘levels’ of ambidexterity. Firm A has perfectly balanced their exploitative and explorative activities, which both score a 5. On the other hand, firm B has not equally balanced their activities. Here, explorative activities obtain three times more effort than exploitative activities, although the total effort is larger than that of firm A. Which firm is more ambidextrous? Moreover, compare firm A with firm C. Both firms have equally balanced ambidexterity, but are both firms also equally ambidextrous? Those examples illustrate that only incorporating BD as a conceptualisation of ambidexterity is limited. Later, authors recognised this limitation and developed another dimension of ambidexterity.

	Exploitation Score (Fictive)	Exploration Score (Fictive)	Assessment of Balance Dimension of Ambidexterity (BD)	Assessment of Combined Dimension of Ambidexterity (CD)
Firm A	5	5	High	Low
Firm B	5	15	Low	High
Firm C	10	10	High	High
Firm D	10	0	Low	Low

Table 1: Illustration of Different Conceptualisations of Organisational Ambidexterity (adapted from: Cao, Gedajlovic & Zhang, 2009)

This second dimension is named the *Combined Dimension (CD)* of ambidexterity. As a definition, CD corresponds to the combined magnitude of both exploitation and exploration (Cao, Gedajlovic, & Zhang, 2009). Hence, whereas BD focusses on the relative magnitude, CD focusses on the absolute magnitude of the ambidexterity concept. As concluded by several studies, the increased magnitude of ambidexterity leads to increased firm performance, whereas a relative imbalance leads to a decreased firm performance (He & Wong, 2004; Cao, Gedajlovic, & Zhang, 2009). However, these benefits only apply under certain conditions. For instance, smaller firms benefit more from a more balanced dimension, whereas larger firms obtain more advantage of a more combined dimension of ambidexterity. This is because larger firms have more resources available, which can enhance the total magnitude, but it also can reduce the risks of imbalance. Furthermore, Cao et al. (2009) find that BD is more advantageous to resource-constrained firms, whereas CD is more advantageous to firms having greater access to internal and/or external resources. As a consequence, each firm can benefit of BD and/or CD in another way.

When looking at Table 1 again, it now becomes clear what the differences are between the different companies. While firms A and C score high in terms of balancing exploitation and exploration (BD), firms B and C score high in terms of their combined effort put in exploitative and explorative activities (CD). Firm D does, compared to the other firms, score low on both dimensions of ambidexterity. Research shows that there exists a common variance of 0.25 between BD and CD, which indicates that CD also somewhat includes dependence from the BD term (Martini, Aloini, Dulmin, Mininno, & Neirotti, 2012). In conclusion, the above illustration explains why both dimensions of ambidexterity are of relevance in assessing the ambidextrous balance of an organisation.

3.4. Corporate Social Responsibility

Corporate Social Responsibility (CSR) can be defined as “situations where the firm goes beyond compliance and engages in actions that appear to further some social good, beyond the interests of the firm and that which is required by law.” (McWilliams, Siegel, & Wright, 2005; Carroll, 1999). The primary role of businesses is to produce goods and services that society wants and needs. However, there exists interdependency between business and society in the need for a stable environment with an educated workforce. CSR is based on the idea that business and society are interwoven, rather than distinct entities. This responsibility can be divided in six categories, namely workplace (employees), marketplace (customers, suppliers), environment, community, ethics, and human rights (Moir, 2001; Kurucz, Colbert, & Wheeler, 2008; MVO Nederland, 2012; Royal HaskoningDHV, 2012). In light of this idea, businesses should strive for a balance between People, Planet, and Profit; the triple bottom line. Nowadays, “[s]hareholders are not only demanding that companies become more profitable, they are also demanding that companies become more environmentally friendly and more socially responsible.” (Barrett, 2010, p. 1). Conflicting interests should be weighed, in order to come to a solution where all three aspects of the triple bottom line are in a healthy balance.

In the last decades, there has been a growing attention for CSR. More and more companies realise that only making profit is not enough; they also should contribute something to society. Nowadays, the question is not whether to incorporate CSR, but how (McWilliams, Siegel, & Wright, 2005; Smith, 2002; Nurkka, 2012). Furthermore, there are increasing expectations concerning CSR from the environment. Society increasingly expects organisations to act environmental friendly (Kurucz, Colbert, & Wheeler, 2008; Sen & Bhattacharya, 2001; Porter & Kramer, 2006). In other words, whereas CSR was first seen as an obligation and later as an opportunity, today it is seen as a reorientation; it goes beyond greening (Hart, 2011). This trend leads to so called ‘creative destruction’, in which the average companies’ life time decreases over the years, due to the inability of firms to adapt to the rapidly changing environment (Foster & Kaplan, 2005). Therefore, “for a company to be sustainable and successful in the long run, it must do more than embrace the concept of the triple bottom line. It must embrace full spectrum sustainability.” (Barrett, 2010, p. 1). This thinking is in line with the reasoning of Scott (2010), who stresses this trend, and he also argues that “sustainability is about reducing expenses - including future expenses - in every conceivable form so as to facilitate longevity and competitiveness.” (Scott, 2010, p. 2).

As a consequence, CSR can be a source of opportunity, innovation, and competitive advantage (Porter & Kramer, 2006). Relating CSR to financial performance, it turns out that sustainable investments perform slightly (but not significantly) better than traditional investments. In general, CSR has a neutral effect on firm performance (McWilliams & Siegel, 2000). Though, this can be different when changes occur in the political or financial climate. For instance, subsidies or taxes can make sustainable investments more attractive in the future. Furthermore, there are no costs involved in integrating sustainable dimensions in the investment policy (Van de Velde, Vermeir, & Corten, 2005).

Linking the concepts of exploitation and exploration to the specific context of CSR (see the research delineation in section 1.4), one can make the distinction which is illustrated in [Table 2](#). In this context, exploitation can be translated to greening (not to be confused with ‘green washing’), while exploration can be translated to sustainability. This study uses this specific application of both concepts in order to further describe and apply ambidexterity.

Strategies for Greening	Strategies for Sustainability
<p>Focus on existing:</p> <ul style="list-style-type: none"> ▪ Products ▪ Processes ▪ Suppliers ▪ Customers ▪ Shareholders <p>Characteristics:</p> <p>Incremental continuous improvement rationalises industry</p>	<p>Focus on emerging:</p> <ul style="list-style-type: none"> ▪ Technologies ▪ Markets ▪ Partners ▪ Needs ▪ Stakeholders <p>Characteristics:</p> <p>Discontinuous creative destruction restructures industry</p>

Table 2: Continuous Improvement versus Creative Destruction (Hart, 2011)

4. Methodology

This chapter presents the methodology that is used in order to properly and substantiated conduct the research within this Master thesis. It will firstly provide the general research design. Then, the manner of data collection and analyses, the research tools, the validation mechanisms, and the design and processing of the obtained data are explained. Finally, an overview of the total research design will be graphically displayed.

4.1. Research Design

A well respected problem-solving methodology for organisations is the regulative cycle of Van Strien (1997). This cycle focusses on defining and analysing the problem, planning design changes, intervening in the system, and on evaluating the interventions. It is a closed cycle, which means that the process never ends; after the evaluation phase the cycle starts over again. The regulative cycle is illustrated in Figure 4.

This Master thesis will follow this regulative cycle in order to conduct research in a structured way. Though, since the limited scope of this Master thesis, not all steps will be conducted. The cycle starts with the problem mess and provides a problem definition (see section 1.1), after which the analysis and diagnoses are given (see Chapter 5). Finally, a plan of action for a redesign is proposed (see Chapter 6), but this redesign will not be implemented and evaluated within the scope of this study. However, sufficient practical design solutions will be given, in order to create a starting point for step 5 and 6 as in Figure 4. For instance, it can be outlined how support for a certain redesign or recommendation can be accomplished.

In conclusion, this Master thesis places the emphasis on the problem and analysis phase, but sufficient recommendations will be provided in order to actually perform subsequent interventions in response to the research.

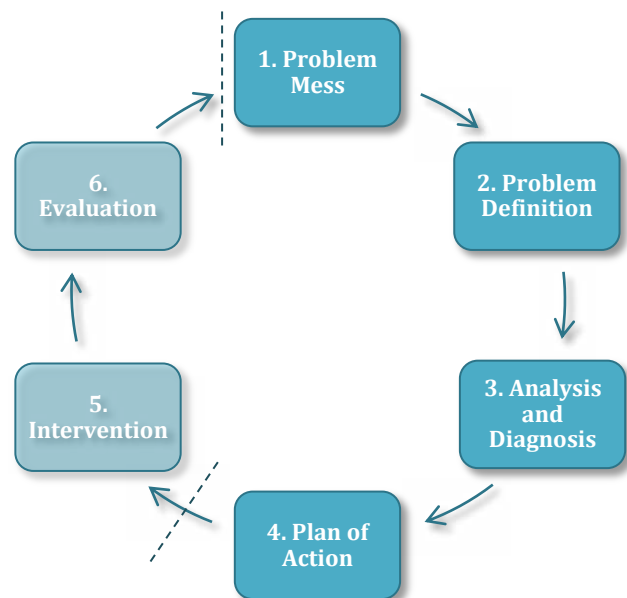


Figure 4: The Regulative Cycle (van Strien, 1997) including the scope of this research

4.2. Design of Data Collection, Tools, Analyses and Validation

The required data should be gathered and processed in an appropriate way. This paragraph will explain for the (most relevant) data how it will be collected and how the data gathering is designed, in order to ensure correct and valid information. Besides, the tools and frameworks that give substance to the research design are provided within the following subsections, as well as the design of analyses and validation.

This section is organised by means of eight research areas, as already mentioned in section 1.3. Respectively, they aim at the strategic CSR goal of Enexis, the current CSR level, the current ecological initiatives, greening vs. sustainability, the current balance, the optimal balance, the organisational context, and the redesign. Together, they are designed to provide an answer to the total research question. At the end of this chapter (see section 4.3), Figure 5 will summarise the design of the eight different research areas and their interdependencies.

4.2.1. Strategic CSR Goal of Enexis

Interviews are an important source for most of the necessary data related to CSR. For the determination of the strategic CSR goal of Enexis, firstly an interview with the CSR Coordinator will be held in order to determine what the CSR goal of Enexis is, according to his view. The interview is validated by means of asking feedback of the elaboration of the interview. The structure of this interview can be found in Appendix III: Structure CSR Interview. Next to this, strategic plans of Enexis will be consulted. These plans formally state the ambitions of Enexis regarding ecological and sustainable goals, so they are valuable to concretise the CSR goals. Finally, the ISO 26000 report may deliver insights in the future opportunities regarding CSR.

The CSR ambition of Enexis will be assessed by means of a Sustainability Spectrum (Dunphy, Griffiths, & Benn, 2007). The next subsection will provide more details about this spectrum.

4.2.2. Current CSR Level of Enexis

In order to determine the current CSR level at Enexis, the CSR Coordinator will be interviewed, to obtain his view about the current level. Besides, an interview with the Compliance Officer will be held, in order to determine to what extent the compliance phase of the Sustainability Spectrum is fulfilled. The structure of both interviews can be found in Appendix III: Structure CSR Interview and Appendix IV: Structure Compliance Interview. In order to validate the view of the Enexis employees about CSR and the position of Enexis compared to other grid operators, interviews with CSR managers/coordinators of other grid operators will be held, to investigate their external view of Enexis and CSR. Since the limited scope of this Master thesis, two of the seven other grid operators are selected; Stedin and Delta. Besides, the Manager Sustainability & Energy Transition of the sector organisation Netbeheer Nederland will be interviewed to give his view. Questions are prepared related to how they see Enexis related to CSR. Does Enexis have many sustainable initiatives? Are they leading in the field of CSR? How do they perform compared to others? The structure of those interviews are presented in Appendix V: Structure CSR Validation Interview. In addition to the interviews, the ISO 26000 report will be consulted to evaluate the external assessment of CSR at Enexis. Finally, also other internal reports which include the current sustainable initiatives will be used as data sources.

On the basis of the obtained data, the current level of CSR at Enexis will be assessed using guidelines of the book *Organizational Change for Corporate Sustainability* by Dunphy et al. (2007). This book provides a Sustainability Spectrum (Kemp, Stark, & Tantram, 2004), which is illustrated in Appendix VI: Sustainability Spectrum. Moreover, it gives detailed descriptions of each phase where a company can be situated in. These guidelines will be followed in order to accurately assess the state of Enexis on the Sustainability Spectrum. Starting at the lowest stage, this phase will be compared with the initiatives Enexis undertakes to determine to what extent Enexis satisfies this particular phase. This will be repeated for each stage, so that the current place on the spectrum becomes clear.

Another additional method which can be used is the categorisation of Galbreath (2006). The article of this author distinguishes four different options for CSR strategies. The framework is given in Appendix VII: Strategic CSR Options. All data from the interviews (and strategic reports) will be used to determine which CSR strategy applies most to Enexis.

4.2.3. Current Ecological Initiatives

Firstly, the current sustainable initiatives at Enexis are primarily obtained from the Annual update of the sustainable initiatives to the shareholders. This justification can be seen as a proper validation to incorporate those initiatives into this research. However, although this justification, the delineation of this thesis limits itself to the ecological influence of an initiative and therefore, each initiative is assessed on their conceptual contribution regarding their ecological impact. This means that for every initiative (also for initiatives that are not included in the sustainability report) the following question is asked: what is the (in)direct ecological

influence/contribution of this project to the environment? The answer should be a reasonable and clear indication of an ecological impact the initiative causes to the environment/society. When such indication is missing, the project will not be included in this research.

Secondly, interviews about the current sustainable initiatives are the major source of information in this research, which serve multiple goals. These interviews are held with employees who have a key role, often project leaders, in one of the sustainable initiatives at Enexis (almost all of them are higher educated). Within the semi-structured interviews, questions about the specific initiatives are asked to obtain in-depth information about the project. The goal of each interview is to obtain as much as possible relevant information about the sustainable initiative. Questions are asked concerning the purpose and history of the project, the innovations and stakeholders in the project, the role of Enexis, etc. The semi-structured design of these interviews can be found in Appendix VIII: Structure Ecological Initiatives Interview.

Dealing with Important Information

Next to this, the interviewees are asked for the project costs. Since these costs are of major importance in determining the ambidextrous balance, there will be an extra check to validate this specific kind of information. For this validation, Business Controllers of the corresponding departments will be asked for the project costs of all investigated initiatives. Then, the provided costs will be compared to the earlier obtained costs. When there are significant differences between both costs, further investigations will be held in order to clarify the inconsistent information.

In the interviews about the sustainable initiatives, the interviewees are also asked what the role of Enexis is in that particular project. To make a clear distinction between different possible roles that Enexis can embrace, three specific roles are distinguished by Enexis. These will be used as classifications for the initiatives. For each initiative, it will be determined which role best applies to the project. The roles can be the following: initiating, acting, and facilitating. More detailed features about each of the different roles are shown below.

Initiating:

- (Learning) objectives for Enexis are the motivation for and are leading in the project
- Enexis is the initiator and provides the project leader
- Enexis pays for its own and (partly) for other involved parties

Participating:

- Enexis delivers an important input in their role as grid operator and is part of the project team
- Enexis has its own (learning) objectives that lead to adjustments/modifications to the project
- Enexis pays its own costs, but does not contribute to the costs of other parties

Facilitating:

- Enexis solely acts as grid operator and does not take part of the project team
- Enexis does not have learning objectives that lead to adjustments/modifications of the project
- The costs are shared conform the regulatory system and/or joining the roles of involved parties
- Enexis brings in their knowledge or expertise at no costs

Dealing with Potential Biases

Because of several reasons, biases within the interviews may occur. Four possible biases which can take place in the interviews are the biases of a socially desirable response, acquiescence, a confirmation bias, and biases due to higher level (political) issues. Firstly, because the

interviewee is heavily involved in the project, the interviewee may have a more positive view of the progress (e.g. because of enthusiasm), and can pay less attention to the possible difficulties and struggles in the project. Some authors state that the response is mostly a function of the relation of the respondent and the interviewer, instead of a response to the subject (Colombotos, 1969). In this way, the interviewees tend to give a social desirable response. Secondly, some respondents incline to say yes to every question, irrespective of their content. This phenomenon can be recognised as acquiescence (Ross & Mirowsky, 1984). Thirdly, another type of bias is the confirmation bias, which can occur at both the interviewee as well as at the interviewer. The confirmation bias “connotes the seeking or interpreting of evidence in ways that are partial to existing beliefs, expectations, or a hypothesis in hand.” (Nickerson, 1998). Finally, political issues at a higher level can prevent a clear rendition of the actual impact of a project. That means that in some cases, the project leader may not be aware of bigger issues regarding vision or scope being discussed at a higher level, with possible future consequences for the project.

Because of these possible biases, critical answers during the interviews are asked to certain responses, to ensure the interviewee does not give a social desirable response or an approvingly or confirming answer. This can be done by asking additional and critical questions directed at the possible problems and challenges of the project. Furthermore, questions should be asked in a neutral way, instead of in a normative manner (Ross & Mirowsky, 1984). To check for possible interpretation biases of the interviewer, the elaboration of each interview is validated by sending it to the interviewee, who checks whether the information has been wrote down correctly. He or she has then the possibility to suggest adjustments and/or additions to the interview report. These adjustments are considered and included when appropriate.

As a final validation, all the interviews are supported by additional sources of information as much as possible, in order to further prevent and reduce the potential interview biases. These sources can be internal reports such as strategic plans and the ISO 26000 report (for data verification), but above all external sources like news items (for background information about new and existing sustainable projects), and literature (for theoretical support). These additional sources can further validate the obtained information via the interviews.

In conclusion, all the initiatives will first be assessed on their ecological impact. Consequently, all the required information about the selected sustainable initiatives will be gathered by means of interviews. The obtained information of the interviews will then be validated by additional sources of information, to prevent biases and to ensure valid data.

4.2.4. Greening or Sustainability?

As a next step, the selected ecological initiatives should be assigned to either greening or sustainability. The distinctive features of both greening and sustainability (Hart & Milstein, 1999) were already displayed in [Table 2](#). Although some initiatives will have features of both greening and sustainability, for measuring the ambidextrous balance only one category will be assigned to one particular initiative. This can be done because in general, the different features are contradicting. For instance, one can (often) not satisfy the interests of shareholders and stakeholders simultaneously. When an initiative has features of both greening and sustainability, the category with the most corresponding characterisations will be decisive, and therewith assigned to the ecological initiative. Though, further analyses will recognise and incorporate the different levels of greening and sustainability. That means that when visually mapping the initiatives relative to each other, the differences and relative distances will be respected.

To check for possible higher level (political) discussions, a meeting with two members of the Strategy department is planned to validate the obtained interview results. These members will be asked for potential unexpected results related to greening/sustainability, internal/external, and role issues. Since the managers of the Strategy department have an insight in possible political issues, they will be asked to validate the obtained outcomes. When unexpected results may appear, there will be an extra verification to ensure valid information.

Internal Capabilities or External Constituencies?

As another extra dimension besides the distinction between greening and sustainability, a distinction between a more internal or external project is incorporated in this study. For the determination of to which type the project can be assigned to, questions are asked related to the project coordination and involvement of other, external parties. Which external parties are involved? Which party delivers the project leader? What is the role of Enexis in this project? These and other questions support the allocation of the project to one of a more internal, or to one of a more external nature. On the basis of the answers, it is determined to what extent the project relies on internal capabilities or external constituencies, with the notion that they are not totally mutually exclusive; the project can also have internal as well as external features.

The combination of the two scales, greening versus sustainability and internal versus external, delivers a matrix consisting of four quadrants; the Sustainable Value Framework (Hart, 2011). This framework is shown in Appendix IX: The Sustainable Value Framework. All ecological initiatives will be assessed on their features, and thereafter they will be placed in one of the quadrants. The exact location depends on the specific characterisations of the project. The result of the placement of all projects will be a portfolio, showing the different strategic directions; Clean Technology, Base of the Pyramid, Pollution Prevention, and Product Stewardship. This overview will then show the sustainable value portfolio for the CSR initiatives of Enexis.

In conclusion, for each of the ecological initiatives, the best fit with either greening or sustainability will be determined on the basis of comparing all the gathered data about that particular initiative to the specific features of the two contradicting categories (greening and sustainability). With the use of specific questions about the roles of Enexis and other external parties, it will be assessed whether the project is more of an internal or of an external nature, or somewhere in between. Finally, the results will be plotted in the Sustainable Value Framework.

4.2.5. Current Balance?

Concerning the determination of the ambidextrous balance of a company, there has been conducted no (or very limited) research yet. De Visser (2010) pioneered in actually measuring the ambidextrous balance, by means of measuring the R&D's time and financial resources over a period of five years. However, the goal of this study was not to optimise this balance, but to measure the evolution of exploitative versus explorative resources. Besides, it was not in the context of CSR. In order to further pioneer with the determination of a company's ambidextrous balance through specific measurements, this Master thesis proposes a framework in measuring the current balance of an organisation. For the measurements, three different parameters are chosen, namely 1) the number of greening and sustainable initiatives, 2) the costs of each project and 3) the FTEs spent on each project. As mentioned, this is in line with the first literature implications (de Visser, 2010). The ratios of the three parameters are subsequently used to determine the current ambidextrous balance of Enexis. The propositions with the specific choices, including accompanying explanations and designs, are given below.

▪ **Measurement 1: Number of Projects**

Firstly, the number of both the greening and sustainability initiatives can be measured. This should be done to obtain a first indication of the balance between the two extremes. This insight provides a first overview of how many greening and how many sustainability activities an organisation undertakes. This is a very simple measure and may have limited implications, but the ratio (which can be graphically visualised) contributes to a quick overview of the different types of initiatives. Moreover, the insights can deliver a valuable understanding to the management of the project portfolio. Which and how much projects are more short-term directed and which are more long-term oriented (Cooper & Edgett, 2001)? Though, to develop a more accurate indication of the ambidextrous balance, additional measures may be needed.

Proposition 1: the ratio of the greening and sustainability initiatives expressed in number of projects measures ambidexterity

■ **Measurement 2: Financial Resources**

Because financial resources are limited for every organisation, firms have to carefully consider in which activities to invest and in which not. Furthermore, they have to deal with uncertainty. Investing in specific technologies and/or markets does not guarantee that the technology will actually break through (Arrow, 1962). Since the ratio of the number of both types of initiatives does not say anything about the financial support to and therewith the size of the project, costs are also included in the measurement of the ambidextrous balance. Hence, the costs should be requested for all the projects, after which the financial figures can be allocated to either greening or sustainability. This leads to a cost ratio that provides insight in the financial resource allocation to both types of initiatives. This ratio can be graphically displayed after which it effectively provides an overview of the financial effort that is put into greening versus sustainability.

Not all costs are eligible for incorporation in the ambidextrous balance. The question which should be asked at each individual project is: do the costs (in)directly contribute to greening/sustainability, or are they directed to the regular business processes that do not have an added sustainable value? For instance, a particular system can be bought because it has additional sustainable features. However, the system should have been replaced anyway. In this case, not all costs should be assigned to ecological investments, but only that costs which contribute to the sustainable decision. This means that only the additional costs compared to a normal system should be incorporated in the balance measurement.

In addition, labour costs are also not included in this measurement, since the labour effort has been separated in the next measurement. Thus in general, costs for the cost measurement should not be attributable to regular investment decisions and to labour, but they should (in)directly contribute to greening/sustainability. Possible subsidies are subtracted from the costs.

Proposition 2: the ratio of the greening and sustainability initiatives expressed in financial resources (costs excluding labour, and with an (in)direct ecological effect) measures ambidexterity

■ **Measurement 3: Labour Effort**

Next to financial resources, labour effort is one of the other most important resources of an organisation. As a measurement parameter, labour input is an important indicator of labour productivity (Ahmad, Lequiller, Marianna, Pilat, Schreyer, & Wölfl, 2003). Therefore, this measurement (labour effort) is included as a third parameter in this proposal. The labour hours should be requested for all the projects, after which the hours can be allocated to either greening or sustainability. How much hours are spent on greening and how much are spent on sustainability? This (graphically displayed) ratio provides an insight in the division of labour that a firm allocates to one or the other type of initiative.

For the determination of the labour hours, the same logic applies as for the determination of the allocated costs. This means that the spent hours should be (in)directly attributable to greening/sustainability activities. Hours spent on common operating business activities should thus not be included in the measurement. To actually measure the labour effort, the measurement scale Full Time Equivalent (FTE) is used. The spent hours for the project are requested, after which they are transferred to FTEs. This should be done consistently, in order to prevent unequal transpositions from hours to FTEs. In this thesis, the following conversion is applied: 1 FTE = 42 work weeks = 210 days = 1680 hours. This conversion is applied with the assumption that a work week consists of 40 hours. Consequently, 650 hours spent on a project will result in $(650/40)/42 \approx 0.39$ FTE. The FTEs should then be summed over the used time frame, see the next bullet.

Proposition 3: the ratio of the greening and sustainability initiatives expressed in labour effort (FTEs directed towards ecological initiatives) measures ambidexterity

- **Time Frame**

The ambidextrous balance of an organisation is not static, but changes with the initiation and elimination of business processes and projects (de Visser, 2010; Gupta, Smith, & Shalley, 2006). Hence, the measurement of the balance should be aimed at a specific time frame. To make a 'snapshot' of the ambidextrous balance, a time period should be chosen that is neither too broad and neither too narrow. An appropriate time frame can inter alia depend on the market. Some markets are more dynamic and are faster than others, so this time frame should be adapted to that particular kind of market. In this case, the scope is set at three years, because this time frame allows some developments in the project portfolio, while it does not include too old projects that may have been eliminated for a while. Thus, only ecological initiatives that take/took place in the last three years (from 2010 to 2012) are included in the determination of the ambidextrous balance. That means that for the financial resources and labour hours, this time frame of three years is held in order to incorporate only these figures in the measurements.

In conclusion, the current ambidextrous balance will be determined on the basis of three parameters, namely the number of projects, financial resources, and labour effort of the corresponding ecological initiatives. To make a 'snapshot' of the current balance, the last three years are incorporated in the measurements.

4.2.6. Optimal Balance?

Concluded from an extensive literature scan, the determination of an *optimal* ambidextrous balance did hitherto not receive any attention. To fill in this research gap, this thesis provides a first attempt in providing a substantiated determination of an optimal ambidextrous balance.

In order to determine an optimal ambidextrous balance for a particular company, several factors may be of influence, of which the characteristics are specific for each organisation. One cannot state by hard that, for instance, the balance should be 41% exploitation versus 59% exploration. Therefore some dependent factors that may influence the optimal balance are proposed below. Hence, the 'optimal' balance will thus not be a precise amount or percentage, but it will give the optimal focus and direction. Based on an extensive literature study, five factors will be proposed. These factors will be applied in Chapter 5 for the specific case of Enexis. It should be noted that the descriptive factors should be the guideline, and not the behaviour of the firm itself. When an organisation tends to be more exploitative due to their market and legal form for example, it does not mean that this natural *actual* behaviour is the *optimal* behaviour. The five proposed factors that are expected to determine a firm's optimal ambidextrous balance are as follows:

- **1) Firm Strategy**

According to Cooper (2005), a firm's strategy is the starting point and a highly interdependent factor in balancing short- and long-term goals. When a certain organisational strategy has been determined, that strategy should dictate the breakdown of the exploitative versus explorative project portfolio (Cooper R. G., 2005). The rather decisive nature of this factor can be illustrated by an example. For instance, no matter the industry characteristics or pressures from the environment, a firm applying a follower strategy will optimally have a less explorative approach than a firm that applies a leader strategy (Judge & Blocker, 2008). In other words, the optimal ambidextrous balance should match the chosen and applied strategy of the organisation. It thus has an important role in the optimal ambidextrous balance. Since the strong interdependence of this factor, this factor has a relatively strong influence on the optimal ambidextrous direction.

Proposition 4: a firm's strategy strongly influences an organisation's optimal ambidextrous balance

- **2) Type of Industry**

The nature of the industries of organisations (e.g. dynamism, complexity, and industry munificence) is known to influence their innovative capabilities (Subramaniam & Youndt, 2005; Lubatkin, Simsek, Ling, & Veiga, 2006). Industries and organisations can be characterised as either fast-moving or slow-moving. Fast-moving institutions are able of changing more quickly

than their counterparts (Roland, 2004). For example, the market of electronics can be seen as a fast-moving market (innovative products such as mobile phones succeed each other frequently), while for instance the water management sector can be regarded as a slow-moving market (sewers are placed with an expected life time of about 80 years). Those features can have consequences for the determination of an optimal ambidextrous balance.

While organisations in slow-moving industries can afford themselves (for a certain period) to provisionally be very short-term oriented, this can be fatal for a firm operating in a fast-moving industry. In the case of an organisation in a slow-moving market, there will be limited consequences in the longer-term when they entirely focus on the exploitation of their business activities in the upcoming years. That means, when a water board would apply a short-term vision during the following years, the market position will not differ to a large extent after, say, five years; it has no direct impact for the longer-term. An organisation operating in a turbulent, fast-moving market however, will experience the negative results of an exploitative orientation (defender approach) relatively quickly. In the case of a smart phone manufacturer; when it does not develop a new, better mobile phone within two years after the previous model, it will definitely suffer in their market position due to competitors that took a more prospector approach and which already introduced a new and better model (Menguc & Auh, 2008).

Proposition 5: industry type influences an organisation's optimal ambidextrous balance

▪ **3) Environment**

Besides strategy and type of industry, environmental conditions can co-determine an optimal balance between exploitation (greening) and exploration (sustainability) (Lubatkin, Simsek, Ling, & Veiga, 2006). Possible trends or transitions can put pressure on an organisation to adapt or extent their current business activities. In environments of rapid technological change, firms need dynamic capabilities in order to maintain or develop their competitive advantage (Teece, Pisano, & Shuen, 1997). In general, rapid changes in the environment require firms to change correspondingly in order to adapt their activities to the changing environment. This is highlighted by the following citation: "The relative amount of resources and time invested in exploration versus exploitation is not static, but changes over time." (de Visser, 2010, p. 1). As an example, "pursuing exploratory innovation is more effective in dynamic environments, whereas pursuing exploitative innovation is more beneficial to a unit's financial performance in more competitive environments" (Jansen, Bosch, & Volberda, 2006, p. 1661). Thus, environmental characteristics can have a significant influence in determining a desired ambidextrous balance.

