SUSTAINABILITY REPORTING ACCORDING TO THE GRI GUIDELINES

WHAT DO THE GLOBAL TOP TEN OIL AND GAS COMPANIES REPORT ON?

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Thesis for the fulfilment of the
Master of Science in Environmental Sciences, Policy & Management
Lund, Sweden, June 2014

MESPOM Programme:

Central European University – University of the Aegean
Lund University – University of Manchester

Erasmus Mundus Masters Course in
Environmental Sciences, Policy and Management

MESPOM

This thesis is submitted in fulfilment of the Master of Science degree awarded as a result of successful completion of the Erasmus Mundus Masters course in Environmental Sciences, Policy and Management (MESPOM) jointly operated by the University of the Aegean (Greece), Central European University (Hungary), Lund University (Sweden) and the University of Manchester (United Kingdom).

Supported by the European Commission's Erasmus Mundus Programme

Erasmus Mundus

Published in 2014 by IIIEE, Lund University, P.O. Box 196, S-221 00 LUND, Sweden,
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ISSN 1401-9191

Acknowledgements

I would like to use this opportunity to thank to all the people that have supported me throughout my life, and acknowledge their contribution in my completion of this two year programme – my family, friends, professors, and mentors. These have been the best two years of my life! I feel truly blessed to be here and have you in my life. I love you all.

"Be careful what you wish for… 'cause it just might come true!" – Martin Petrushevski

Abstract

With empirical evidence from oil and gas companies, this master thesis analyses the occurrence of sustainability reporting (SR) in the sector. More specifically, it is of particular interest for this master thesis to analyse the extent in utilisation of the SR guidelines provided by the Global Reporting Initiative. This study contributes to the body of knowledge related to evaluating non-financial disclosures by assessing the quality and comprehensiveness of information reported by companies in the oil and gas industry. To accomplish this, based on the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, a numerical scoring methodology was developed and utilised in the research. Overall results obtained reveal that there is considerable variability in the disclosure practices amongst the oil and gas companies. Moreover, the GRI Guidelines proved to be a too demanding framework for most of the companies in general terms, and in particular, companies provided more information on basic, easily accessible corporate-related matters, rather than the more material, operational performance data.

Keywords: Sustainability/CSR reporting, oil and gas industry, Global Reporting Initiative, non-financial disclosures, sustainability

Executive Summary

Problem definition

In turn of major environmental disasters caused by negligence of oil and gas companies, many stakeholders start demanding accountability and an overall increase in consideration towards the society and environment of the companies. Due to the vital role played in driving the worldwide economy on one side, and the extent of potential significant environmental and social impacts on the other, most of the companies from the oil and gas sector started voluntarily disclosing achievements made in managing the implications of their operational activities in the form of annual non-financial reports, or as referred throughout this study as sustainability reports.

Researchers became interested in the quality of information reported, and in result, many studies have been written on this topic in the sustainability reporting literature. Even though some researchers doubt the usefulness of this approach, most of literature reviewed showed that sustainability reporting helps companies convey messages about their sustainability achievements, comply with laws and regulations, and keep their licence to operate. Improved stakeholder relations, risk reputation management, improve efficiency, gain competitive advantage, and reduction in liabilities, were some of the additional benefits identified from practicing sustainability related disclosures.

Literature reviewed showed that one of the most commonly used frameworks for aiding reporters write these sustainability reports, were identified as the GRI Sustainability Reporting Guidelines. The framework provided by GRI helps companies compile, organize, write, and publish sustainability related data from their operational practices in a comprehensive and systematic way. Moreover, latest studies show that more than 80 per cent of reporters at the present utilise the GRI Guidelines as a framework for disclosing sustainability related information from their operations. Whether companies manage to adequately use this guidance document, and convey sustainability related information on a transparent way with credibility, is of interest to this study. In this relation, the GRI Guidelines were utilised for evaluating the quality of information disclosed by the companies in the oil and gas sector for the reporting year of 2012-2013.

Research question

In order to adhere to the objective of this research, and evaluate the quality of reported content from the companies in the oil and gas industry, the following research question was stipulated:

- To what extent do sustainability reports in the oil and gas industry comply with the GRI Guidelines for sustainability reporting?

For increasing objectivity in the evaluation, and obtaining results which can be generalised and universally beneficial, the research question postulated in this research has been based on the GRI Guidelines, version – G3.1 and the Oil and Gas Sector Supplement (OGSS).

Methodology and research design

Methodology developed in this research was mainly aimed for evaluating the level of comprehensiveness and quality of information disclosed, as compared with the GRI indicator

requirements. A comprehensive literature review on sustainability reporting evaluation methodologies was conducted, and as result, the most suitable methodology which was in line with the GRI Guidelines, was tailored for the needs of this study. Depending on the quality of information disclosed, an adequate score is allocated in the evaluation framework, ranging from the lowest score of zero, to the highest score of four points. Evaluation points are aggregated, and based on the final overall scores obtained in the assessment, results are utilised further for providing an answer to the research question postulated previously in this study.

Main findings

An evaluation template, based on the GRI Guidelines, was created for evaluating the information disclosed in the sustainability reports, which were published by the oil and gas companies included in this research. Ten companies were evaluated, and results obtained show that the companies disclose information with highest quality for the first part of the evaluation framework – profile disclosures and governance. The companies provided most extensive information on their strategy and long-term strategies of the company for addressing and managing issues from the economic, environmental and society aspects of their operations. Further on, almost all of the companies provided information with good quality on their organizational profile, in terms of name of the company, primary brands, markets served, and nature of ownership and legal form. Information quality degraded a little bit on the report parameters section, where it has been asked from the companies to disclose information on key materiality issues, such as climate change, occupational health and safety, and impacts on the environment and society, for preparing and compiling their reports. The last section of the first part of the evaluation framework, governance, commitments and engagement, was reported mainly with information of good overall quality on topics ranging from governance-related issues of the company, through commitments and external initiatives, to stakeholder engagement and external assurance. Eight out of ten companies provided third party assurance documents. Five out of the eight companies, confirmed their compliance with the GRI Sustainability Reporting Guidelines, whereas two out of the eight, expressed that their reports were prepared according to the sustainability reporting guidelines provided by IPIECA.

