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Environmental Reporting

An examination of the gap between public and private owned companies

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Abstract

Bachelor's Thesis in Accounting, School of Business, Economics and Law at the University of Gothenburg, autumn term 2014

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Title: Environmental Reporting – An examination of the gap between public and private owned companies.

Background and problem discussion: Companies' accounting has expanded to contain more than only financial information, including also sustainability, such as environmental and social issues. Environmental reporting increased rapidly after its origin and several guidelines about how to report these issues were established. However, research of some of the largest private owned companies in Sweden showed that their sustainability reporting was not at the level required by public owned companies. Therefore it would, from a government perspective, be interesting to examine if this gap between public and private companies' environmental reporting still exist.

Purpose of the Study: This study aims to examine how the gap in sustainability reporting has developed between public owned and private owned companies during the last years. Annual and sustainability reports of selected companies, both public owned and private owned, will be examined and compared.

Method: Since a deep understanding was desirable, was a detailed examination essential. Only the environmental part of the sustainability area were chosen to be included in the study's examination. Further was a selection of three public owned companies and three private owned chosen to be examined. The data used in this thesis is collected from the companies' annual and sustainability reports. The model described by Ljungdahl (1999) was seen appropriate and therefore chosen to compare and analyse the selected companies.

Empirical findings and analysis: The empirical findings show that the companies report most of the indicators in Ljungdahl's model. The most frequently reported indicators are those concerning environmental targets and environmental impact. The companies' reported information are similar, something that can be explained by stakeholder theory and the fact that all companies are in industries with large environmental impact.

Conclusion: In this essay, it has not been found any significant differences between public owned and private owned companies' environmental reporting. The conclusion of this thesis cannot be generalized in all cases though just a selection of companies is included.

Keywords: environmental reporting, sustainability, Global Reporting Initiative, comparability, private companies, public companies, stakeholder theory, accounting.

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1. Introduction

In the introduction, will the background of sustainability and environmental reporting be described. Thereafter follows a problem discussion related to the subject, which is the basis for this study. The purpose of the study is then formulated followed by the research question and the essay's limitations.

1.1 Background

Accounting is usually considered to primarily contain financial information, in other words, relevant information about the business activities that affect the value of the organization. Since the communities have developed, the interest in what companies include in their accounting has expanded to contain more than just the financial information. Besides just being economically sustainable the organization also expects to demonstrate that their business is environmentally and socially sustainable. (Frostenson, Helin & Sandström, 2012)

The interest in sustainable development and reporting truly took off in the late eighties when the United Nation published their report "Our common future" (Frostenson, Helin & Sandström, 2012). In the report was the concept of sustainable development introduced as:

"the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987).

This definition of the concept has been globally accepted and as a consequence of this report, companies have become more aware of sustainability reporting (Löhman & Steinholtz, 2003). As the interest for sustainability reporting began to grow, there were a number of international organizations which launched guidelines and recommendations to make a contribution to the area of sustainability reporting, such as Organization for Economic Co-operation and Development's (OECD) Guidelines for Multinational Enterprises, the United Nations Global Compact (UNGC), the Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines, and the International Organization for Standardization's (ISO) standard ISO 26000 with their guide on social responsibility. (Branco & Delgado, 2012)

There are a lot of terms referring to organizations' sustainability work and its reporting, where Corporate Social Responsibility (CSR) and Triple Bottom Line (TBL) are among the most common. But even if most of these terms are referring to almost the same thing when talking about sustainability as a concept, there are no generally accepted meaning of the expression sustainability reporting. But no matter which term a company use, sustainability often includes economic, social and environmental issues. (English & Schooley, 2014)

Alongside the reporting of financial information, the reporting of environmental issues was the most common during a ten-year period from the explosion in the mid-nineties when

companies in industrialized countries often provided environmental reports on the side of the annual reports. Something that however changed when companies went on to report a broader perspective, including also social and ethical topics. This was called integrated reporting, which means including these issues as a part of the annual report and not as a separate report. (Balans, 2005)

What environmental reporting is, is not clearly defined. There is an absence of a clear definition and what it actually means in practice. It also seems to mean different things to different people and explanations of what it contains has been put forward by many authorities. (Kumar, 2008) Ljungdahl (1999) describes environmental reporting as all quantitative and qualitative environmental information about a certain activity, provided in the annual report or in a separate report beside the annual report. GRI gives a more extensive explanation stating that environmental reporting is to report the organization's effect on the natural systems by presenting various types of environmental indicators (Global Reporting Initiative, 2006a). Mukherjee K, Sen M & Pattanavak J (2014) puts the concept in a broader perspective, establishing it as a revelation of all environmental information to the stakeholders through reports and statements, including systems for discovering, controlling and reporting the corporations' environmental impact.

1.2 Problem Discussion

According to a study carried out by PWC in the mid-2000s, Swedish companies were seen as non-transparent considering the sustainability reporting, due to that they did not follow recommendations such as GRI. Many public owned companies were among those that had a reporting which did not meet the expectations of what was expected. (Balans, 2008) In addition, there was also a lack of auditing from a third part, something that can question the credibility of the report (Öhrn, 2007).

GRI, as one of the leading appliances in reporting beyond financial, aims to increase the sustainability reporting to a similar level as the financial, in terms of auditability and comparability. This is to meet the demand for disclosure of information beyond just the financial from users of the reports and the company's stakeholders, so they can compare companies with each other. (Willis, 2003) In 2008, the Swedish government made, as the first country in the world, it compulsory for public owned companies to publish a sustainability report. The report was supposed to be in line with the guidelines released by GRI, and compulsory from the 31 of March 2009. The reason for this obligation for the public owned companies was not just to secure a certain level of reporting, but also an attempt to encourage other, private owned companies, to disclose relevant information about the companies and their sustainability activities. Some of the, at the time, 55 public owned companies in Sweden did already follow the guidelines, while for others it meant a change in how to report. (Management of Environmental Quality, 2008)

Research of some of the largest private owned companies in Sweden showed that their sustainability reporting was not at the level required by public owned companies. There is no need for those companies to have a certain level of sustainability reporting since it is voluntary, but as mentioned earlier was one of the intentions with the introduction of the compulsory reporting for public companies to encourage other companies to do the same. As this research, made a few years ago, showed that this was not the case, the question whether private owned companies had a sustainability strategy or not became present. (Balans, 2010) From the regulator's perspective, it would be interesting to examine if this gap between public and private companies' environmental reporting still exist, or if the effect from compulsory reporting for public owned companies has encouraged the private owned companies to reduce the gap.

1.3 Purpose of Study

As discussed in the problem discussion, there has been a gap in the level of sustainability reporting between public owned and private owned companies. Is this gap still existing or has the private owned companies reached a level of sustainability reporting which is at the same level as the obligatory reporting of the public owned companies? With this question in mind the purpose of this study will be to examine how the gap in sustainability reporting has developed between public owned and private owned companies during the last years. To fulfil the purpose, the annual and sustainability reports of the selected companies, both public owned and private owned, will be examined and compared.

1.4 Research Question

From the discussion above, the authors have formulated the following research question:

How has the gap in environmental reporting between public owned and private owned companies developed in the last years?

1.5 Limitations

Due to the broad content of sustainability reporting and the essay's restricted timeframe, not all parts of the sustainability reporting will be investigated, but only the environmental part of it. This means that the economic and social parts of the sustainability will be excluded.

2. Theoretical Framework

In this chapter, the theory used in this essay will be presented. First, the selection process of the theoretical framework is described. After that is voluntary guidelines such as Global Reporting Initiative and United Nations Global Compact included, followed by a short description of mandatory regulations. Then follows a section with previous research to give an overview of what has been done in the area. In the fifth part of the theoretical framework the comparability characteristic of accounting is described and explained. Thereafter, scientific theories, including legitimacy theory, stakeholder theory and institutional theory, is introduced. The theoretical framework concludes with a motivation of how it will contribute to the study.

2.1 Selection of Theoretical Framework

Before the selection of the theoretical framework's content, an examination of possible theories was made. In terms of environmental reporting there are a number of different recommendations and regulations of what should be reported and how to report it. By prior knowledge, some recommendations and regulations, and also concepts of how to report this information were recognizable. To increase this knowledge further search was carried out, using databases to find previous research about environmental reporting. With the subject in mind and the information that were found the Global Reporting Initiative (GRI) and the UN Global Compact's ten principles were chosen to illustrate what environmental reporting and environmental activities involves. These two guidelines are worldwide spread and used by companies in different industries. The collection of information about these two concepts was mainly done from their respective websites but also from articles covering this area.

Comparability was chosen as one of the qualitative characteristics, since this a requirement the reporting shall fulfil. Because this thesis aims to compare the reporting between companies was this attribute considered very relevant for this study.

The thesis aims to analyse the issue through the lens of stakeholder theory, legitimacy theory and institutional theory. These three theories were chosen from a number of different theories that could be applied to this subject. Theories that were in mind, in addition to these three, were disclosure theory and agent theory. The reason why stakeholder, legitimacy and institutional theory were the ones selected was that a number of researchers mentioned these as a way to explain the existence and design of environmental reporting (Deegan & Unerman, 2011; Ljungdahl, 1999). Information about these three theories was collected from literature about accounting theory and articles explaining the three theories in practice. Articles were found using the databases Business Source Premier and Emerald Insight, were the keywords used were "stakeholder theory", "legitimacy theory", "institutional theory" and "environmental reporting".