Besides, also stakeholders can have an influence on the desired balance. Of this group, especially shareholders are able to put pressure on either the short- or long-term strategy. When they desire quick wins for instance, this can force the ambidextrous balance more towards exploitation. The other way around, when the shareholders ask for large future investments, this pushes the balance more towards exploration. Overall, the expected influence is rather strong.

Proposition 6: the environment influences an organisation's optimal ambidextrous balance

▪ **4) Legal Form**

As a fourth proposed influential factor, the legal form of an organisation can have an impact on the determination of an optimal ambidextrous balance. Specifically, the distinction between a profit-oriented firm and a utility can be of particular interest. Since both types of organisations have different drivers, this can lead to another optimal balance for both different forms. Profit-oriented firms often put profit at the first place, sometimes irrespective the future consequences. Because of these financial drivers, it can lead to decisions that are (temporarily) more focussed towards exploitative activities (Carmeli & Halevi, 2009). However, they have to be careful not to overemphasise the exploitative approach. This was already recognised by March (1991), as he stated that "established organizations will always specialise in exploitation, in becoming more efficient in using what they already know. Such organizations will become dominant in the short-run, but will gradually become obsolescent and fail." (March, 2003, p. 14). This is

underscored by organisational ecology, which argues that most organizations are largely inert and ultimately fail, because they too much focus on the short term (O'Reilly & Tushman, 2008).

For utilities and other institutions that are not aimed at profit, other rules may apply. Since there is no driver for this kind of organisations in making as much as money as possible, decisions can be made with less emphasis on the financial results. This can offer more possibilities for exploration, without losing sight of the current business activities. Besides, those organisations often have drivers which are more directed to social aspects. In the case of a water board again, it is of (national) social importance that drinking water is delivered in a reliable and healthy way. When large investments in future energy systems are required, they are expected to maintain the levels of reliability, affordability, and health. This may put the focus (temporarily) more towards exploration compared to a profit-oriented company. Hence, the legal form of an organisation can have implications for the determination of a desired ambidextrous balance.

Proposition 7: the legal form influences an organisation's optimal ambidextrous balance

▪ **5) Firm Size**

A fifth and final proposed factor which is able to influence an optimal ambidextrous balance for a company is firm size (Russo & Vurro, 2010; Cao, Gedajlovic, & Zhang, 2009). A common theme in literature stresses this factor, indicating that firm size is an important factor in the breakthrough innovation development process (Dunlap-Hinkler, Mudambi, & Kotabe, 2010). There is consensus that in general, larger, established organisations tend to be more exploitative in nature; they run the risk of becoming inert (March, 2003; Ahuja & Lampert, 2001). Hence, firm size can be linked with the institutional routines and norms that cause unchanging behaviours (Chang, Hughes, & Hotho, 2011). Therefore, firm size may be of interest in the determination of an optimal ambidextrous balance. Are there signs of inert behaviour due to the large firm size? In that case, the current ambidextrous balance should (possibly) be reconsidered.

Proposition 8: firm size influences an organisation's optimal ambidextrous balance

▪ **Interdependence**

It should be noted that the above factors are not totally mutually exclusive, but that they are interdependent of each other. Therefore, the determination of an optimal ambidextrous balance for a specific organisation should incorporate and consider all the above mentioned factors. For instance, a market change can have effects on the environment of a firm, which has subsequently implications for the future strategy. As another important notice, the optimal ambidextrous balance can change when one of the above factors changes. Since none of the five factors are entirely static, changes in the optimal balance can occur regularly. Thus, once the optimal balance has been determined, this should be periodically repeated (see also [Figure 4](#)).

In conclusion, a framework is proposed for determining an optimal ambidextrous direction for an organisation. The framework is based on five factors, which influence the optimal balance for a specific firm. The proposed factors are firm strategy, type of industry, environment, legal form, and the firm's size. For each organisation, these factors should be periodically reconsidered and reassessed in order to determine a desired balance between exploitation and exploration.

Portfolio Management

The use of a sustainable value portfolio (see Appendix IX: The Sustainable Value Framework) can be of great value in assessing and determining an optimal (ambidextrous) balance. This is stressed by several authors, who state that effective portfolio management is crucial to successful product innovation. Moreover, portfolio management has four important goals: 1) to make strategic choices (which markets, technologies and products to invest in), 2) to allocate resources (money and employees), 3) to select proper projects (choosing from the many opportunities), and 4) to seek the right balance of projects (having the right balance between number of projects and the available resources) (Cooper, Edgett, & Kleinschmidt, 1999; Cooper & Edgett, 2001). These four goals clearly illustrate a valuable link between ambidexterity and

portfolio management. Hence, the insights of this research area will be applied in the determination of an optimal ambidextrous balance. As a starting point, the portfolios of the best performing businesses can be used as the average optimal project portfolio (Cooper R. G., 2005).

Proposition 9: an organisation can determine its optimal ambidextrous balance using the specific features of the five proposed factors, starting from the best performing project portfolios

4.2.7. Organisational Context

The diagnostic tool of Birkinshaw and Gibson (2004, 2005) is used to get a (quick) indication of the supportive context at Enexis. This tool is published in two of their articles and can directly be used in an empirical setting. The short survey consists of twelve questions divided into two categories. These questions are based on a 7-point Likert scale, which vary from 'not at all' to 'to a very great extent'. The scores of both categories should be averaged and plotted on a graph, which is illustrated in Appendix X: Diagnostic Tool. Based on the scores of employees of all departments, it can be determined whether Enexis meets one of the important conditions for an ambidextrous organisation: a high-performance context (Birkinshaw & Gibson, 2004).

The data for the organisational context will be gathered in two ways. Firstly, a survey with the twelve questions will be posted on the intranet. This survey can also be found in Appendix X: Diagnostic Tool. Employees are informed two times about this survey through a news item at the main page of the intranet, along with a motivational reason to participate. This specific channel to spread the survey is chosen because it reaches all the employees of all different departments at Enexis in an effective way. Secondly, the questions of the diagnostic tool are asked during the interviews. In these interviews, additional explanations are asked for each of the questions. This provides more enriched information about the organisational context and these insights will be used in the analysis of the survey. In both cases, it is stressed that the answers remain anonymous in order to prevent a lower response rate or social desirable answers. Also in both cases, the department of the employee is asked as an additional question. This information can be used in the analysis phase to determine the organisational context not only at the company level, but also at a department level. Possible differences between the departments can then be identified. In addition, the Internal Employee Satisfaction Survey is used to compare the results of both surveys. This latter survey is held internally once per two years, and has some overlap with the diagnostic tool of Birkinshaw & Gibson (2005). The Internal Employee Satisfaction Survey often has a high response rate. Therefore, it is valuable to include the results of this survey as an additional data source and moreover, to obtain more detailed insights.

4.2.8. Redesign and Recommendations

For the (further) recommendations, a practical method of Denyer et al. (2008) will be applied in this thesis. These authors illustrate "CIMO-logic" for describing design propositions. The CIMO-logic is a logic that extends the traditional, explanatory IO-logic (if you want to achieve outcome O, do intervention I). With the scientific nature of science to understand the causal mechanism, this IO-logic can be extended with generative mechanisms (M) and the problematic context (C) (Denyer, Tranfield, & van Aken, 2008). The application of those four features leads to a practical design proposition in the structure of: *in context C, use intervention I, by means of mechanism M, to achieve outcome O*. To enhance the link between theory and practice, the CIMO-logic will be applied in this research.

4.3. Overview Total Research Design

The total research design along with the multiple interdependencies between the research questions and the accompanying data sources can be found in Figure 5. The eight sections of this chapter, which refer to the eight research areas, are given in parentheses. Roughly stated, the data collection takes place in the above three blocks and in the block 'Organisational Context', whereas the majority of analyses phase takes place within the frame 'Ambidexterity'. Finally, the lower block is related to the redesign of both the (CSR) strategy and the organisational context.

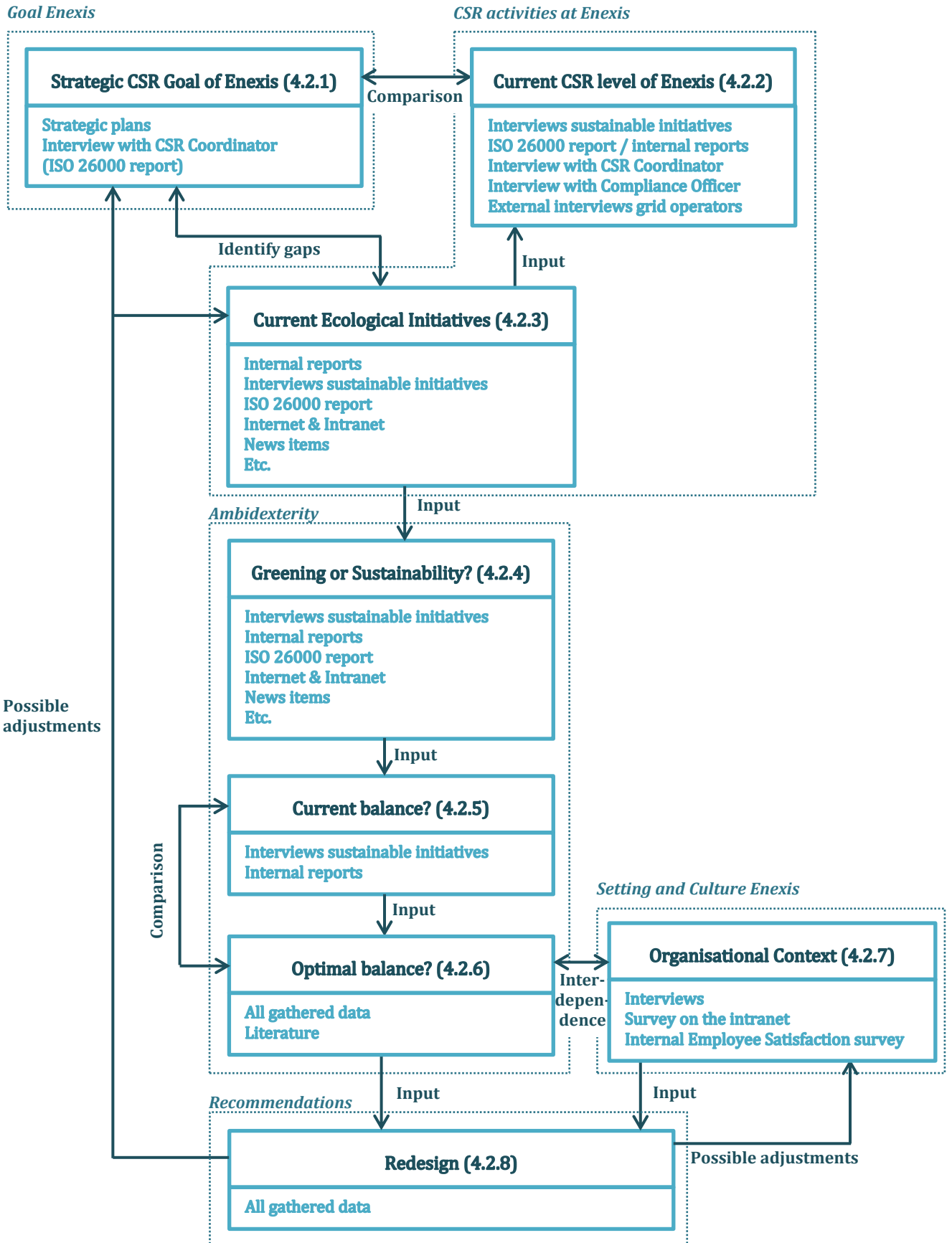


Figure 5: Research Design with Interdependencies and Data Sources

5. Results & Analysis

This chapter will provide the analyses and results of answering the research questions, which is composed by step 3 in Figure 4. Next to this, these results will be analysed in order to serve as a basis for the redesign in Chapter 6. Specifically, the organisational context will be assessed, the strategic goal of Enexis will be formulated, the current CSR level will be determined, the current ambidextrous balance is measured and finally, an optimal ambidextrous balance is presented.

5.1. Organisational Context

This section will give the results and analysis of the survey and additional interviews which are held in order to determine whether the supportive context at Enexis is sufficient to incorporate contextual ambidexterity. Is Enexis operating in the required high-performance context, and which organisational aspects leave room for improvements in supporting ambidexterity?

In total, 284 employees of Enexis filled in the survey; either via the interviews (N = 21), or via the survey on the intranet (N = 263). Comparing the respondents per department to the actual labour distribution per department, there are no striking dissimilarities. Detailed results are presented in the following subparagraphs, which are structured at company level results, department level results, and finally a comparison with the Internal Employee Satisfaction Survey is made. In the survey was room left for remarks, of which the relevant ones are shown in Appendix XI: Survey Remarks. These remarks can be used as additional insights.

5.1.1. Company Level

To determine the general organisation context of Enexis, answers of all respondents (N = 284) are averaged per scale (social support context and performance management context). The average scores of both scales are subsequently plotted on the graph of Figure 6. For both the performance scores management and the social support scale, the scores are 4.7 on average. As can be seen in the graph, this indicates that Enexis currently operates in a high-performance context. As a result, this enables a truly contextual ambidextrous organisation (Birkinshaw & Gibson, 2004).

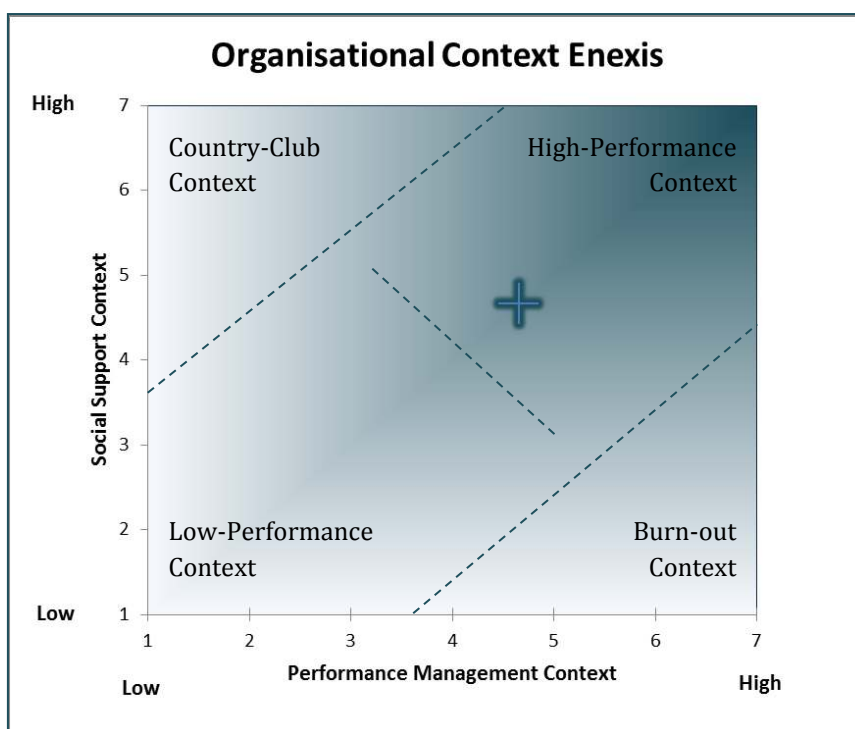


Figure 6: Organisational Context at Enexis (N = 284)

Although the condition of an appropriate organisational context for a successful ambidextrous organisation is met, additional analyses will be performed in order to identify possible outliers, and therewith possible points of specific attention. An analysis at a question level provides insight in the specific aspects of the organisational context. Since the general scores above represent an average, it is possible that there are some upward and downward outliers. Hence, to obtain more detailed insight in the specific context, [Figure 7](#) presents the average scores of all respondents per question. The colours in this table can range from dark red, via yellow, up to dark green, to indicate low, average, and high scores, respectively. The corresponding questions can be found in Appendix X: Diagnostic Tool.

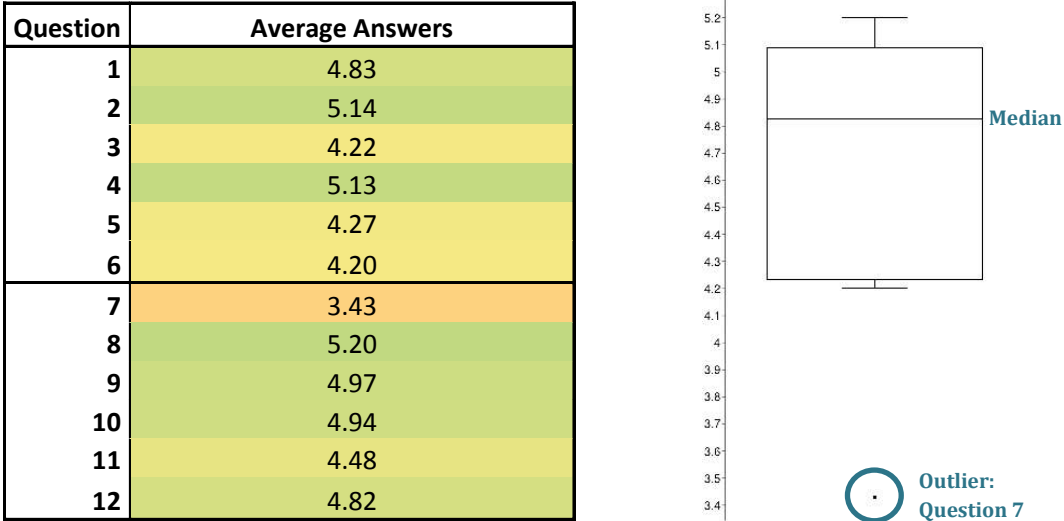


Figure 7: Average Scores Organisational Context per Question (N = 284) and Box Plot

As can be seen in the above table, most of the questions score above the neutral score of 4 (which is thus a positive score). In fact, only one question (question 7) scores considerably lower than the others with an average of 3.43. Three questions score higher than 5, and the rest of the questions lie somewhere in between the scores of 4 and 5.

Since question 7 - “My manager(s) at Enexis devote considerable effort in developing subordinates” - scores below the neutral score (negatively) and moreover significantly differs from the other scores (see the Box Plot in [Figure 7](#)), this parameter of the organisational context deserves some special attention. Therefore, the illustrated answers which were given in the interviews to this question are shown in Appendix XII: Developing Subordinates. It can be seen that there are some common aspects in the answers. The respondents are generally positive about regular meetings (BILAs), about the stimulation of education and courses, and also the helpfulness of a personal development plan is mentioned several times. On the other hand, another frequently mentioned experience is that subordinates have to take the initiative for personal development by themselves. The manager does often not actively stimulate personal development. However, when the employee explicitly asks for it, then the manager supports their development. Subsection 5.1.3. will use the results of the Internal Employee Satisfaction Survey to further elaborate on this specific question.

Although the average scores do not show it directly, an often heard response is related to the financial compensations, which correspond to question 6: “My manager(s) at Enexis encourage and reward hard work through incentive compensation”. The responses in general provide two insights. On the one hand, an employees’ salary can increase within a particular salary scale when one works hard and delivers satisfactory results. Sometimes bonuses are given in the form of gift cards. On the other hand, the higher one comes in a salary scale, the less the salary will increase. Moreover, the assessment system relies on a normal distribution, meaning that outliers have to be compensated. As an effect, this might lead to fewer possibilities to outperform (multiple times). A reason that the average score in the survey is not strikingly low may be due

to the perception of an employee. While one employee may be satisfied with (small) salary increases and small gifts, another employee might regard this as insufficient. In general, it can be stated that the fixed salary is relatively high, whereas the variable salary and bonus possibilities are more restricted. Subsection 5.1.3 will further elaborate on this potential issue.

5.1.2. Department Level

To explore the organisational context in more detail, it is possible that different departments score different in terms of organisational context. Therefore, the results are also calculated and displayed for each individual department. These figures are illustrated in Appendix XIII: Organisational Context Scores per Department. To obtain an overview of possible outliers amongst the departments, Box Plots of both scales (performance management and social support) are plotted in Figure 8. The figures show that the department Legal Affairs (N = 2) has upward outliers for both scales. Similarly, the department Purchasing (N = 2) has downward outliers for both the scales. For the other departments, no specific outliers occur. To further investigate the outliers and to search for possible other significant differences between the departments compared to the entire sample population (at company level), Table 3 shows the scores per scale for each department, along with the sample size and scale related P-values. To indicate possible statistically significant differences, unpaired t-tests are calculated for each department, per scale. For the calculations, a 95% confidence interval is used in order to determine the two-tailed P-value. As can be seen from this table, the outliers for Legal Affairs are not significant (due to the low response rate of this department). However, the outliers of the department Purchasing can be marked as of significant difference, although it has to be noted that the sample size is very (or too) small to draw robust conclusions.



Figure 8: Box Plots of Management Performance (left) and Social Support (right) Scales

Compared to the company level, there are not many striking differences at the department levels. It should be noted, however, that in this case significant differences are hard to obtain because of the small sample sizes per department. By all means, the scores of the department Purchasing (N = 2) are significantly different compared to the company level scores. Therefore, there will be extra attention for this specific department in the following subsection, in order to check whether the satisfaction survey displays similar results. Since the satisfaction survey has a much larger sample size, it can be determined whether the above results can be validated and whether they can be considered as well-founded.

Department	Score Performance Management Context	Score Social Support Context	N (Total = 284)	t-test (P-value)*	
Asset Management	4.96	4.96	27 (= 9%)	0.1845	0.1829
Communications	4.42	4.73	2 (= 1%)	0.7819	0.9311
Customer Relations	4.58	4.72	63 (= 22%)	0.6699	0.7079
Finance	4.62	4.75	11 (= 4%)	0.9338	0.7979
Fudura	5.02	4.53	11 (= 4%)	0.3006	0.7123
Health, Safety & Environment	4.33	4.08	2 (= 1%)	0.6995	0.4726
Human Resources	4.59	5.15	9 (= 3%)	0.8799	0.2010
Information Management	4.72	4.83	21 (= 7%)	0.7920	0.5077
Infra Services	4.58	4.52	125 (= 44%)	0.5785	0.2540
Legal Affairs	5.70	5.50	2 (= 1%)	0.2064	0.2986
Management Board	-	-	0 (= 0%)	-	-
Purchasing	2.75	2.75	2 (= 1%)	0.0226	0.0190
Strategy & Regulation	5.04	4.94	8 (= 3%)	0.3508	0.4926
Zebra Gasnetwerk	5.00	4.67	1 (= 0%)	N/A	N/A

* An unpaired t-test for each department is calculated with a t-test calculator at: <http://www.graphpad.com/quickcalcs/ttest2/> (95% confidence interval; two-tailed P value). Bold values indicate statistical significance.

Table 3: Overview Organisational Context Scores per Department and t-tests

5.1.3. Comparison with Internal Employee Satisfaction Survey

In order to deepen the understanding of the organisational context, of which the results are obtained by means of the diagnostic tool, these results will now be compared to the results of the most recent Internal Employee Satisfaction Survey, which is held (two-) yearly. This satisfaction survey generally has a high response rate (2,542 respondents in 2011) and contains of about 110 questions about the work environment of the Enexis employees. Therefore, this satisfaction survey can deliver additional insights in the organisational context. Firstly, questions similar to those of the questions in the diagnostic tool will be evaluated to assess whether both results correspond to or deviate from each other. Thereafter, the earlier determined striking issues (developing subordinates, financial incentives, Purchasing department) will be elaborated.

As mentioned, firstly the Internal Employee Satisfaction Survey is explored for similar questions to those of the diagnostic tool. In Appendix XIV: Similar Questions Diagnostic Tool and Satisfaction survey, the questions of the diagnostic tool are given, along with similar questions from the satisfaction survey. Moreover, the scores of all questions are provided. The satisfaction survey entailed a 5-point scale, so these scores are converted to a 7-point scale in order to equally compare both scales. As can be seen, almost all of the measured scores of the satisfaction survey are higher than the scores of the diagnostic tool. This can have several reasons. First, the scale is converted, which can have implications for the scores. Because there is less freedom in a 5-point scale, respondents are less able to express their thoughts in a number. Another reason is that the questions are simply not the same. Although they seem quite similar and direct into the same direction, they do not measure exactly the same concept. Thirdly, the response rate of the satisfaction survey is significantly higher, which can make a notably difference.

Notwithstanding the above issues in comparing both surveys, some analyses can be done regarding the outcomes of both surveys. Comparing the scores for each question, no striking differences appear. That means, there are no scores in the one survey that clearly point in another direction than the scores of the other survey. The largest difference can be recognised in question 7, the question related to the effort of managers in developing their subordinates. Since this question already obtained extra attention in subsection 5.1.1, this aspect will now be further explored.

Developing Subordinates

Question 7 was devoted to the question whether “manager(s) at Enexis devote considerable effort in developing subordinates” (3.43). Similar questions in the satisfaction survey show that employees are considerably satisfied with:

- Managers developing the capacities of their employees (5.33)
- The possibilities to personal development and growth within Enexis (5.49)
- Getting enough opportunities for training; to increase skills for their current function (6.02)
- Getting enough opportunities for training; to qualify for a better job (5.25)

These insights confirm the initial thought in subsection 5.1.1; there are enough opportunities for personal development, and managers help in developing their subordinates’ capacities. Incorporating both the results of the diagnostic tool and the satisfaction survey, it can be concluded that in general, managers put effort in and provide possibilities for developing their subordinates. However, the initiative often has to come from the employee. When the employee asks for it, then the manager devotes considerable effort in their personal development.

Financial Incentives

Next, the provision of financial incentives obtained special attention at the company level analysis. This was question 6: “managers encourage and reward hard work through incentive compensation” (4.20). The corresponding score was not significantly low, or different from other scores, but during the interviews and in the remarks of the survey it appeared that employees had a clear opinion about the incentives system. In the satisfaction survey, the following results are related to the provision of incentives at Enexis:

- Enexis adequately uses acknowledgement and incentives other than money, to encourage performances (4.28)
- Enexis makes sure that your salary fits with your delivered performances (4.55)
- I am satisfied with the appreciation and acknowledgement of my functioning (5.11)

Notwithstanding the positive scores related to the financial incentives, a general observation is that variable incentives are limited. Incentives determine to a large extent how individuals inside an organisation behave (Baker, Jensen, & Murphy, 1988). The larger the organisation, the more common the proportion of fixed compensation costs in the total pay package will increase (Balkin & Gomez-Mejia, 1987). Hence, the large fixed proportional compensation at Enexis is no exception. By all means, since increasing incentive compensation in itself will not lead to increased success (Birkinshaw & Gibson, 2004), no further analyses or recommendations concerning financial compensations are provided.

Purchasing Department

The final point which deserves extra attention is the statistically significant different scores of the Purchasing department compared to the average company scores. Therefore, the satisfaction survey is consulted to obtain more and better insights, and to determine whether this difference also can be found in this internal employee study. In the latter survey, the response rate of this specific department was more than twenty times higher than in the survey of the diagnostic tool (N = 43), which makes the results more valid and generalizable.

Analysing the results of the Internal Employee Satisfaction Survey on a department level, it turns out that the Purchasing department in the majority of the 109 questions scores statistically significant lower than other departments. In Appendix XV: Satisfaction survey - Scores of the Purchasing Department, the scores for the relevant questions of both surveys are provided for this specific department. These scores confirm that for seven out of the ten compared similar questions, the Purchasing department significantly scores lower compared to other departments. However, the scores are still above the average of 4; still pointing in the direction of a high performance context. Thus, considering the low response rate and the positive scores of the satisfaction survey, no further analyses for the Purchasing department are required.

5.2. Strategic CSR Goal of Enexis

First, the strategic goal of Enexis concerning CSR and related to the ecological activities is determined. This is done through strategic plans, internal/external reports, and an interview. What is the formulated ambition of Enexis related to the CSR activities in the upcoming years? At which level does it want to be in a few years? This section sheds light on these questions.

5.2.1. Strategic Plans

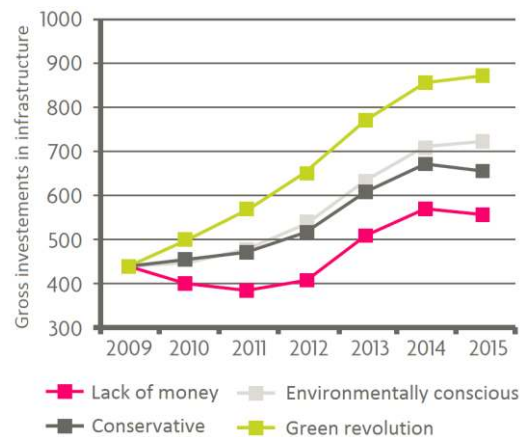
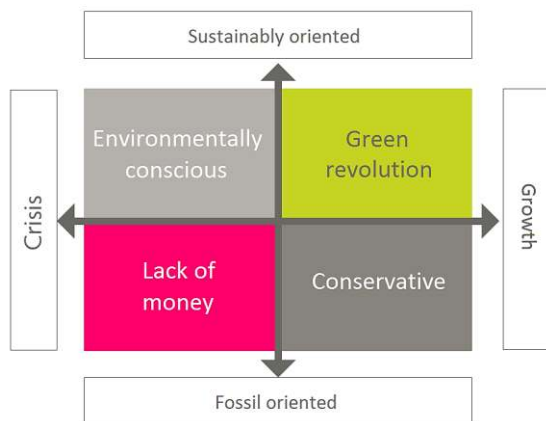
The document 'Duurzaamheidsinitiatieven maart 2012', the Annual update of the sustainable initiatives to the shareholders, starts with the following introduction: "Enexis wants to play a leading role in facilitating the energy transition, where they look further than compliance, such as the connection of a wind farm. This means first of all that Enexis wants to be a pioneer concerning the development of a sustainable energy network. A network which is ready for the energy transition, and which facilitates the energy generation and transport of sustainable energy." (Enexis, 2012, p. 2). This also translates itself in providing customers insight in their energy usage. These insights can create awareness at customers regarding their energy consumption, which can lead to behavioural changes and ultimately to energy reduction.

"Enexis wants to be a pioneer concerning the development of a sustainable energy network"

The mission statement of Enexis also illustrates its sustainable ambition: "Enexis goes to great lengths to achieve sustainable, reliable and affordable energy distribution" (Enexis Holding N.V., 2011). Next to this, society is valued the most in the stakeholder model of Enexis. This model consists of individual customers, shareholders, employees, and society. Sustainability is one of the four policy key points, next to affordability, reliability, and a public-oriented approach. This leads to the following statement: "Enexis aims at sustainability at moderate economic development" (Enexis, 2009).