The second section of the evaluation, performance indicators, was mainly reported with information with lower quality than the first section. In general, companies provided less information on more material issues from the three main spheres of the sustainability reporting frameworks: economy, environment, and society. The economic section contained highest coverage rates on indicators included in this section, followed by the environmental and society sections. Most of the companies managed to provide information on the economic performance of the company, in terms of direct and indirect economic impacts of their operations, and market presence in general. Less information has been provided on the environmental impacts by the companies in general, and in particular, on their materials, energy, and water consumption, impacts on biodiversity, emissions and effluent release in the atmosphere, and waste generated. Information with highest quality was found on means for mandatory regulations, such as the compliance with laws and regulations. The labor section contains information with least quality. Companies fail to adequately cover topics from the sections of labor practices and decent work, human rights, society, and the least on topics from the product responsibility category.

In terms of compliance against the GRI Guidelines, final overall results obtained in the discussion section identified four different types of companies:

- The frontrunners. Two companies, Petrobras and Total, with highest overall scores in the assessment. These companies provided information with best quality, as compared with the other companies, and covered most of the indicator requirements with the highest compliance rates against the GRI Guidelines.

- The better-than-average-reporters. Eni and Shell were identified as the companies with better overall scores than the average reporters, but smaller overall scores than the top performers. The information reported was with good overall quality, and they managed to cover most of the indicator requirements. In turn, they obtained relatively high compliance rates with the GRI Guidelines.

- The mediocre reporters. These three companies, BP, Gazprom, and ExxonMobil, obtained overall scores which were significantly close to the overall average score of the group. Their reports contained information with somewhat good quality, most of the indicators requirements were not addressed adequately, and in turn, their compliance against the GRI Guidelines was identified as mediocre.

- The trailers. Chevron, Sinopec and PetroChina were identified as the group of reporters with lowest information quality disclosed and lowest compliance rate against the GRI Guidelines. The information disclosed was not found adequate to cover most of the indicator requirements, especially for topics included in the performance indicators. Their performance was identified as laggard, when compared to the reporting capabilities of the other companies.

Conclusions and recommendations

This research set forth to analyse the quality of content disclosed in the sustainability reports of the companies from the oil and gas industry, and compared its compliance with the GRI Guidelines. In order to achieve this, a comprehensive literature review was conducted on available sustainability reporting scoring studies, and in turn, the content analysis methodology was developed for analysing the reports. The methodology developed proved to be beneficial for this research, due to the fact that results obtained guided the researcher to completing the overall objective of this study, and providing an answer of the research question. As a result, based on the level of compliance against the GRI Guidelines, and the position in the overall rankings table developed for the ten oil and gas companies included in this research, four different types of companies were identified: the frontrunners, the better-than-average reporters, the mediocre reporters, and the trailers.

In terms of recommendations for future research, the quality of this study could be improved by including the feedback on the quality of the assessment from the relevant representatives of the companies. Their insights and comments could be utilised further to evaluate the methodological obstacles in measuring and preparing sustainability-related data on one side, as well as the level of usefulness of the GRI framework for compiling the reports on the other.

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Abbreviations

API - American Petroleum Institute

CDP – Carbon Disclosure Project

CSR - Corporate Social Responsibility

CR – Corporate Responsibility

GHG – Greenhouse Gas

GRI – Global Reporting Initiative

IPIECA - International Petroleum Industry Environmental and Conservation Association

OGP - International Association of Oil and Gas Producers

OGSS – Oil and Gas Sector Supplement

SR – Sustainability Report/Sustainability Reporting

TBL – Triple Bottom Line

1 Introduction

Embedding sustainability in daily operational practices, and successfully reporting achievements made to their relevant stakeholders with high levels of quality, comprehensiveness and transparency in information disclosure, is a challenge many companies face these days. The challenge for realising these goals and achieving successful and viable economic operations, complemented with a positive corporate image in the eyes of its stakeholders, can be even more critical for companies who contribute to economic growth on a global scale, but their operations have the potential to significantly impact society and environment. In this context, due to its extractive nature and highly valuable products, the oil and gas sector has been known for causing significant negative impacts on people and the environment on one side, and highly positive worldwide economic implications on the other. In order to manage their environmental liability and discharge their social accountability, companies from the oil and gas industry voluntarily reach out for non-financial disclosures in the form of sustainability reports (SR). The companies start publishing corporate data with respect to environmental and social aspects of their along with the financial disclosures. Governmental and non-governmental organizations, general public and relevant stakeholders start to acknowledge these efforts, and in turn, companies reap the benefits by having society and their relevant stakeholders perceive them as socially conscious, environmentally friendly as well as economically viable companies. Over time, these voluntary initiatives become more inclusive in scope, and mandatory by law, forcing companies in allocating substantial amount of their resources, in terms of money and knowledge, into compiling and publishing non-financial, sustainability reports. To what extent they manage to address these issues, and compile reports with good quality, as required by present norms in society, is of main interest for this research study.

This master thesis sets out to evaluate the sustainability disclosures from the oil and gas sector, compare results obtained in the assessment, determine to what extent do sustainability reports from the oil and gas sector comply with the GRI Guidelines, draw conclusions from the research, and suggest opportunities for future research. To accomplish these objectives, a literature review was performed, an analysis against the GRI Guidelines (Global Reporting Initiative) of the organizations included in the Forbes Global 2000 Leading Companies 2013 list was completed, and results were consolidated and presented accordingly in the following sections of this research study.