2.2 Voluntary guidelines

2.2.1 Global Reporting Initiative (GRI)

Global Reporting Initiative is a leading organization in terms of sustainability reporting, founded in 1997. It is used worldwide and develops a framework, of what to report and how to report it, to create transparency among organizations' accounting. The intention of the framework is to develop guidelines and principles for all kinds of organizations, no matter what size or sector, on how to report the environmental, social and economic impact of their operations. (Global reporting initiative, 2014a)

2.2.1.1 G3 Guidelines

The G3 guidelines, launched in 2006, contain two parts. The first part deals with the content of the accounting, how to ensure the quality of the reported information and how to define which parts should be included in the reporting. According to G3 should decisions of the content be based on the following principles: Materiality, Stakeholder inclusiveness, Sustainability context and Completeness. Each principle has a definition and several tests as guidance for how to use the principle. To ensure the quality of the reports, there are six principles: Balance, Comparability, Accuracy, Timeliness, Clarity and Reliability. When a company defines the content, it must decide which parts should be included. Parts over which the accounting company exercises control or a significant influence should be included. (Global Reporting Initiative, 2006a)

The second part of the G3 guidelines, named Standard Disclosures, specifies the content of the sustainability reports furthermore. There are three types of disclosures: Strategy and Profile, which describes the background to understand the result of the company such as its profile, strategy and direction. Management approach is a type of disclosure that describes how an organization works in a specific area. The last type of disclosure is Performance Indicators, which give comparable information about economic, social and environmental results of the company. (Global Reporting Initiative, 2006a) In 2011 an update to the G3 guidelines was launched as G3.1 Guidelines (Global Reporting Initiative, 2014b).

To show that a company's environmental reporting is based on GRI's G3 guidelines there should be information about which level of application that has been applied (see figure 1). The system consists of three levels, A, B and C, and each level can also be added a plus (A+, B+, C+) in case the accounting has been reviewed by an outside part. The levels stand for which rate of the GRI's framework that has been applied. (Global Reporting Initiative, 2006b) Nowadays, companies are allowed to use the G3 guidelines, but reports established after the 31th of December 2015 must follow G4 guidelines (Global Reporting Initiative, 2014c)

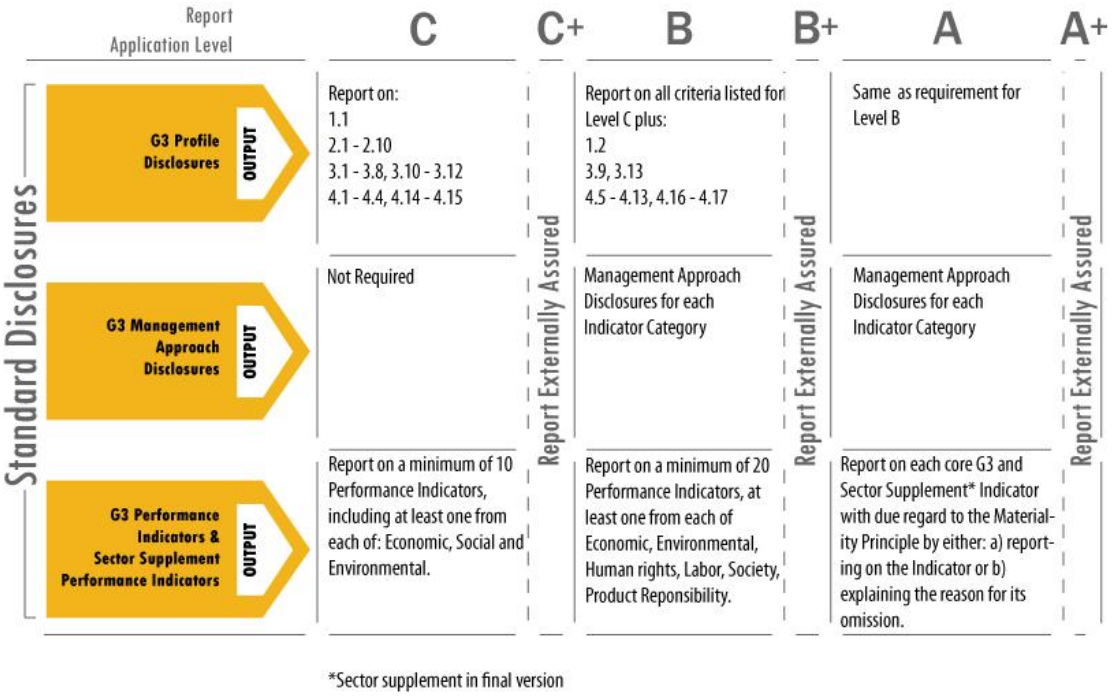

Figure 1. Global Reporting Initiative (2006a) [2014-11-14]

2.2.1.2 G4 Guidelines

In May 2013, GRI launched their latest update G4, with some updates to G3 (Global Reporting Initiative, 2013a). The main objectives of the update were, among others, to improve the guideline's quality and to harmonize with internationally accepted standards. A difference from the G3 guidelines is that the application level system has been removed because the system was misunderstood and needed to be optimized. The new system means that the organization can choose if their reports should be Core or Comprehensive corresponded to G4 (see figure 2). The Comprehensive option requires additional standard disclosures to the Core option. (Global Reporting Initiative, 2014c)

REQUIRED GENERAL STANDARD DISCLOSURES		
General Standard Disclosures	**'In accordance' – Core** (This information should be disclosed in all cases)	**'In accordance' – Comprehensive** (This information should be disclosed in all cases)
Strategy and Analysis	G4-1	G4-1, G4-2
Organizational Profile	G4-3 to G4-16	G4-3 to G4-16
Identified Material Aspects and Boundaries	G4-17 to G4-23	G4-17 to G4-23
Stakeholder Engagement	G4-24 to G4-27	G4-24 to G4-27
Report Profile	G4-28 to G4-33	G4-28 to G4-33
Governance	G4-34	G4-34 G4-35 to G4-55(*)
Ethics and Integrity	G4-56	G4-56 G4-57 to G4-58(*)
General Standard Disclosures for Sectors	*Required, if available for the organization's sector(*)*	*Required, if available for the organization's sector(*)*

Figure 2. Global Reporting Initiative (2013b) [2014-11-17]

If an organization's report is prepared in accordance with the GRI guidelines, it should present the GRI content index with references to the report. If the report has been externally assured, the guidelines also recommend having references to them in the index. (Global Reporting Initiative 2013b)

According to the G4 guidelines there are two kinds of disclosures to include in the reports. The first one is General Standard Disclosures and should describe an overall description of the company's report. The second one is Specific Standard Disclosures, divided in two parts: Management Approach, which is a chance for the organization to explain how the organization handles with their impacts on the environment, society and economy. The second part of Specific Standard Disclosures is Indicators, which is comparable information about their economic, social and environmental impacts. Examples are energy consumption, greenhouse gas emission and waste. The organization should include the indicators that are essential for the organization and its stakeholders. (Global Reporting Initiative, 2013b)

The environmental part of the guidelines covers the effects of the company when it comes to energy, water, emissions, waste, transport et cetera. In every one of these categories there are recommendations of what to report and how to report it. The organization should describe how the direction works with the given environmental areas above. (Global Reporting Initiative, 2013b)

2.2.2 United Nations Global Compact

The global compact is an initiative started in 1999 by Kofi Annan. The initiative contains ten principles about human rights, labour, environment and corruption. (Regeringen, 2008) Today, 12 000 corporations from more than 145 countries are participants connected to the initiative. By integrating these principles, the organizations can help ensure that the globalization proceed in an accepted way for the society and the environment. (UN Global Compact, 2013a)

The environmental part of Global Compact includes three principles. These principles identify that organizations and their operations can have a significant role in reducing the impact on the environment. (UN Global Compact, 2013b) The first principle urges companies to support a precautionary approach to environmental challenges. This means that instead of acting after impacts on the environment, companies should rather prevent them from happen. To establish a code of conduct is a step in the right direction towards this approach and a commitment to care for the environment. (UN Global Compact, 2009a) The second principle encourages initiatives from the companies to promote greater environmental responsibility. Companies can analyse and improve their vision and strategy to include a triple bottom line perspective. Another step is to increase the transparency and have a greater dialogue with stakeholders. (UN Global Compact, 2009b) The last principle in the environmental part of UN Global Compact encourages the spread and development of environmental efficient technologies. It states that companies should implement environmental friendly technologies in their processes and promote them. (UN Global Compact, 2010)

2.3 Mandatory Regulations

2.3.1 The Environmental Code

The main section of the Swedish environmental regulation is, since 1999, included in The Environmental Code. The principle target is to encourage sustainable development and, as a consequence, ensure a healthy environment for future generations. The code includes five key elements that emphasize the parts of particular importance for the targets. The Environmental code contains a merge of previous regulations concerning the environmental area such as The Law for Environmental Protection and The Water Law. Though Sweden is a member in the European Union, the national regulation must correspond with the requirements from EU. (Miljöbalken, 1998)

2.3.2 The Annual Account Act

The Annual Account Act contains regulations, for companies in the Accounting Act s.6, p.1, concerning the establishment and publication of annual reports. Referring to the Swedish Annual Account Act s.6, p.1, companies, whose activity is notifiable according to The Environmental Code, must disclose the environmental impact of the company in their management report. (Årsredovisningslagen, 1995)

2.4 Previous research

The existence and design of sustainability reporting has been investigated since its appearance. Researchers has tried to explain questions about this area, looking at stakeholders demand for this information, the correlation between revealed information and profitability, the organizations industry and size et cetera, without finding obvious conclusions. It has been looked at through different theoretical premises, among these agency theory, stakeholder theory and legitimacy theory. (Ljungdahl, 1999)

Legitimacy theory has been frequently used to study and analyse environmental reporting, and the use of this reporting as a way to receive legitimacy to the organizations (Deegan & Unerman, 2011). Michelon (2011) did a research about the relationship between sustainability reporting and an organization's reputation using legitimacy theory as the theoretical approach. In his study he found, among several things, that organizations that are large, have a strong relation with their stakeholders and/or belongs to an industry that are in a sensitive environment, tend to disclose more information than others. The results that Patten (1991) shows in his research, cohere with the ones that Michelon showed in his study, namely, that the amount of social disclosure that companies reveals is associated with the companies industry and also the size of the company, while the correlation with profitability is showed to be non-existing.