"Enexis aims at sustainability at moderate economic development"

next to affordability, reliability, and a public-oriented approach. This leads to the following statement: "Enexis aims at sustainability at moderate economic development" (Enexis, 2009).



In the strategic plan 2010-2014 of Enexis, a special chapter about CSR is included, which concretises the general policies. In short, the ambitions of Enexis concerning CSR are derived from its natural role as a utility. A proactive role is then desired. In times of the Dutch unbundling in 2009, Enexis copied the CSR policies of Essent. Besides, Enexis formulated the ambition to grow from the current level of awareness of own behaviour, recognised by compliance and prevention of wastage, towards outside leadership; strategic proactivity. Enexis wants to cooperate with other parties towards the future, and it wants to ensure a leading position for Enexis. To achieve this, the following (ecology related) key points are defined: 1) energy savings and operational emission reduction, 2) minimising the usage of raw materials and reusing waste, 3) facilitating the energy transition, and 4) support others in achieving their energy targets.

"In terms of CSR, Enexis wants to set an example"

Furthermore, the mid- to long-term vision mentions the unifying role of Enexis in the energy transition. “We make the energy transition and a low-CO2 energy supply possible by exchanging information and increasing two-way transportation in our grids.” (Enexis, 2012, p. 1). An important statement in this document is that Enexis facilitates the energy transition, but that it is not responsible for a successful transition. Enexis primary makes sure the grids are ready for customers’ initiatives and takes their responsibility. Enexis therefore uses, in order of decreasing importance, the triad ‘Sustainable Networks, ‘Enexis’ Sustainability and ‘Insight into Energy Consumption’ and aims with the latter point emphatically at initiatives that will lead to load reductions (and thus at postponing reinforcements) in their grids, or at initiatives that stimulate the energy markets, which they regard as their CSR responsibility.

“Enexis wants to facilitate the energy transition and a low-CO2 energy supply”

Also the Annual Report mentions the importance of sustainability and CSR at Enexis: “For Enexis, Corporate Social Responsibility (CSR) is an integrated part of operational management. Providing reliable, affordable and at the same time sustainable energy supplies is our primary objective. The report on sustainable performance is therefore also integrated in the regular Annual Report.” (Enexis Holding N.V., 2011, p. 162). This is also highlighted by the following phrase: “Sustainability has developed into a central factor in our organisation. As regards Dutch

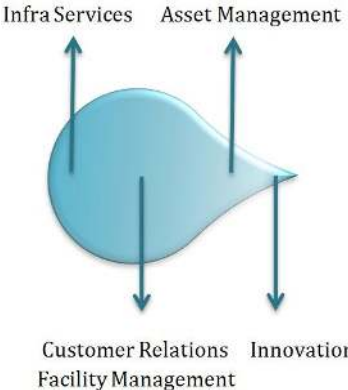
“CSR is an integrated part of operational management”

society, we will continue to work on the tasks which we have taken on together with the other distribution network operators under the ‘Green Deals’ and which are relevant to us in order to achieve the energy transition.” (Enexis Holding N.V., 2011, p. 11). Moreover, in 2011, a new form of collaboration arose. “A core delegation of the Shareholder Committee went through an intensive process within Enexis in which both parties gain better impression of how Enexis can continue in the future as a ‘leader in development’ in the areas of sustainability and Corporate Social Responsibility.” (Enexis Holding N.V., 2011, p. 19). In conclusion, Enexis thus wants to be a pioneer and leader in the field of CSR and sustainable initiatives. To achieve this, it uses several key policies, which are translated into concrete operational business activities and pilots .

5.2.2. Ambition of the CSR Coordinator

An interview with the CSR Coordinator underlines the focus on the key CSR ambitions of Enexis which are mentioned in the strategic plans. One of the key points in the vision concerning CSR is the focus on leadership. This means that Enexis would like to have a stimulating role for other parties, such that other parties want to be involved as well and that they can take over the lead in the future. Further, Enexis wants to be explicit in the field of sustainability. This vision is elaborated in a medium-term vision for the coming 3-4 years and is created by the Board of Directors, advised by internal sources. There is no formal actively used long-term vision.

The CSR Coordinator is asked to illustrate his thoughts about the ambition of Enexis on the Sustainability Spectrum. Where should Enexis be over a few years? This ambition is illustrated in Figure 9. The place on the Sustainability Spectrum is different for the different departments. Some departments are more proactive and sustainable oriented than others. Within this ‘water drop’, some departments can be roughly placed as illustrated in the figure at the right. According to the CSR Coordinator, it can be seen that the department Innovation proactively searches for new innovations. Asset Management also has a rather long term vision, so it is placed in the small tip too. These two departments mainly explore new opportunities and pull the other departments towards the right of the Sustainability Spectrum. Customer Relations and Facility Management can be placed somewhere in the middle. Infra Services commonly follows the other departments; here the new ideas are applied (exploited).



The CSR Coordinator explicitly mentions that Enexis has a pushing function; it has to stimulate other parties and markets to continue in certain projects. To fulfil this role, Enexis goes further than compliance, it regularly seeks the borders of the law and it sometimes tries to stretch these limits. He also thinks that developments on the spectrum should be approached both from a top-down level, as well as from a bottom-up level. From a top-down level, it should be clear who is responsible and who has which tasks. This can be made concrete in the form of specific projects. From a bottom-up view, employees should be stimulated to think in a CSR way. Furthermore, the policy can be more formal; clear targets should be prepared in order to effectively execute the policy. There is no time limit or goal when to reach the desired situation, but the CSR Coordinator thinks that three years is a challenging and realistic target.

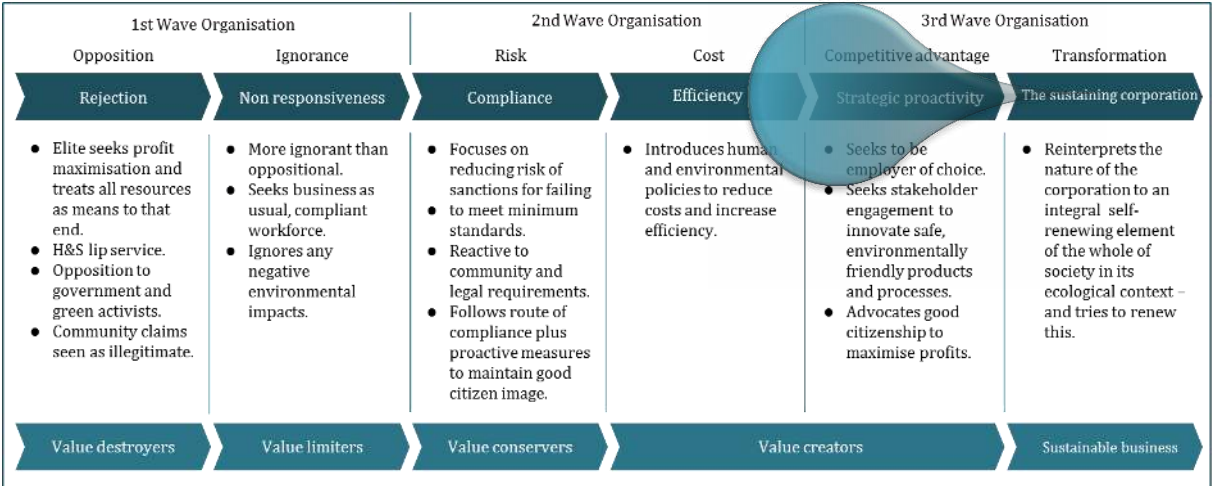


Figure 9: CSR Ambition of Enexis on the Sustainability Spectrum (adapted from: Kemp et al., 2004)

5.3. Current CSR Level of Enexis

Next to the ambition of Enexis in the field of CSR, it is valuable to know what the current CSR level is. This is explored via interviews and internal reports. Which activities are undertaken to support the CSR strategy? Goes Enexis further than just compliance? This paragraph will elaborate on these questions.

5.3.1. View of the CSR Coordinator

At the moment, there is a CSR strategy with 5 key issues: 1) recycling and reduction of waste, 2) good employment practices, 3) facilitating the energy transition, 4) energy savings and emission reduction of own processes, and 5) external energy savings and sustainability (supporting others). Another current development and point of attention is the increasing transparency towards the public environment. There are three main organisational concepts which can be distinguished as breeding ground for new ideas. These sources are on the basis of the energy transition, energy savings, and waste management. The first platform, the energy transition, is quite organised in the form of a sustainability board, which is held six times per year. This board is formal, but does not act as a decision-making unit. However, it provides (urgent) advices to the relevant departments. The sustainability board consist of the Board of Directors, members of the departments Asset Management, Customer Relations, Fudura, Communications, Strategy, and Public Affairs. The board is chaired by the CSR Coordinator. Secondly, the platform energy savings delivers input for new ideas, as well as the platform for waste management. These latter two platforms are more informal and less structured. At the energy savings source, Facility Management actually asks for certain initiatives. Furthermore, there is a special budget for adjustments on existing buildings to make them more sustainable.

Currently, the Board of Directors sometimes has (too) many top priorities. To solve this problem, the Board reduced the KPIs and cut back on CSR activities. This indicates that the pillar affordability sometimes has a higher priority than sustainability; the latter is (often) at the expense of affordable energy prices. Particularly, Enexis uses three main pillars in the corporate strategy, but the pillar affordability seems to have a top priority. This is, in case of a monopoly player, also part of their corporate responsibility, although not with an ecological impact.

Compared with the CSR strategies of the other grid operators, Enexis is in a leading position together with Alliander (part of Liander). Delta is following, and Stedin is not yet split from Eneco. Alliander also has an explicit CSR policy. They have a CSR staff department of six employees and one CSR manager, who is situated in the Managing Board. In addition to these developments, shareholders of the grid operators also have a significant influence on the CSR ambitions. For instance, the shareholders of Delta place specific emphasis on the affordability of the energy supply. Delta also has a lower CSR ambition compared to Enexis and Alliander.

If one looks at the facts about the CSR position of Enexis compared to the other grid operators, Enexis holds the leading position together with, or closely following, Alliander. This inter alia turns out from the ISO 26000 report. On the other hand, the outside world also has a certain view on the position of Enexis as a grid operator. The CSR Coordinator thinks that the outside world sees Enexis not as the leading grid operator, because Enexis does not promote itself very often. In contrast, Alliander regularly comes with news items in the media, presenting a new innovation and explicitly mentions the breakthrough innovation. Enexis is more modest in this respect. It seeks less media attention and if it does, it just states the facts and it does not judge what influence the innovation has. This probably leads to the view of the inhabitants of the Netherlands that Alliander is a more leading grid operator than Enexis.

If the coordinator of CSR has to indicate what part of the activities is dedicated to greening and which part to sustainability, he is not able to express this in percentages. However, he explains that in his view almost all activities are directed to greening. As an exception, he mentions the energy transition which Enexis actively facilitates. This activity is devoted to the development of a smart grid that can support the trend of decentralised energy production. Actually, some kind of activities within this field are at the edges of the law (e.g. energy supply via charging stations, netting decentralised generated energy in flats by the energy usage of individuals), but Enexis seeks the borders of the regulations and sometimes tries to divert those regulations. This gives Enexis a proactive attitude. To a certain extent, some innovations within waste management can also be seen as sustainable innovation. The CSR Coordinator is asked to visualise his thoughts of the place on the Sustainability Spectrum, which is outlined in Figure 10 (in blue).

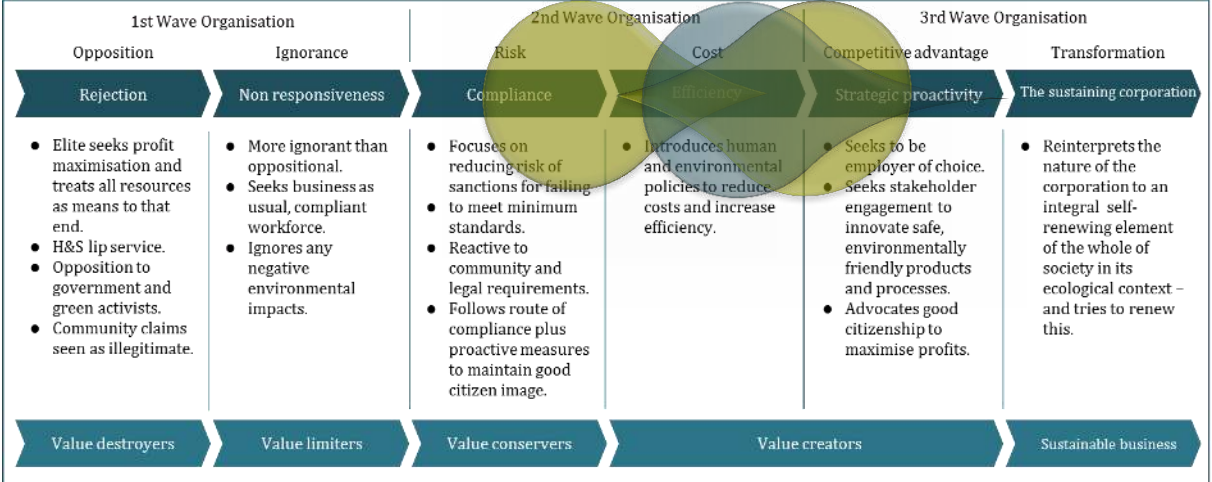


Figure 10: Current Place on the Sustainability Spectrum According to the CSR Coordinator (blue) and the Compliance Officer (yellow) (adapted from: Kemp et al., 2004)

5.3.2. View of the Compliance Officer

An interview with the compliance officer sheds light on the organisation and policies concerning compliance, which (roughly) indicated whether and to what extent the compliance phase has currently been fulfilled. Compliance is organised in several ways at Enexis. The monitoring is done via management reports using the software package B Wise. The Compliance Officer follows the regulations based on the electricity and gas laws, and manages the communications of these laws to the organisation. The focus is at prevention; proactive search for (possible) new laws and changes in the existing regulations, which are translated to internal relevance. The priorities are determined on the basis of internal questions that are asked at the Strategy & Regulation department, and external signals. The assurance is organised through approaching employees in case there is a presumption of potential violation of a regulation. As an extra check, the Compliance Officer monitors whether checks are performed and whether corresponding action is taken. There is not one single overall compliance report, reporting is done decentralised, at the operational level. Incidents, for instance environmental violations, are reported first at the line departments. Then, possibly via the staff department (Health, Safety & Environment in case of the environment), external experts are consulted who perform an independent analysis of the calamity. As a result, this delivers structural solutions, while operational solutions are searched internally. Further, there are external compliance inspections of the OPTA, SZW and NMa. They plan meetings with Enexis and they are also able to commit unannounced (field) visits to inspect the business activities.

At the moment, there are no known violations of the current regulations and no activities that Enexis should do by law, but that they omit. Recently, there were some issues related to publications, but these were not related to ecological problems. Though, these issues were adequately handled and solved. In general, the first endeavour is to comply with the law. Besides commitment to the law, there are also expectations of stakeholders. In this light, Enexis does not undertake all activities that are expected from certain stakeholders. For instance, there is the social need of more pilots in the field of energy savings. However, Enexis has limited possibilities in performing pilots in this direction. An example is E-laad. The minister expected from Enexis to be active in the field of electric cars, but activities herein are not allowed by law for a grid operator. Hence, sometimes expectations cause tension in the light of current regulations. Discussions between different stakeholders like politics and Enexis then result in searching the limits of the law in terms of pilots, and sometimes even pushing the limits; proactively preparing for new regulations or for the adaptation of existing regulations. To ensure that all employees know the relevant regulations in their function, they have to sign a confidentiality statement and there is a compliance protocol. Besides, they are expected to ask questions regarding regulations and they receive function related courses in their work field. When new regulations appear or existing ones are adjusted, employees are informed verbally and/or by means of publications.

According to the Compliance Officer, Enexis pays the most attention to the compliance- and the strategic proactivity phase of the Sustainability Spectrum. He thinks the compliance phase is quite satisfied, although it leaves some room for improvement. The interesting thing is that the two phases are interrelated, because initiatives in the strategic proactivity phase often require changes in the current law. In [Figure 10](#), his thoughts are graphically displayed (in yellow).

5.3.3. ISO 26000 report

Very recently (in October 2012), Royal HaskoningDHV conducted an ISO 26000 scan for Enexis to assess their CSR performance. The ISO 26000 scan is an international guideline for CSR, which in fact facilitates the incorporation of CSR into the normal business activities. It includes many different aspects, which are in particular the following seven core themes: good employment practices, human rights, labour practices, the environment, fair operating practices, consumer issues, and community involvement and development. The scan was performed by an external party, Royal HaskoningDHV, which made use of interviews to determine the scores for the different themes. Given the delineation of this Master thesis, especially the theme environment is

of particular importance in this case. It should be noted that this was a quick scan, which means that there was no detailed check of the obtained data.

Comparing the performance results of Enexis with the requirements of the ISO 26000 guideline, it appears that in total, 85% of the requirements are fulfilled. Looking at the theme environment, this aspect scores 91%. This means that eleven out of the twelve questions directed towards the policies, measurements and actions about the issues of pollution prevention, sustainable resource use, climate change mitigation and adaptation, and protection and restoration of the natural environment are scored with a 'Yes'. The only question which was scored with a 'No' was about the identification of risks and chances concerning climate change. Next to this score, the themes also obtained a priority score for Enexis. For the environment, this entailed a priority score of 73.75%, which is ranked third out of the seven themes (Royal HaskoningDHV, 2012).

The report of the ISO 26000 scan gives an evaluation about possible improvements for the different themes. When those improvements are followed and realised, a score of 100% on the guideline can be achieved. In the case of the environment, there are several possible improvements suggested. The most relevant one is to develop a climate policy, in which the risks and chances of climate change for Enexis are included. This vision should be linked to the CSR policy and identity of Enexis. Initiatives and projects in the field of CO₂ and energy can then be derived from this climate policy. Explicit goals and KPIs can be determined to concretise the climate conscious activities of Enexis (Royal HaskoningDHV, 2012).

5.3.4. External views of the CSR level of Enexis

To validate the above views of the internal employees, external interviews at other grid operators are held with employees practicing a CSR-related function. Delta Netwerkbedrijf (still a division of Delta N.V.), Stedin (not yet split from Eneco), and Netbeheer Nederland (the Dutch branch organisation of the grid operators) provided their view of Enexis its CSR position, as well as their view of the CSR positions of the other largest grid operators.

The different external views show a mostly consistent picture, in line with the internal views as well. Independently, the external employees came with almost the same overview of the positions of the different grid operators. Since the variances between the different views were small, the averages are plotted on the Sustainability Spectrum, which can be found in Appendix XVI: Overview of Grid Operators on the Sustainability Spectrum. From left to right, *Stedin* has currently its main focus at the first principles concerning efficiency. There is no explicit CSR policy (there is one at Eneco), but there are some guidelines and principles that clearly incorporate sustainable aspects within the decisions. For instance, sustainability is an important decision factor within the Purchasing department, and it is also mostly interwoven in the general activities. For *Delta Netwerkbedrijf*, almost the same story holds. Partly because they are not yet split from Delta N.V., there is no formal CSR policy. Though, there are initiatives that are aimed at efficiency like measuring the footprint and providing electric cars to their employees. The main focus therefore lies at the middle of efficiency, but closely followed by or at the same level as *Stedin*. Then, all the external interviewees recognise *Enexis* and *Liander* as the forefront concerning ecological initiatives. They place Enexis unanimously at the interface of efficiency and strategic proactivity, while they also place Liander unanimously just beyond Enexis, but only with a small difference. It should be noted that all Dutch grid operators have some activities that can be recognised as strategic proactivity. For instance, experiments with smart grids are undertaken by all the Dutch grid operators. However, the plotted averages in Appendix XVI: Overview of Grid Operators on the Sustainability Spectrum illustrate the main focus of each grid operator. In addition, the most applicable features of a CSR strategy at Enexis are highlighted in Appendix VII: Strategic CSR Options. Based on all data, Enexis applies a Citizenship Strategy.

In conclusion, using the insights of the detailed descriptions of the Sustainability Spectrum (Dunphy, Griffiths, & Benn, 2007) and the internal and external views, the overview of Appendix XVI: Overview of Grid Operators on the Sustainability Spectrum can be valued as a representative picture of the current situation.

5.4. Current Ambidextrous Balance of Enexis

This section provides the results of one of the most relevant parts of this research; what are the current ecological related initiatives? Are those initiatives more headed towards greening or sustainability? An overview of all sustainable initiatives with their corresponding parameters is given in Table 4, while a more detailed overview is presented in Appendix XVII: Greening vs. Sustainability. External validation sources for the obtained data through the interviews are provided in Appendix XVIII: External Validation Sources for Sustainable Initiatives.

5.4.1. Greening vs. Sustainability & Internal Capabilities vs. External Constituencies

The classification of each initiative to either greening or sustainability can be found in Table 4. The detailed background analysis of the determination of either classifying an initiative to greening or sustainability can be found in Appendix XVII: Greening vs. Sustainability.

<i>Project / Feature</i>	Sustainable area*	Main ecological impact	Internal/ External	Classification
CO2 Compensatie	ES	Carbon footprint reduction	Internal	Greening
Duurzaam Inkopen Netverlies	ES	Carbon footprint reduction	Internal	Greening
Duurzame Gebouwen	ES	Carbon footprint reduction	External	Greening
Elektrisch Rijden	ES	Carbon footprint reduction	Internal	Greening
Reductie Ketenemissie Afval	ES	Carbon footprint reduction	External	Greening
Reductie Netverliezen	ES	Carbon footprint reduction	Internal	Greening
Wagenpark op Groen Gas	ES	Carbon footprint reduction	Internal	Greening
Zonnecellen voor Medewerkers	ES	Increasing energy awareness	Internal	Greening
Blok voor Blok	IEC	Increasing energy awareness	External	Sustainability
DataDirect	IEC	Increasing energy awareness	Both	Greening
Econexis Huis	IEC	Demonstrate house of future	External	Sustainability
Energie in Beeld	IEC	Increasing energy awareness	External	Greening
Energiebesparing Huizen	IEC	Energy reduction of houses	External	Greening
LED en Slimme Meters bij OV	IEC	Energy reduction public lighting	External	Greening
Lespakket Scholen	IEC	Increasing energy awareness	External	Greening
Slimme Meters	IEC	Increasing energy awareness	External	Sustainability
Warmtewinst in Beeld	IEC	Increasing energy awareness	External	Greening
Intern Groen Loket	PI	No (in)direct ecological effect	N/A	N/A
Zelfenergieproduceren.nl	PI	Facilitating green initiatives	External	Greening
BioNoF	SN	Injection of green gas	Both	Sustainability
Bossche Energieconvenant	SN	Energy reduction, production	External	Sustainability
E-Laad	SN	Stimulating electric cars	External	Sustainability
Infrastructuur Biogas	SN	Injection of green gas	Both	Sustainability
Parkeerplaatspilot	SN	Matching demand and supply	Internal	Sustainability
Power Matching City II	SN	Matching demand and supply	Both	Sustainability
Smart Charging	SN	Matching demand and supply	Both	Sustainability
Smart Grid Pilot Breda	SN	Matching demand and supply	Both	Sustainability
Smart Grid Pilot Zwolle	SN	Matching demand and supply	Both	Sustainability
Smart Grids	SN	Facilitating sustainable energy	Internal	Sustainability
Smart Storage Unit	SN	Matching demand and supply	Internal	Sustainability
Smart Wash	SN	Matching demand and supply	Both	Sustainability

* ES = Enexis' Sustainability, IEC = Insight into Energy Consumption, PI = Providing Information, SN = Sustainable Networks

Table 4: Overview Sustainable Initiatives Enexis with their Parameters

5.4.2. Measuring the Ambidextrous Balance

The next step is to measure the ambidextrous balance of the selected sustainable initiatives that are shown in Table 4. As mentioned in the design of section 4.2.5, this will be done by three measures: the number of ecological initiatives, financial resources (costs in Euros), and the labour effort (in FTEs). The results are graphically displayed in Figure 11. It should be noted that the costs given in this thesis can differ from that of presented in the annual reports, because other measurements are used here to determine the costs related to CSR (see section 4.2.5).

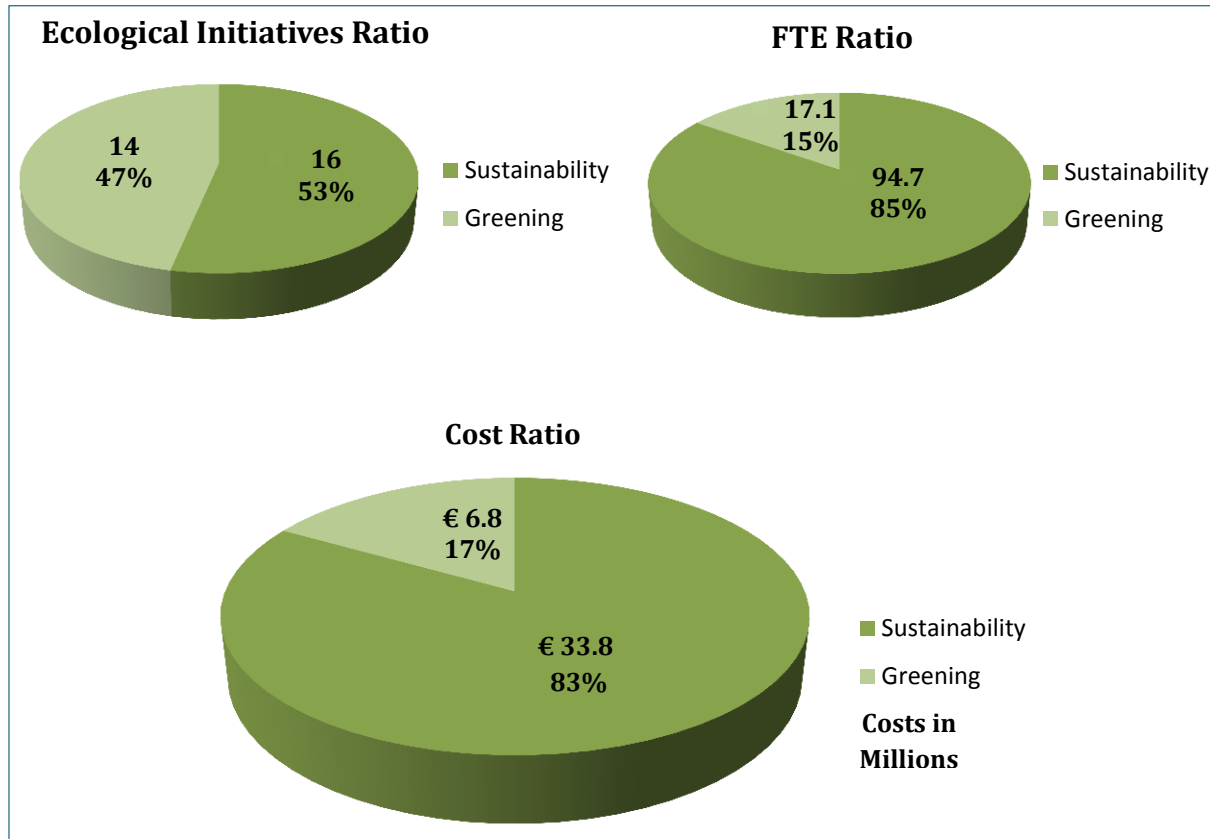


Figure 11: Measurements of the Current Ambidextrous Balance of Enexis

Figure 11 shows for each measurement the ratio between greening and sustainability. It provides the absolute data, as well as the relative amounts. From the diagrams, it becomes clear the presumption that most of the initiatives are directed towards greening does not hold. In fact, most of the projects can be classified as sustainability. Although the number of projects is almost equally balanced between the two extremes, most of the FTEs and costs are evidently directed towards sustainability. This can be logically explained, since the greening initiatives do mostly not require much effort in terms of financial resources and labour. These initiatives are aimed at increasing efficiency, which often can be achieved with small, incremental steps that are quickly realised at low costs (e.g. the green gas vehicle fleet and the compensation of CO₂). On the other hand, the initiatives classified as sustainability mostly require the exploration of new fields. Because there is less experience within such projects, they are a time consuming process, which also requires relatively high financial support. Often, these initiatives have the form of pilots, which comprise of many research and experiments (e.g. smart grids and the smart storage unit).

5.4.3. The Sustainable Value Framework

In order to obtain deeper insights in the ambidextrous balance of Enexis, the Sustainable Value Framework of Hart (2011) is used. This framework is given in Appendix IX: The Sustainable Value Framework. By means of the two axes: managing today's business (greening) – building

tomorrow's opportunity (sustainability) and internal capabilities – external constituencies, four quadrants appear. The different combinations give rise to the strategies Clean Technology, Base of the Pyramid, Pollution Prevention, and Product Stewardship. The two lower quadrants represent evolutionary routines, the 'Six Sigma Black Belt'. Those are the incremental innovations, which focus on efficiency. They are today's common business. The two upper quadrants represent revolutionary routines, a 'new form of material art'. Those are the radical innovations, which focus on breakthroughs. They are tomorrow's opportunity (Hart, 2011).

In [Figure 12](#), this Sustainable Value Framework is filled in with the sustainable initiatives of Enexis. The specific places are determined on the basis of the in-depth interviews and additional management information. As can be seen, the initiatives are quite spread across the portfolio; in each of the quadrants, at least four initiatives are situated.

Furthermore, as recognised before, it can be seen that the number of initiatives is almost equally divided between today (greening) and tomorrow (sustainability): 14 versus 16. The number of initiatives between internal and external is to a less extent equally divided; external constituencies occur somewhat more often: 12 versus 18. At the first glance, the sustainable value portfolio seems overall to be quite evenly filled, although the Pollution Prevention quadrant is somewhat underrepresented compared to the other quadrants. The latter may be because there are more small CSR initiatives that are aimed at pollution prevention, such as reusing coffee cups and printing at both sides, but those are too small to be recognised as projects. In general, the sustainable initiatives do not focus mostly on today's business (which was expected, see section 1.1), but they also pay significant attention to building tomorrow's opportunities; sustainability.