In order to elaborate further on the rationale for conducting this study, the next sections lay out the definition of the problem (section 1.1.), present the research question used to guide the logical structure of the research (section 1.2), give an overview on the methodology utilised in the analysis section of the study (section 1.3), outline the limitations and scope of the study (section 1.4) and the audience for which this research study has been written (section 1.5). Results obtained from the assessment are presented in the findings section (chapter 3) and analysed in greater detail in line with the guiding framework in the following section (chapter 4). Final outcomes are presented in the discussion chapter (chapter 5). Conclusions are summarised and presented accordingly in the last chapter of this research study (chapter 6).

1.1 Problem definition

First meaningful contact for the author of the research with the sustainability reporting (SR) area has been made during the lectures of Prof. Torbjörn Brorson in the 2013 autumn semester in the International Institute of Industrial Environmental Economics (IIIEE) in

Lund, Sweden. These lectures ignited the spark in the author to get more interested in this field of work, and start doing research on applicability of the GRI Guidelines in compiling comprehensive sustainability reports of various companies. These events lead to getting in touch with Prof. Konstantinos Evangelinos from the University of Aegean, an expert on SR, for more professional insights on the evaluation methodologies of sustainability reports, and literature related to this field of research. Both of the professors became the author's master thesis supervisors, and their guidance helped the author create this research study.

Oil and gas industry drives global economy. Ever since the industrial revolution took off, fossil fuels have been the key element for powering the economy and providing energy for running the industries at full capacity (Halliday, 2005). Although its contribution to the worldwide development has been noted as substantial, the nature of the oil and gas sector's activities, especially the extraction processes of pressurised underground petroleum products and their transportation, creates many social and environmental problems throughout many operational stages of these companies (Alazzani & Wan-Hussin, 2013; Guenther, Hoppe, & Poser, 2006; Spence, 2011). If something goes wrong in the extraction, production or transportation process, environmental problems are not the only concerns these companies face. Health and safety implications on human population and the environment, accompanied with strong liability penalties, consequently impact companies' reputation and significantly affect long-term success and viability of the organizations (Spence, 2011). These are some of the reasons which lead companies into embracing the concepts of CSR and SR. In addition, with creation of the first version of Global Reporting Initiative's (GRI's) Guidelines in the year 2000, companies gained a platform for additional help in reporting progress made in their sustainability practices, or to be more specific, to report actions taken in addressing and managing the economic, social and environmental impacts of their operations (GRI, 2013). In the next paragraphs of this chapter, an overview follows on the historical developments which lead to the embracement of SR in the oil and gas sector's companies, followed by the sections which outline the present and potential future developments in SR. For adding balance and objectiveness to the problem definition, major critics on non-financial corporate disclosures are extracted from relevant SR literature, and discussed further in the third part of this section. The section concludes with a short summary on the problem definition, and delineates the future development of the next section in this research paper.

1.1.1 Major historical implications for the oil and gas sector

Latest example of an extraction process gone wrong from the oil and gas sector, and the potential magnitude for inflicting environmental and social damage, can be seen from the Deepwater Horizon oil spill in the Gulf of Mexico. The spill was caused by an explosion and consequential sinking of one BP drilling unit, named Deepwater Horizon, followed by an enormous amounts of oil leakage from the well in the sea and surrounding environment (USGS, 2011). Consequently, eleven crewmembers lost their lives and many were seriously injured as the oil rig was engulfed in flames and eventually sank to the bottom of the sea floor. The oil leakage caused serious irreversible damage to public health, natural resources, wildlife and their habitats. According to USGS (2011), British Petrol (BP) - the company responsible for the incident, suffered major financial implications due to legal liabilities, considerably lost market value, its reputation declined, and lost trust amongst its shareholders and general public.

Prior to this incident, latest recorded major oil spill in history caused by transportation problems was in early 1989, when an oil tanker named Exxon Valdez, struck Prince William Sound's Bligh Reef and spilled 260,000 to 750,000 barrels of crude oil in the clear, cold waters of Alaska. More than 1,700km remote shoreline of this country got contaminated in the

incident (Small, 1991). The conclusion of this scenario was similar to the one previously described: the oil leak caused irreversible ecosystem damages; the company paid billions in clean-up costs, compensatory and punitive damages; and the whole affair caused significant damage to the company's profile and market value. Exxon Valdez oil spill showed the potential magnitude of environmental degradation and financial implications for oil and gas companies. This incident sparked public scrutinisation of reckless behaviour, and condemned the lack of feeling for environmental responsibilities of companies from the oil and gas sector (Small, 1991).

Many governmental, non-governmental and international organizations placed the oil and gas sector in the media spotlight, and called for an increase in awareness and responsibilities in environmental actions and social impacts of companies, and additional improvement in health and safety measures of their operational practices (Alazzani & Wan-Hussin, 2013). Moreover, various stakeholders demand increase in dialogue and proof of social responsibility, as well as disclosure of information on their economic, social and ecological goals and practices. In order to maintain their societal 'licence to operate', manage their reputation in the corporate world, and respond to public and corporate pressure, oil and gas companies embraced and implemented the concepts of SR and sustainable development, and started reporting publicly on progress made in managing their operational activities, products and services, in line with the extent of their economic, social and environmental impacts (Alazzani & Wan-Hussin, 2013; Guenther et al., 2006; Halme & Huse, 1997; Spence, 2011). The most suitable platform for conveying this communication of company's efforts, was in the form of a sustainability report. Hence, the trend of SR was taken up quite quickly by the whole sector, making the oil and gas industry reach higher reporting rates than other sectors in comparison (Guenther et al., 2006).