Greiling D and Grüb B (2014) declare in their research about public enterprises that the requirement for public corporations to disclose all relevant information is higher than those required by the private ones. This obligation comes with the fact that it is the taxpayers'

money who finance the business, and that they want do see their money be well spent. The reporting obligation also arise from the fact that public corporations need to show that they are the most appropriate to serve the public interest. (Greiling & Grüb, 2014)

There have been researches on the relevance of environmental reporting and if investors find environmental information and disclosures useful for decision making. It is common to assume that investors only find it interesting to maximize their return on investment and therefore not be interested in social and environmental aspects. However, since compulsory, but also voluntary, reports of environmental information still exist in the companies' accounting, it has to fulfil some purpose. It can be of interest for investors, before making an investment, reading that the company is aware of the environment. (Murray A, Sinclair D, Power D, Gray R, 2006)

According to Gray (2001) it has been an increasing number of major corporations that undertakes environmental reporting. With this fact in mind, it is easy to forget that it is still the non-reporting companies that are the majority. Gray (2001) also states that the majority of companies will continue to free-ride on the environmental work done by the leading corporations until environmental reporting is legislated by the government. It seems that only when reporting requirements are legislated, will they achieve widespread reporting. The legislation of environmental reporting has been debated and the usual argument against it is that it can discourage innovation and experimentation. (Gray R, 2001)

2.5 Comparability

Marton (2013) implies that one intention of regulating the reporting is to create comparability between companies and that this facilitates the application of the information. Marton (2013) also states that published recommendations intends to reduce differences between companies by limiting the quantity of reporting methods and that a way of reaching comparability is standardization.

To make sure that the revealed information is useful and has a value for the companies' stakeholders, IASB has developed so-called qualitative characteristics to guarantee the quality of the information. For information to be useful for users it should be relevant, faithfully represented, comparable, verifiable, timely and understandable. (IFRS, 2014)

The most relevant characteristic for this study is comparability. The main idea with comparability is that similar events should be reported in a similar way no matter what type of company it is. This criterion is often divided into two different parts; the information should be comparable between companies and also be comparable over time for one specific company. The first element is important, mainly for investors, who should be able to compare and estimate which company is the most solid or profitable et cetera. To make this estimation it is necessary that the reporting is done in a similar way and that different measures are comparable. The second one, that a company's performance should be comparable over time,

is useful to see how the company has developed during the years and is also a foundation for making forecasts. One problem that can occur, considering the comparability, is the ongoing development and all changes in standards and regulations that come with it. If a company is to change the way they report, there are only two ways of doing this and they also has to describe what effect these changes create. (Smith, 2006)

2.6 Scientific Theories

The theories used in this study are stakeholder theory, legitimacy theory and institutional theory. These kinds of theories are occasionally mentioned as systems-oriented theories. Within those theories, the organization is presumed to have a mutual relationship with the society, on which it have an influence on, and also can be influenced by. (Chen, J, & Roberts, R, 2010) Chen & Roberts (2010) also states that these theories have the same objective, that is the organization's survival and growth, and some overlapping viewpoints and that they can be used together to analyse organizational behaviour.

2.6.1 Stakeholder theory

Freeman (1984) describes a stakeholder as anyone who can influence or be influenced by an organization's operations.

Stakeholder theory has two perspectives, the ethical branch and the managerial branch. The ethical perspective of this theory argues that the different stakeholders have the right to be treated in a good manner by the company. This branch also states that the power a stakeholder group has on the organization should not be what decides the organization's responsibilities against that particular stakeholder, but the affect that the organization has on the stakeholder. Every stakeholder group is also said to have certain rights, mainly rights to get information about how the companies' activities could have an impact on them, which cannot be disregarded. The second perspective, the managerial branch, tries to explain the situation when organizations are more likely to meet the expectations of specific stakeholders, often the most powerful ones. A specific stakeholder group's power to influence the organization comes from the amount of control they have over certain resources which are necessary for the organization. (Deegan & Unerman, 2011). Gray, R, Owen, D and Adams C (1996) also mentions two directions of stakeholder theory that are similar to the ones mentioned above. The first direction states that there is a relationship of responsibility and accountability between the organization and different groups of society, in which the organization owes accountability to its stakeholders. The second direction imply that stakeholders are detected by the organization, and the more important a stakeholder is, the more will the organization strain to create a good relation and keep it.

Usually there is a distinction between primary and secondary stakeholders. Primary stakeholders refer to those who have a direct and contractual connection with the organization while the secondary stakeholders are those who can be affected by an organization operations without having a direct relationship with it. Examples of stakeholders, both primary and

secondary, are owners, customers, employees, the government, creditors and competitors. (Pesqueux & Damak-Ayadi, 2005) Even if companies want to consider all stakeholder groups and keep them satisfied, they often have to prioritize since the different stakeholders interests can collide. Those stakeholders who are perceived as most important for the survival of the company, often limited to a small part of all stakeholders, are those who the company takes into account most when taking their decisions. (Ljungdahl, 1999)

According to stakeholder theory, different groups of stakeholders will have different perceptions about the company and also different expectations about how the company should perform. These different conceptions about companies will create what is often referred to as social contracts between the company and every group of stakeholders. Through these contracts will the stakeholders put a pressure on the company to act in a manner that is consistent with their expectations. This is referred to as stakeholder power. (Deegan & Unerman, 2011) Researches, among them David, Bloom & Hillman (2007) and Mitchell, Agle & Wood (1997), has shown that it is not just the stakeholders' power that can determine their importance for the organization, but also their legitimacy and urgency. Legitimacy is referred to what degree a stakeholder's values agree with the society's values while urgency indicates to what degree a stakeholder calls for immediate attention.

2.6.2 Legitimacy theory

Legitimacy theory can be seen as an extension of stakeholder theory and these two can be used as overlapping theories to analyse the issue. Legitimacy theory assumes that organizations act in a way that is accepted by the society, that is, the values that are considered to be right. If the organization can live up to these values, it is said to be legitimate and accepted in the society. According to Lindblom (1993, stated in Deegan & Unerman, 2011), there is a distinction between the terms legitimacy and legitimation, where legitimacy is a fixed condition that you either has or not while legitimation is the procedure to receive legitimacy. But if an organization had ones obtained legitimacy, it is not clearly that they will permanently have it. The society's values are not fixed, but in an ongoing evolution, and organizations can through their behaviour lose their legitimacy. (Deegan & Unerman 2011) O'donovan (2002) argues that there are different types of strategies or tactics that can be used whether the organization tries to gain, maintain or repair legitimacy. It is also stated that when an organization ones has received legitimacy it is easier to maintain it than it was to gain it and also easier than to repair it, but he also states that legitimacy is necessary for the organization to exist.

A number of researchers in this area have identified several strategies depending on the aim of the legitimacy action. Dowling and Pfeffer (1975, stated in Deegan & Unerman, 2011) defines three legitimate strategies that organizations can adopt; The organization can adjust its activities so that they are consistent with the existing legitimacy definition, it can influence the current definition of legitimacy so that it coincides with the organizations activities or it can look for legitimacy using other institutions or alike that are considered to be legitimate.

The relationship between an organization and the society can be explained in something that is referred to a social contract between the two parts. This contract is virtually never definable but is said to portray the several expectations the society has on the organization and its activities. As mentioned above, that the expectations are in a continually change, means that this contract neither is fixed during time, but changing with the expectations. If the organization is to break parts of the contract, it could lead to sanctions for the organization. Sanctions that could take form in, for example, legal restrictions or some form of boycott from the consumers. (Deegan & Unerman, 2011) Gray et al. (1996) states that the contract consists of two different components, namely explicit and implicit parts. The legal restrictions are said to be the explicit while the implicit part consist of expectations that are not legally restricted.

2.6.3 Institutional theory

According to institutional theory, organizations operate within social norms and values, considered to give the organization legitimacy and ability to survive. Organizations faces changing expectations and are under a continuous pressure from the society and different institutions. This pressure and expectations tends to manage the organization's structure so it is considered to be normal, from a societal perspective. By designing a structure which is in line with these expectations from society, the organization demonstrate that it is acting in an accurate and legitimate manner. Institutional theory are often divided into two different sections, decoupling and isomorphism. (Deegan & Unerman, 2011)

Decoupling could be described as a difference between an organization's operational work and its formal structure, that is, a difference between what the organization really do and what they say they do. Researchers has examined different reasons for decoupling, and concluded that it enables the organization to achieve external legitimacy while keeping internal flexibility. (Baker, C, Bédard, J, & Hauret, C, 2014)

According to DiMaggio & Powell (1983), organizations are homogenous in its structure and the concepts that best describes and explains this homogenization is institutional isomorphism. Isomorphism states that an organization that faces similar conditions as other organizations will be forced to take after this structure and behaviour. DiMaggio & Powell (1983) identifies three ways of isomorphism and how it contributes to change organizations, namely coercive, mimetic and normative isomorphism.