To further enrich the insights of the Sustainable Value Framework, the percentages of resource allocation in terms of money and labour for each quadrant are also added to [Figure 12](#) (in light blue). It appears that, measured in resources (*financial and time*), 16% of the resources is dedicated to greening, whereas 84% of the resources is put into sustainability. Viewed from the other perspective, 44% of the total resources is directed to internal capabilities, while 56% of the resources is related to external constituencies. Those percentages are also given per quadrant/strategy, see [Figure 12](#) (in dark red). The sustainability projects are almost equally balanced between Clean Technology and Base of the Pyramid. As seen earlier, this figure illustrates the imbalance of effort between greening and sustainability. Though, this can be (partly) explained by obvious expectations, which were mentioned at the end of section 5.4.2.

Analysis of the Assigned Enexis Categories

Most of the sustainable initiatives already had an assigned category of Enexis, which classifies a project into one of the following three groups: 1) Sustainable Networks, 2) Insight into Energy Consumption, and 3) Enexis' Sustainability. These categorisations are used in the Enexis strategies and stated within the Annual update of the sustainable initiatives. The classifications will be used in this study to subsume each project into one of these groups. In general, the assigned categories already indicate, up to a certain extent, in which direction the project has an impact. The first category, Sustainable Networks, focusses on changes due to the foreseen energy transition. The more decentralised energy supply and demand requires attention to balancing the energy demand and supply side of the energy market. The second category, Insight into Energy Consumption, places the emphasis on the increasing need of customers who want insight in their energy usage. Initiatives within this group support the customers in visualising and reducing their energy consumption. Enexis' Sustainability concentrates on setting a sustainable example to other companies and on reducing its footprint. The intention is to inspire others to copy this kind of behaviour. This is reflected in energy reduction of the business processes and sustainable purchases. As an additional fourth category, an informing type of project can be distinguished. These projects intend to provide an information platform about sustainable activities. The places of the projects within a certain category are displayed in Appendix XIX: The Sustainable Value Framework for Enexis per Category.

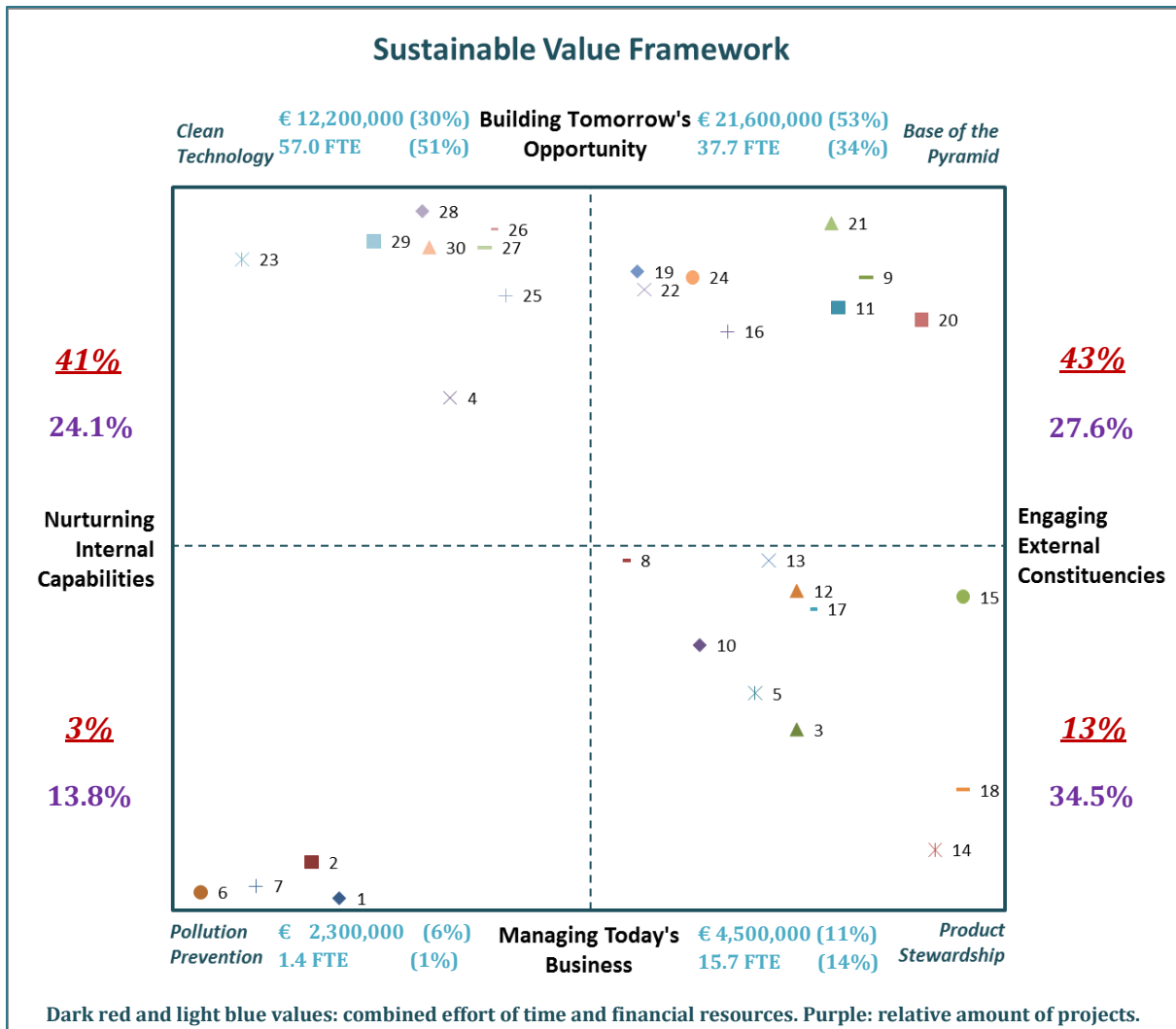


Figure 12: The Sustainable Value Framework of Enexis (Snapshot of 2010-2012)

Legend	
1 CO2 Compensatie	16 Slimme Meters
2 Duurzaam Inkopen Netverlies	17 Warmtewinst in Beeld
3 Duurzame Gebouwen	18 Zelfenergieproduceren.nl
4 Elektrisch Rijden	19 BioNoF
5 Reductie Ketenemissie Afvalverwerking	20 Bossche Energieconvenant
6 Reductie Netverliezen	21 E-Laad
7 Wagenpark op Groen Gas	22 Infrastructuur Biogas
8 Zonnecellen voor Medewerkers	23 Parkeerplaatspilot
9 Blok voor Blok	24 Power Matching City II
10 DataDirect	25 Smart Charging
11 Econexis Huis	26 Smart Grid Pilot Breda
12 Energie in Beeld	27 Smart Grid Pilot Zwolle
13 Energiebesparing Huizen	28 Smart Grids
14 LED en Slimme Meters bij OV	29 Smart Storage Unit
15 Lespakket Scholen	30 Smart Wash

Evaluating the projects within each of the four categories, some features can be noticed. The two most evident observations are within the Sustainable Networks portfolio and the portfolio of Insight into Energy Consumption. For the former category, it turns out that all the initiatives are classified as sustainability (see Appendix XIX: The Sustainable Value Framework for Enexis per Category). This is not unexpected, since the Annual update of the sustainable initiatives recognises projects within this specific category as developments for the sustainable gas and electricity grids. Those developments are mainly aimed at the decentralised *future* energy supply (Enexis, 2012). In other words, they aim at 'building tomorrow's opportunity'. For the latter category, Insight into Energy Consumption, the striking observation is that all the initiatives of this group are directed to 'engaging external constituencies'. This can also be explained by means of the Annual update of the sustainable initiatives, because this report states that projects within the category Insight into Energy Consumption provide information and services to consumers, companies and local governments, to provide insight in their consumption and loss of energy. "Enexis herewith supports sustainability targets of the stakeholders." (Enexis, 2012, p. 12). In other words, Enexis aims at providing energy insight to *external* parties. The third category, Enexis' Sustainability, is less consistent related to the four quadrants of the Sustainable Value Framework, although all but one initiative are classified as greening. Looking at the portfolio of this particular category, initiatives are situated in each quadrant, except in the Base of the Pyramid. Given the description of this category this is reasonable, because the intention is to set an example for other companies in light of CSR. As stated by the sustainable initiatives report, this is achieved in the field of sustainable purchasing and energy savings. These fields should be *quickly* effective and therewith they implicate greening. The only exception is Elektrisch Rijden, which is a sustainability project. Though, this is because of strategic reasons. This project is not initiated only for energy saving reasons; it is mainly intended to test the surrounding infrastructure. The final and fourth category, Providing Information, contains only one initiative, which is logically placed in the portfolio: providing information to *external* parties.

Overall, the categories of the sustainable initiatives correspond with the logical (expected) places on the Sustainable Value Framework.

5.5. Optimal Ambidextrous Balance for Enexis

The final section of this chapter will describe an optimal ambidextrous balance for Enexis. This is done on the basis of the best performing project portfolio and the five proposed factors as in section 4.2.6, namely firm strategy, type of industry, environment, legal form, and firm size. These factors will be evaluated for the case of Enexis, after which the customised optimal balance for Enexis, using those factors, will be determined.

It is suggested that for some firms CSR may be of a major influence on corporate strategy (Smith, 2002). One can argue that this also holds for Enexis. Since Enexis is a public utility, it serves a social purpose by definition. This thought is confirmed by other studies, which demonstrate that the utilities sector is the best ranked CSR sector (Sloppe, Schauten, Soppe, & Kaymak, 2011). Therefore, the evaluations in this chapter are based on the assumption that the general activities of Enexis mainly correspond with the CSR activities, because of the utility status and its interwoven initiatives.

It should be stressed again that 'optimal' in this context *cannot* be a precise amount in terms of allocated resources. For instance, it will be unreasonable to argue that exactly 64% of the resources or a certain amount of Euros should be dedicated to sustainability and the other 36% to greening. However, something *can* be said about the optimal direction and focus of those two extremes. Given the facts and conditions that cannot be changed by the company - or that are specifically chosen (e.g. strategy) - what is the optimal balance? As stressed, firm strategy is the leading and most dominant factor. Hence, the strategy will determine the main focus, while the other factors can influence this major direction. To determine the optimal ambidextrous balance for Enexis, the five proposed factors in this thesis are elaborated below for this specific case.

5.5.1. Average Optimal Ambidextrous Balance

Portfolio management can be valuable as a starting point in finding the optimal ambidextrous balance of an organisation, since “[a]n ideal portfolio sees the correct balance of projects – resource demands with resources available.” (Cooper R. G., 2007). Therefore, this tool can shape insight in creating an optimal portfolio for Enexis, in which the five proposed factors, as described in section 4.2.6, can be used to customise the average optimal portfolio (which will be done in the next subsection). Next, the average optimal balance will now be elaborated.

Cooper (2005) investigated how companies filled in their product portfolios. More interestingly, he studied how these portfolios differed between the worst and best performers in terms of contribution to total sales and profits. Asked the respondents to their relative balance between exploitation and exploration, only 19.4% cent of business managements claimed that their portfolio has the right balance between short term and long term projects; 38.0% did not. Although profit is not the goal of Enexis and the used product portfolio of Cooper (2005) does not entirely match the portfolio of Hart (2011), which is used in this study, they do have many similarities. Therefore, Table 5 shows the similar portfolios, along with the best, worst, and average performers in 2004. In this table, the specific project types of Cooper (2005) are underlined, while the corresponding project types of Hart (2011) are given in italic.

All Amounts in % of Projects in the Portfolio			
Development Project Type	Best Performers	Worst Performers	Average Business
<u>New to World</u> <i>Base of the Pyramid</i>	17.05	8.53	11.48
<u>New Product Lines to the Company</u> <i>Clean Technology</i>	25.87	22.99	27.12
<u>Additions to Existing Product Line in Company</u> <i>Product Stewardship</i>	26.82	22.01	24.65
<u>Improvements & Modifications to Existing Company Products</u> <i>Pollution Prevention</i>	30.26	46.47	36.75
Total	100	100	100

Table 5: Portfolio Breakdowns of Best, Worst, and Average Performing Businesses in 2004 (adapted from: Cooper, 2005)

According to Cooper (2005), “the message is clear: If your development portfolio resembles the average business’s [see Table 5] with a preponderance [(major part)] of NPD centered around improvements, modifications and additions, maybe it’s time to rethink what product innovation really means.” (Cooper R. G., 2005, p. 3). As Table 5 shows the relative attention to the four project types of the best business performers, it can be argued that this balance is - or approaches - an optimal balance, since those companies outperform the other firms in terms of contribution to total sales and profits. However, given the legal form of Enexis, the business goal is not to strive for maximal sales and profits. Besides, a possible limitation of the study of Cooper (2005) is that the portfolio only takes into account the relative *number* of projects, while it does not incorporate effort in terms of *labour* and *money*.

Overall, despite of the boundaries of Enexis’ legal form and in light of the relative number of different projects in the total project portfolio, it is assumed that the portfolio of the best performers can be seen as an average optimal ambidextrous portfolio, since the data are based on hundreds of different firms, varying in industry, size, etc. (see e.g. Cooper et al., (2002)).

5.5.2. Customised Optimal Ambidextrous Direction for Enexis

Next, it is assumed that the *average* optimal project portfolio does not equal the *firm specific* optimal project portfolio of Enexis. Because the best performers vary in their industry, size, etc., it can be reasonably argued that the optimal project portfolio of the best performers, as in [Table 5](#), is an average of all the best performing portfolios of different organisations along with different characteristics. That means, different firms can have different optimal performing portfolios. Hence, as a next step, the five proposed factors in this study, firm strategy, type of industry, environment, legal form, and firm size, will be incorporated to customise the average optimal portfolio to the specific case of Enexis.

To do this, both the Balance Dimension of ambidexterity (BD) and the Combined Dimension of ambidexterity (CD) are used (see section 3.3.3) in order to formulate statements about the implicated ambidextrous directions of each factor. After each of the factors are assessed for the specific case of Enexis, and taking into account that some features will weigh more than others, an overall ambidextrous direction - compared to the average - is determined.

▪ Firm Strategy

Since the ambition of Enexis is to be the *facilitating leader in the energy transition* (Enexis, 2009) - see also section 5.2.1 for more strategy statements - it can be supposed that enough time and resources should be dedicated towards sustainable strategies to facilitate the energy transition. As stated before, only greening strategies will not lead to a sustainable world, which can be expected from the facilitating leader of the energy transition (Hart & Milstein, 1999; Elkington & Love, 2012; Foster & Kaplan, 2005; Nurkka, 2012). In other words, when Enexis does not respond to the energy transition while other grid operators do, it will be difficult to pursue its leading position. For that reason, Enexis already develops new technologies, for instance smart grids, to experiment with future innovations.

As stated in the Annual Report, the focus of Enexis concerning sustainability is two-sided (i.e. ambidextrous). On the one hand, the company has a focus on their “[...] operations on *reducing emissions* by cutting down on energy consumption, on reducing the use of raw materials, and on increasing the re-use of waste streams.” (Enexis Holding N.V., 2011, p. 44). These activities can be generally marked as greening. On the other hand, “Enexis also takes an *active and initiating role in new developments relating to energy generation and use*. [...] The developments supported by Enexis are all dedicated to the energy transition, the sum of the measures is intended to enable and support the switch to sustainable energy sources like solar and wind energy [...], including fuel for transport and heating.” (Enexis Holding N.V., 2011, p. 44). These activities can be generally labelled as sustainability.

This approach is supported by literature, which argues that to ensure the strategic success of an ambidextrous organisation, a firm should arrange the product-markets portfolio with responsive market-oriented behaviours (more impact on incremental innovations), as well as with proactive market-oriented behaviours (more impact on radical innovations) This can be achieved by means of structural ambidexterity (see section 3.3.1); some business units can use a proactive market orientation, whereas other existing business units can apply a responsive market orientation. For the proactive market orientation, it holds that a high learning orientation increases the likelihood of radical innovations (Li & Lin, 2008). Thus, when some business units apply a proactive market orientation and have a high learning orientation, while other business units apply a responsive market orientation to extent and exploit the existing competences and skills, this will be optimal in order to achieve strategic ambidexterity (Benner & Tushman, 2003). In the case of Enexis, it can be seen that the business units Innovation, Asset Management, and Fudura have a (rather) *proactive market orientation*, while the other existing business units apply a more *responsive market orientation* (see also section 5.2.2).

When purely looking at the firm’s strategy characterisations, these implicate a more explorative, sustainability attitude (BD), and these require relatively much effort to develop and maintain a leading position in the energy transition (CD).

▪ Type of Industry

Enexis operates within the energy industry, specifically within the market of distribution and transport of energy. This industry can be characterised as a *slow-moving market*, since the assets such as cables and pipes are placed with an expected lifetime of about 60-100 years, or even more (Gedeputeerde Staten Noord-Brabant, 2012). This means that in case of buying a new cable or gas pipe, it should be carefully considered which type, with what features, and at what costs this asset should be bought. When after 20 years turns out that the cable is not sufficient anymore, this will cause large (undesired) amortisations. Therefore, for the purchasing of slow-moving assets, a long-term perspective is in favour, because the costs of possible amortisations will probably exceed the extra investments. However, most of the activities of Enexis are directed to the current energy grid. Enexis has the primary (legal) task to maintain the current energy network. Because of the same reason as above, the long expected lifetimes of the assets, there is *relatively much time* to radically change the existing infrastructure. Hence, the main focus will consequently lie more on the short-term, at improving the current energy network.

When evaluating the (direct) competition, the same conclusion can be drawn. There are only a few other grid operators in the Netherlands, who are all part of a market of regulated competition. Because of the regulations, they are limited in determining their price rates and activities. Since they have to operate within these limits, there is less freedom in differentiating from each other. Therefore, there is *relatively less (time) pressure from competitors* to radically change and adapt Enexis' business activities. They all have the same ultimate goal, providing energy to a part of the Netherlands. Moreover, there will be fewer consequences compared to a full competitive market when a grid operator performs less than the competitors. For instance, the risk of a bankruptcy or take-over will be smaller compared to that of a non-regulated organisation with dozens of competitors. Within the specific field of CSR, the competitive pressure is also (very) limited, since almost all other grid operators do have limited or even no formal CSR strategies.

When purely looking at the type of industry characterisations, these implicate a rather exploitative, greening attitude (BD), and these require relatively less effort (CD).

▪ Environment

Viewed from a global perspective, the environment faces a prospective *ecological energy crisis*, concomitant with high emissions and the coherent *climate change*. If society continues consuming resources and producing waste as we do today, we need 1.4 earths to sustain our energy and consumption needs. On the one hand, this can hamper current businesses in their activities. However, on the other hand, this forces companies to think more creative, more sustainable. As stated by Hart (2011), this creates the "biggest business opportunity in the history of the world." (Hart, 2011, p. 5). That means that companies should not only incorporate greening strategies, but that they also should invest in sustainable solutions for the long term. In order to create a sustainable future, several authors believe that only focussing on greening will not lead to a sustainable world. To achieve that world, radical change is needed (Hart, 2011; Nurkka, 2012).

The environment of Enexis is rather *dynamic*, and currently changing quite rapidly. As already described in Chapter 2, the energy sector is in the middle of an *energy transition*. As argued by Teece et al. (1997), environments of rapid (technological) change require firms to change correspondingly in order to adapt their activities to the changing environment (de Visser, 2010; Teece, Pisano, & Shuen, 1997; Güttel & Konlechner, 2009). More specifically, pursuing exploratory innovation is more effective in dynamic environments (Jansen, Bosch, & Volberda, 2006). Though, only focussing on the future will undermine the current business opportunities to exploit; since small initiatives can also lead to breakthrough innovation (Rotmans, Energietransitie in Nederland, 2012). Therefore, organisations should properly balance these two aspects to exploit the current products and processes, while simultaneously paying enough attention to future sustainable technologies and markets (Judge & Blocker, 2008).

Another important aspect of the environment of Enexis is the presence of *many involved stakeholders*. For instance, as stated in the Strategic Plan 2010-2014, the shareholders of Enexis have, by means of their policies, an (important) influence at the speed of the sustainable energy transition (Enexis, 2009). They expect Enexis to actively facilitate the energy transition. Furthermore, the central government has challenging ambitions concerning a sustainable energy supply. In 2020, the goal is to generate 16% of the energy in a sustainable way, through an electric sustainable energy supply by wind, solar, and biomass of over 35% (Vereniging Energie-Nederland, 2011; Rijksoverheid, 2012). Hence, Enexis and the other grid operators have to prepare themselves for this upcoming increased decentralised and more varying energy supply. Besides the governments, also citizens *put pressure* on more sustainable energy sources. They increasingly start their own initiatives, like placing solar panels, participating in local energy corporations, or buying an electric car (Rotmans, 2012). These developments generally require more radical technologies, and in this case more sustainably initiatives (Jansen, Bosch, & Volberda, 2006).

When purely looking at the environmental characterisations, these implicate a rather explorative, sustainability attitude (BD), and require relatively much effort to adapt to the environment (CD)

▪ Legal Form

In the case of Enexis, which is a *public utility*, other conditions apply than to normal businesses. For Enexis, as mentioned earlier, it is not of a major concern that the company will disappear or will face bankruptcy in the future, because of the utility status. This fact provides a utility the *opportunity* to do relatively higher investments in more long-term innovations, because there is less pursuit of profit (although the shareholders expect a certain efficiency). As an important notice, this should only be done when those explorative investments are of *social relevance*.

According to Article 16 of the 'Elektriciteitswet 1998', the *primary task* of all Dutch grid operators is to make sure to operate and maintain the grids in an effective and reliable way. As a *secondary requirement*, they have to *consider* measures in the field of renewable energy, energy efficiency and distributed demand or decentralised production, whereby the need for replacement or augmentation of production can be offset (de Raad van State, 1998). Thus, the energy law actually obliges grid operators to be ambidextrous; to focus on their primary task of operating and maintaining the grids, while also considering sustainable future solutions.

When purely looking at the legal form characterisations, these implicate a rather exploitative, greening attitude (BD), and these require average effort (CD).

▪ Firm Size

Enexis has about 4,100 employees, which makes it a rather *large organisation*. As studied by Cao et al. (2009), firm size has a significant *moderating* influence between the Balance Dimension of ambidexterity (equally dividing resources between exploitation and exploration) and firm performance (inter alia in terms of operational efficiency, profit growth, market share growth, and market reputation). Though, striving to balance exploitation and exploration has more effect on smaller firms than on larger organisations. On the other hand, the CD is more beneficial for larger firms related to firm performance (Cao, Gedajlovic, & Zhang, 2009). In case of Enexis, the simultaneous enhancement of both greening and sustainability will yield synergistic benefits.

In addition to the above statements, the amount of current and readily accessible resources of an organisation can influence the benefits of a combined dimension of ambidexterity. When a firm has relatively resource rich-conditions, a high CD is more critical than for resource constrained firms (Cao, Gedajlovic, & Zhang, 2009). Compared to the other grid operators, Enexis is one of the largest (together with Alliander). Logically, larger firms have more time and financial resources in absolute terms, which probably increases the opportunities to perform additional (non-core business) activities (Chen & Hambrick, 1995). When comparing the larger grid operators with the smaller ones, this appears to be true. It can be seen that the relatively smaller grid operators (e.g. Delta Netwerkbedrijf and Stedin) have less additional resources to perform

more non-core activities. Hence, since Enexis has a *relatively great access to internal and/or external resources*, it can significantly further increase its firm performance by increasing both greening and sustainability initiatives.

When purely looking at the firm size characterisations, these implicate relatively less influence of the Balance Dimension (BD), and a strong influence of the Combined Dimension (CD) related to firm performance.

Overall Direction of the Five Factors

Next, the influences of the five elaborated factors above will be combined and compared to the average optimal project portfolio. The optimal balance for Enexis is not just the mere sum or average of these five factors; some features weigh more heavily than others. Specifically, the firm strategy weighs more heavily than the other factors, because (as mentioned before) the strategy mainly determines the project portfolio of an organisation. Next, incorporating both CD and BD of the five factors, an indication of the optimal ambidextrous direction, compared to the average optimal project portfolio, can be outlined for Enexis. The result can be seen in [Figure 13](#), which illustrates the different factors and their relative influence. The origin of the graph represents the average optimal project portfolio. From there, the arrows indicate, based on the previous analyses, the relative ambidextrous directions concerning BD and CD, for the specific case of Enexis. Overall, the total direction points at a relatively high emphasis on sustainability (BD), and at relatively more required effort (CD).

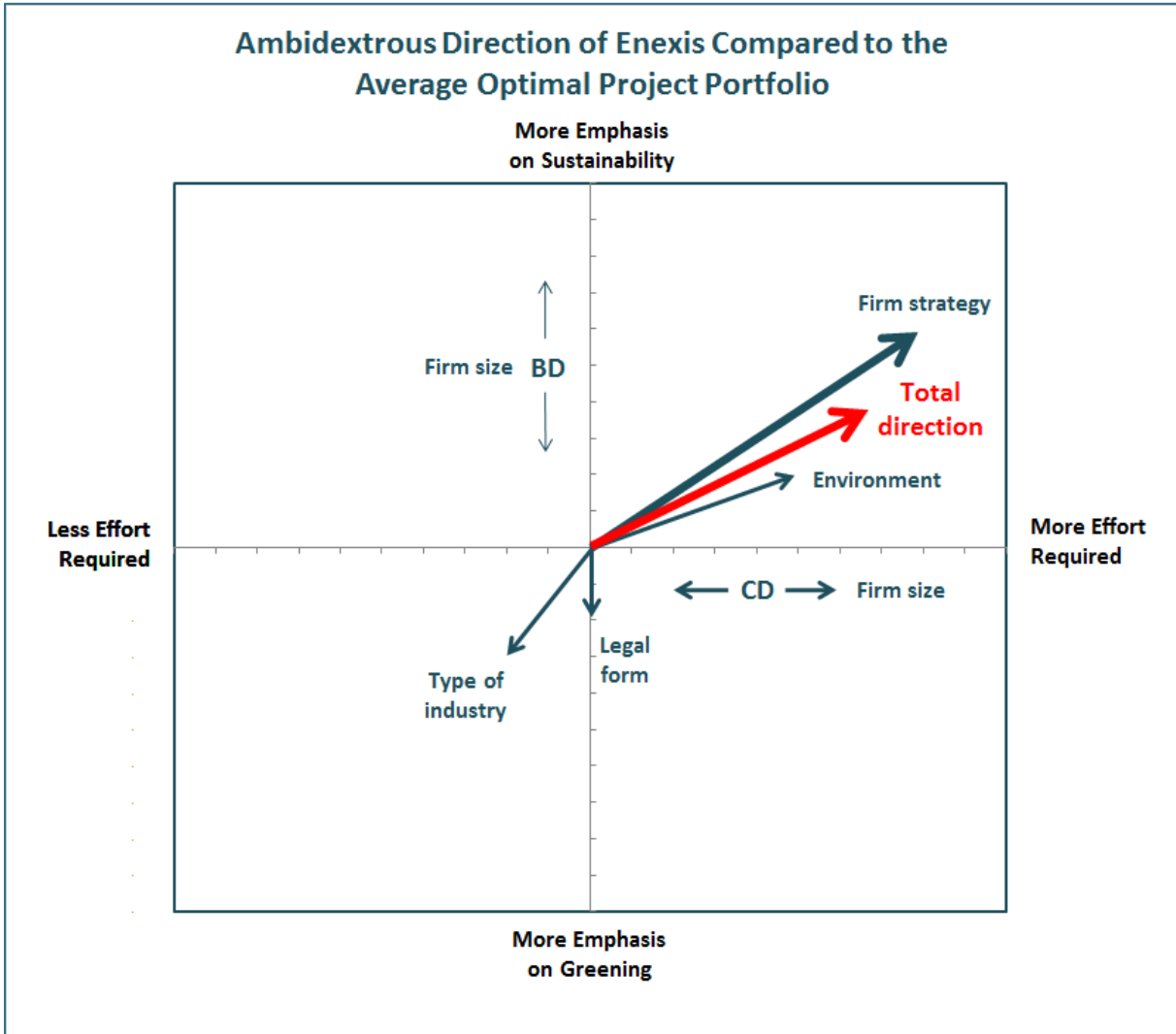


Figure 13: Relative Ambidextrous Direction of Enexis Compared to the Average Best Performing Portfolio

5.5.3. Optimal Sustainable Value Framework for Enexis

The outcome of Figure 13 has implications for the optimal Sustainable Value Framework of Enexis. Concerning CD, “firms that have access to sufficient resources, the simultaneous pursuit of exploration and exploitation is both possible and desirable.” (Cao, Gedajlovic, & Zhang, 2009, p. 781). Given the fact that Enexis wants to be the facilitating leader in the energy transition, and given that Liander currently holds this position - closely followed by Enexis, see Appendix XVI: Overview of Grid Operators on the Sustainability Spectrum - it is argued that relatively much effort is needed in order to keep up with co-leader Liander. Moreover, to bridge the gap between the current place (see section 5.3) and the desired place (see section 5.2) on the Sustainability Spectrum, accordingly actions should be taken (Menguc & Auh, 2008).

Concerning BD, a similar reasoning can be followed. In order to become the facilitating leader in the energy transition, to adapt to the dynamic environment, to fulfil certain needs of stakeholders, and to bridge the gap on the Sustainability Spectrum, it is argued that relatively much sustainability (exploration) is needed to obtain the desired competitive advantage (Tushman, Smith, Wood, Westerman, & O’Reilly, 2002; Güttel & Konlechner, 2009; Teece, Pisano, & Shuen, 1997; Porter & Kramer, 2006). Although there is no significant relationship between BD and firm performance, BD appears to be a moderator influencing CD (Martini, Aloini, Dulmin, Mininno, & Neirotti, 2012). As stated by several authors, “concurrent high levels of BD and CD yield synergistic benefits.” (Cao, Gedajlovic, & Zhang, 2009, p. 781). Though, it should be mentioned that BD results in less additional benefits for Enexis compared to CD, since BD is more beneficial to smaller and more resource-constrained firms, whereas Enexis has been recognised as a firm having greater access to internal and/or external resources (Chang, Hughes, & Hotho, 2011). On the other hand, the relevance of balancing both activities is supported by a vast amount of studies (He & Wong, 2004; Chandrasekaran, 2009; Jasmand, Blazevic, & Ruyter, 2012; Russo & Vurro, 2010), so these findings should also be included in the final considerations.