1.1.2 SR rationale and future developments

Increased corporate willingness to disclose information on social and environmental aspects of their operational practices could be seen as positive implications on their business, especially in terms of economic gains, and liability, legitimacy, and reputation risk management (Herzig & Schaltegger, 2006). Moreover, sustainability reporting has been identified as one of the key tools for complementing economic benefits of companies through voluntary, and especially mandatory, sustainability related disclosures (Herzig & Schaltegger, 2006; Idowu, 2013; Kolk, 2003). With the increased implementation of mandatory non-financial reporting across the world, SR is becoming a rule rather than an exception, in keeping the social 'license to operate' for the corporate world. For example, in EU since April 2014, most of the larger corporations now have been binded by law to disclose information on their "policies, risks and results" in terms of three aspects of their operations: society, environment and human rights (EC, 2014). This pressure on mandatory SR related disclosures gives momentum for a call in increase in quality, transparency and legitimacy of the disclosures, and paves the way towards the future of SR – integrated reporting (IR).

1.1.3 SR criticism

Not everyone acknowledges SR as a trustworthy corporate practice. Many critics question the quality of information conveyed by the organizations through non-financial disclosures, or as mainly referred in this study, sustainability reports. In this regard, three main critics on SR have been identified in the literature. Firstly, Comyns et al. (2013), question the level of "truthfulness" and transparency on the disclosure practices of confidential data by companies. They argue that it is very difficult for companies to evaluate what type of data can be, and what cannot be, made publicly available for their relevant stakeholders through sustainability

disclosure practices. This issue evokes the legitimacy theory, where the right to keep information away from the public can be determined solely by the company and the level of confidentiality of the information at stake. Milne and Gray (2013), as well as Norman and MacDonald (2004), build upon this issue, and argue that companies tend to present themselves as overly positive social and environmental contributors, consequently fail in addressing material issues from the three most important aspects in their operational practices: economy, society, and environment, and in turn, contribute to even greater levels of un-sustainability. Last critique identified by Comyns et al (2013), addresses the assurance process and its contribution towards increasing credibility in the reports. As there has not been uniformity in the assurance of reports, and sensitive information often gets left out from the process, the authors call for introducing mandatory regulation to be included for this process in the practices of making sustainability reports.

As a response to most of the critics, authors such as Hahn and Lülfs (2013), recommend for adequate uptake and implementation of the GRI Guidelines in the process of compiling sustainability reports. The universality, comprehensiveness, and inclusiveness of the framework, have been identified as major assets in the guidelines, which help contribute in increasing demand for quality information disclosure on one side, and improving transparency and legitimacy of the reporters, on the other.

As a result of this comprehensive layout on the nature of the problem addressed in this research, the objective of this study is to examine the quality and comprehensiveness in data, disclosed as non-financial sustainability related information, by companies from the oil and gas industry. Research motivations are mainly driven by the known impacts on society and environment from the operational practices of oil and gas companies, and the lack of specific data, in terms of reported content from companies on their achievements made in addressing these issues. Most commonly used platform by the companies for disclosing this information towards relevant stakeholders, was identified as the GRI Guidelines. In turn, the framework has been utilized to guide this research, and examine the quality and comprehensiveness of sustainability reports published in the oil and gas sector companies.

1.2 Research question

This study aims to consolidate information and assess the level of quality and comprehensiveness of the sustainability reports from the Oil and Gas Sector's top ten companies, ranked by Forbes Global 2000 list, against the GRI Sustainability Reporting Guidelines. To fulfil the needs of this assessment and evaluate the information disclosed by the companies, a content analysis rating system, based on the GRI Guidelines (version G3.1 with the Oil and Gas Sector Supplement OGSS), is to be deployed in the assessment. In accordance with the premise given above, the *research question* will be postulated as the following:

- To what extent do sustainability reports in the oil and gas industry comply with the GRI Guidelines for sustainability reporting?

1.3 Methodology

In order to achieve the objectives of this study and obtain an answer to the research question, the author of this study utilised multiple approaches. For instance, a comprehensive literature review has been deployed for evaluating historic developments and current progress in SR practices, quantitative research methods were utilised for scoring and ranking the information reported in the sustainability reports, and questionnaires were to be utilised for incorporating

companies' feedback on the assessment. To be more precise, in order to increase the quality of the research and obtain more objective and accurate data, companies were approached by the researcher and their results were shared in hope for clarifying misinterpretations in the assessment. Only one company replied to the inquiry with their feedback, and after disclosing the corrections needed, the scores in their assessment were modified accordingly. In the following paragraphs of this chapter an overview is presented on the rationale for using the GRI Guidelines, followed by an outline of their structure and elements used in the evaluation framework. Further on, the final version of the evaluation framework used for assessing the reports is presented, concluding with an explanation on the scoring allocation methodology, and the potential use of the results obtained from the assessment, in the last sections of this chapter.

The overall guiding document in this study, utilised for evaluating the oil and gas sector's sustainability reports, are the GRI Guidelines, version G3.1 (2011), in addition with the Oil and Gas Sector Supplement (OGSS) (GRI, 2012). According to GRI (2012), this version of the guidelines is specifically designed to be used by "… companies and organizations primarily involved in the exploration, extraction, production, refining, and transport and sale of oil, gas and petrochemicals", or in other words, companies from the oil and gas sector. Its applicability for this study can be seen in the huge scope of topic coverage. The coverage expands on the whole life cycle of projects, starting from the development stage, following throughout their operational lifetime, and concluding with their decommissioning, closure and post-closure processes(GRI, 2012). The expanded context of OGSS deals with issues of sustainable development which characterise the oil and gas sector, and provides insight in issues which are of greater interest for companies coming from this sector, when compared to other companies. Main contextual issues of interest are presented in greater detail in the guidelines, but nevertheless, here are some which the author finds to be of more interest for this study:

- The control, use and management of land;
- The contribution to national economic and social development
- Environmental management
- Developing low-carbon energy sources
- Relationships with governments
- Climate protection and transformation of the energy market
- Environmental protection including the use and disposal of water and chemicals
- Respect of human rights
- Security
- Health and safety

GRI's Guidelines provide a certain amount of flexibility, where companies can focus on different areas of their interest, and based on the information available, choose to disclose more or less information on these topics. More on the topics available, follows in the next paragraphs of this chapter.