Coercive isomorphism is a result of pressure on the organization from other organizations in its environment, both internal and external. This pressure will make the organization to change their behaviour so it cohere with the expectations from other organizations. The pressure do not need to be of a forced character, it could also be convincing or just an invitation to join a broader collaboration. Mimetic isomorphism is a change that occur due to uncertainty. When organizations feel a degree of uncertainty of how to behave in different situations, they tend to imitate the behaviour of other organizations. Organizations being imitated often tends to be perceived as legitimate and successful, securing an acceptable behaviour to the imitating organization. The normative isomorphism is derived from professionalization, and the fact that people with similar academic background tends to see

and solve problems in a similar way. These people also tends to be positioned on the same places in the different organizations. (DiMaggio & Powell, 1983)

2.7 Theoretical contribution to the study

Initially, the purpose of the chosen theoretical framework is to inform the reader about what environmental regulations and guidelines the reporting companies should follow. Guidelines and recommendations given by Global Reporting Initiative and United Nation Global Compact are worldwide applied and intends to give the reader an overview of how companies work with, and report, environmental issues. Comparability is an essential section in this essay and has been used to compare and explain the similarities and differences of the selected companies. Stakeholder theory is used to examine the relationship between the reporting companies and their stakeholders. This theory has also been utilized to explain the stakeholder's influence of the reported information. Comparability, together with the scientific theories, are tools in the analysing process, used to explain the existence and extent of the reported environmental information. Previous research are included to show results from other researchers' studies and, if possible, connect these results with the one obtained in this study.

3. Method

In this chapter the study's approach is described in detail. The first part is a short description of how this research has been performed from its beginning. Thereafter follows sections of the method, needed to be explained more in detail, including the selection of industries and companies, how the data was collected and a description of the analysis model used in the study. The chapter then concludes with source criticism and the essay's reliability.

3.1 Research approach

This thesis aims to explore and to get a better understanding of the differences in the company's environmental reporting. Since a deep understanding was desirable, a detailed examination was essential. Furthermore will the essay's results presumably be unexpected, therefore is a qualitative approach the most suitable in this case. (Jacobsen, 2002) The conclusion of this thesis cannot be generalized in all cases though just a selection of companies is included. However, the selection of companies is expected to give a better understanding of a possible gap in environmental reporting between public owned and private owned companies.

Firstly, information about sustainability reporting, its development and content, was gathered and read to get a broader vision of what sustainability reporting comprise. Since the sustainability area appeared to be quite extended, only the environmental part of the sustainability area were chosen to be included in the study's examination. When reading articles about environmental reporting, two articles (Management of Environmental Quality (2008) and Balans (2010)), one about GRI guidelines becoming compulsory for public owned companies and one about a gap in sustainability reporting between public and private owned companies, became the foundation for formulating a purpose and research question.

Secondly, the work of shaping a theoretical framework began. Mandatory regulation and voluntary guidelines about environmental reporting were included, as well as three scientific theories. The theories selected were stakeholder theory, legitimacy theory and institutional theory, which were used in the analysing process of the essay. Other parts of the theoretical framework are the qualitative characteristic comparability and previous research, something that will give an understanding of what has been done in the area of sustainability and environmental reporting. Information about previous research were found in several articles, downloaded on the two databases Business Source Premier and Emerald Insight.

Thirdly, a review over possible companies to investigate was made. Since the thesis aims to compare the quality of environmental reporting, and not the quantity, a selection of three public owned and three private owned companies was chosen to be examined. After some examination of previous research and essays to find a method of how to compare and analyse the collected data, the model described by Ljungdahl (1999) was seen appropriate and therefore chosen. The collection of data was made from annual and sustainability reports

downloaded from the companies' websites, and then reviewed to find information about the environmental reporting.

Fourthly, the collected data was examined in detail and documented in the empirical findings. The analyzing model and its indicators were then used to describe the quality of the data from each company. The results obtained using the model were then connected to the theoretical framework and a conclusion has been given. During the analysis were some thoughts about further studies received, these thoughts were also included in the conclusion.

3.2 Selection of Industries and Companies

Since this thesis is aimed to compare public owned companies with private owned, there are a limited number of industries to choose from, and often only one public company in each eligible industry. From the public companies in Sweden, the ones considered to be in industries with largest impact on the environment were chosen. The selected industries therefore are the forest industry, the energy industry and the mining industry. In each one of these industries a public owned company and a private owned company were selected. The public owned, found on the government's website, are Sveaskog AB, Vattenfall AB and LKAB respectively (Regeringen, 2014). In selecting the private owned company in each industry there are more alternatives. The aim was therefore to select a company which is in a similar size as the public owned, otherwise could a possible difference in their environmental reporting depend on this. The private owned companies selected for this study are Holmen AB, E.ON Sverige AB and Boliden AB.

3.3 Data Collection

The data used in this thesis is collected from the companies' annual and sustainability reports, since this is the companies' accounting. The reports were found on the company's websites under investor relations. Because it was desirable to receive an actual condition in the environmental reporting area, the latest versions of the reports were used, which in this case is the 2013 reports. The reports were then carefully reviewed page by page to find information about all the selected company's environmental activities. In those cases when the company refers to the website for further information about a specific issue, was this not examined since it is only the information in annual and sustainability reports that is compared and analysed.

3.4 The Analysis Model

The empirical findings in this thesis will be compared using the model for comparing environmental information first released by UNCTC 1991, and then developed by Ljungdahl (1999). The reason for using Ljungdahls alternative of the model is because it is adjusted to suit Swedish companies and their environmental reporting. The model consists of eleven different categories that are frequently applied by Swedish companies. The eleven categories

consist of several indicators used to detect the existence of information belonging to a certain category. The indicators are presented in appendix 1. To explore to what extent each company reports the eleven categories, the reported information is detected, using the indicators. Each indicator is registered only once and no rating of the information is done. This implies no consideration if a company report several aspects of an indicator, but just the first time the information is given. The eleven categories presented by Ljungdahl (1999) and used in this thesis are:

- Environmental policy: This category refers to if the company have some kind of overall environmental policy and/or strategy that is the foundation in their environmental work. It is not considered to be enough just mention that this policy or strategy exist, the content of it should also be described so that the reader could get an overall picture of the strategy. If the company has joined and applies an external action program could this be seen as a policy exist.
- Environmental targets: This comprises what environmental targets the company are working towards. It is often quantifiable targets, such as exhaustion of carbon dioxide (CO_2), which can be followed over time. This category also includes a short-term action plan of how to reach the targets.
- Environmental impact - process: A very broad category, since the manufacturing process is very different in different industries. Under this item progress in research that can lead to less environmental impact in the future should be noticed.
- Environmental impact - product: Is similar to the previous category, but should describe what environmental impact the company's products have. Information about future improvements, such as new eco-friendly products or new products that are easier to recycle, should be reported.
- Environmental organization: Concerns information about how the internal activities for the environment is organized and executed. It could be information about a possible environmental management system, if/how they educate their personnel in issues concerning the environment or if they have a department working only with environmental issues. This is considered to illustrate how prepared the company is to changes and possible problems in the environmental area.
- Environmental audits: Information about how the environmental work of the company have been audited or if an audit is planned should be reported about. Audits where the purpose is to examine the companies' environmental impact and preparedness are also considered in this category.
- Environmental authorities: How is the relationship with environmental authorities? It should be reported if there are any upcoming legislative changes, ongoing environmental disputes with possible damages associated to this.
- Environmental incidents: If there have been any events of environmental nature during the year should the company report it. A statement that there has not been any events, if this is the case, should be mentioned in the report. According to Ljungdahl (1999) does a commentary of this field give more credibility to the report, since this is often something negative for the company.

- Environmental investments: If the company is carrying out any investments to reduce the environmental impact or if there are existing plans of such an investment, this should be informed about. Financial information about the investments should be presented so that stakeholder can see the consequences of the environmental activities on the company's finances.
- Environmental expenses: Information about the expenses, connected to the environmental activities, which the company has had during the year. It could be environmental taxes, environmental charges or operating costs for previous investments.
- Environmental debts: If the company have any contingent liabilities that can affect the company in the future this should be reported. Ljungdahl (1999) uses the term future environmental-related expenses to illustrate this category.

Even though the analysing model used in this thesis is 15 years old, it could still be considered up-to-date. It is reflecting those issues that are of interest even today, and could be utilized to answer the purpose of this thesis.

3.5 Source Criticism

Some sources, such as articles and previous research can be questioned by their legitimacy though they could have elements of subjectivity. To avoid subjectivity and to obtain as much objectivity as possible in the scientific articles, only peer reviewed articles were chosen. The articles that are not peer reviewed, the ones taken from the trade magazine Balans, can be questioned for their subjectivity. These articles are not used for a deeper understanding or analyses of the subject, but just to demonstrate the ongoing discussion about sustainability and environmental reporting. There are also parts in the theoretical framework which can be questioned for their timeliness, since information in articles can be out of date. This has been taken into account and as updated and present sources as possible have been chosen. The annual reports are the latest updates from the companies which mean that the information is current. This does not guarantee that the information is correctly presented and trustworthy since managers of the companies can manipulate it. The possibility to examine the credibility of the information is however limited, so it should be considered representative seeing that it has been audited and confirmed by an external part.