As a final conclusion, assuming an average optimal project portfolio as in Table 5, an optimal sustainable project portfolio for Enexis is created (with numbers of projects included in the Annual update of sustainable initiatives), based on all the findings and conclusions of this study. The sustainable project portfolio in Table 6 recognises all limitations and opportunities related to the Balance- and Combined Dimension of ambidexterity. Thus, it strives to apply and combine all the for Enexis optimal ambidextrous directions (CD and BD), started from the average optimal project portfolio, while simultaneously minimising the increase of new projects and not cancelling any existing projects (which is not desirable). Because it was stated that a precise balance cannot be given, Table 6 shows optimal ranges for Enexis’ optimal project portfolio.

Classification	Development Project Type	Best Performers	Optimal Project Portfolio Enexis		
			Range	# Projects	# New Projects*
Sustainability	<i>Base of the Pyramid</i>	17.05%	+/- 20-25%	8-10	0-2
	<i>Clean Technology</i>	25.87%	+/- 27.5-32.5%	10-13	3-6
Greening	<i>Product Stewardship</i>	26.82%	+/- 20-25%	10-11	0-1
	<i>Pollution Prevention</i>	30.26%	+/- 22.5-27.5%	8-11	4-7
*Optimised for max. 15	Totals	100%	100%	36-44	7-15

Table 6: Optimal Sustainable Project Portfolio for Enexis

6. Redesign & Recommendations

This chapter will now use the insights of the results and analyses of the previous chapter in order to provide a redesign and subsequent recommendations for Enexis (step 4 in [Figure 4](#)). First, it will aim at recommendations for the organisational context of Enexis; a condition for an ambidextrous organisation. Secondly, the current ambidextrous balance is compared to the optimal balance, whereupon recommendations to achieve this optimal balance are given. Finally, some further recommendations that relate to the above issues are presented as well.

6.1. Recommendations for the Organisational Context of Enexis

Although the condition for appropriate ambidextrous behaviour, a high-performance context, at Enexis is met, and further improvements therefore do not require top priority, some suggestions for further improvements can be given. It should be noted that the recommendations concerning the organisational context are only briefly discussed, since the context is not the main focus of this thesis. The next section provides more extended recommendations related to ambidexterity.

6.1.1. Focus on a Few Key Aspects of the Context and Use Them Consistently

It turned out that specific organisational levers, such as increasing incentive compensation, do not in itself lead to increased success. “The higher-performing companies, however, are those that focus consistently on just a few levers.” (Birkinshaw & Gibson, 2004, p. 54). In fact, Enexis already focusses on a few key levers by means of the ‘Enexis Manier van Werken’. This way of working places emphasis on taking one’s own responsibility and initiative. Besides, it aims at efficiency, but with an eye on tomorrow. Results, initiatives and desired behaviour are rewarded. As a main conclusion concerning the organisational context of Enexis, it is recommended to continuously and consistently apply the ‘Enexis Manier van Werken’ at all levels of Enexis. When individuals make their own choices about how and where to focus their energies, this shapes a high level of contextual ambidexterity. In such an organisational context, leadership becomes a characteristic displayed by everyone in the organisation (Birkinshaw & Gibson, 2004), which is an important aspect of the ‘Enexis Manier van Werken’. When Enexis further wants to improve the organisational context, the next subsection provides some suggestions.

6.1.2. Suggestions for Further Improvements of the Organisational Context

The results turned out that the possibilities of personal development at Enexis are plentiful. Though, the main reason for the low scores concerning the development of subordinates appeared to be the in general conservative attitude of the managers. They are willing to help, but only when the employee explicitly asks for it. The problem is, however, that some employees do not proactively ask for developing their own skills. Hence, in line with the ‘Enexis Manier van Werken’, a suggestion could be that managers emphasise to their subordinates that the initiative for personal development lies at the employee. When this is properly communicated, it will be clear for the employees that they should take the initiative. At general manager meetings, the relevance and benefits of clearly communicating this issue can be explained to the managers.

As stressed by literature: “for organizational context to be effective in creating ambidexterity, its message has to be disseminated clearly and consistently throughout the organization.” (Birkinshaw & Gibson, 2004, p. 54). It turned out that when a certain organisational unit significantly scores lower on organisational context compared to the other units, the entire firm performs less than other firms that have less difference between groups (Birkinshaw & Gibson, 2004; Gibson & Birkinshaw, 2004). Hence, in line with the reasoning in subsection 6.1.1 above, it is important that to clearly communicate the ‘Enexis Manier van Werken’ to all levels of Enexis. When in the future it appears that one group (e.g. department) scores significantly lower on organisational context, the lower scores should be investigated and the relevance of the ‘Enexis Manier van Werken’ can be explained and stressed in an open dialogue with the concerning unit.

6.2. Potential Improvements for the Ambidextrous Balance of Enexis

This section will provide a redesign of and a plan of action (see step 4 in Figure 4) for the current sustainable portfolio of Enexis. It aims to improve the current ambidextrous balance and ultimately to further develop and strengthen the CSR position. Followed by the redesign, the plan of action will outline the concrete steps in order to prepare for the actual implementation.

6.2.1. Redesign of the Ambidextrous Balance

The potential improvements for the current ambidextrous balance of Enexis logically follow from the difference between the current balance (see Figure 12) and the optimal balance (see Table 6). This difference implicates concrete improvements, while making use of the Sustainable Value Framework of Hart (2011) (see Appendix IX: The Sustainable Value Framework), namely:

- Start 4-6 new projects within the strategic quadrant Pollution Prevention
- Start 0-1 new project within the strategic quadrant Product Stewardship
- Start 3-6 new projects within the strategic quadrant Clean Technology
- Start 0-2 new project within the strategic quadrant Base of the Pyramid

To visualise the redesign, Figure 14 shows the current Sustainable Value Framework of Enexis, along with the above recommendations. Although it is not a necessity to start the new projects exactly within the red rounds, it will enrich the current sustainable portfolio, which therewith enables strategic alignment and improves organisational performance (Amaral & Araújo, 2009).

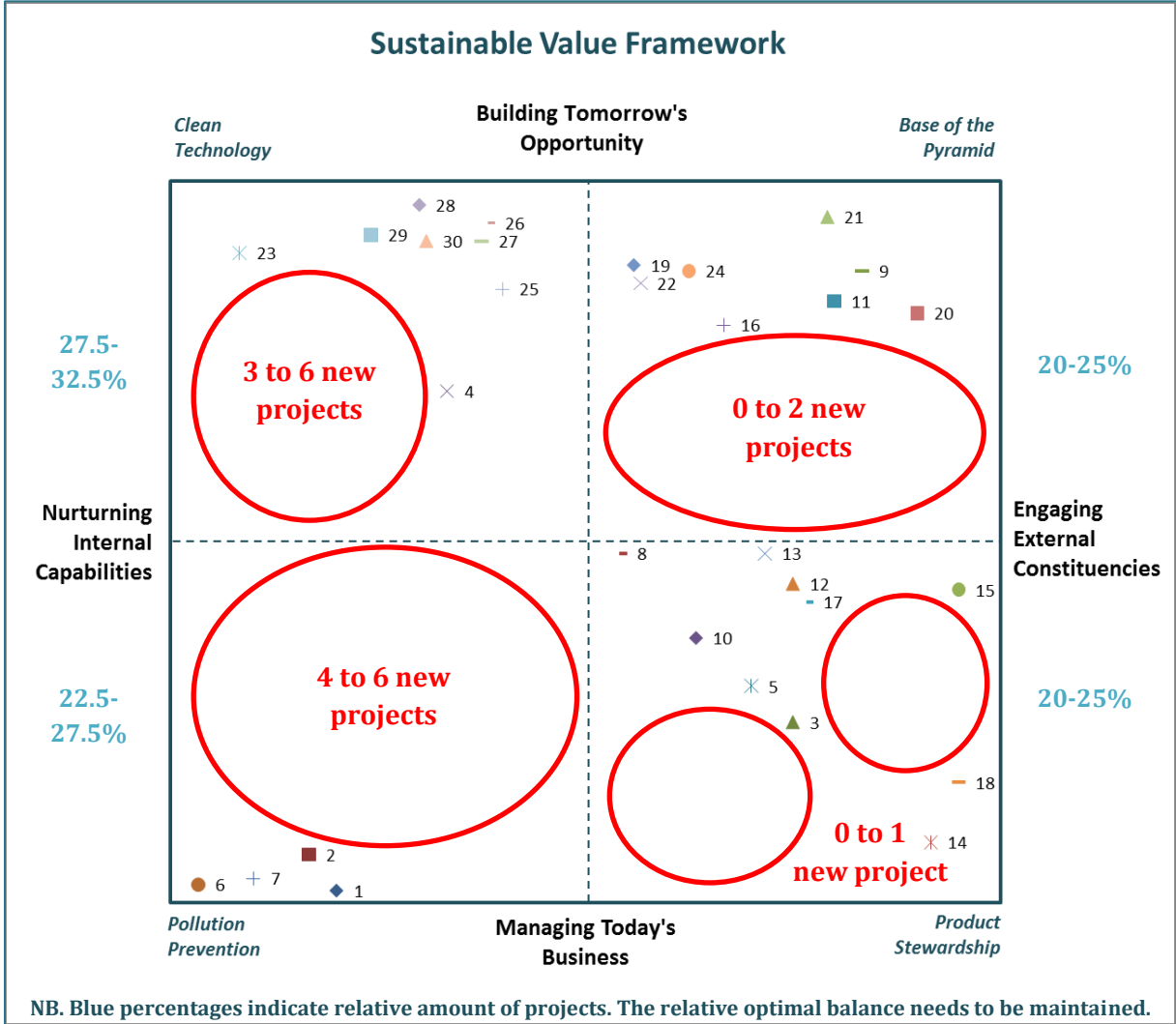


Figure 14: Redesign of the Ambidextrous Balance of Enexis

6.2.2. Plan of Action for Adjusting the Ambidextrous Balance

The intention of the following plan of action is that the redesign and recommendations about the ambidextrous balance of Enexis can be implemented in a relative easy way. Therefore, the recommendations, as implicated by the redesign in subsection 6.2.1, are elaborated in five steps, as detailed and as practically applicable as possible.

- **Step 1: Make use of the Sustainable Value Framework to Monitor Ambidexterity**

The first step is a relatively simple one: use the current Sustainable Value Framework (Hart, 2011) of Enexis as given in [Figure 12](#). In order to properly manage ambidexterity, the insights in this sustainable portfolio, filled with the current sustainable initiatives of Enexis, are essential (Heising, 2012). Moreover, they form the starting point for making strategic decisions about adjustments in this portfolio (Cooper R. G., 2005). Besides the mere use of this framework, it should also be maintained in order to update the developments that take place in time (see also the regulative cycle of [Figure 4](#)). This is important because “[c]onstant monitoring of the organization’s development and a re-adjustment of the relationship between exploration and exploitation and leveraging structures for tightening or loosening activities serve the purpose to resolve conflicts and ensure cohesion between different projects.” (Güttel & Konlechner, 2009, p. 169). This can be done by means of the provided descriptions in this thesis. That means, the places on the Sustainable Value Framework should be reassessed and updated when changes occur. For example, changes can occur caused by changes in the involved parties, or by specific project developments which indicate a significant different situation. Besides, the number of ecological projects, along with their corresponding financial and labour resources should periodically (for instance yearly) be measured to keep the ambidextrous portfolio fully up-to-date. Finally, it should be noted that the optimal ambidextrous balance can change over time too, so this optimal balance should also be reassessed when there are indications of relevant changes in the major characteristics of the five proposed factors (see again [Figure 4](#)). For instance, such relevant changes can be new regulations, strategies, breakthrough technologies, and changes in the environmental conditions. Or, “when speed begins to dominate at the expense of everything else, it’s time to rebalance and rethink one’s development objectives.” (Cooper R. G., 2005, p. 4).

- **Step 2: Make Someone Responsible for Managing the Sustainable Value Framework**

The second step is to make someone responsible for the management of the Sustainable Value Framework, and therewith for managing the sustainable ambidextrous balance of Enexis. This should be someone at the corporate executive level of an organisation, someone who is involved in the selection and direction of many concurrent projects (Wideman, 2006). Moreover, “[p]ortfolio management is a critical senior management challenge.” (Cooper & Edgett, 2001, p. 3). Looking at Enexis, this role would logically fit the CSR Coordinator (and the Strategy Manager). He already coordinates the sustainable initiatives at Enexis, providing him a wide overview of the concerning projects.

- **Step 3: Search for New Projects**

Thirdly, as a consequence of the redesign, the CSR Coordinator is responsible for adding new projects to the sustainable project portfolio, see [Figure 14](#). This should be done in order to enhance the Sustainable Value Framework and therewith strengthening and developing the CSR position as measured by the Sustainability Spectrum (see Appendix VI: Sustainability Spectrum). Actively searching for new sustainable initiatives can be done in several ways. For instance, Voice of the Customer research, idea contests, creativity techniques, scenario generation, and strategic planning are all methods that work well in feeding the pipeline with new projects (Cooper R. G., 2005). Other sources for new ideas are focus groups, customer panels and working with lead users (Cooper R. G., 2007). Furthermore, concrete examples for Enexis are the ISO 2600 report, the close ties with the Eindhoven University of Technology, branch meetings, the three internal platforms, and an exploration of applied projects at other grid operators (abroad). Particularly the platforms energy savings and waste management can deliver valuable ideas, since they are mainly aimed at Pollution Prevention (of which the most new are needed).

An important note is that the Sustainable Value Framework as illustrated in [Figure 12](#) is not static; it changes over time. As time elapses, tomorrow becomes today. The projects in the top of the portfolio (Building Tomorrow's Opportunity) will descend towards the lower quadrants (Managing Today's Business), or will disappear. Therefore, there should also be a flow of new projects that complement the portfolio from above and hence, also new radical sustainable initiatives (Clean Technology and Base of the Pyramid) should be frequently added to the sustainable project portfolio, in order to maintain an optimal ambidextrous balance (García, 2012; Dickinson, Thornton, & Graves, 2001).

- **Step 4: Set an Ambitious but Realisable Time Period**

As a fourth step, an ambitious, but realisable time period should be set in which the redesign can be achieved. This goal should be neither too short, nor too long. In case the deadline is too short, people tend to give up early, because they know they will not make it anyway. When the deadline is too long, it will create an attitude of inertia; people tend to think they have time in abundance. In this case, an appropriate suggested time period for starting 7 (to 15) new projects could be about three to four years.

- **Step 5: Further Integrate the CSR Policies into the Corporate Strategy**

Finally, the (ambidextrous) CSR strategies and policies should be further integrated into the corporate strategy. What do sustainable initiatives contribute to short-term goals and what to long-term strategies? These questions should be asked and incorporated into corporate strategy (Kemp, Stark, & Tantram, 2004). This is supposed to be of major importance, because both corporate strategy and CSR are interdependent. CSR should therefore be integrated with and driven by an organisations' strategy in order to be consistent; to speak with one voice. Without this interwoven strategy, it becomes change for change's sake (Moir, 2001; Kurucz, Colbert, & Wheeler, 2008; Dunphy, Griffiths, & Benn, 2007; Porter & Kramer, 2006). At the moment, interviews with other grid operators pointed out that they do not see CSR as an integrated part of Enexis' business activities. Hence, the Strategy & Regulation department of Enexis should make sure to further integrate CSR into the corporate strategy. Further reading about how to integrate CSR into strategies can be found in literature (Galbreath, 2009; Castka, Bamber, & Sharp, 2004; O'Brien, 2001; Nurkka, 2012). Besides, standards like the Global Reporting Initiative (GRI), ISO 14001, ISO 19001, and ISO 26000 can further integrate both strategies.

6.3. Further Recommendations

Next, further recommendations for Enexis will be outlined. These are not directly related to the organisational context and/or ambidextrous balance, though they can contribute to further improvements of the CSR strategy and to the general organisational performance.

- **Use and Apply a Long-term Vision**

It has been observed during this study that there is currently no explicitly used (formal) long-term vision or strategy by the Strategy & Regulation department. There is a mid to long-term strategy, but this strategy only reaches to 2015. The 'Kwaliteits- en CapaciteitsDocument 2012-2021' implicitly incorporates a longer-term calculation up to the year 2021, since this is necessary because of long-term capacity planning. However, there is no clear formulated long-term vision (or strategy), aimed at the period after 2015. Obviously, there are thoughts about how the energy sector would look like in the future, but there is no formalisation of this thinking. However, this will be valuable to (corporate) strategies. A long-term vision will provide insights in possible future scenarios, which can be translated into longer-term strategies. Of course, the future is uncertain and it is difficult to shape a vision of the future. Though, a broad vision already can fulfil. This can be for instance in the form of a cartoon, which illustrates a possible future energy system with an accompanying energy infrastructure. Such a vision can be used as inspiration and can provide input for new, out-of-the-box ideas. It can deliver the new ideas that enter the Sustainable Value Framework from above (exploring tomorrow's opportunities).

The relevance of a long-term vision is stressed by Graff et al. (2012), who argue that visualisations enhance the communication (and feedback) of long-term strategic issues, providing the opportunity to communicate visions and values externally as well as within the organisation (Graff, Äijälä, & Karjalainen, 2012). Moreover, adopting longer timeframes is an important element of a sustaining organisation with stronger performance (Looy, Martens, & Debackere, 2005). A third study “implies that aligning the executive and board levels in terms of a shared long-term vision and strategy regarding the exploitation–exploration balance serves to prevent the suppression process from setting in.” (Walrave, Oorschot, & Romme, 2001, p. 1747).

To set a long-term vision, inter alia the Innovation department can be consulted for different scenarios regarding the future. Since they have the most long-term view of all departments at Enexis, their future ideas can be used to formalise a future vision of the energy sector and the corresponding role of Enexis (García, 2012). At a later stage of this study, it turned out that Innovation already made a future vision, including an illustration of the ideal energy system in 2050 (Maes, Molenaar, Dam, & Meeberg, 2010). Hence, it is recommended that the Strategy & Regulation and the Innovation department increase the mutual alignment in order to apply a common vision. Innovation is situated in the fuzzy front end of the market, whereas Strategy & Regulation can apply those insights into long-term (corporate) strategies. Such departmental linkages are critical, but often overlooked elements of organisational ambidexterity (Taylor & Helfat, 2009). As a final remark, applying a long-term vision would also entirely fit within the followed Citizenship Strategy of Enexis (see Appendix VII: Strategic CSR Options).

Design proposition 1: in the context of a grid operator (C), use and apply a long-term vision (I), by means of creating a common (corporate) conviction (M), in order to avoid a success trap and to enrich long-term strategies (O).

- **Increase CSR Transparency**

Enexis wants to be the facilitating leader of the energy transition, in which Enexis has defined ‘leading grid operator’ as the one who will be most often consulted and recognised by external parties. To be recognised and seen as the leading grid operator, it is important that external parties know what Enexis does and how it performs. Therefore, increasing the transparency and actively communicating the CSR goals and performances will lead to better external insights in the CSR activities, which may increase the likeliness that external parties consider Enexis as the leader of the energy transition. The importance of transparency concerning CSR is also highlighted by literature, which states that “[t]ransparency is a crucial condition to implement a CSR policy based on the reputation mechanism.” (Dubbink, Graafland, & Liedekerke, 2008, p. 1).

Design proposition 2: in the context of CSR leadership (C), actively communicating the CSR goals and performances (I), by means of the reputation mechanism (M), will lead to better external insights in the CSR activities of Enexis (O).

- **Use Additional Frameworks to Strategically Assess and Apply CSR**

Besides the Sustainability Spectrum used by Enexis and this thesis (see Appendix VI: Sustainability Spectrum), additional frameworks can be used to further enhance the CSR strategies. For instance, Barrett (2010) describes Full Spectrum Sustainability, which partly overlaps with the Sustainability Spectrum and which therefore can be used as an extra framework in addition to the Sustainability Spectrum. Another method which can be used to assess the current CSR level is the categorisation of Galbreath (2006). This article distinguishes four different options for CSR strategies. The corresponding framework is given in Appendix VII: Strategic CSR Options. Finally, Nurkka (2012) also provides a categorisation of CSR, which is based on the industrial corporate model and the sustainable enterprise model. These three frameworks can help in further developing and strengthening the CSR policies and strategies.

Design proposition 3: in the context of CSR strategies (C), use multiple CSR frameworks (I), which categorise different CSR strategies (M), in order to achieve better insights in the current CSR level and to further develop and strengthen CSR policies and strategies (O).

- **Also Apply Ambidextrous Portfolio Management at the Corporate Level**

This study optimised the ambidextrous balance within the field of CSR. Obviously, it would also be interesting to study the ambidextrous balance at a corporate level. How do the exploitative activities relate to the explorative activities? In a similar way, these insights can be a fundamental basis for strategic decision making at the corporate level. A quick indication of the firm's ambidextrous balance can be made by distinguishing the investment costs in exploitation and exploration. What part of all the investment costs is directed towards the short-term, and which part can be allocated to the long-term? Making this distinction can provide a quick overview of the corporate ambidextrous balance. In a similar way as for the optimal CSR ambidextrous balance, the optimal corporate ambidextrous balance can be determined. Moreover, the project portfolio, by means of the Sustainable Value Framework, will provide insight in the current ambidextrous balance of the corporate projects/activities.

Design proposition 4: in the context of Enexis (C), also apply ambidextrous portfolio management at the corporate level (I), by means of balancing exploitation and exploration using the Sustainable Value Framework (M), in order to achieve an optimal corporate ambidextrous balance (O).

- **Monitor and Further Improve the Organisational Context/Culture**

This study measured the organisational context of Enexis, with the aim to assess whether Enexis operates within the desired high performance context. As mentioned, this is important for enabling contextual ambidextrous behaviour. Therefore, it is recommended to monitor the ambidextrous conditions as used in this research. This can be done by means of using the corresponding questions of the Employee Satisfaction survey, as given in Appendix XIV: Similar Questions Diagnostic Tool and Satisfaction survey. The conditions can then be measured within the Employee Satisfaction Survey, thus with the same frequency as that survey (two-yearly).

Design proposition 5: regarding the organisational culture of Enexis (C), two-yearly measure/monitor the organisational context (I), by means of the questions of the diagnostic tool used in this study (M), in order to assess and to potentially improve the ambidextrous conditions of Enexis and to foster contextual ambidexterity (O).

- **Foster Contextual Ambidexterity**

Enexis applies structural ambidexterity by means of the department Innovation, Fudura, and (to a less extent) Asset Management, which have their primary focus on exploring new technologies and processes. Infra-Structure particularly focusses on exploiting the existing and those new business activities. Though, as explained in the Methodology Chapter (see section 3.3), structural and contextual ambidexterity are needed as a complement to each other. Therefore, Enexis should also pay significant attention to contextual ambidexterity. This can be achieved by creating and maintaining a context which is characterised by a combination of stretch, discipline, support, and trust (Gibson & Birkinshaw, 2004). Practically, this can be measured and monitored via the existing Employee Satisfaction survey as given by *design proposition 5*.

Within dynamic environments, the continuous development of new knowledge in exploration and the quick exploitative application of this newly created knowledge is critical for gaining and sustaining a competitive advantage. As a consequence, contextually ambidextrous organisations have the power to stay ahead of competitors. Besides, firms that are contextual ambidextrous are able to manage the knowledge transmission between heterogeneous fields (Güttel & Konlechner, 2009). (Top) management teams have an important role regarding contextual ambidexterity. This is emphasised by Carmeli & Halevi (2009), who argue that managers and executive teams need to be aware of how contextual conditions can be managed effectively. As a suggestion, the Sustainable Value Framework may be a valuable tool in this managerial decision making. This can help Enexis further develop their leading position.

Design proposition 6: in the context of dynamic environments (C), make management and executive teams aware of the ambidextrous dilemmas (I), by means of using the Sustainable Value Framework (M), in order to stay ahead of competitors and gain a sustaining advantage (O).

7. Conclusions

This final chapter will draw the conclusions that can be derived from this study. First, a general conclusion will be given, outlining the main findings and conclusions of this Master thesis, in which also the specific contributions of this research are outlined. Secondly, limitations of this research are given. Finally, discussions along with further research are presented.

7.1. General Conclusions and Contributions

The problem at Enexis, which was used as a starting point in this Master thesis, concerns the gap between the current level of CSR and the ambition which Enexis wants to pursue. Enexis wants to make a significant step on the Sustainability Spectrum, though they did not exactly know *how* to achieve that specific goal. Moreover, it was not clear whether this could be achieved by means of small, incremental activities, or whether more new, radical activities were required. This Master thesis showed how this gap can be bridged, specifically by means of optimising BD and CD, but also by using the insights of and incorporating structural and contextual ambidexterity.

Enexis operates within a dynamic environment. This can be concluded since there are currently significant signs of an energy transition, which is able to radically change the current regime. Enexis has a key position in this prospective transition, since the grid operators act like facilitating links between the supply and demand side of the energy market. As described by transition theory, they are able to accelerate or to delay the energy transition. From this theory, it also became clear that we are currently halfway a new, sustainable energy system, which also has been referred to as a third industrial revolution. By all means, Enexis eventually has to adapt their technologies and/or activities, in order to deal with the different characteristics of the energy transition. The prospective decentralised energy supply will lead to more variance in the loads of the network, for which the grid operators have to find an appropriate solution. Here also lies an import task related to CSR; the grid operators should do this in an as affordable, reliable, and sustainable manner as possible, in line with the tripe bottom line (People, Planet, Profit).

Structural and contextual ambidexterity are needed as a complement to each other. As concluded from the contextual variant, Enexis has the proper organisational context, which enables contextually ambidextrous behaviour in the most efficient way. The results turned out that Enexis currently operates within a high-performance context, which is classified as the best condition to foster contextually ambidextrous behaviour. Concerning structural ambidexterity, Enexis has several business units that focus on either exploration or exploitation. The departments Innovation, Fudura, and Asset Management mainly have a pro-active market orientation, aimed at explorative innovations. On the other hand, especially Infra-Structure focusses on exploiting the new and existing business processes and activities. Hence, it can be stated that Enexis effectively applies structural as well as contextual ambidexterity.

Though, this does not include all aspects of ambidexterity. In order to fill in important research gaps, the main contributions of this Master thesis are the provision of the first frameworks in measuring the ambidextrous balance of an organisation, and in determining and achieving an optimal ambidextrous balance. Regarding the measurement of the ambidexterity concept, this study proposed three measurements: 1) the number of initiatives, 2) the financial resources dedicated to greening and sustainability projects, and 3) the labour effort allocated to greening and sustainability projects. As can be concluded from this study, these three measurements provide the opportunity to relatively easily measure the ambidextrous balance of a company. Regarding the determination of an optimal ambidextrous balance, this study proposed five factors: 1) firm strategy, 2) type of industry, 3) environment, 4) legal form, and 5) firm size. It is concluded that starting from the best performing portfolios, and on the basis of these five factors, an organisation can determine its optimal main direction concerning exploitation versus exploration. The resulting optimal ambidextrous directions can then be used to determine the optimal number of projects within each strategic quadrant of the Sustainable Value Framework.

In the period of 2010-2012, Enexis had in total 14 projects which were classified as greening, and 16 projects which were classified as sustainability. Further, 15% of the labour effort and 17% of the financial resources were dedicated to greening, whereas 85% of the labour effort and 83% of the financial resources were allocated to sustainability. This was in contrast to the initial thought that the majority of the initiatives would be related to greening, which also illustrates the relevance of measuring ambidexterity. Suppose the following situation: a certain firm has its strategy focussed on exploration, and the management *thinks* the majority of the projects are explorative. However, the *actual* situation is that the majority of the projects are focussed on exploitation. Here, but also in general situations, measuring the actual ambidextrous balance of the organisation would definitely help management in making appropriate decisions.

Comparing the current ambidextrous balance with the optimal solution, it turned out that Enexis can improve its sustainable initiatives portfolio. The optimal solution was designed to fulfil all the set requirements, and especially to achieve the desired step on the Sustainability Spectrum. In order to bridge this gap and to become the facilitating leader in the energy transition, it is concluded that relatively much effort is needed (CD), and that relatively much focus on exploration is required (BD). Considering the best performing project portfolios and these relative focusses, these conclusions led to the recommendation of starting minimally 7 new sustainable initiatives within the upcoming three to four years: 3 to 6 projects Clean Technology, 0 to 2 projects Base of the Pyramid, 4 to 6 projects Pollution Prevention, and 0 to 1 new project classified as Product Stewardship. Hence, as a next step after the measurement of the current ambidextrous balance, these insights can be used to adjust that current balance to the optimal balance. The presented plan of action provides a roadmap to achieve this optimal situation for Enexis. Moreover, the further recommendations regarding ambidexterity, CSR, and the corporate strategy provide Enexis the opportunity to further improve their (CSR) strategies and its general organisational performance.

This study was delineated to CSR strategies. However, the findings can also be generalised to corporate strategies. In that case, the concepts of greening and sustainability are broadened to exploitation and exploration (which are the classic concepts of ambidexterity). In addition, the Sustainable Value Framework can then be replaced by the more general project portfolio, consisting of the project strategies as in [Table 5](#). As a consequence, the same design of this Master thesis can be used when determining an optimal ambidextrous balance for the corporate strategy, but then the concepts should be applied in a more general way.

A final and overall conclusion which can be drawn is the importance of measuring and actively managing ambidexterity. As literature almost unanimously describes the relevance, benefits, and necessity of creating an ambidextrous organisation, this should be known by all managers of all organisations. Hence, the major contribution of this Master thesis is providing a helpful tool for managers and decision makers, while at the same time filling in an important academic research gap. By means of measuring the firm's allocated resources and by means of using the Sustainable Value Framework, managers can obtain insight in the ambidextrous balance of their organisation, after which they can take corresponding actions to achieve the determined optimal ambidextrous balance for their specific company.

7.2. Limitations

Like all studies, also this Master thesis has a number of limitations. First, the scope of this research was limited to the field of CSR. At Enexis, only sustainable initiatives were included, whereas other corporate projects were neglected. Incorporating all projects at the corporate level would result in a more valuable contribution. Secondly, the propositions are practically applied, but they need further theoretical/empirical support in order to validate the proposed influence of the measurements and factors. Thirdly, the measurements only provide a snapshot of the current situation (the last three years). However, the project portfolio and optimal ambidextrous balance will change over time. The results therefore only hold for a limited amount of time; continuous updates are necessary. Fourthly, the optimal ambidextrous balance

only took into account the number of projects. The measured financial resources and labour effort are also expected to be relevant, but they were not included in the optimal balance. Finally, sustainable projects were only incorporated when they were stated in the Annual update of sustainable initiatives. As a consequence, small initiatives, like reusing coffee cups and printing at both paper sides, were neglected in determining the optimal project portfolio. This raises the question when a certain initiative can be seen as a project to be included in the balance.