The GRI G3.1/OGSS Guidelines cover 140 different topics, or as referred by GRI and throughout this study - indicators. These topics are allocated in two separate sections:

1) Profile and governance; and

2) Management approach and performance indicators.

The performance indicators are most valuable for this research due to the fact they cover the three pillars of sustainability (economy, environment and society) in six categories: economic (EC), environmental (EN), labor practices and decent work (LA), human rights (HR), society (SO) and product responsibility (PR). Some indicators presented by GRI (2012) in the oil and gas supplement, are labelled as core indicators. These indicators are considered to be of greater value and interest for most stakeholders, and they're assumed to be material unless otherwise stated by the company (GRI, 2012). Due to the different value and importance between these core and normal indicators for companies, a problem can occur in evaluating, weighing and allocating different scores for the indicators. That is why, the author of this study chose to assign equal weights to all indicators, and try to maintain the objectiveness of the research. This asset enables a methodology to be deployed for facilitating the weighing and comparing indicators in the form of quantified data. The applicability of the methodology can be equally dispersed throughout different sections of the evaluation framework. Furthermore, the potential benefits, of applying a content analysis methodology based on a scoring scale, can be seen in its use for assessing each indicator individually, scoring it, and weighing the score obtained in the final score of the report accordingly.

The ten largest companies from the oil and gas sector had to be determined. For this occasion, the Forbes Global 2000 Leading Companies list was utilised (Forbes, 2013a), and in terms of sales, profits assets and market value, the following rankings table of the top ten oil and gas companies in the world was obtained:

Table 1 - Oil and gas sector top ten companies in 2013, ranked by Forbes Global 2000 leading companies list

Rank	Company	Country	Sales	Profits	Assets	Market value
1	Exxon Mobil	United States	$420.7 B	$44.9 B	$333.8 B	$400.4 B
2	Royal Dutch Shell	Netherlands	$467.2 B	$26.6 B	$360.3 B	$213.1 B
3	PetroChina	China	$308.9 B	$18.3 B	$347.8 B	$261.2 B
4	Chevron	United States	$222.6 B	$26.2 B	$233 B	$232.5 B
5	Gazprom	Russia	$144 B	$40.6 B	$339.3 B	$111.4 B
6	BP	United Kingdom	$370.9 B	$11.6 B	$301 B	$130.4 B
7	Petrobras	Brazil	$144.1 B	$11 B	$331.6 B	$120.7 B
8	Total	France	$240.5 B	$14.1 B	$224.1 B	$115.5 B
9	Sinopec-China Petroleum	China	$411.7 B	$10.1 B	$200 B	$106.9 B
10	ENI	Italy	$163.7 B	$10 B	$185.2 B	$86.3 B

All publicly available information on sustainability disclosures for the companies was collected and adequately aggregated for each company individually. Primary source for information were sustainability reports. If needed or stated otherwise in the GRI table, additional searches were performed on corporate internet websites, and the annual, CSR, CR, environmental, or in some cases, for instance the Total organization, Form 20-F and Global Compact: Communication in Progress documents were added in the evaluation.

After all reports have been collected, the process of cross-reading and adequately allocating and scoring that information in the evaluation framework follows. The scoring system has been based on the GRI G3.1/OGSS Guidelines (Appendix A). In order to allocate the scores adequately, and be more objective in the assessment, the system for weighing and allocating the scores has been developed by an extensive literature review on studies covering topics

based on scoring sustainability reports (Appendix C[1]). To further supplement the quality and objectiveness of the assessment, GRI's reporting principles for defining quality have been used as a reference document in the evaluation framework (Appendix B).

The process begins with a quick scan-reading of the SR, locating the GRI compliance table (if there is one, if not, then an internet search begins, and in most cases the GRI compliance table is found on the company's website), and after the table has been located, the cross-reading and scoring of the reports begins. For each indicator, a score can be allocated in the range between zero (0) and four (4) points. The maximum possible total score per report, across all the indicators is 560 (140 indicators, times (x) 4 points = 560). Depending on the quality and completeness of the disclosed information, scoring allocation for the indicators can be conducted in this manner: zero points are allocated when no relevant information can be found to cover any of the fulfilment requirements by the topic (or indicator) being analysed; one point is assigned when the company provides a simple, generic statement which just about covers some of the topic (or indicator) requirements; two points are given when the information provided is considered to be sufficient to cover half of the topic (or indicator) requirements for completeness; three points are allocated when the company manages to address most of the topic (or indicator) requirements adequately, provides information of high quality and comprehensiveness, but fails to cover them all thoroughly; and four points are awarded when a company meets all of GRI's reporting principles for defining quality, and has a complete, systematic and extensive coverage on all of the topic (or indicator) requirements at stake. Table 2 gives an overview on the score allocation range used for assessing the reports, and includes an example from the reports for each score allocated.

Table 2 - Score allocation range used for assessing the level of quality in the sustainability reports, and examples of application

Points	Rating qualifications / requirements	Example
0	The company has not disclosed any information on the GRI topic (or indicator), the information does not exist in the report or the information could not be found	Nothing relevant to the GRI indicator has been disclosed by the company in any of their reports (annual, CSR, sustainability), or their corporate website
1	The company barely covers the GRI topic (or indicator) requirements. The information provided is generic and of low quality	In 2012, energy used in our operations totaled 1.5 billion gigajoules, which remains unchanged relative to our 2011 energy usage.[2]
2	Coverage on the issue is considered sufficient to address half of the topic (or indicator) requirements. The organization identifies the issue, but fails to compile and provide in-depth information on more than half of the requirements for completeness	* Marine vessel spills (owned and long-term leased), number of hydrocarbon spills (more than 1 barrel) - 0 * Other spills (not from marine vessels), number of oil, chemical and drilling fluid spills (more than 1 barrel) - 355 * Hydrocarbons spilled (oil spilled), thousands of barrels - 8.7 * Other spills, thousands of barrels - 1.6

[1] With minor additions, the table in Appendix C has been created for the needs of a previous research paper on a similar topic, written by the same author – Martin Petrushevski. The title of the paper is "Sustainability reporting – What does Trelleborg AB report on?", and it has been written in 2013/2014 for the needs of the ARPEA class in the IIIEE University in Lund, Sweden.