3.6 Reliability

This study is considered to be done in a systematical and structural way. The method chapter describes how the study were performed and aims to give reliability to the essay. This procedure is considered to be able to answer the research question and fulfill the essay's purpose, which is to examine how the gap in sustainability reporting has developed between public owned and private owned companies during the last years. However, even if the purpose is fulfilled it is considered that the results of the study cannot be generalized to the entire population since a deliberately selection of only six companies has been chosen.

4. Empirical Findings

In this chapter, the environmental information from the selected companies' annual and sustainability reports is presented in detail. The selected companies are divided in industries. Initially, general information of each company is shortly described, followed by a summary of their environmental activities.

4.1 Forest Industry

4.1.1 Sveaskog AB

Sveaskog AB is a public owned company in the forest industry, where the parent company is 100% owned by the Swedish state. The company is Sweden's largest owner of forest, and in 2013 they had a turnover of 6,1 billion SEK and 700 employees. Sveaskog's vision is to be the leading company in the forest industry, combining a profitable forestry with environmental responsibility.

The company apply UN Global Compacts and reports their sustainability work according to the guidelines released by GRI. The sustainability report is at level B+ according to the GRI G3 guidelines, and the reporting includes 27 of GRIs main indicators and 10 of the additional. In the annual report, they refer to a GRI-index that can be found on the company's website. The sustainability report is reviewed by an outside part, PWC. The internal responsible for environmental issues is, from 2013, an environmental executive, which the employees can turn to regarding environmental questions.

The environmental work should create a balance between profitable production and environmental values. It is stated that many of their activities have an impact on the environment but also that the activities should be done with respect to the nature. The climate strategy is based on an adapted and growth-enhancing production, on development of renewable energy and environmental responsibility. The environmental responsibility is than summarized in four points:

1. Act as an example in the development of a sustainable use of resources.
2. Maintain the forests long-term ability to production
3. Limit the negative impact on the environment
4. Protect and strengthen biodiversity

All of Sveaskog's area, as well as many of their products, are certified and reviewed according to Forest Stewardship Council (FSC®), which means that the environmental performance is on a good level. The organization behind the FSC® also perform annual audits to see that the requirements are fulfilled. Many of the areas where Sveaskog operates are ecological, which means that the nature is wellbeing and have a high degree of biodiversity. Sveaskog also has several chains of custody certifications, which means that information about the origin of the wood is given. Sveaskog's environmental management system is certified according to ISO 14001.

Two of the targets defined in the report are environmentally related. 99 per cent of the environmental values in forestry should be managed and emissions of CO_2 are to be reduced by 30 % until 2020. The result of 2013 and also the target of 2017 are reported. It is also possible to follow the development of emissions of CO_2, nitrogen oxide (NO_2) and sulphur dioxide (SO_2), in a five-year overview, together with used energy resources. One method to reach the target of reduced CO_2 emissions is to increase the forest's ability to sequester CO_2, but the main measures are made in the logistics and lumbering process, where the largest emissions arise.

The transportation part of the logistic system is considered to have a large impact on the environment, accounting for 59% of the CO_2 emissions, something that is reported in their CO_2 footprint. Because of this, investments to make the transportations more effective are made. Investments in lighter trucks, more effective truck- and railway system and education in fuel-efficient driving are estimated to reduce the emissions by 10%.

Several environmental, biological and climate risks are reported. Contaminated land, climate changes and loss of certifications are mentioned as some of these risks. Sveaskog describes the overall process that is employed in a situation when a risk occurs, and the specific methods used in every possible risk. The costs for counteract and mitigate each risk are not quantifiable.

Sveaskog has identified their ten main stakeholders and what topics they consider important. Eight out of those then considered climate and environmental issues to be important. Central for the authorities is that Sveaskog follows the Swedish Forestry Act to secure a decent level of the forests.

The sustainability report contains a description of the activities in the lumbering and pulping process. The different steps undertaken and the impact that each step has on the environment are reported. The impact has decreased due to the frequent use of by-products in the pulping process and progress in research and development, which has made it possible to replace fossil resources with wood raw material. The five steps described are:

- A description of areas in which they operate and how these are adapted to be part of the nature.
- The maintenance of the forests, to keep the biodiversity.
- Show respect to the nature in the processes.
- Review, both internal and external.
- Follow-up of discrepancies and measures, if necessary.

Sveaskog makes demands on their suppliers to have a positive impact on the society and live up to the expectations in Sveaskog's Code of Conduct, based on UN Global Compact. In 2013 did 91% of the new suppliers, or suppliers where the agreement was renegotiated, signed to follow these demands.

Sveaskog reports about historical environmental debts, where it is stated that the company has a responsibility about the environment in their areas, even if the damage arose from earlier activities made by another corporation. Surveys and valuations about possible and existing pollutions in Sveaskog's areas are done constantly. A provision is made if an obligation exists and on the closing date was provisions of 22 million SEK made.

4.1.2 Holmen AB

Holmen AB, founded in 1875, is a private owned company in the forest industry. The company operates in two business areas, Products and Raw Material. In 2013 they had a turnover of 16 billion SEK and 3 700 employees.

The sustainability report is in line with the guidelines established by GRI. The level of reporting is at A+ with an assurance report from KPMG. The company apply UN Global Compact and its ten principles. Holmen is on the list, launched by UN's Global Compact, over the 100 companies with the best sustainable business methods.

The environmental and energy policy states how the company should work with the environment. The policy is based on regulation and environmental conditions but also issues prioritized by stakeholders. If something happens that could have an impact on the environment, the environment should take precedence over the production. In the development of new products and investments is the target to combine effective production with respect for the environment. Products with a negative impact on the environment will be replaced by more sustainable alternatives. In recent years, Holmen increasingly has integrated environmental issues in the production planning and investments. This is a result of Holmen's high ambitions in the environmental area, were the company's ambitions goes further than the ones established by EU, together with requirements set by legislation and authorities. The director for environmental and sustainability issues coordinates the environmental activities, while the operating responsibility is on the region managers.

The environmental targets are a reduction of fossil fuels by 75 % from 2005 to 2020, and a duplication in the production of renewable electricity, from 2005 to 2020. The result of year 2013 is presented together with commentaries of the development. A target of increased rate of growth in their forests with 25% until 2050 is also defined, something that will make the forests sequester more CO_2 and therefore contribute to achieving the target of none climate emissions in Sweden by 2050. Holmen is, since 2005, a participant in EU emissions trading scheme and has been awarded emission allowances until 2020. A new directive from the EU, which took effect in 2013, implies stricter requirement for emissions. Holmen calculate their CO_2 footprint to see what quantity of greenhouse gases the production generates.

In a five-year overview of sustainability issues emissions, both to air and water, as well as waste are reported. This overview also contains the amount of costs the company has had for environmental protection, including investments, environmental taxes, environmental education, charges and environmental cost of forestry. Investments made to improve the environmental impact are mainly a shift from fossil fuels to biofuel as the main energy source

in their mills as well as minimizing waste. There have also been smaller projects and inquiries in a variety of areas to improve the environment.

Holmen sees sustainability work as something important that creates value for the company. During the process Holmen attempt to minimize the resource consumption and use renewable resources, and by this, minimizing the production processes' impact on the environment.

Many of the products which Holmen sells today, including printing paper, paperboard and sawn timber, are made out of renewable raw materials. The European Commission wants to encourage the use of more environmentally friendly products, something that Holmen does with the products from renewable materials. Holmen is co-owner in a company in Israel that has developed a new environmentally friendly way to produce paper and carbon. They also report about more environmentally friendly products that are prioritized.

Holmen got environmental permits for seven of their facilities, either from Environmental Protection Act, Environmental Code or according to the Intergovernmental Panel on Climate Change (IPCC). They also got certifications for the environmental and energy management systems used in the facilities and their operations in Holmen Forest is certified according to criteria issued by FSC® and Programme for the Endorsement of Forest Certification (PEFC). During the year, environmental permits for 70 new wind turbines have been received and three types of special paper received an EU Ecolabel.

The environmental impact is mainly through air and water emissions as well as noise and waste. Holmen describes that their main environmental risks are to exceed conditions determined by environmental authorities and risks for future expenses for repairing the environment after phased out operations. Analysts are continuously analysing the company's risks and opportunities with environmental issues. If an accident is to occur, Holmen got 14 points on how to prevent and manage the event. During the year, a number of exceedances of limit values and incidents in the forestry operations, have been reported.

Their clients and partners are said to be aware of environmental issues and demand products that gives a good environmental performance. A good relation with their suppliers is necessary to guarantee an acceptable level considering sustainable issues. Since many of Holmen's activities require environmental permits it is important with a good relation to the authorities. Sustainability issues, which include environmental issues, are important for owners, investors and analysts when they are analysing the company. Holmen has a Code of Conduct containing sustainability requirements on the suppliers.

Provisions for environmental issues are made when contaminations arise or are discovered and it is probable that a cost will emerge, and the amount could be estimated. Provisions for environmental issues are, together with provisions for staff and restructuring, 461 million SEK on the closing day of 2013. Holmen has contingent liabilities related to environmental issues in restoration operations and soil tests that cannot be estimated, but will, with certainty, imply expenses in the future.

4.2 Energy industry

4.2.1 Vattenfall AB

Vattenfall is one of the largest producers of electricity in Europe and the parent company is wholly-owned by the Swedish state. The company has about 10 million clients and over 30 000 employees. The turnover in 2013 was 171 billion SEK. One part of their vision is to be one of the leading companies when it comes to environmentally sustainable production.