7.3. Discussions and Further Research

As a logical consequence of the conclusions and limitations, some discussions and suggestions for further research can be outlined. The major avenue for further research will be providing more theoretical and empirical support for the provided propositions. Although these propositions are primarily based on existing literature, further studies can improve and develop the proposed frameworks. Besides, further research can be devoted to the link between ambidexterity and CSR. This specific contribution can be studied, while also comparing this solution with other methods that are able to strengthen CSR strategies.

An interesting point of discussion is the relevance of the financial resources and the labour effort. The optimal ambidextrous balance presented a portfolio which was based on the number of projects. It did thus not incorporate the allocated costs and time spent on each type of project. Portfolio management mainly focusses on the number of projects in a portfolio, but other literature also stresses the importance of financial and labour resources as relevant measurements. Therefore, further research can shape insight in the relevance of balancing financial and labour resources. Specifically, further research can investigate the different results between increasing CD and/or BD by means of new projects and increasing CD and/or BD by means of more investments in the existing projects.

In addition, it can be interesting to investigate the interdependence of the firm's strategy and the optimal ambidextrous balance. This study took the strategy as a fact, but it can also be reversed. Given the unchangeable environmental conditions (e.g. the other four factors), what should be the optimal ambidextrous balance, and what would therewith be an optimal strategy? The question then arises how much the optimal ambidextrous balance should influence the firm's strategy. Are ambidextrous considerations more important than other forces that shape the organisational strategy? This would be an interesting avenue of further research.

Finally, it can be discussed and studied whether there are more or other factors which influence the optimal ambidextrous balance of an organisation. The five proposed factors in this Master thesis are based on an extensive literature study, but other factors may be of relevance as well. Are there other forces that determine a firm's optimal balance? Hence, additional research can shape light on potential other forces which might be overlooked in this study.

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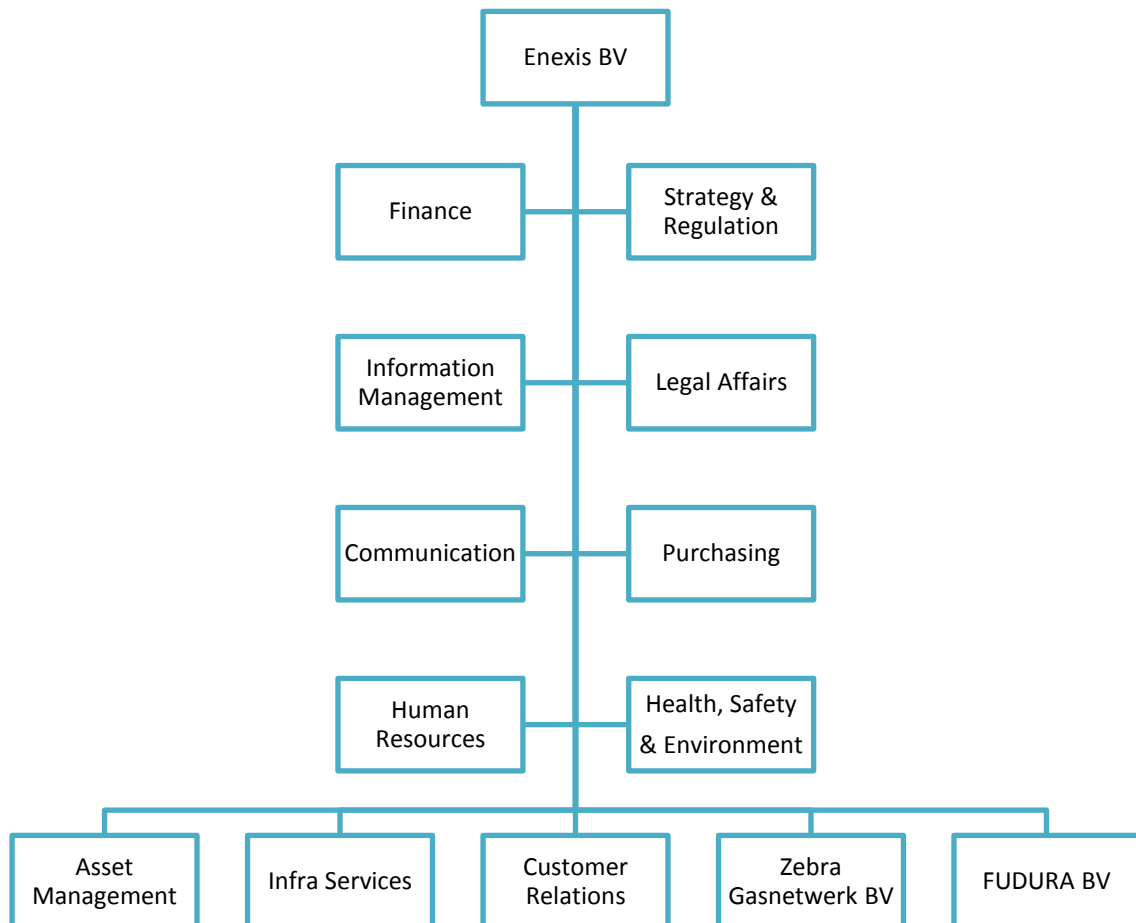
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Appendix I: Organisation Chart Enexis



Appendix II: Future Visions

What is the role of Enexis in about 20 to 30 years? What does the energy market look like?

- “Enexis has the same role, but uses a lot more ICT. There is more transparency in the energy grid; it is exactly visible and manageable where the energy flows take place. The role is (still) to facilitate the energy transition. Further, there are many electric cars and also much technologies and tool available to control the energy flows.”
- “I expect more and more decentralised energy production. This will be more expensive for the net managers. The smart meter facilitates this decentralised distribution, it is a means to achieve this trend. Further, the consumer awareness about energy usage has increased to a great extent.”
- “Enexis still exists. Many electricity is generated locally and sustainable. The role of Enexis is on the one hand to facilitate the local exchange of energy, and on the one hand to guarantee an energy supply via centrally generated power. The gas network has been mainly disappeared, electricity will take over the role of the conventional gas. Biogas is present at a larger scale, but this is mainly used for heating in the industry, not for homes. In general, the role of Enexis is still facilitating, but more like an ICT company, because of the important role of data.”
- “Much can be realised with the current energy grid. With optimisations and small innovations, the energy transition can be tackled too. With investments in and a higher quality of the current grid, the grid will function kind of the same in about 30 years as nowadays. On the other hand, there is also attention for innovations. Experiments are needed to test whether other solution provide better results.”
- “The area of Enexis has changed. Enexis has overtaken Endinet, Cogas and Rendo. The province Friesland is divested and is now part of the Liander area. The key values of Enexis still exist, but the network looks different, it is more directed towards a right balance. Cars still drive mostly on benzene or diesel, since I see too much barriers for the breakthrough of electric cars. There are more and more conflicts with the law, because new initiatives concerning the energy transition require different regulations. Further, the customer is placed central, instead of the system.”
- “Enexis still has its facilitating role. However, this role is more IT related, since more emphasis is placed on managing the energy flows within the network. This developments gives Enexis the opportunity to manage an independent IT platform. I think it is difficult to predict the future, since many project which are performed now are just experiments; it is not sure whether they will be the new standard. However, I think the awareness of people about sustainable energy has increased a lot.”
- “Enexis is still a grid operator, but the tasks are more extensive. However, I think there will be only one grid operator in the Netherlands, or even only one in Europe, since this trend of aggregation can be recognised in many other markets. Hydrogen and biofuels are possibly break through, but the gas network is also still in use. There are no or limited electric cars, since I think there is much less transportation taking place. Many people work together virtually, so there is no need of mobility. Transport will take place mainly via a public transport network circle through the Netherlands.”

- “Sustainability predominates. Most people have solar panels on their roof and much energy is delivered back to the grid. Some villages are totally energy neutral, and consumers have control over the energy market. The role of Enexis (when they still exist) is more following instead of leading. Enexis will only need half of their employees nowadays.”
- “Many houses and companies sustain in their own energy. This reduces the dependency of them towards the energy suppliers. People want to be independent are more critical. Enexis’ role does not change a lot; the market of demand and supply, which needs an infrastructure, still exists. The business activities are in light of supporting and facilitating the consumers. However, the facilitating function now also comprises IT and data management.”
- “Many energy will be produced sustainably. The role of the grid operators does not have changed that much. Probably smart grids will play an important role, whereby Enexis acts more like a system operator that balances the demand and supply of the decentralised energy flows. I think there is no single solution to the sustainable energy supply. It will be a mixture of different solutions.”
- “A lot more energy is produced sustainability. Enexis has in principle the same role; it facilitates the transport of energy. However, this is done in a different way than nowadays. The focus will be more on the information flows in the network; how to manage the variable energy supply and demand. Moreover, there are many other parties involved in this information management process. Further, as much as possible solar power is generated on roofs, while wind power is produced at sea on a large-scale. The electric car probably has overtaken the fossil driven car. When energy storage is developed, this can really lead to a breakthrough in the energy system.”
- “The role of Enexis will be more facilitating. A large part of the energy is generated in a decentralised way and the role is to facilitate this in the energy market. Fudura will be more like a knowledge institute with specialised advice. The energy usage will be reduced because the increase of humans is stagnating. Besides, innovations will further reduce the demand of energy.”
- “Enexis will have same role, up to a certain extent. What changes is the organisation from supply to demand, towards demand to supply adaptability. This is a consequence of the transition towards decentralised power production many energy will be generated locally by means of solar and wind power. In about thirty years, significant steps are taken into the development of smart grids. Also electric cars and green gas play an important role. Besides, the energy flows are more transparent, IT provides insight into the loading and balancing of the energy grid. Further, Enexis is more directed towards the customer and is more a network operator instead of a grid operator; it is involved in a broader scope of the network. Finally, the role is more to facilitate the sustainability of the local energy production.”
- “There is a more decentralised energy production. The grid operators are still there, because the networks between the different localities still exist. Because of the decentralised trend, there are more grid operators and energy suppliers than nowadays. Furthermore, there are a lot more corporations in which different parties work together. People are members of the corporations and also actively participate in them. This trend can be seen in general, so not only in the energy market. There are electric cars, but the mobility has changed a lot. People more often work at their homes and avoid traffic jams.”
- “Most of the energy is generated locally. Enexis still operates the energy grid, although there are possibly also more decentralised grid operators to match the decentralised energy supply. Smart grids are developed and we are able to store energy in local batteries.”

- “Enexis only operates as a Holding, the mechanics work is outsourced to contractors. The role is then more steering than directing in nature. Besides, the commercial activities are more developed in the field of charging infrastructure. The gas network is undergoing a change, since possibly other gasses, such as hydrogen, are braking through. The turnover has been drastically decreased, due to grid free homes. More homes are self-sufficient; they use geothermal applications, solar panels, etc. This leads to more locally produced energy. The electric car can play an import role in this development, since it can be used for the storage of energy in times there is no sun and wind. In the field of mobility, the property of cars has been mostly disappeared. People now share their cars; property rights are outdated.”
- “There is a lot more local power generation, which leads to a two-way energy supply and transportation. All devices are connected to each other by means of a smart grid to control and utilise them more efficiently. The smart grid is controlled and managed remotely. Enexis is still focussed at the reliability of the components. However, the role has changed in in line with the two-way transportation of energy, which led to a more facilitating role. Since energy is produced and used mainly locally, Enexis makes sure there is also a central supply of energy in case there is not enough local energy. Finally, storage of energy supports the local energy grids.”
- “Energy is much more produced and consumed locally. However, central supply remains necessary, because sometimes there will be an oversupply (when the sun shines and the wind is blowing), and sometimes there will be an undersupply (e.g. in the evening). Storage is a crucial element. When this technology breaks through, it can significantly support the local production and use of energy. Finally, people are used to varying the demand side of energy.”
- “Gas is only a fraction of the total energy consumption. Heating is an important issue. The smart meter will have a great impact. The grids are equipped with a lot more IT and other materials. The roles in the energy sector will drastically change. Suppliers are more focussed on service and grid operators are more directed to decreasing the variance of decentralised energy production.”

Appendix III: Structure CSR Interview

Interviewee: CSR Coordinator

Planned duration: 1,5 hour

History of CSR policy at Enexis

- When did Enexis actively start with a CSR strategy/policy?
- Before that active approach, were there already related activities in the field of CSR?
- What has been achieved up to now, since there is a CSR policy?

Current CSR policy of Enexis

- What is currently undertaken to strengthen the CSR policy?
- How does Enexis determine which activities obtain attention?
- How is this organised (think of project, budgets, etc.)?
- Concerning the other grid operators, how can you compare them to Enexis you think?
- Do you think Enexis is one of the leading grid operators in the field of CSR?
- When you concern the Sustainability Spectrum, where do you think Enexis is situated?
- What do you think is the current balance between short- and long-term innovations within CSR?

Future vision of the CSR policy at Enexis

- Which steps are realised or planned for in the short term?
- Are there already any plans for the longer term?
- What is the vision/ambition of Enexis concerning CSR?
- How is this vision determined?
- When you concern the Sustainability Spectrum, what is the goal/ambition of Enexis?
- In which period Enexis wants to achieve this ambition?
- What has to be done to actually achieve this ambition according to you?

Appendix IV: Structure Compliance Interview

Interviewee: Compliance Officer

Planned duration: 1 hour

Organisation of compliance

- How is compliance monitored?
- How is compliance ensured?
- How is compliance reported?
- How is dealt with incidents?
- Are there certifications (e.g. ISO 14000, GRI)?
- Is there external supervision?

Compliance policies

- Are there any activities that are required by law, but which Enexis does not undertake?
- Are there any activities that are expected from Enexis, but which Enexis does not undertake?
- Did Enexis recently or in the past obtained penalties in the field of compliance?
- How are all the employees aware of the existing rules concerning compliance?
- When a new law or rule is introduced, how is this communicated to the employees?

Compliance phase

- Do you think the compliance phase is completely fulfilled?
If not: what is missing to completely fulfil this phase?

Appendix V: Structure CSR Validation Interview

Interviewees: CSR Managers/Coordinators of other grid operators and Netbeheer Nederland
Planned duration: 1 hour

History of CSR policy at Enexis

- When did Enexis actively start with a CSR strategy/policy?
- What has been achieved up to now, since there is a CSR policy?

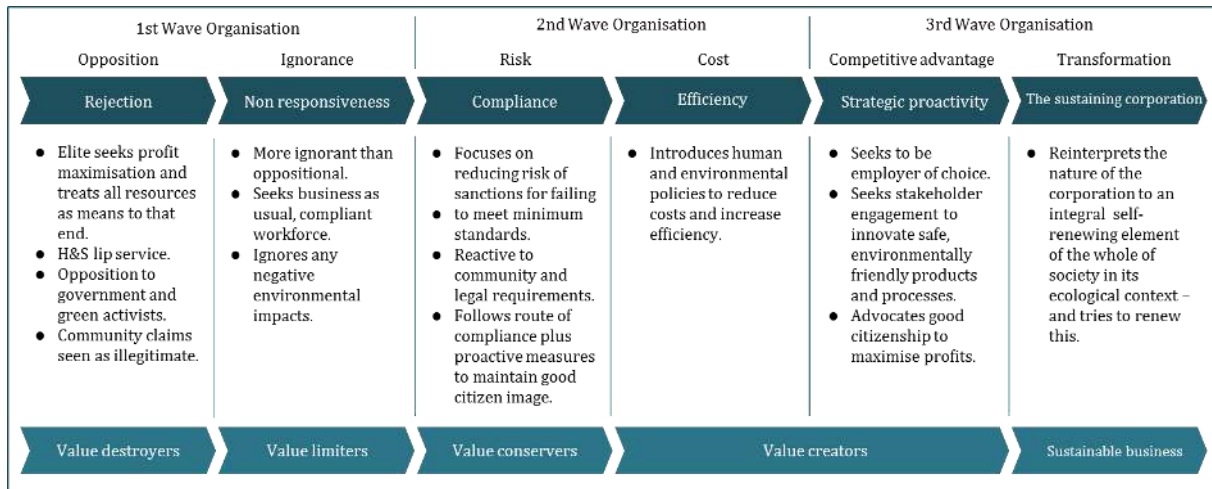
Current CSR policy of Enexis

- What is currently undertaken to strengthen the CSR policy?
- How does your organisation determine which activities obtain attention?
- How is this organised (think of project, budgets, etc.)?
- Concerning all the grid operators, how can you compare them to Enexis you think in the field of CSR?
- What do you think is the current balance between short- and long-term innovations within CSR (at your organisation and Enexis)?
- Looking at the Sustainability Spectrum, where do you think your organisation can be placed at the moment?
- Looking at the Sustainability Spectrum, where do you think Enexis can be placed at the moment?

Future vision of the CSR policy at Enexis

- What is the vision/ambition of your organisation concerning CSR?
How is this vision determined?

Appendix VI: Sustainability Spectrum



Appendix VII: Strategic CSR Options

	Shareholder Strategy	Altruistic Strategy	Reciprocal Strategy	Citizenship Strategy
Goal	Profit	Give back	Mutual benefits	Responsibility; Transparency; Sustainability; Accountability
Vehicles	Rationalisation; Self-interest	“Check-book” Philanthropy	Public relations; Sponsorship; Partnerships; Community activity; Volunteering; Cause Related Marketing	Governance; Applied Ethics; Stakeholder dialogue; Input to/outflow of Corporate Strategy
Measurement	Financial results	Donations	Activity-based reporting	Triple Bottom Line; Holistic
Benefactors	Shareholders; Others indirect	Community Groups and Causes	The Firm and the Community	To firm: survival, position, role; To partners of all sectors; To wider society
Benefits	Financial	Benefits may not be measured	Performance; Market Goals; Human Resources	Tangible plus potentially Intangible
Time Frame	Short-term vision	Intermittent; Possibly timed (e.g. annually)	Medium- to long-term planning	Long-term horizon
<i>The highlighted fields indicate the most applicable features to Enxis</i>				

Appendix VIII: Structure Ecological Initiatives Interview

Interviewees: Project Leaders / Key Co-workers

Planned duration: 1 or 1,5 hour

Ecological initiatives:

- Can you tell something about the background of the project; when did it start, what were the initial motives and goals?
- Which innovations do you recognise within the project?
- [Explanation of greening version sustainability]: do you think this project is more directed towards greening, or more towards sustainability? Why do you think so?
- Where lies the coordination of the project; is it more internal or more external?
- With which parties/stakeholders does Enexis cooperate in this project?
- What is the role of Enexis in this project? Is this role more leading or more facilitating?
- Was Enexis first with this innovation/initiative? How do you know this?
- In the last three years, what were the costs for Enexis in this project (excluding labour costs)?
- In the last three years, how many hours did employees of Enexis spent on this project?

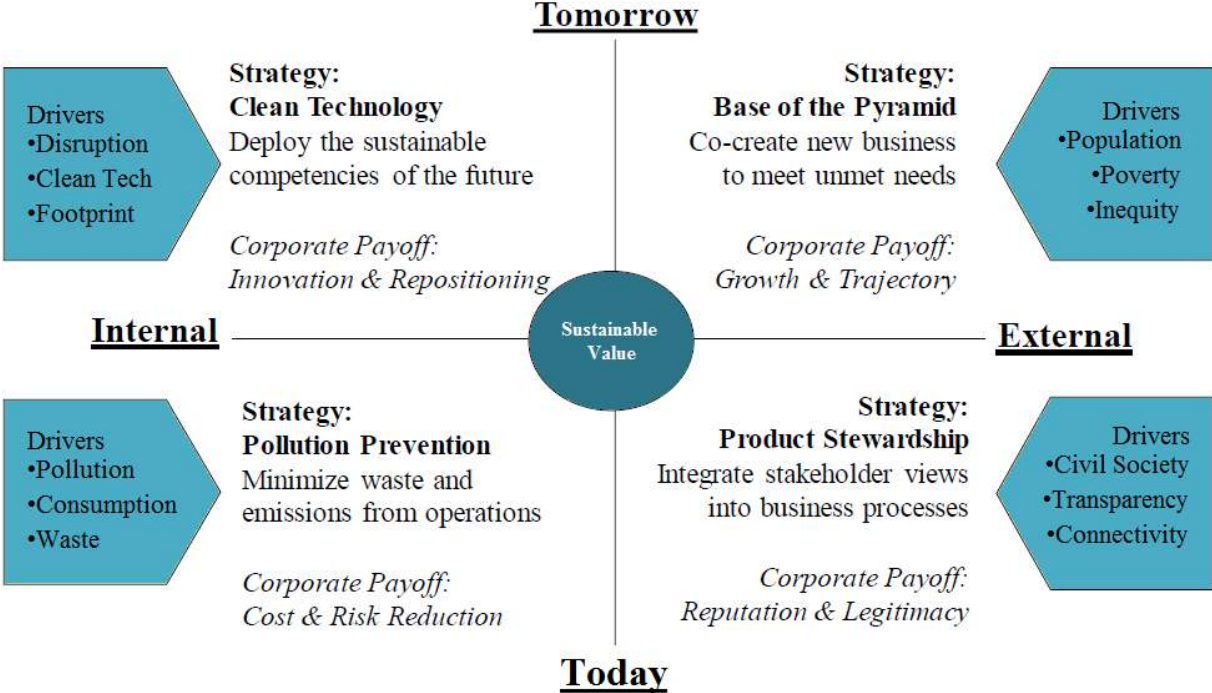
Organisational context:

- [Explanation of the intention and the Likert-scale of the survey]: can you indicate for the following 12 questions how much these questions apply for you? Can you also elaborate on your answers?

Future vision:

- How do you see Enexis and the energy sector in about 30 years? What is the role of Enexis, and how does the energy sector look like (think of green gas, electric cars, smart grids, etc.)?

Appendix IX: The Sustainable Value Framework



Appendix X: Diagnostic Tool

How does a particular company rate in terms of organisational context? To get a quick indication, answer the questions below, calculate the average scores and plot the answers on the graph.

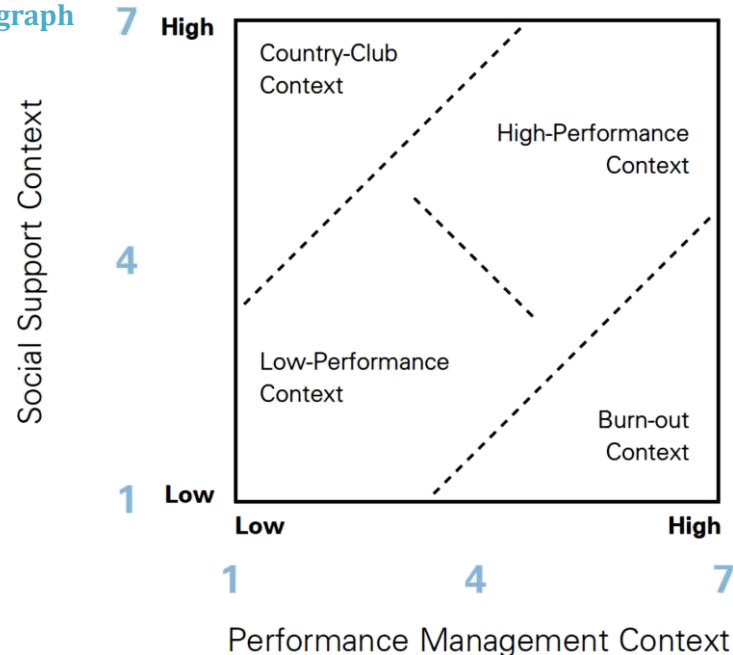
Evaluate Performance Management Context

Managers in my organisation	To a very great extent						
	Not at all			Neutral			
Set challenging/aggressive goals	1	2	3	4	5	6	7
Issue creative challenges to their people instead of narrowly defining tasks	1	2	3	4	5	6	7
Make a point of stretching their people	1	2	3	4	5	6	7
Use business goals and performance measures to run their businesses	1	2	3	4	5	6	7
Hold people accountable for their performance	1	2	3	4	5	6	7
Encourage and reward hard work through incentive compensation	1	2	3	4	5	6	7

Evaluate Social Support Context

Managers in my organisation	To a very great extent						
	Not at all			Neutral			
Devote considerable effort in developing subordinates	1	2	3	4	5	6	7
Push decisions down to the lowest appropriate level	1	2	3	4	5	6	7
Have access to the information they need to make good decisions	1	2	3	4	5	6	7
Quickly replicate best practices across organisational boundaries	1	2	3	4	5	6	7
Treat failure in a good effort as a learning opportunity, not something to be ashamed of	1	2	3	4	5	6	7
Are willing to take prudent risks	1	2	3	4	5	6	7

Plot scores on the graph



Appendix XI: Survey Remarks

Employees were able to provide remarks about the survey with questions regarding the diagnostic tool. Relevant remarks are shown below (in Dutch).

Relevant remarks:

“Vraag 8 insinueert dat dit iets is wat zou moeten, maar dat is niet helemaal het idee: ideeën moeten laag uit de organisatie komen, beslissingen niet.”

“Is dit onderzoekje niet erg mager om te beoordelen of Enexis voldoende in staat is om in te spelen op een veranderende omgeving?”

“Waarom moet Enexis SNEL veranderen? Het gaat juist veel te snel, het ene is nog niet geïmplementeerd of het volgende staat alweer voor de deur. Men moet juist voor rust zorgen om kwaliteit te borgen.”

“Hoog ambitie niveau is op zich prima. Daartegenover zijn er veel lopende activiteiten die vaak op dezelfde schouders komen. Vele malen dezelfde mensen waardoor prioriteiten stellen onvoldoende is. Veranderingen en ontwikkelingen implementeren en borgen krijgt onvoldoende ruimte.”

“We doen al 140 jaar hetzelfde werk; net als de buitenwereld verandert Enexis met zijn tijd mee, maar we moeten niet doen alsof het rocket science is.”

“Enexis managers missen gevoel hoe de markt/ wereld (mensen) in elkaar zit.”

“Graag zou ik als bouwkundige zelf inkopen op groen en bouwkundig onderhoud, op die manier gaan de kosten naar beneden en is de kwaliteit beter te waarborgen.”

“Ik heb het gevoel dat we afgelopen jaar, 10 jaar terug zijn gegaan in de tijd. De kreet verandert Enexis snel genoeg is hier zeker niet van toepassing. Er zijn zeker verbeteringen gekomen, maar de kwaliteit van het management is ver gezakt en zijn opnieuw het wiel aan het uitvinden. Zijn te veel met hun eigen imago bezig en luisteren niet naar ervaren medewerkers. De scores zijn naar eer en geweten ingevuld, en niet om het management in een kwaad daglicht te zetten.”

“Enexis manier van werken zit te veel gekoppeld aan het SAP-systeem, waardoor de bureaucratie niet kan worden doorbroken. Processen zitten gekoppeld aan te volgen handelingen in systemen”

“Beste uit de mensen halen doen ze wel op een hoog niveau , de onderlaag laten ze aan hun lot over. Dit zou in de lijn geregeld moeten worden maar deze zijn bezig met hun eigen problemen.”

“De noodzaak tot snelle verandering wordt eigenlijk meer beweerd dan wezenlijk aangetoond. De noodzaak wordt niet echt gevoeld en beweging blijft dus achterwege. Als het echt moet, is de sector wel degelijk bereid tot verandering - kijk naar de afgelopen twintig jaar.”

“Veranderingen volgen elkaar te snel op, de organisatie op de werkvloer krijgt het niet bijgebeend. Heb soms het idee dat men verandert omdat veranderen "IN" is ongeacht of het wel/niet noodzakelijk is. Sommige managers staan ver weg van de realiteit.”

“Werknemers zijn nog altijd mensen, en geen wandelende computers, ook jonge mensen moeten meer begrip gaan tonen voor oudere werknemers, kwantiteit in denken is geen kwaliteit in doen.”

“De spelregels voor financiële prikkels zijn te beperkt, zeker als je al aan de top zit.”

“Bemoedigen en belonen hard werk door financiële prikkels: We worden financieel (zeer) goed beloond maar dit is niet gerelateerd aan extra prestatie of inspanning.”