[2] This environmental indicator requires information to be provided for the direct energy consumption broken down by primary energy source in direct energy purchased (non-renewable: coal, natural gas and petroleum based products; renewable: biofuels, ethanol, and hydrogen), direct energy purchased, direct energy sold, and asks the company to report the total direct energy consumption in joules or multiples by renewable and non-renewable primary source.

		* Controlled hydrocarbon discharges to water, thousands of metric tonnes - 1.2 [3]
3	The information provided is of good quality. The organization managed to cover most of the requirements of GRI's reporting principles for defining quality, but does not fully address the issue required by the indicator.	We report oil discharged in muds and cuttings interpreted as mineral base oil component of the mud. This includes low tox mineral oil and diesel but not synthetic base oil, which is reported separately as synthetic base fluid discharged in drilling mud and cuttings. We also report under discharges to water discharge of drilling chemicals - the quantity of chemicals, other agents and solids, such as bentonite, added to drill fluids that is subsequently discharged to water, but we do not report a breakdown by the method or drilling fluid type being employed.
4	The information provided is of excellent quality. The organization satisfies all aspects from the GRI's reporting principles for defining quality, and has complete, systematic and detailed coverage on the requirements of the GRI indicator.	In 2012, our operational and administrative activities led to an intake of 193.4 million m^3 of fresh water. Of this total, 128.2 million came from surface sources, 36 million from underground sources and 29.2 million were supplied by water supply utilities or third parties. We used 271 sources of water uptake, of which 202 were located in Brazil and 69 in other countries in which we operate. Of this total, 30.6% were surface water, 35.8% groundwater and 33.6% water utilities or third parties.

The aim of the scoring system was to evaluate to which extent the GRI G3.1 Guideline was met. Focus was therefore on reporting quality and completeness of information provided in the sustainability report. This methodology was not created and used for measuring the actual performance of the company, and whether information provided in their reports is true or not. A final overall high score allocated in the assessment, means that the organisation managed to score high on most of GRI's topic requirements and criteria, and provide extensive information with good level of quality, completeness and detail when reporting the topics. Hence, the high score obtained from the assessment does not necessarily show that the organization has actual superior environmental performance in reality.

Final results obtained from each company assessed can be used in multiple ways. First of all, they can be used to compare the quality of information provided, with the level of compliance with GRI, which ultimately helps provide an answer to the research question of this master thesis. Second, from the final evaluation sheet, it can be seen which areas are of greater interest for each company individually, and if combined together in a table, sector-wise statistics can be generated. These sector-wise statistics could be utilised by companies for analysing the competition and determining future developments. The company could chose to copy the competition and improve disclosures in areas (topics) which are of greater interest in the sector, or they could chose to differentiate from other companies and report on topics where the company has more leverage and can compile data with higher quality than other companies.

[3] Not covered: total number and volume of spills; location; spills of wastes; chemical spills; impact of significant spills

1.4 Limitations and scope

The author has chosen to evaluate only the latest publicly available reports from the oil and gas industry for sustainability related information disclosure. When stated latest publicly available reports, it has been referred to the latest corporate reports with sustainability related disclosures, which were available up until the date of 31st of March, 2014. A retrospective analysis on all previous reports for each company individually has been excluded due to the potential drastic increase in scope of the study, and the lack of resources (time and man power) to fulfil it. The study was not limited to individual reports alone, it considered annual reports, corporate responsibility (CR) reports, CSR reports, integrated reports, and internet (web) information related to the sustainability disclosures of the companies.

Further possible limitations to this study can be identified in the companies' participation in this research, and their highly valued feedback on the quality of the assessments done. Even though the evaluation spreadsheets have been shared with each company individually and their comments and feedback on the quality of the research and the score allocation was requested, only one of them replied to the author, the company Total, and provided a reply with their personal views on the results from the assessment.

In regards to the scope of the study, the oil and gas sector has been chosen for evaluation due to its noteworthy market value and highly valuable products and services, their large scale influence on the worldwide economy on one side, and on the other, the extractional character of the oil and gas companies' operations and their potential significant impacts on the society, biodiversity and environment. In order to complete a study with higher quality within the time budget allocated for writing the master thesis dissertation, the author has chosen to narrow down the scope to ten companies from the oil and gas sector. The companies were chosen after discussions with people that had experience in SR, such as colleagues and the thesis supervisors, followed by a thorough research on the internet. It has been decided to use the rankings made by the Forbes Global 2000 Leading Companies list (Forbes, 2013a). These companies were ranked by the highest composite score of sales, profits, assets and market value by Forbes (Forbes, 2013b). The latest version of the rankings used in this research was aggregated, made publicly available and had its last editing on 17th of April 2013 on the corporate website, and was still publicly available until the last update in this study - 30th of March, 2014.

After doing the research on all available SR frameworks, it has been seen that the most comprehensive and thorough framework is the GRI Guidelines, and the most suitable version for doing this assessment is the G3.1/OGSS version. The latest version of these guidelines is G4, but due its late release in May 2013, the companies participating in this study were not capable in utilising this version for making their sustainability reports. Therefore, even though it is the most recent version, G4 had to be left out from the assessment, and because all of the companies made their reports following the G3.1 Guidelines, the version G3.1/OGSS was used instead.

UN Global Compact and ISO 26000 Guideline for Social Responsibility were considered for being used as additional evaluation frameworks. However, when compared to the GRI Guidelines for sustainability reporting, they were accounted to be considerably less comprehensive and detailed, and in turn were excluded from further consideration.