The Board of directors and the Executive Management are responsible for the ongoing environmental work and also for the establishment of the sustainability report, which is reported according to the updated guidelines issued by GRI, G4, on core level. The report is audited by EY and internal audits of all activities are carried out. A GRI-index is presented with an explanation of how the data are collected and what accounting policies that have been applied

Vattenfall mentions the existence of an environmental policy, and that the operations performed are in line with EU's climate and energy package and several directives issued by EU. This package contains several systems and directives which aims to reduce emissions of greenhouse gases, increase the proportion of renewable production and secure the water quality. Vattenfall's operations require permits according to The Environmental Code.

Three environmental related targets are; a reduction of the emissions of CO_2 to 65 million tonnes by 2020, a higher growth in renewable energy than the market and increased energy efficiency, which is a short-term goal for 2014. The results for 2013 are presented together with comments of the development in the specific area. A presentation also shows that the emissions have decreased in the last years. The methods used to reduce the CO_2 emissions are usage of electric transports, a lower number of operating hours in coal- and gas-fired plants and closedown and selling of facilities and operations. Vattenfall participates in EU emissions trading scheme. The expenses for emissions allowances were higher than expected, 6 billion SEK, in 2013 since new power plants were put into operation.

Vattenfall have five strategic areas, of which two of them deal with environmental issues. These two are growth in the area of renewable energy and a reduction of CO_2 emissions. 10 billion is said to be invested in renewable energy, under the period 2014-2018. Vattenfall are pursuing research in Carbon Capture and Storage (CCS) which can reduce the emissions of CO_2.

Vattenfall have identified their stakeholders and their opinion of what is most important to work with in the sustainability area. The three most important areas were to prioritize renewable energy, reduce CO_2 emissions and offer sustainable energy to the clients. During the survey, the stakeholders also stated that Vattenfall did not always understand their expectations, something that Vattenfall will have in mind in the future.

The resources used in the process are different kinds of coal, gas and biomass. Waste are reused or recycled as far as possible, and the usage of by-products is optimized by using it in

other steps of the process. Vattenfall works for a sustainable production, where the following four points are the foundation:

- A product portfolio with lower CO_2 emissions and renewable energy.
- Focus on other emissions - mainly emissions of SO_2 and NO_2, but also oil spill into soil and water. Targets for reduction of these emissions have been placed on local level.
- Protect the nature and its biodiversity - where to put new constructions and how to run them to secure the biodiversity.
- Make a progress in the resource efficiency.

The environmental management system is based on ISO 14001 and contains identifying environmental aspects and observation of legal requirements. Vattenfall also works to certify the local environmental management systems, and the ambition is to certify all operations. Vattenfall is the only company in the Nordic market that offers certified Environmental Product Declarations for electricity, something that has strengthened the competitiveness of Vattenfall. This certification means that there is detailed information of what environmental impact the product has during the production process. Together with Nuon, a subsidiary in the Netherlands, they have developed a product with more efficient gas consumption, which will lower the impact on the environment.

Vattenfall's Code of Conduct, based on the ten principles in UN Global Compact, consists of eight areas, where one is the environment. The employees are educated about the content of the code. The suppliers that operate within EU are governed under their regulations, while some suppliers operate in areas where rules and regulations are not on the same level. This difference in regulation means that Vattenfall is exposed to environmental risks in the supply chain. The risk is managed through the Code of Conduct together with enterprise risk management which is their process to identify, manage and follow up risks.

Provisions are made for restoration of sites where they have conducted business and other environmental related issues where such undertakings have to be done. The amount is reported together with other provisions.

4.2.2 E.ON Sverige AB

E.ON Sverige AB is a subsidiary in the E.ON group with headquarter in Germany. The turnover in 2013 was 40 billion SEK and the number of employees is 3 500. E.ON reports a separate sustainability report alongside the annual report. Their environmental activities are in line with their environmental policy

In their reporting do they follow the guidelines established by GRI, but it is not a formal GRI-report. The report is not registered at GRI and not audited by an external party, but the manner in which they collect information about environmental issues is reviewed by PWC. E.ON is connected to the UN Global Compact.

In year 2013 investments of 6,7 billion SEK were made in Sweden to improve the climate. Ten million SEK each year are invested in the research cooperation with Chalmers which aims to strengthen and develop the research within the area of energy from a long-term environmental perspective. Together, they found a way to reduce the emission of NO_2, something that was introduced in the process during the year. Several projects aiming to increase the use of renewable energy and to keep the biodiversity of the nature are carried out and if a damage on the environment occur in some of their water-powered generators, is the target to create renewable energy that compensates this damage.

E.ON reports two environmental targets. One target is a long-term target to reduce the emissions of CO_2 by four million tonnes from 2006 to 2015. At this moment the reductions are 3,78 billion since 2006. The reduction will be done by investments in renewable energy, power increases and higher energy efficiency. The other target is to implement UN CEO Water Mandate in all of their Nordic areas, something that will be reached by observing and survey the water use and water impact, as well as continuously work to reduce the impact.

Their stakeholders thought that the reduction of CO_2 emission was most important. This could be reached by R&D and higher energy efficiency. A survey among their customers showed that the customers were more aware of the environment, which mean that the selling of renewable electricity has increased, as well as it encourage investments in renewable sources. To meet the environmental awareness it is presented on the bill where the electricity originally come from and what environmental impact it had in the production process. During the year they developed an appliance to help customers to measure the energy use and become more energy efficient.

E.ON Sweden has 142 facilities that are notifiable and require permission according to The Swedish Environmental Code. 14 out of these 142 are seen to have larger impact on society and the environment permissions for these are issued by The Environmental Court. E.ON works with an environmental management system which is certified by ISO 14001. The CEO has the main responsibility for the environmental regulation and requirements in the company, and is also responsible for ensuring that there are enough resources to carry out the operations. The responsibility can be delegated further down the organization. Usually the responsibility should be where the impact on the environment emerge.

The main environmental impact comes from emissions, both to air and water, and impact on the biodiversity. Emissions to air consist of CO_2, SO_2 and NO_2, while the emissions to water mainly consist of heated cooling water. Key ratios shows that the emissions of the gases have diminished over the last three years.

The resources used in the processes are fuel, chemicals and energy. E.ON's waste hierarchy is based on directives from EU and is a method to achieve the environmental targets that EU has. E.ONs' waste hierarchy implies that as much resources as possible should be reused and recycled.

E.ON works for cleaner transportation and is investing in and supports the use of electric vehicles. Today, E.ON gives the opportunity to people who want to load their electric car with 770 charging posts around the country. To make a contribution to this area, E.ON uses environmentally friendly biofuels in their transports.

Audits on their suppliers to see if they live up to the requirements settled are performed. E.ON got a policy for responsible purchases in which they should minimize the impact on the environment. When the purchase exceeds 50 million SEK a risk assessment with four different dimensions, where on is environmental risks, is done. Beyond audits on the suppliers E.ON also perform internal audits as a part of their ongoing environmental activities.

Provisions for environmental obligations are made of 102 million SEK 2013, while provisions for emission allowances, together with electricity certificates, are made of 345 million SEK. Contingent liabilities related to environmental issues are made of 173 million SEK, and contains possible future costs related to measures for contaminated sites that can be realized due to future regulatory requirements.

4.3 Mining Industry

4.3.1 LKAB

LKAB is a state owned company in the mining industry. The company was founded in 1890 and operates in northern Sweden. LKAB has 4 500 employees and in 2013 they had a turnover of 23,7 billion SEK. Their ambition is to create welfare by being one of the leading mining companies when it comes to innovation and resource efficiency.

LKAB presents an integrated report to reflect the sustainability issues' part in the ongoing activities. LKAB reports according to GRI guidelines G3, level B+, something that is confirmed in the assurance report by Deloitte. A GRI-index is presented at the end of the report.

Their aim is to be a role model in their industry when it comes to environmental awareness. Their ambitions go further than current legislation which is seen in their environmental policy, which is explained on the company's website. The sustainability strategy, which contains environmental issues, is the instrument for the ongoing environmental activities. The Board of Directors and the Executive Management are responsible for the daily work concerning the environment together with a new unit responsible for climate and energy questions. LKAB's ambition is to minimize the environmental impact and work with biological compensation if it is necessary, something that are a new phenomenon in Sweden. With this work they want to create credibility to authorities and the public.

The environmental and energy management system is integrated with the quality management system, which is certified according to the environmental management standard ISO 14001. One component of the certification is risk analyses undertaken to prevent negative impact on the environment. Audits have been conducted and shows that the company meets the requirements for additional certifications.

Environmental targets:

- Reduction of SO_2, from 2000 tonnes 2011, to 1000 tonnes 2015, to 500 tonnes 2017.
- The annual average of falling dust should decrease by 10 % 2015 compared to 2011
- Reduce the energy consumption from 160 KWH 2011 to 130 KWH 2020
- Reduction of CO_2 emissions from 27 kg per tonne produced to 17 kg per tonne from 2011 to 2020.
- Create a new climate-smart pellet by 2017.

Comments about the result in 2013 shows that they are below target but reductions of emissions will be reached by replacing coal and oil with renewable energy sources. The creation of the new pellets is going well and it is estimated that the new generation of pellets can reduce the emissions of CO_2 by 80-100%. Today, air emissions consist primarily of CO_2, NO_2, dust and acid gases. A five-year overview over emissions to air and water, as well as quantity of waste is reported. They also present a geographical distinction, showing where the emissions come from. This overview also presents the inputs used during the last five years.