Appendix XII: Developing Subordinates

Question 7 of the organisational context diagnostic tool: "My manager(s) at Enexis devote considerable effort in developing their subordinates"

Answers (N = 21):

"There is a two weekly meeting about personal developments (**BILA**), and there is the ability to follow **courses**"

"They provide **education** and **coaching**"

"There are **progress meetings** and **education**, but **not on someone's own initiative**"

"There are **education** possibilities, **development plans**"

"**You see little of the environment**, which gives a limited view on the energy sector. **The personal development can be better**"

"**Initiative should come from the employee**, than the manager supports it"

"Managers use a **personal development plan**, which is very good"

"**Dependent of the manager**; some do so, but other absolutely not"

"**Part of review cycle**, but more **on your own initiative**"

"Most is **on your own effort**, not on the manager's"

"The manager stimulates **courses** and provide **BILAs**"

"This is **limited**. They measure how many courses you follow, but that says nothing"

"You **determine your personal goals**, and your managers supports this with possible **courses**"

"You have to **come up with it by yourself**"

"They start with your goal: how can you achieve this? Then they search for solutions (e.g. **training**)"

"This is mainly **on your own initiative**, the manager approves or rejects it"

"The manager pays much attention to the content, personal development is **mostly on your own initiative**"

"They present **courses** and **educations**, but it **can be more personalised**"

"They hold **conversations** and provide room for ideas and courses"

"A **BILA** is held twice per month, but **attention is not paid to everyone**"

"**BILAs** are held and they offer **educations** and **courses**"

Common mentioned features:

+ BILA: 7 times

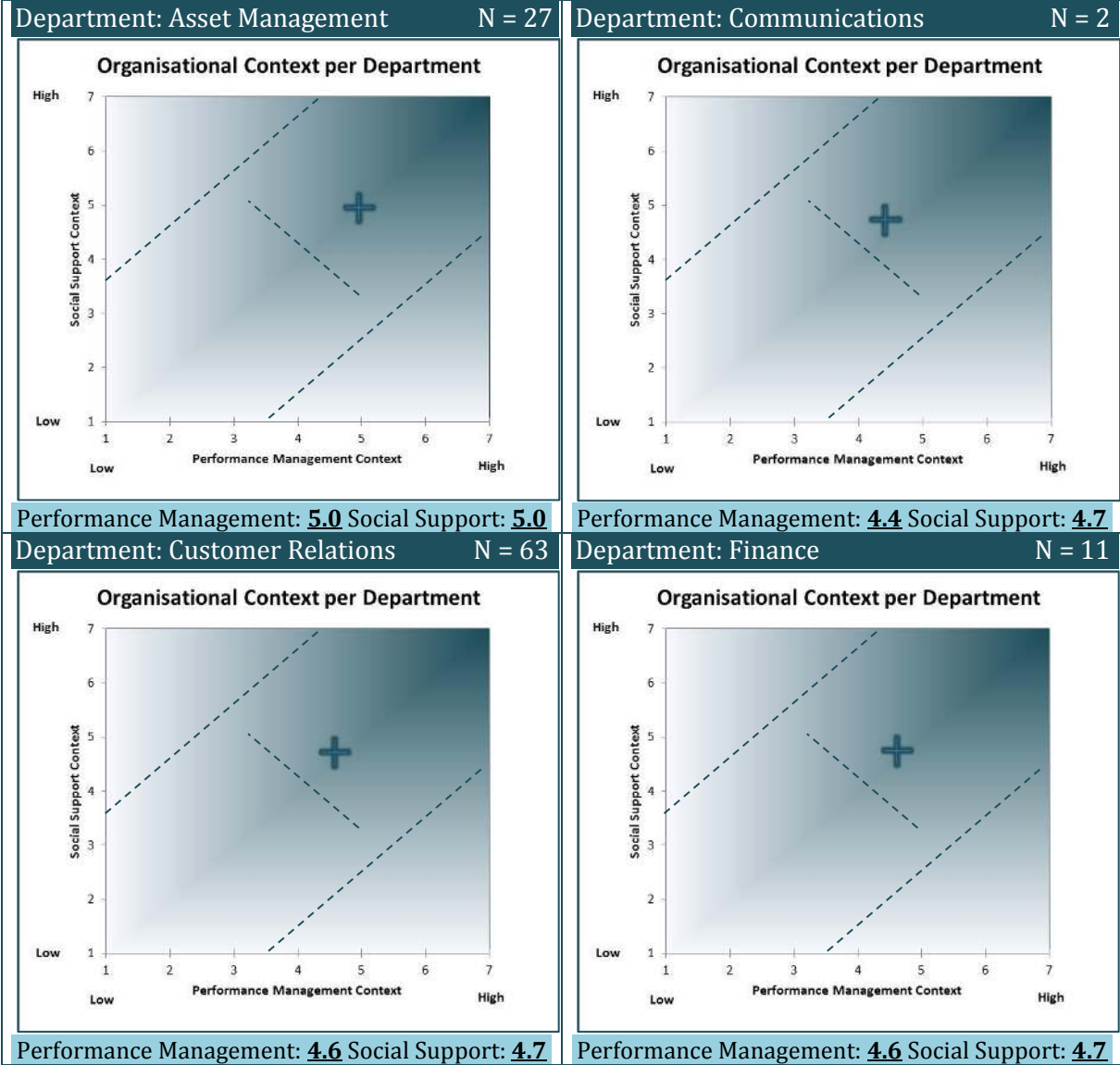
+ Education and courses: 9 times

+ Personal development plan: 4 times

- Own initiative: 7 times

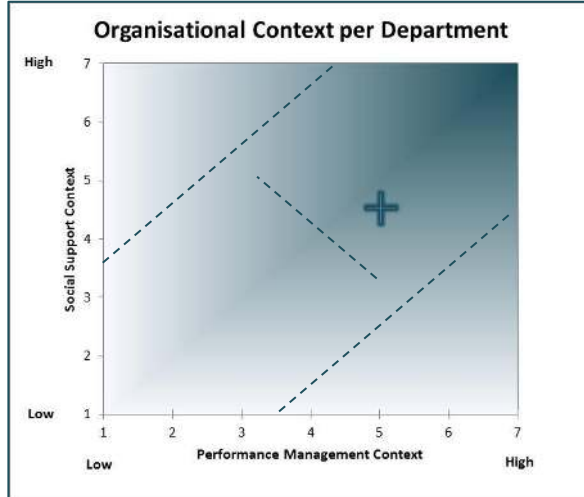
- Dependent of manager: 2 times

Appendix XIII: Organisational Context Scores per Department



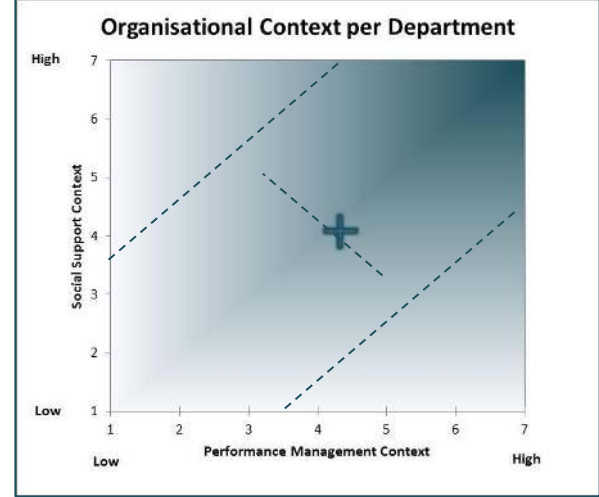
Department: Fudura

N = 11



Performance Management: 5.0 Social Support: 4.5

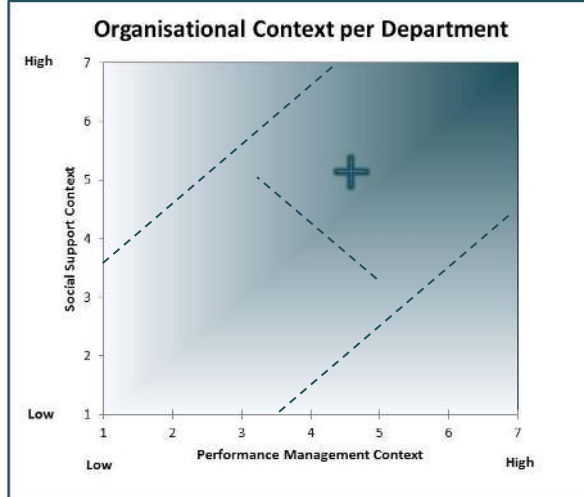
Department: Health, Safety & Environment N = 2



Performance Management: 4.3 Social Support: 4.1

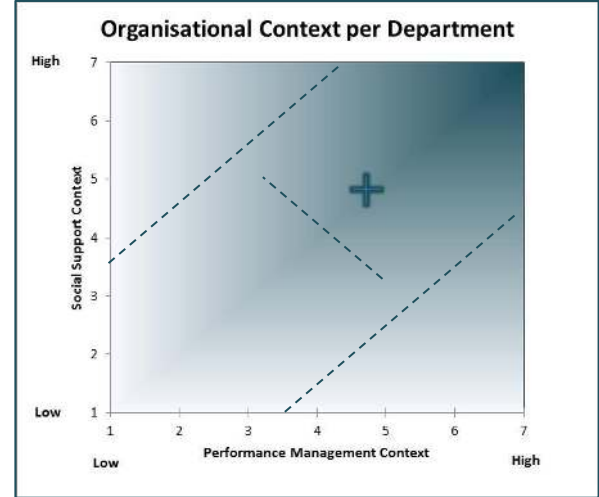
Department: Human Resources

N = 9



Performance Management: 4.6 Social Support: 5.1

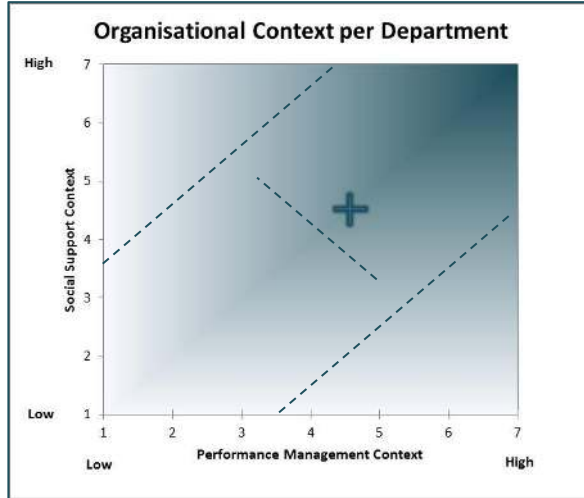
Department: Information Management N = 21



Performance Management: 4.7 Social Support: 4.8

Department: Infra Services

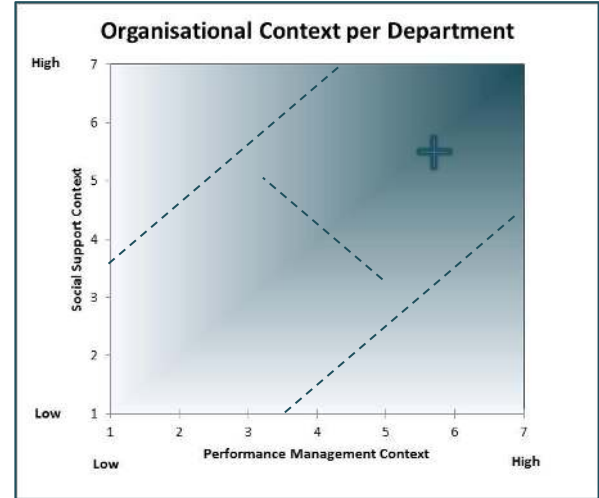
N = 125



Performance Management: 4.6 Social Support: 4.5

Department: Legal Affairs

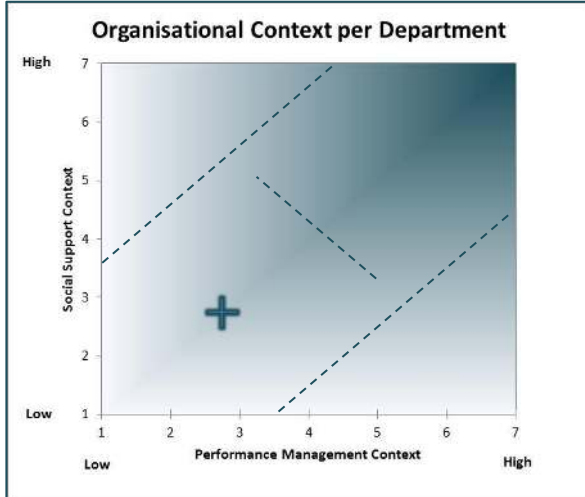
N = 2



Performance Management: 5.7 Social Support: 5.5

Department: Purchasing

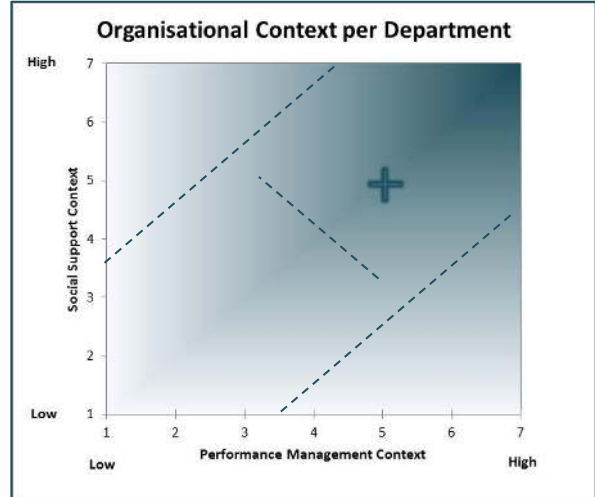
N = 2



Performance Management: 2.8 Social Support: 2.8

Department: Strategy & Regulation

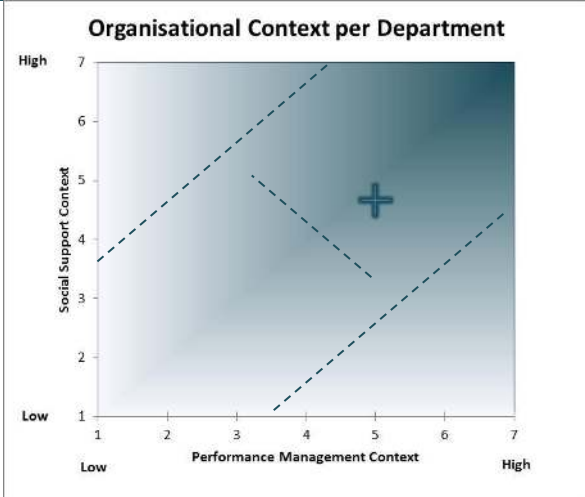
N = 8



Performance Management: 5.0 Social Support: 4.9

Department: Purchasing

N = 1



Performance Management: 5.0 Social Support: 4.7

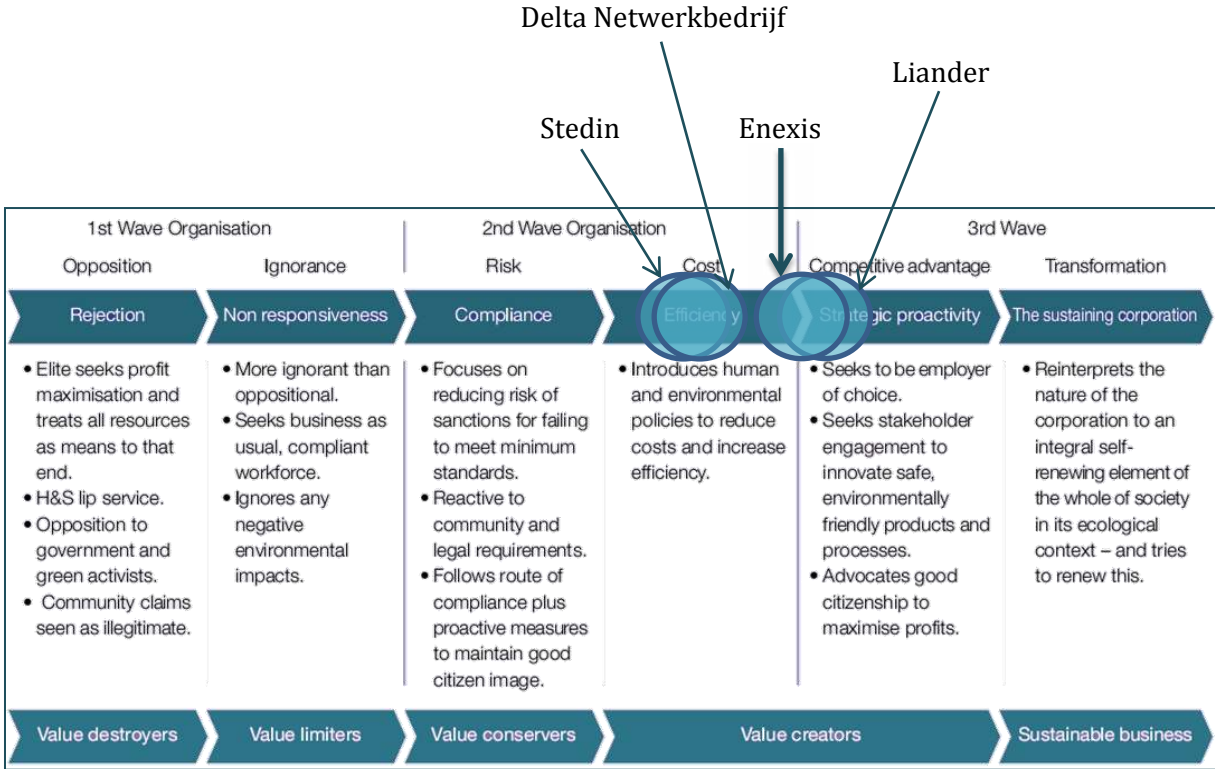
Appendix XIV: Similar Questions Diagnostic Tool and Satisfaction survey

Questions Diagnostic Tool (bold) and Questions Internal Employee Satisfaction Survey (<i>italic</i>)	Scores * (1 to 7)
1. Set challenging/aggressive goals <i>Our department expects speed and efficiency in our way of working</i> <i>My managers set goals that are ambitious, but realisable</i>	4.83 5.53 5.56
2. Issue creative challenges to their people instead of narrowly defining tasks <i>People are stimulated to come up with new ideas or solutions for work related problems</i> <i>My manager stimulates me to come up with new ideas and new ways to perform optimally</i> <i>My manager helps me and my colleagues to take initiative in our work</i>	5.14 5.80 5.50 5.71
3. Make a point of stretching their people <i>My manager continuously encourages us in order to improve our results</i> <i>The management style encourages people to perform at their best</i>	4.22 5.80 4.97
4. Use business goals and performance measures to run their businesses <i>Managers behave themselves in a way that fits the core values of Enexis</i> <i>Managers determine clear (business) goals</i> <i>Meetings about performance objectives are held regularly</i> <i>My manager makes sure that there are clear objectives within my department</i>	5.13 5.04 4.91 6.12 5.50
5. Hold people accountable for their performance <i>My manager regularly gives me feedback about my performances</i> <i>My manager holds people accountable for realising the agreed objectives</i>	4.27 5.36 5.32
6. Encourage and reward hard work through incentive compensation <i>Enexis adequately uses acknowledgement and incentives other than money, to encourage performances</i> <i>Enexis makes sure that your salary fits with your delivered performances</i> <i>I am satisfied with the appreciation and acknowledgement of my functioning</i>	4.20 4.28 4.55 5.11
7. Devote considerable effort in developing subordinates <i>My manager develops the capacities of their employees</i> <i>I have the possibilities to personal development and growth within Enexis</i> <i>I get enough opportunities for training; to increase my skills for my current function</i> <i>I get enough opportunities for training; to qualify for a better job</i>	3.43 5.33 5.49 6.02 5.25
8. Push decisions down to the lowest appropriate level <i>Within Enexis, there are not too much approvals needed for making routine decisions</i>	5.20 5.49
9. Have access to the information they need to make good decisions <i>I usually have enough information available to answer internal/external customer's questions</i>	4.97 5.82
10. Quickly replicate best practices across organisational boundaries <i>My department continuously seeks for better ways to serve our internal/external customers</i> <i>There is a good (effective) cooperation between mine and other departments</i>	4.94 5.78 5.19
11. Treat failure in a good effort as a learning opportunity, not something to be ashamed of <i>No similar questions found in the satisfaction survey</i>	4.48 -
12. Are willing to take prudent risks <i>No similar questions found in the satisfaction survey</i>	4.82 -
* The 5-point scale of the Internal Employee Satisfaction Survey is converted to a 7-point scale	

Appendix XV: Satisfaction survey - Scores of the Purchasing Department

Questions Diagnostic Tool (bold) and Questions Internal Employee Satisfaction Survey (<i>italic</i>)	Scores * (1 to 7)
1. Set challenging/aggressive goals <i>Our department expects speed and efficiency in our way of working</i> <i>My managers set goals that are ambitious, but realisable</i>	2.5 5.00+ 4.52+
2. Issue creative challenges to their people instead of narrowly defining tasks <i>People are stimulated to come up with new ideas or solutions for work related problems</i> <i>My manager stimulates me to come up with new ideas and new ways to perform optimally</i> <i>My manager helps me and my colleagues to take initiative in our work</i>	2 4.86+ 4.69+ 4.80+
3. Make a point of stretching their people <i>My manager continuously encourages us in order to improve our results</i> <i>The management style encourages people to perform at their best</i>	2 4.73+ 3.36+
4. Use business goals and performance measures to run their businesses <i>Managers behave themselves in a way that fits the core values of Enexis</i> <i>Managers determine clear (business) goals</i> <i>Meetings about performance objectives are held regularly</i> <i>My manager makes sure that there are clear objectives within my department</i>	5 4.20+ 5.00+ 5.98 4.35+
5. Hold people accountable for their performance <i>My manager regularly gives me feedback about my performances</i> <i>My manager holds people accountable for realising the agreed objectives</i>	3 4.94 5.50
6. Encourage and reward hard work through incentive compensation <i>Enexis adequately uses acknowledgement and incentives other than money, to encourage performances</i> <i>Enexis makes sure that your salary fits with your delivered performances</i> <i>I am satisfied with the appreciation and acknowledgement of my functioning</i>	2 3.57+ 4.48 4.38+
7. Devote considerable effort in developing subordinates <i>My manager develops the capacities of their employees</i> <i>I have the possibilities to personal development and growth within Enexis</i> <i>I get enough opportunities for training; to increase my skills for my current function</i> <i>I get enough opportunities for training; to qualify for a better job</i>	2.5 3.99+ 4.80 5.19+ 4.14+
8. Push decisions down to the lowest appropriate level <i>Within Enexis, there are not too much approvals needed for making routine decisions</i>	4.5 5.81
9. Have access to the information they need to make good decisions <i>I usually have enough information available to answer internal/external customer's questions</i>	3 5.54
10. Quickly replicate best practices across organisational boundaries <i>My department continuously seeks for better ways to serve our internal/external customers</i> <i>There is a good (effective) cooperation between mine and other departments</i>	2 5.77 4.13+
11. Treat failure in a good effort as a learning opportunity, not something to be ashamed of <i>No similar questions found in the satisfaction survey</i>	2 -
12. Are willing to take prudent risks <i>No similar questions found in the satisfaction survey</i>	2.5 -
* The 5-point scale of the Internal Employee Satisfaction Survey is converted to a 7-point scale. The given scores are from the Purchasing department	
+ Indicates a statistically significant difference in the satisfaction survey	

Appendix XVI: Overview of Grid Operators on the Sustainability Spectrum



Appendix XVII: Greening vs. Sustainability

Project Role	Focus on Existing	Focus on Emerging	Strategy	Classification
CO2 Compensatie	<u>Products</u>	Technologies	POLLUTION PREVENTION	<u>GREENING</u>
	<u>Processes</u>	Markets		
	<u>Suppliers</u>	Partners		
	<u>Customers</u>	Needs		
	<u>Shareholders</u>	Stakeholders		
<i>Initiating</i>	This initiative is aimed at compensating the ecological footprint that Enexis produces. This is done through calculations, which are thereafter validated by an external party. The shareholders demanded for an energy neutral policy, so the footprint is nowadays compensated by buying CO2-certificates. Hence, using the Trias Energetica, effort is spend on reducing the footprint by making early energy efficiency decisions.			
<i>Internal</i>				
Duurzaam Inkopen Netverlies	<u>Products</u>	Technologies	POLLUTION PREVENTION	<u>GREENING</u>
	<u>Processes</u>	Markets		
	<u>Suppliers</u>	Partners		
	<u>Customers</u>	Needs		
	<u>Shareholders</u>	Stakeholders		
<i>Initiating</i>	Enexis is obliged to purchase the network losses which occur within the energy grid. In order to be environmentally friendly, Enexis preserves the grey energy purchase via Guarantees of Origin (GOOs), which guarantees that the certificate includes the production of totally green energy. In this way, the grid losses and the corresponding footprint are compensated in a green way. Enexis acts like a buying party in this case.			
<i>Internal</i>				
Duurzame Gebouwen	<u>Products</u>	Technologies	PRODUCT STEWARDSHIP	<u>GREENING</u>
	<u>Processes</u>	Markets		
	<u>Suppliers</u>	Partners		
	<u>Customers</u>	Needs		
	<u>Shareholders</u>	Stakeholders		
<i>Initiating</i>	This initiative is aimed at creating sustainable Enexis offices. With the use of existing products like solar panels and seasonal thermal energy storage, the offices are made more sustainable, energy neutral, or even a net supplier of energy. The processes are not very different than for normal buildings. Facility Management considers the sustainable aspects in addition to the other requirements of the buildings.			
<i>External</i>				
Elektrisch Rijden	<u>Products</u>	Technologies	CLEAN TECHNOLOGY	<u>SUSTAINABILITY</u>
	<u>Processes</u>	Markets		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Initiating</i>	While the predecessor of this initiative focussed on new technologies and needs about electric cars, this project looked for existing electric cars on the market. The customers are Enexis' own employees. In this project, the car manufacturer is more than just a supplier, since they allow modifications on their cars and cooperate in small adjustments. In general, this initiative is mostly directed towards the existing industry.			
<i>Internal</i>				

Project Role	Focus on Existing	Focus on Emerging	Strategy	Classification
Reductie Ketenemissie Afval	Products	Technologies	PRODUCT STEWARDSHIP	GREENING
	Processes	Markets		
	Suppliers	Partners		
	Customers	Needs		
	Shareholders	Stakeholders		
<i>Initiating</i>	This project uses existing suppliers and focusses on existing processes with the goal of reducing waste. A new methodology that is able to determine the footprint of the waste of Enexis gave insight in the emissions. This led to a different view of waste. Waste is now separated in a better way and is more regarded as a resource. This results in less CO2 emissions and besides, to a financial benefit of € 1,000,000.			
<i>External</i>				
Reductie Netverliezen	Products	Technologies	POLLUTION PREVENTION	GREENING
	Processes	Markets		
	Suppliers	Partners		
	Customers	Needs		
	Shareholders	Stakeholders		
<i>Initiating</i>	Yearly, about 1000 GWh of electricity is lost during transportation, which corresponds to about 3,5% of the total electricity transportation. In order to prevent the losses that are responsible for the largest sustainable risk (i.e. CO2 emissions), Enexis undertakes actions to reduce these losses like reconsidering logistics, installing capacitor banks, and turning down the heating in transformer houses. All focussed on existing products.			
<i>Internal</i>				
Wagenpark op Groen Gas	Products	Technologies	POLLUTION PREVENTION	GREENING
	Processes	Markets		
	Suppliers	Partners		
	Customers	Needs		
	Shareholders	Stakeholders		
<i>Initiating</i>	Enexis offers cars on green gas in their assortment of lease cars. Currently, the vehicle fleet of Enexis has 40 cars driving on gas, and there are some in order. The main goal is exposure to the customer. The cars are one of the most regular things a customer sees of Enexis and therefore, they contribute to the image of Enexis to a large extent. This project is thus aimed at stimulating existing cars on green gas to the employees.			
<i>Internal</i>				
Zonnecellen voor Medewerkers	Products	Technologies	PRODUCT STEWARDSHIP	GREENING
	Processes	Markets		
	Suppliers	Partners		
	Customers	Needs		
	Shareholders	Stakeholders		
<i>Initiating</i>	As a continuation of a previous pilot, a new pilot was proposed in 2011 to the Board of Directors in order to explore the commercial possibilities of installing solar panels at people's houses. To test the business case, it is first tested with internal employees. It uses existing products and processes like solar panels, but it aims at a new market. The customers are known, since they are the current grid customers/employees of Enexis.			
<i>External</i>				
Blok voor Blok	Products	Technologies	BASE OF THE PYRAMID	SUSTAINABILITY
	Processes	Markets		
	Suppliers	Partners		
	Customers	Needs		
	Shareholders	Stakeholders		
<i>Participating</i>	In 2011, Minister Donner initiated the concept of a 'Blok voor Blok' arrangement. The motive for this arrangement was the increasing energy expenses of (average) households. Enexis obtained a green deal and together with several partners, the goal is to increase 2 steps in housing labels for at least 1500 homes in one municipality, what should be achieved within three years. The partners use existing products.			
<i>External</i>				

Project Role	Focus on Existing	Focus on Emerging	Strategy	Classification
DataDirect	<u>Products</u>	Technologies	PRODUCT STEWARDSHIP	<u>GREENING</u>
	<u>Processes</u>	Markets		
	<u>Suppliers</u>	Partners		
	Customers	<u>Needs</u>		
	<u>Shareholders</u>	Stakeholders		
<i>Facilitating</i> <i>Internal / External</i>	DataDirect, a project of Fudura, focusses on business to business relations which are provided of one or more telemetric measuring device(s), and who are interested in monitoring energy related issues. The tool provides insight in the energy consumption, invoice verification, budgeting, and energy purchasing of an organisation. The main goal in the project is thus to give customers detailed insights in their energy usage.			
Econexis Huis	<u>Products</u>	Technologies	BASE OF THE PYRAMID	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Initiating</i> <i>External</i>	The Econexis house is meant as a demonstration project for everyone who wants to see the possibilities of an energy neutral home. Besides, it serves as a smart grid pilot, since the building uses features of a smart grid. It makes use of existing products like solar panels and heat pumps, but it also pays attention to the emerging technologies of smart grids. It is aimed at needs, new sustainable markets, and new partners.			
Energie in Beeld	<u>Products</u>	Technologies	PRODUCT STEWARDSHIP	<u>GREENING</u>
	<u>Processes</u>	Markets		
	<u>Suppliers</u>	Partners		
	Customers	<u>Needs</u>		
	<u>Shareholders</u>	Stakeholders		
<i>Initiating</i> <i>External</i>	Municipalities have the need of data about the energy consumption of their inhabitants, with the goal to reduce energy in their area. This project is started with the goal to facilitate the municipalities with insight in the energy usage of households and companies. Enexis provides the data and visualises the energy consumption of municipalities and into the zoning of the municipality, giving detailed energy insights.			
Energiebesparing Huizen	<u>Products</u>	Technologies	PRODUCT STEWARDSHIP	<u>GREENING</u>
	Processes	<u>Markets</u>		
	<u>Suppliers</u>	Partners		
	<u>Customers</u>	Needs		
	<u>Shareholders</u>	Stakeholders		
<i>Initiating</i> <i>External</i>	In the beginning of 2012, the question arose at the Board of Directors of how to rollout the smart meter, with the purpose of achieving energy reduction. The initial idea of the project was to achieve 3 increasing energy label steps for 30,000 households within 3 years. Several business cases are elaborated to fulfil this ambition. The last business cases comprise energy reduction packages, which are customised per residential area.			
LED en Slimme Meters bij OV	<u>Products</u>	Technologies	PRODUCT STEWARDSHIP	<u>GREENING</u>
	<u>Processes</u>	Markets		
	<u>Suppliers</u>	Partners		
	<u>Customers</u>	Needs		
	<u>Shareholders</u>	Stakeholders		
<i>Facilitating</i> <i>External</i>	This initiative has currently become a business process, rather than a project. The central question within this business process is how the current assets of the public lighting can be prepared for the future. Enexis facilitates this process and applies LED and dimming techniques in the public lighting. Moreover, smart meters are placed in order to more accurately measure and provide insight in the energy consumption.			