1.5 Audience

This research is mainly aimed for researchers in the scientific community that are interested in reviewing the applicability of the methodology selected and deployed in this research for

assessing the sustainability reports. Final outcome of the study and results obtained from scoring the sustainability reports, could be of interest for companies in the oil and gas sector, and especially their sustainability officers and people responsible for compiling the reports. Sector-wise trends in disclosure practices could be derived from the study, and utilised further in compiling and writing the new reports. Companies could chose to align their sustainability reports with trends arisen in the sector, or chose to improve quality of data in segments other than the main trends, and distinguish themselves further from the competition. Finally, the results will be useful as an input for future updates of the GRI reporting guidelines.

1.6 Disposition of the research

In order to address the problem delineated in the first section of this chapter, and obtain answer to the research question postulated in the following section, the research study has been structured in this manner:

Chapter 1 – Introduction, presents an overview on the problem which instigated the research. The chapter includes a description on the methodology used to obtain results for addressing the research the research question. Related research limitations and scope are included as well, followed by the description on the audience to which this research has been mainly addressed to.

In Chapter 2 – Literature analysis, is a chapter where all literature available on sustainability reporting is reviewed and thoroughly analysed. Based on the findings obtained from the literature review, the methodology is developed for evaluating the sustainability reports included in the assessment.

Chapter 3 – Findings, has been used to present to present the main findings. The evaluation template used, and results obtained from the assessment are presented for all ten companies included in this research.

Chapter 4 – Analysis, presents the analysis of the research on data obtained from the findings section. It utilises the framing and structure from the GRI Guidelines for presenting the data in a logical manner.

Chapter 5 – Discussion, utilised information obtained from the findings and analysis chapters, and in line with theories developed in the literature review objectively discusses and reflects on the data. In the concluding parts of the chapter, final considerations are aggregated and the answer to the research question is provided.

Chapter 6 – Conclusions, this chapter has been utilised to give an overview on the whole research process, present the main findings in line with the research question, explain the contributions made to the sustainability reporting literature, and provide recommendations for future research in the concluding paragraphs.

2 Literature analysis

To evaluate work done in the literature on previous studies on SR disclosures, and extract the most useful information for developing an evaluation framework for scoring and ranking the reports, a comprehensive literature review on this topic has been necessary. The literature review was conducted by using the International Institute for Industrial Environmental Economics (IIIEE) University's library search tools, combined with Central European University's (CEU) Cisco VPN access tool, Google's generic search engine and Google Scholar. As a result, a GRI-based assessment framework template with a scoring and ranking system has been created, which was presented in more details in the methodology section, and was further utilised in the research for assessing the quality of information disclosed in the sustainability reports of the oil and gas companies included in this study.

Initial steps of the literature analysis have been carried out in the initial sections of this chapter, by introducing the basic concepts associated with SR. In continuation, a review on the historical and present developments of SR is given, followed by a clarification section on the meaning for the research and connection between the concepts of CSR, TBL, and SR. Furthermore, a comprehensive review on critics related to SR is given in the SR criticism section. The chapter is concluded by a presentation on sustainability reporting assessment methodologies, and in the very last section of this chapter, the rationale is given on choosing the most suitable methodology for conducting the assessment in this research.

2.1 What is sustainability reporting?

Sustainable development has been defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987). In order to achieve sustainability, companies have to address three very important components of sustainable development: economy, society, and environment. These three aspects of sustainability are also known as the Triple Bottom Line (TBL) in SR literature (Elkington, 1997). As the corporate world gave momentum to practices for incorporating sustainability into their daily operational activities, sustainability reporting has been seen as the most suitable platform for reporting progress made in reaching sustainability. In this relation, sustainability reporting can be defined as the practice of measuring, compiling and reporting on organizational performance made towards the goal of sustainable development to all relevant internal and external stakeholders (GRI, 2012). According to GRI (2012), a balanced approach is to be utilised, covering positive and negative contributions (impacts) made towards the three pillars of sustainability: economy, society, and environment.

Topics covering the economic aspect of sustainability generally are focused on the financial information of the company and include themes from the economic performance of the company, market presence and indirect economic impacts. The environmental aspects focuses on impacts made on the environment, such as land, water and air pollution, biodiversity, human health, and oil spills. The social aspect covers themes ranging from occupational health and safety practices of the company, to employee benefit and retirement plans, labor practices and decent work, gender issues, human rights, society and product responsibility.

In response to various societal challenges and stakeholder expectations for information on progress on sustainability, the perceived benefits of SR can be seen in: driving market management and business efficiency, legitimacy and reputational risk management, communication with internal and external stakeholders, and some may even say that SR could

be used in internal progress assessment, and external benchmarking with competitors and seeking competitive advantage over them (Herzig & Schaltegger, 2011).

2.2 Sustainability reporting through history

Historical developments of sustainability reporting over recent decades has been mainly driven in response to different challenges in societal requirements of the given era (Herzig & Schaltegger, 2006). First appearances of sustainability reporting in literature, noted in the 1970s, were recorded as attempts of company references towards social issues relevant to their stakeholders, and were published as an addition to their financial reports (Herzig & Schaltegger, 2006; Ratanajongkol, Davey, & Low, 2006). The fundamental reason for publishing this information was to provide information about the whole spectrum of positive and negative social impacts from the operational practices of the company, to their relevant internal and external stakeholders (Herzig & Schaltegger, 2006). According to Herzig and Schaltegger (2006), environmental reporting appeared ten years later, as two-dimensional reports, covering only topics related to the economic and environmental performance of the company. The organizations utilised these reports to disclose information on achievements made between economic and environmental dimensions (eco-efficiency), or they provided information covering issues both from the economic and social spheres of company practices (socio-efficiency) (Herzig & Schaltegger, 2006).