LKAB is, since 2005, participant in EU's CO_2 emission allowance. For the period 2013-2020, LKAB received allocation that covers most of their need. Nevertheless, there is a risk that the number of emission allowances allocated to LKAB is not enough, something that could imply higher costs for purchasing additional allowances. Other environmental risks are the risk of environmental permit delays and the risk for CO_2 leakage in their activities. Those risks make them work more efficiently and towards more climate-smart products. They have one of the world's most climate smart iron ore products with lower CO_2 emissions than their competitors and a large part of their competitiveness is in being the leader in production of pellets and deliver a value to customer through high quality and environmental requirements.

LKAB identifies nine stakeholder groups of which seven have an interest in the company's climate and environmental impact and work. When it comes to environmental issues dialogues with a strategic selection of stakeholders are carried out. The results from these dialogues are than reflected in the environmental activities.

The process in the pelletizing plants has become more effective and reduced the energy consumption. This plant is now among the most energy-efficient in the world and helps LKAB reach their target concerning energy consumption and CO_2 emissions. The reason for this reduction in energy consumption depends largely on the use of magnetite pellets, which require 60% less energy than pellets manufactured from hematite. A description of handling of waste, mainly waste rock, from the processes is presented.

Fundamental for their activities is to have the latest updates on environmental permits required by The Environmental Code. Every department that requires permit leaves their own environmental report. In 2013 a permission for their mine ore in Gruvberget was received, which stated that the operations are in line with the environmental requirements. A presentation over permits in facilities and operations, with a description if a license is received or appealed, or if no major license changes have been managed, is presented in the report.

Stricter environmental conditions forces LKAB to do investments. They have invested 1,5 billion SEK in a new scrubbing system to reduce their emissions of SO_2, chlorine, fluorine and dust. The emissions fell by around 90% due to this investment, which makes their largest pelletizing plant the world's cleanest. Other investments of 770 million SEK were made in 2013, mainly of flue-gas scrubbing system to clean the emissions of gases and dust to the air. Investments to further reduce the emissions are planned in the upcoming year.

LKAB's Code of Conduct is based on the UN Global Compact and has a memorandum of understanding with China about the corporate social responsibility. Their Chinese suppliers should follow the Code of Conduct that LKAB has established, something that is determined first by a self-assessment and then a review from LKAB. The top 80 managers are educated in this Code of Conduct, which contains environmental issues.

The mining operation creates obligations for remediation and decontamination. The obligations emerge due to legal environmental regulations and provisions for these obligations are made. Provisions for emission allowances and remediation expenses are made by the amount of 1,2 billion SEK.

4.3.2 Boliden AB

Boliden is a producer of base metals such as zinc, copper and lead, mainly for industrial customers all over Europe. The company were founded in the 1920s and in 2013 they had a turnover of 34 billion SEK and 4 800 employees. In the mission they mention that efforts to meet the society's demands considering the environment are made throughout the whole value-chain. The Board of Directors and the Executive Management are responsible for the daily environmental activities, delegating it further down on the different units. A central unit follows up their work.

Boliden reports in accordance with GRI 3.0, and the sector specific guidelines, and achieves level B+. 2013 is the first year that the information reported according to GRI is reviewed by external auditors, in this case EY. Boliden is affiliated to UN Global Compact and its ten principles and the environmental activities are in line with their environmental policy. There are also plans to introduce a climate strategy to, among others, reduce the emissions of CO_2. Boliden also presents a GRI report, which is their sustainability report, where the environmental aspects reported are the same as in the annual report.

Important environmental events during the year are presented. An environmental permit for operations in Rönnskär were received in July 2013, something that The Swedish Environmental Protection Agency appealed and the negotiations will continue in 2014. The Land and Environmental court prevented an extension in Boliden Bergsöe, something that Boliden has appealed. The operations often requires environmental legal permits. Laws and guidelines also determine how the management of waste should be done. The waste is minimized through an efficient transformation of use to usable raw material. The waste that cannot be reused is taking in to custody to minimize the environmental impact.

A five-year overview of their environmental targets, which contain:

- Emissions of metal to water is to be reduced by 25%
- Emissions of NO_2 to water is to be reduced by 20%
- Emissions of metal to air shall be reduced by 25%
- Emissions of SO_2 to air shall be reduced by 10%
- Emissions of CO_2 should not increase by more than 3%

The targets are followed up ones a month or quarterly and through a presentation can the reader observe how the results have developed since 2007. The emissions of CO_2 and energy consumption have increased in recent years, mainly as a result of increased production. To reach these targets will they convert some parts of their strategy were usage of the best technologies, efficient use of resources and usage of renewable fuels instead of fossil fuels are important components. Boliden also participates in the EU emissions trading scheme, but did not have to spend anything on emission allowances since the allowances awarded were enough to cover their emissions.

New environmental targets for 2018 have been made; metal emissions to water reduced by 25%, metal emissions to air reduced by 10%, SO_2 emissions to air reduced by 10%, carbon intensity for CO_2 per tonne of metal produced lesser than 0,77 and zero environmental accidents per month. To reach zero environmental accidents efficient systems, functioning processes and a complete reporting are required. During 2013, 13 environmental accidents were reported with none of them causing lasting damage to the environment.

Boliden has a continuous dialogue with the society. The main subject in this dialogue is the reduction of the environmental impact and managing long-run effects. During the last ten years, investments of 33 billion SEK have been made, where a large part are for environmental improvement. Future investments, mainly in the smelting plant, to secure the environmental level are planned. Projects in environmental engineering in remediation and water treatment will make the processes more environmentally friendly. Investments will also make the processes more effective and decrease the use of fossil fuels. New technology in the handling of water will be implemented in 2014 to control the purification process. This to live up to the directives settled by the EU.

Before they start on a new mine identification and planning of environmental consequences are carried out. This is made to improve the environmental performance during the lifespan of the mine. The environmental management system applied in the mines are certified by ISO 14001, something that also applies to the smelting plants. The smelting plants are also covered by the EU system for emission rights. Boliden aim at having stable processes that leads to an improvement in the environmental performance and describes emissions and discharges to air and water under different stages of the production process. Boliden also aims to produce products that are easy to recycle. The development of emissions and energy consumption over time is presented in a ten-year overview.

Boliden describes four risks related to environmental issues; environmental impact related to the climate change, emissions of CO_2, emissions of metals and dam safety. They also describe

how to manage these risk and comments of the development during the year. There are risks associated with legal regulations, such as being involved in legal proceedings and disputes related to the environment, and also risk of confidence if suppliers and/or customers do not live up to the requirements established by Boliden. To prevent this risk evaluations of customers and suppliers are made. They evaluate their business partner's sustainability work from a viewpoint based on the UN Global Compact as well as ISO-standards.

Boliden has a legal dispute concerning a dam accident in Spain and the damages this had on the environment, something that is shown in their provisions. Provisions for future remediations, considering today's technology and conditions, are made. These provisions are reviewed on a continuous basis and on the closing day of 2013 they were 1,6 billion SEK.

5. Analysis

The analysis is divided into two parts. The first part is a comparison of the companies, using the model described in chapter 3.4, to see similarities and/or differences in the companies' environmental reporting. The second part consists of a deeper analysis of the result obtained in section 5.1, using the theoretical framework to create a discussion and point for reasons for similarities and/or differences.

5.1 Comparison of Companies

The empirical findings has been compiled in the table below. Each of the eleven categories has one or several indicators, which can be found in appendix, and the model contains a total of 28. If the companies mention factors which can be related to one indicator, the indicator is registered. How much the companies have chosen to declare in each of the indicators has therefore not been taken into account when registering the information.

	Sveaskog	**Holmen**	**Vattenfall**	**E.ON**	**LKAB**	**Boliden**
Environmental policy	**1**	**2**	**2**	**1**	**2**	**1**
Environmental targets	**3**	**2**	**3**	**3**	**3**	**3**
Environmental impact - process	**5**	**4**	**4**	**4**	**5**	**4**
Environmental impact - product	**1**	**2**	**2**	**2**	**2**	**1**
Environmental organization	**3**	**3**	**3**	**2**	**3**	**2**
Environmental audits	**2**	**2**	**2**	**2**	**1**	**0**
Environmental authorities	**1**	**2**	**2**	**2**	**2**	**3**
Environmental incidents	**1**	**1**	**0**	**0**	**1**	**1**
Environmental investments	**1**	**2**	**2**	**3**	**3**	**2**
Environmental expenses	**0**	**2**	**2**	**0**	**2**	**2**
Environmental debts	**1**	**1**	**1**	**1**	**1**	**1**
	19/28	**23/28**	**23/28**	**20/28**	**25/28**	**20/28**

As shown in the table, the companies report between 19 and 25 of the 28 indicators, with certain categories and indicators more frequent reported than others.

The reporting of an environmental policy can be seen in five of the six reports, but only Holmen explains some of its' content. The other companies refers to the website for more information about the policy. The existence of a strategy of how to structure the environmental work is mentioned by three of the companies and also a description of the different parts of the strategy.

Environmental targets is a category where the companies, overall, reports most extensively. They often report several targets and the results of how far they have reached in their work towards the targets. In all companies but one, Holmen, do they also report in a detailed way how to reach the targets and what measures to use.

The environmental impact, both in the process and among the products, is also something that is reported in detail. What is missing is often a description of environmental engineering and research progress in the process, as well as new environmentally friendly products in their variety of products.