Project Role	Focus on Existing	Focus on Emerging	Strategy	Classification
Lespakket Scholen	<u>Products</u>	Technologies	PRODUCT STEWARDSHIP	<u>GREENING</u>
	<u>Processes</u>	Markets		
	<u>Suppliers</u>	Partners		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Initiating</i> <i>External</i>	The teaching package 'Krachtmeting' has been released in 2012 and is meant for children at the last two classes of the primary school, with the goal to increase the children's awareness of the upcoming energy transition. The idea is that the awareness about scarce energy sources should be created very early, so that it becomes obvious already in their youth that they should be conscious about their energy usage.			
Slimme Meters	Products	<u>Technologies</u>	BASE OF THE PYRAMID	<u>SUSTAINABILITY</u>
	<u>Processes</u>	Markets		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Participating</i> <i>External</i>	This project started five years ago. The motivation was a European guideline that stated that consumers have to have more frequently insight in their energy usage, with the goal to save energy on a large scale. This year, the Dutch government set the goal for 2020 that 80% of the households should have a smart meter. This to fulfil the need of energy insight on a large scale by making use of new technologies and new partners.			
Warmtewinst in Beeld	<u>Products</u>	Technologies	PRODUCT STEWARDSHIP	<u>GREENING</u>
	<u>Processes</u>	Markets		
	<u>Suppliers</u>	Partners		
	Customers	<u>Needs</u>		
	<u>Shareholders</u>	Stakeholders		
<i>Participating</i> <i>External</i>	The central underlying question that gave rise to this project is: can Enexis help consumers is reducing their energy consumption? The goal is therefore to make customers aware of their energy usage and as a result, it is expected that they adapt their behaviour which ultimately results in energy savings. This is done through thermal images of houses, which visualise the most (in)effective parts of a building.			
Intern Groen Loket	Products	Technologies	<u>NO (IN)DIRECT ECOLOGICAL EFFECT</u>	
	Processes	Markets		
	Suppliers	Partners		
	Customers	Needs		
	Shareholders	Stakeholders		
<i>N/A</i>	This project started one year ago, with the goal to serve as an internal knowledge base for sustainable questions of all departments within Enexis. The 'Intern Groene Loket' collects all these kind of questions and forwards them to the relevant experts, which provide answers to the questions. However, since this initiative only serves as an internal knowledge base, there are no indicators of an (in)direct ecological effect.			
Zelfenergie produceren.nl	<u>Products</u>	Technologies	PRODUCT STEWARDSHIP	<u>GREENING</u>
	<u>Processes</u>	Markets		
	<u>Suppliers</u>	Partners		
	<u>Customers</u>	Needs		
	<u>Shareholders</u>	Stakeholders		
<i>Initiating</i> <i>External</i>	The website zelfenergieproduceren.nl is aimed at consumers/customers who are interested in generating energy by themselves. It is an initiative to provide information and help about, for instance, the instalment of solar panels on a roof. It provides consumers general information concerning energy usage and generation, with the goal to inform and facilitate consumer initiatives.			

Project Role	Focus on Existing	Focus on Emerging	Strategy	Classification
BioNoF	<u>Products</u>	Technologies	BASE OF THE PYRAMID	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Participating</i> <i>Internal / External</i>	The goal of this initiative is to create a gas network supporting the transport of biogas from farmers and which supports the mixing of normal and biogas. Biogas cannot be used directly for consumption purposes, but it has to be processed before it can be used for homes and premises. The project is currently awaiting a subsidy, otherwise it will not be feasible to execute this initiative.			
Bossche Energie-convenant	<u>Products</u>	Technologies	BASE OF THE PYRAMID	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Facilitating</i> <i>External</i>	This project is an initiative from the municipality Den Bosch, with the goal to make the city climate neutral in the year 2050. Enexis was involved from the beginning, since they play an important role in the knowledge transfer of energy reduction and generation. This vision is set, but there is no specific route in how to achieve this goal. Enexis helps with giving structure to the climate neutral vision in 2050.			
E-Laad	Products	<u>Technologies</u>	BASE OF THE PYRAMID	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Initiating</i> <i>External</i>	The initiative has no profit-seeking and is started to provide a solution for the 'chicken-egg problem'. Electric vehicles need an infrastructure to recharge, whereas an infrastructure needs electric vehicles in order to be useful. Therefore, Enexis initiated this project and started talking with other grid operators about the opportunities, in which the challenge is to synchronise the infrastructure with the electric vehicles.			
Infrastructuur Biogas	<u>Products</u>	Technologies	BASE OF THE PYRAMID	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Participating</i> <i>Internal / External</i>	Green gas undergoes a strong development. In the last years, more and more green gas (upgraded biogas) is produced and distributed. Together with this different type of gas, other regulations apply. For green gas, the same regulations count as for normal gas. However, for biogas there are no regulations yet, since this is a new terrain. It is still a free market, which means that everyone is allowed to own and operate biogas grids.			
Parkeerplaats pilot	Products	<u>Technologies</u>	CLEAN TECHNOLOGY	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Initiating</i> <i>Internal</i>	In this project the goal was to test several electric cars and their mutual influences on the grid. The cars were controlled on the basis of individual needs; when they wanted to depart and how far they wanted to drive. Based on those needs, the smart grid calculated when each individual car should be charged and at which speed. At the end of the project, the technical solutions all worked fine, without any (major) problems.			

Project Role	Focus on Existing	Focus on Emerging	Strategy	Classification
Power Matching City II	Products	<u>Technologies</u>	BASE OF THE PYRAMID	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Participating</i>	The goal of this project is to demonstrate a smart grid operating in a real city, whereas the specific goal of the technology is too smooth the peaks within the energy grid. The control of the smart grid is a PowerMatcher, which contains a computer system that automatically controls the energy flows. It automatically decides whether certain devices are switched on or off to optimise the market between demand and supply.			
<i>Internal / External</i>				
Smart Charging	Products	<u>Technologies</u>	CLEAN TECHNOLOGY	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Initiating</i>	This project started with the purpose to apply the insights of the Parkeerplaatspilot in a public environment. The Paleiskwartier in Den Bosch was chosen as a real-life test environment. At this place, ten electrical cars are stationed that are shared by different companies. In this phase, Enexis went more to their own role; in facilitating the project. The ultimate project goal is to standardise the smart charging interfaces.			
<i>Internal / External</i>				
Smart Grid Pilot Breda	Products	<u>Technologies</u>	CLEAN TECHNOLOGY	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Initiating</i>	In 2010, the shareholders came up with the ambition to experiment with smart grids in a realistic way. As a consequence, two smart grid pilots in two different cities in the Netherlands were initiated, to demonstrate the technological application and to test the social acceptance of a smart grid. The target group is young starters that purchased a house. The central question in both pilots is: do people adapt their behaviour?			
<i>Internal / External</i>				
Smart Grid Pilot Zwolle	Products	<u>Technologies</u>	CLEAN TECHNOLOGY	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Initiating</i>	In order to experiment with the concept of smart grids in a social/real setting, the smart grid pilots in Breda and Zwolle were initiated. The goal of these pilots is to obtain multiple insights. In the technological field, it is intended to determine the applicability and usability of an energy computer, solar panels, smart meter, connected display (intended to create energy awareness), and a smart washing machine.			
<i>Internal / External</i>				
Smart Grids	Products	<u>Technologies</u>	CLEAN TECHNOLOGY	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
	Customers	<u>Needs</u>		
	Shareholders	<u>Stakeholders</u>		
<i>Initiating</i>	To test and experiment with the application of smart grids in a real setting, different pilots are planned and in operation to experiment with the effects. This initiative evaluates the results of these pilots and also widens its view to the outside world. Eventually, the pilots have to provide insight in the usefulness of smart grids in general, and when applicable, which type of application is most valuable.			
<i>Internal</i>				

Project Role	Focus on Existing	Focus on Emerging	Strategy	Classification
Smart Storage Unit	Products	<u>Technologies</u>	CLEAN TECHNOLOGY	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	<u>Suppliers</u>	Partners		
Customers	<u>Needs</u>			
Shareholders	<u>Stakeholders</u>			
<i>Initiating</i> <i>Internal</i>	<p>A solution for the decentralised energy production that leads to variable and unpredictable energy flows can be the storage of energy. Storage provides a buffer of electricity between day and night time. The smart storage units can thus store electricity when there is an oversupply of energy, and they can release their stored energy when there is a shortage of energy in the network. It also increases reliability.</p>			
Smart Wash	Products	<u>Technologies</u>	CLEAN TECHNOLOGY	<u>SUSTAINABILITY</u>
	Processes	<u>Markets</u>		
	Suppliers	<u>Partners</u>		
Customers	<u>Needs</u>			
Shareholders	<u>Stakeholders</u>			
<i>Initiating</i> <i>Internal / External</i>	<p>The initiative comprises a setting of a smart washing machine with an Energy Management System (EMS) and Solar Panels. The system is able to wash within the period that is set by the user, at times solar production is abundant. As a preparation to test this idea in a real residential setting (in the pilots of Breda and Zwolle), employees of Enexis were asked to participate in this experiment.</p>			

Appendix XVIII: External Validation Sources for Sustainable Initiatives

BioNoF

- <http://www.energieraad.nl/newsitem.asp?pageid=20081>
- <http://groengas.nl/wp-content/uploads/2012/01/BioNoF-een-biogasleiding-met-gevolgen.pdf>
- http://archief.saxion.nl/files/storage/leef/1111_ROM%20art%20groen%20gras.pdf
- [http://www.waddenzee.nl/fileadmin/content/Dossiers/Overheid/pdf/Subsidie aanvraag BIONOF.pdf](http://www.waddenzee.nl/fileadmin/content/Dossiers/Overheid/pdf/Subsidie_aanvraag_BIONOF.pdf)
- <http://www.schonevoertuigenadviseur.nl/friese-boeren-kunnen-biogas-gaan-leveren>

Blok voor Blok

- <http://www.milieucentraal.nl/nieuwsbrief/professionals/juni-2012/blok-voor-blok-werken-aan-energiebesparing>
- <http://www.rijksoverheid.nl/nieuws/2011/06/16/minister-donner-start-pilot-blok-voor-blok.html>
- <http://www.agentschapnl.nl/actueel/nieuws/netwerkbijeenkomst-blok-voor-blok-biedt-duurzame-inspiratie>
- <http://www.agentschapnl.nl/programmas-regelingen/blok-voor-blok>
- <http://slimmebuurt.nl/hintham/>

Bossche Energieconvenant

- <http://www.bosscheenergieconvenant.nl/>
- <http://www.s-hertogenbosch.nl/inwoner/milieu/klimaatneutraal/energie-prestatie-advies-epa/bossche-energieconvenant/>
- <http://bart.gldb.info/2010/11/21/un-grote-bec%E2%80%A6/>
- <http://bart.gldb.info/wp-content/uploads/2011/11/Flyer-BEC-1-november-2011.pdf>

DataDirect

- <https://www.fuduradatadirect.nl/Publicaties/ENEX-14L683-LFL-Datadirect.pdf>
- <http://www.codin.nl/fc-groningen-moet-duurzaamste-club-van-europa-woorden>
- <http://www.arvalis.nl/media/default.aspx/emma/org/10355885/12Zr.pdf>
- <http://www.ondernemersbelang.nl/upload/84cc50ed-9da6-4aa9-8e65-cdb3f637b573.pdf>
- <http://www.fudura-enexis.nl/templates/fudura-producten-meten-datadirect.php>

Duurzaam Inkopen Netverlies

- <http://www.alliander.com/nl/alliander/investors/publications/faciliteren-energietransitie/reductie-netverliezen/index.htm>
- http://tennet.ireports.nl/nl/verantwoord_ondernemen/minimaliseren_en_vergroenen_netverliezen
- <https://www.enexis.nl/Documents/enexis-jaarverslag-2010-en.pdf>
- http://www.ecofys.com/files/files/enexis_jaarverslag_2010.pdf

Duurzame Gebouwen

- <http://www.dtz.nl/nl/over-dtz-zadelhoff/nieuws-en-agenda/overzicht-transactieberichten/2012/q4-2012/transactieberichten-uit-het-vierde-kwartaal/enexis-verhuist-vergaderkantoor-naar-wtc-arnhem?page=1>
- <http://www.duurzaamvastgoed.com/studenten-volgen-bouw-energie neutrale-kantoor-enexis>

- http://www.architectenweb.nl/aweb/redactie/redactie_detail.asp?iNID=23646
- http://www.vraagenaanbod.nl/nieuws/id9020-Unieke_bevestiging_composietpanelen_voor_gevel_Enexiskantoor.html
- http://www.dtz.nl/nl/over-dtz-zadelhoff/nieuws-en-agenda/overzicht-transactieberichten/2012/q4-2012/transactieberichten-uit-het-vierde-kwartaal/hoofdkantoor-van-enexis-verhuist-naar-paleiskwartier-in-'s-hertogenbosch?goback=%2Egde_2208611_member_178870911
- <http://www.propertynl.com/index-newsletter/enexis-huurt-hoofdkantoor-van-8000-m2-in-paleiskwartier-den-bosch/>

Econexis Huis

- <http://bouwwereld.nl/project/econexis-huis-toont-intelligent-sroomgebruik/>
- <http://www.rijksoverheid.nl/nieuws/2012/06/25/atsma-opent-econexis-huis-in-zwolle.html>
- <http://www.cobouw.nl/nieuws/w-installatie/2012/06/26/econexis-huis-officieel-geopend>
- <http://www.duurzaambedrijfsleven.nl/42786/econexis-huis-demonstreert-toepasbaarheid-smart-grid/>
- <http://www.zonne-energie-forum.nl/index.php?topic=487.0>
- <http://www.enlightenmentz.nl/econexis-huis-demonstreert-duurzame.91831.lynkx>
- <http://nos.nl/op3/artikel/388050-eeen-kijkje-in-het-energiezuinige-huis-van-de-toekomst.html>

E-Laad

- <http://www.duurzaamnieuws.nl/bericht.rxml?id=89358>
- <http://www.agentschapnl.nl/actueel/nieuws/stichting-e-laad-stopt-met-nieuwe-aanvragen-publieke-oplaadpunten-hoe-nu-verder>
- <http://www.e-laad.nl/nieuws>
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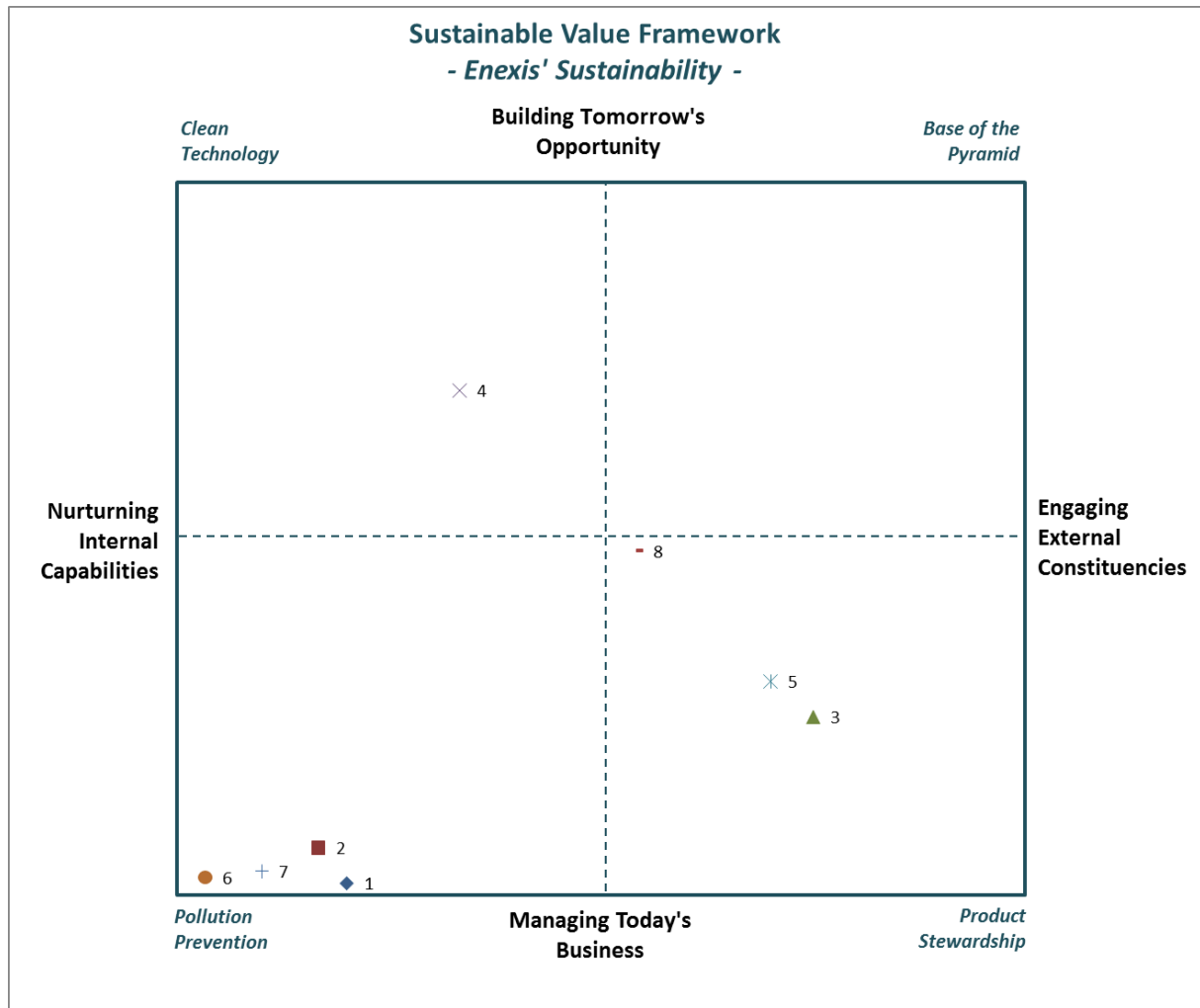
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Zonnecellen voor Medewerkers

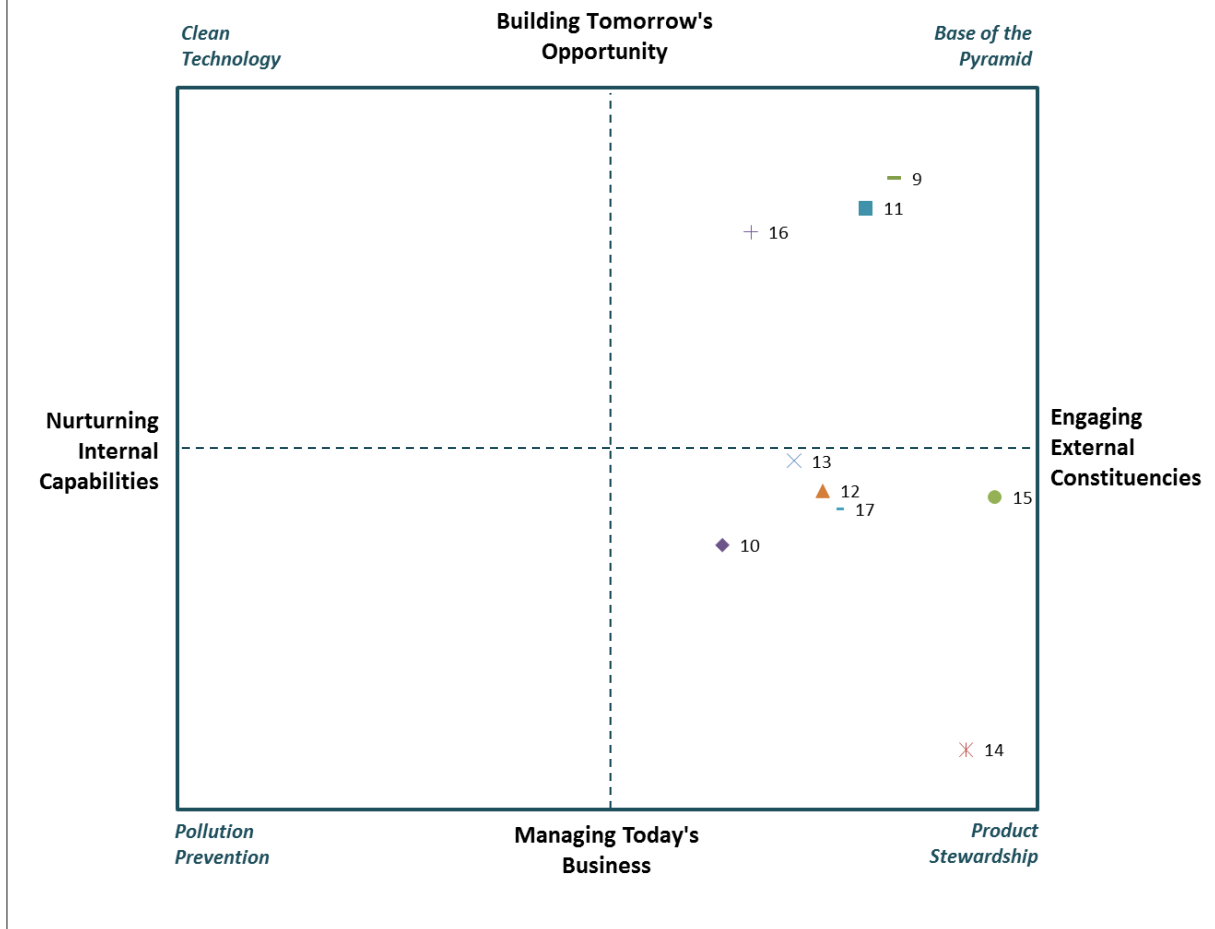
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Appendix XIX: The Sustainable Value Framework for Enexis per Category

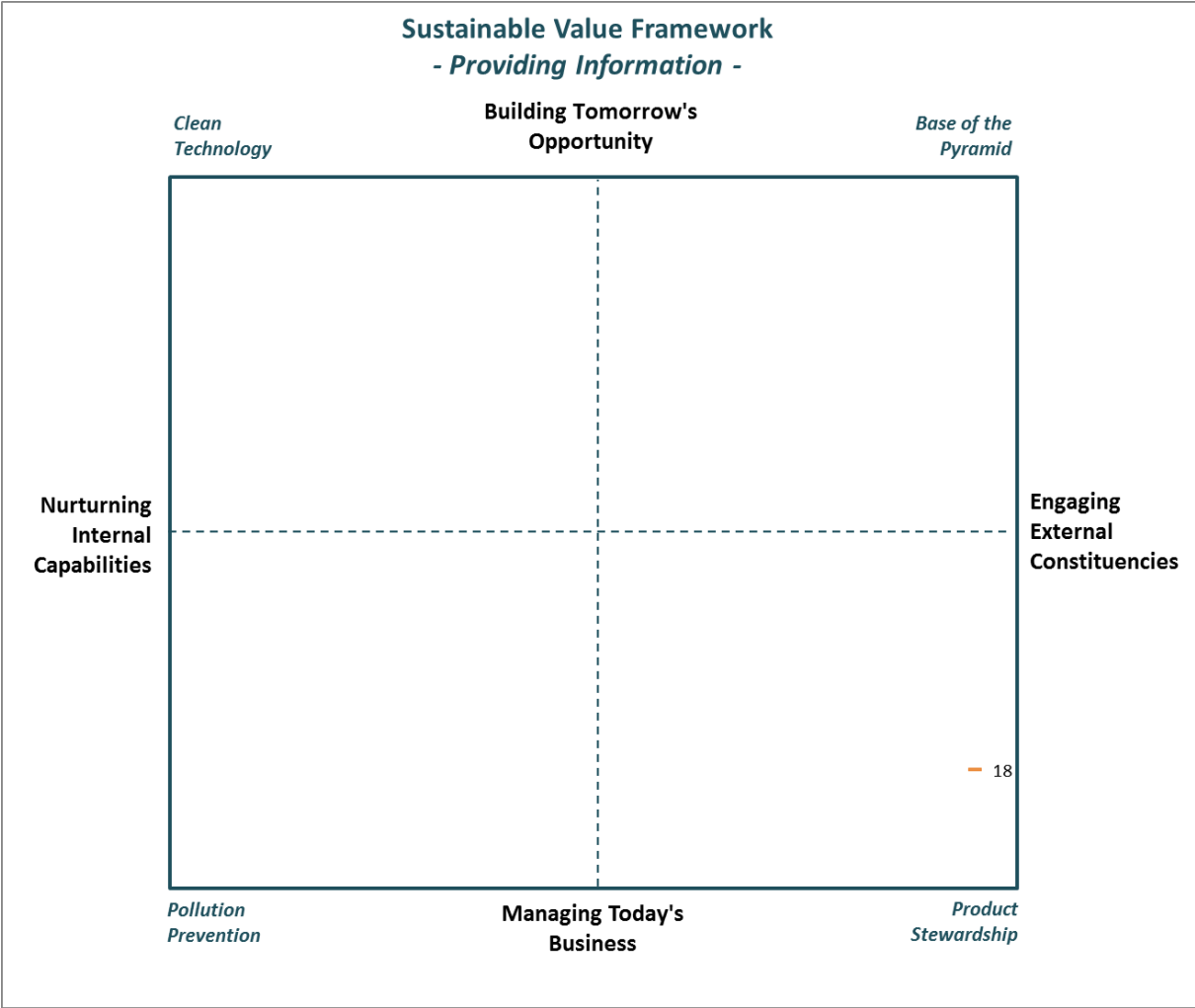


Legend	
1	CO2 Compensatie
2	Duurzaam Inkopen Netverlies
3	Duurzame Gebouwen
4	Elektrisch Rijden
5	Reductie Ketenemissie Afvalverwerking
6	Reductie Netverliezen
7	Wagenpark op Groen Gas
8	Zonnecellen voor Medewerkers

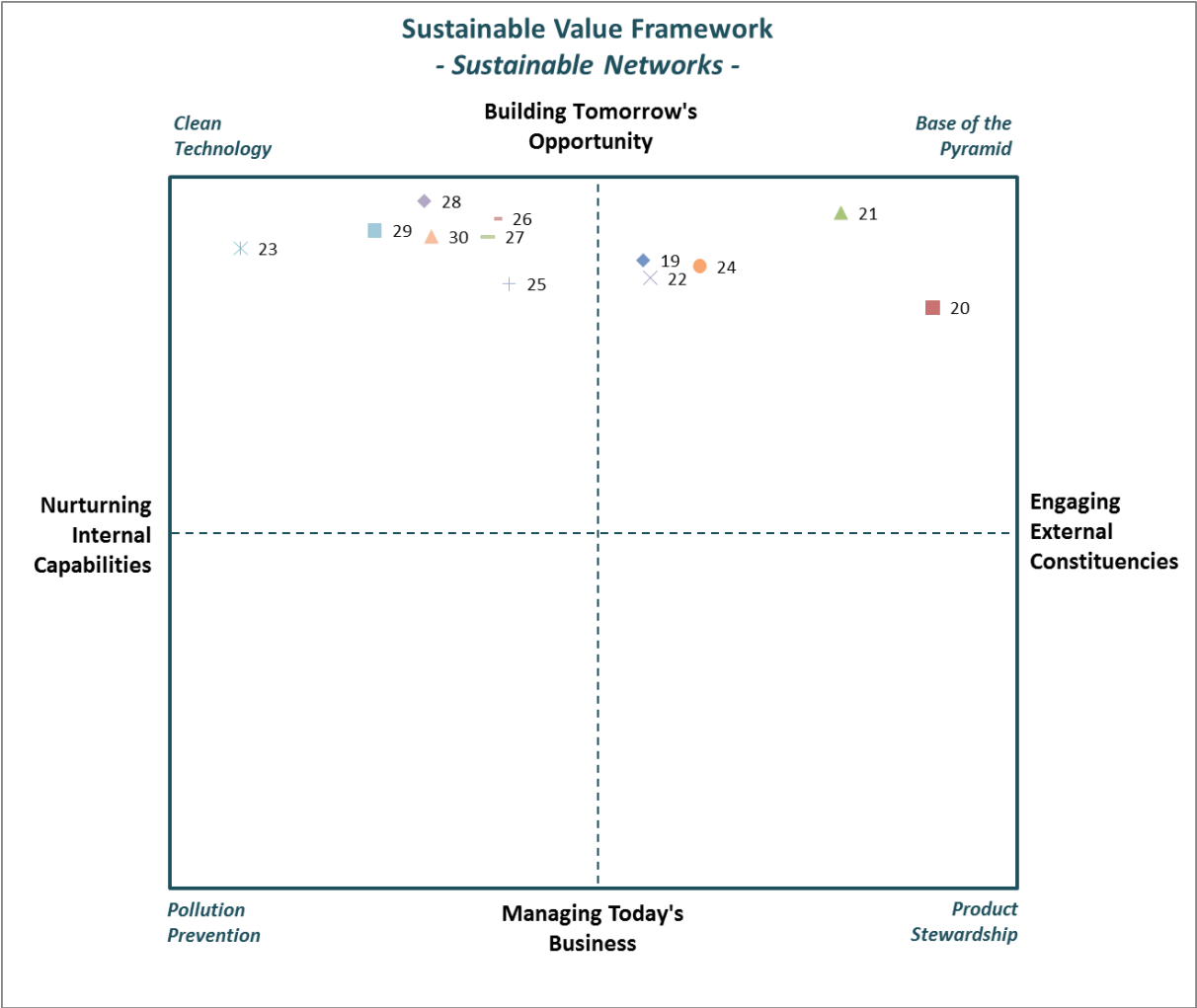
Sustainable Value Framework - Insight into Energy Consumption -



Legend	
9	Blok voor Blok
10	DataDirect
11	Econexis Huis
12	Energie in Beeld
13	Energiebesparing Huizen
14	LED en Slimme Meters bij OV
15	Lespakket Scholen
16	Slimme Meters
17	Warmtewinst in Beeld



Legend	
18	Zelfenergieproduceren.nl



Legend	
19	BioNoF
20	Bossche Energieconvenant
21	E-Laad
22	Infrastructuur Biogas
23	Parkeerplaatspilot
24	Power Matching City II
25	Smart Charging
26	Smart Grid Pilot Breda
27	Smart Grid Pilot Zwolle
28	Smart Grids
29	Smart Storage Unit
30	Smart Wash