Environmental organization is often shortly but concretely reported. The mention of a certified environmental management system is done by everyone but without further description of how it is used in the activities. Allocation of responsibility is also shortly described in terms of who has the overall responsibility and who has the responsibility for the ongoing activities. The education of employees is the indicator lacking for two companies while the others often mention the education in the Code of Conduct, where environmental activities are mentioned as an aspect. When it comes to the environmental audits it can be mentioned that a review of the environmental reporting is not seen as an audit in this case, the audit has to review the work that is performed, and not only the reporting. However, the majority of the companies carry out audits, often as a part of the environmental management system. It can also be mentioned that recurring annual audits are seen as planned audits in the future.

In the category environmental authorities is a comment of environmental legislation governing and controlling the activities most common, and the different permits required for the activities. Concerning directives and/or legal disputes the results are more varied and often only mentioned and not further explained. The contrary can be said about environmental incidents, which are described very detailed when they are reported.

The three categories that Ljungdahl denominates as financial environmental accounting concepts, that are environmental investments, expenses and debts, are reported in a varying extent. Environmental debts are reported by all companies, through provisions for future environmental events or contingent liabilities that the company has. Investments are mentioned by all companies, and what to invest in, but the scarcity of the amount invested and planned investments in the future is frequent. Environmental expenses are mainly reported through the cost for emission allowances, with only Holmen reporting a more detailed distribution of environmental costs.

In addition to these eleven categories, the companies report other things about the environmental activities performed. All companies report about possible environmental risks and measures used if some of these risks is to occur. The companies also reports about

requirements on the environmental activities carried out by their suppliers so their performance is in line with the company's values. A presentation of the Code of Conduct is often the foundation for these requirements. These categories are not used in the model established by Ljungdahl (1999) and could therefore be seen as something that have developed since the time he established his model. Since this is something that all the companies report and in a similar way does it not affect the result of the study, since the reporting do not differ between the companies, and therefore do not change any of the conclusions. Something that all companies also report is a presentation of the company's stakeholders and what they consider to be important. A majority of the companies' stakeholders consider environmental aspects to be a top priority in the operations.

5.2 Reasons for Similarities

Including stakeholders and their interests in the reporting is the part of GRI G3 Guidelines called Stakeholder Inclusiveness, and, as mentioned above, nearly all of the companies' stakeholders are aware of the environment and consider environmental aspects to be important. The fact that the companies are facing this interest with such an extended reporting indicates that the stakeholders' opinion is valuable for each company. This could be seen as the implicit part of the social contract mentioned by Gray et al. (1996), which are expectations from the stakeholders, but something that is not legally restricted. The broad content of the environmental reporting can also be seen as a way to keep all stakeholder groups satisfied, both primary and secondary, and not just the most powerful ones. This, in line with the perspective known as the ethical branch of the stakeholder theory, where the power a certain stakeholder group is not what decides the reporting but the impact the company has on the stakeholder group. New, more environmentally friendly, processes and products can also be seen as a way of stakeholder theory. The demand for these kinds of products are getting higher and the development and reporting of progress in this area could be a way to show that the company are willing to listen to the customers and meet there demands. This can be perceived as the customers having an impact on the company to continue to develop and also report about the progress they have.

Stakeholders, which also, to a large extent, are the same for companies in the same industry, do not want the information to only be relevant for them. They also want the information reported from different companies to be comparable. To demonstrate an example and as mentioned by Murray et al. (2006) it is of interest for investors seeing that companies is aware of the environment before making an investment. The comparability facilitates an investment decision.

Every company is affiliated to the UN Global Compact's ten principles. These principles are not recommendations of how to report the activities, but recommendations of how to perform them, which further on will imply that the reporting contain similar events. Usage of the same guidelines and recommendations also entails a high degree of comparability among the companies' reports. This is in line with the statement from Marton (2013), which says that standardized recommendations lead to a higher degree of comparability between organizations.

Vattenfall reports, as the only company, according to the updated guidelines G4. In the reporting it could not be seen any large differences in comparison to G3 and is not something that prevents comparability between the reports. This usage of the same reporting recommendations also contributes to the comparability, which is one of the six principles mentioned in GRI G3 guidelines. Mandatory regulations, such as The Environmental Code and The Annual Account Act are obligatory for all companies, in a form of coercive isomorphism, and are the explicit part of the social contract, as Gray et al. (1996) names the legal restrictions. The environmental reporting for public owned companies also arises from coercive isomorphism since the government made it compulsory to follow GRI in 2008. Even though it is not mandatory for private owned companies to use the guidelines established by GRI, every one of them do so. E.ON's report is not a formal report, but it has been prepared following these GRI guidelines. This could be seen as the mandatory reporting for public owned companies "forces" the private owned to use GRI as well. It could be the pressure that are forcing private owned companies to use GRI, but it could also be because they choose to do so, looking at the public owned companies. As mentioned by Greiling D and Grüb B (2014), the requirement to disclose information is higher for public owned companies than private owned. The public owned need, to a higher degree, to search for legitimacy, following the society's values. Nevertheless, private owned companies also searches for legitimacy to be accepted in society. Studying public owned companies and how they report can be a shortcut to receive legitimacy. This behaviour, referred to as mimetic isomorphism by DiMaggio and Powell (1983), often arise when uncertainty exist at the imitating organization. In this case the mimetic behaviour could be seen as a legitimacy strategy, more than a sign of uncertainty.

The use of GRI and the affiliation to UN Global Compact are a worldwide spread phenomenon and, as can be seen, also applied to the six companies examined. Using legitimacy theory and one of the strategies formulated by Dowling and Pfeffer (1975), saying that an organization can look for legitimacy using other institutions that are considered to be legitimate. This strategy could be applied to the fact that all companies uses these two organizations. These two organizations are both large and well-established, and joining them can create a larger credibility to the company and that they do something good for the society, and therefore create legitimacy in society.

As can be seen in the table and the empirical findings is the difference between public owned and private owned companies not significant. There is not a single category where one can distinguish a difference between public owned and private owned companies. As stated by Michelon (2011) and Patten (1991) is the dimension of information revealed higher in industries with large environmental impact, something that these three industries have. This phenomenon can be used to explain that there is no difference in the extent of environmental reporting. Therefore, belonging to a certain industry can be seen as a predictor for the content and extent of the environmental reporting, supporting the results obtained by Michelon (2011) and Patten (1991).

6. Conclusion

In this chapter the conclusion is explained, and the research question and purpose answered. In the end recommendations for further studies has been included.

6.1 Conclusion

This study aimed to answer the question how the gap in sustainability reporting has developed between public owned and private owned companies during the last years. The study was performed reviewing the annual and sustainability reports from each company, three public owned and three private owned.

The outcome demonstrates that this potential gap does not exist and that the environmental reporting is on a similar level in the examined companies. As mentioned earlier, the study is not considered to be generalized to the entire population, but it can demonstrate that public owned and private owned companies are on a similar level when it comes to environmental reporting.

The discussion in section 5.2 indicates that there could be several reasons for companies to report environmental issues, and has therefore contributed to reduce the gap between public owned and private owned companies' reporting. This study emphasize two reasons as more important in explaining the decreasing gap. The first reason for the extensive environmental reporting by the examined companies is mainly the fact that they all are in industries with a large environmental impact, something that has been proven by previous research (Michelon, 2011 and Patten, 1991). This study confirms the results obtained from these readings. The second reason for the broad content and similar reporting of environmental issues can be derived from stakeholder theory. Every company reports about their stakeholder groups, their different interests and what they consider to be important. Some of the companies also state that they are considering the stakeholders interest, something that can be seen as the stakeholders' influence on the companies are significant.

It is also stated in the problem discussion that the objectives with the compulsory reporting for public owned companies were to enhance the quality of reporting for these companies but also to encourage other companies to do the same. Therefore, can you, through this study, confirm that these objectives are achieved.

6.2 Recommendations for further studies

During the execution of this study and with an increasing knowledge in the studied subject thoughts and suggestions for other studies and further research in this area has appeared. During the analysing process the similarity of the companies' environmental reporting were discussed and one explanation of the phenomenon could be related to isomorphism. Mimetic isomorphism were organizations imitate other organizations, or coercive isomorphism, were organizations are under pressure from other organizations, could be used to analyse this

subject. This could be done through a qualitative study and interviews with the persons responsible for the content and establishment of the environmental reporting. It could also be of interest to do a more comprehensive study of the environmental reporting between public owned and private owned companies to receive a result that can be applied to the entire population. A quantitative study, which do not go so deep as a qualitative, could be applied to reach a general conclusion. Furthermore, though to the selection in this essay are major companies with large impact on the environment, it could be interesting to compare major companies with minor companies and examine if the differences are more significant.

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Appendix 1 – Environmental Indicators

Category	Indicators
Environmental policy	• Existence of an environmental policy or connection to an external environmental programme • Description of the policy's content • Existence of an environmental strategy
Environmental targets	• Description of environmental targets • Presentation of the results • Measures to reach the targets
Environmental impact – process	• Used resources in the process • Handling of waste and side-effects • Insertion of new environmental engineering • Presentation of emissions • Research progress related to environmental issues
Environmental impact – product	• Environmental products • Development of new environmentally friendly products
Environmental organization	• Information about environmental management systems • Education of employees on environmental issues • Allocation of responsibility
Environmental audits	• Environmental audits performed • Planned environmental audits
Environmental authorities	• Information about environmental legislation • Information about directives from authorities • Information about environmental legal disputes
Environmental incidents	• Reporting of environmental related accidents or a statement that it has not occurred
Environmental investments	• The amount invested • The purpose of the investments • Reporting of planned future investments
Environmental expenses	• Expenses related to the environmental work • The expenses divided in different measures
Environmental debts	• Reporting of future expenses related to environmental issues