A real push towards improving disclosures in relation with the environment were a couple of major environmental disasters. Various reasons were the cause of these accidents and disasters, but they all had one thing in common: they were caused by the negligence of a company. The causes span from a gas leak in Bhopal; nuclear accident in Chernobyl; to chemical spill in Schweizerhalle; and oil spills in Alaska, caused by Exxon Valdez, and the Gulf of Mexico, an accident caused by BP (Deepwater Horizon). Following these incidents, media and society placed all responsibility on companies, and publicly scrutinised the lack of health and safety measures in their practices, and demanded an increase in liabilities and more open communication with the companies to be administered. In turn, many governmental agencies implemented new laws, where mandatory reporting disclosures were implemented, and companies had to provide information about their environmentally relevant practices to all interested stakeholders (Herzig & Schaltegger, 2006). In order to keep their licence to operate, many organizations adopted these new measures, and even extended their efforts by voluntarily disclosing information on more aspects of interest to their stakeholders. This was the beginning of comprehensive sustainability reporting, where main focus was given on the environmental implications caused by the operations of companies.

2.3 Sustainability reporting at the present

Amongst other studies available, the increasing trend of sustainability reporting uptake amongst worldwide companies can be easily seen, simply by comparing two publications on the same topic, documented and published by KPMG in 1999 (KPMG, 1999), and 2013 (KPMG, 2013). When KPMG evaluated companies for quality environmental information disclosed in sustainability reports in 1999, they discovered that only 35 per cent (88 companies) of Fortune Global 250 companies evaluated had published sustainability reports. The company made a survey on the same topic in 2013, and found that the sustainability reporting disclosure rate went up to 93 per cent (233 companies) for the G250 companies. From KPMG's latest report (2013), the increasing trend in use of GRI Guidelines can be seen by the 82 per cent in 2013, as compared to the 78 per cent in 2011, of G250 companies that report on corporate responsibility (CR), and refer to the GRI Guidelines.

This trend in global uptake of SR can mainly be attributed to the policy makers and market regulators, which over the past 15 lobbied for embedding sustainability in policy and regulation (UNEP, GRI, KPMG, & CCGA, 2013). In result, more than 45 countries and governments, including Brazil, USA, France, China, and Russia amongst the others, validated SR and embedded the reporting practices as mandatory via regulation for sustainability or Environmental, Social and Governance (ESG) disclosure (UNEP et al., 2013). Moreover, on April 15 2014, the European Parliament passed a law on non-financial reporting, where companies with more than 500 employees have to "disclose information on policies, risks, and results" on issues related with the TBL in SR: environment, economy, and society, including occupational health and safety aspects of employees and their rights, as well as diversity in the management sphere of the company (EC, 2014). With the adoption of the legislation for mandatory SR, corporate governance in the European Union steps into a new era, where all bigger public interest companies are challenged to step up their responsibilities towards the environment and social-corporate world, resulting in increased awareness about their processes related to their corporate reputational risk management practices.

With the implementation of mandatory sustainability reporting, corporate governance should improve in the enactment of more ethical and socially responsible operational practices of companies, reduction in corruption, bribery, and anti-competitive behaviour, and stimulate increase in managing responsibilities, liabilities and overall credibility of companies (Ioannou & Serafeim, 2011).

While the trend in SR disclosures has seen an increase, it has to be noted that the rate, quality and type of content reported has differed on country and sector-wise level. For example, some countries, such as India, Chile, Singapore, Australia, Taiwan, and China, have managed to improve the rate of their SR disclosures over the years in (+53), (+46), (+37), (+25), (+19), and (+16) percentage points accordingly (KPMG, 2013). According to KPMG's survey of CR reporting (2013), an increase in rate of SR disclosures over a period of five years, has been noted in the automotive and telecommunications and media sections, where the latest survey shows a rate of 77 and 75 per cent for the sectors respectively, as compared to the 2008 results, where the corresponding reporting rates of 49 and 47 per cent were amongst the lowest in the evaluation. The oil and gas sector has increased its reporting rate from 59 per cent in 2008, to 72 per cent in 2013, with an average score of 55 per cent for report quality. The sector is currently ranked on the 11th position on the ranking scale created by KPMG in their 2013 survey (Figure 1).

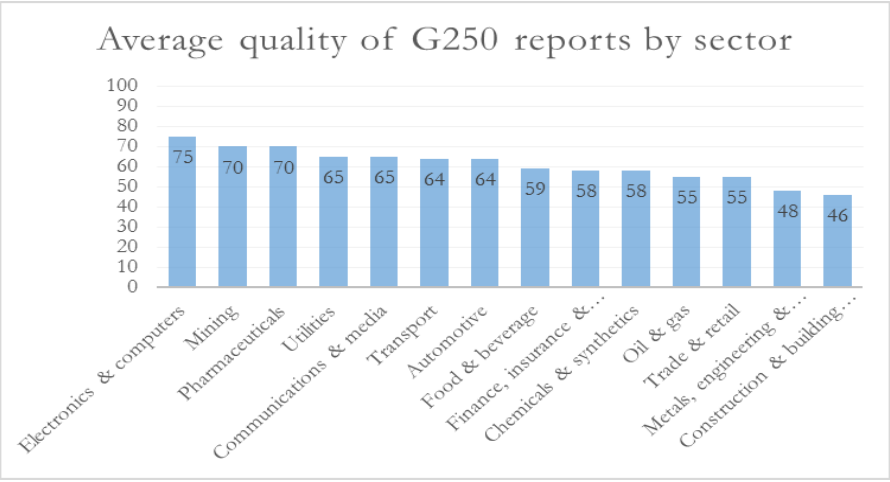

Figure 1 - Average quality of G250 sustainability reports by sector in 2013. Data source: KPMG 2013.

In its 2013 survey, KPMG (2013) further identifies that highest quality data has been provided on the topics of targets and indicators (68 per cent), whereas possibilities for improvement have been identified on the suppliers and the value chain area. It has to be noted that KPMG's survey does not portray a comprehensive analysis on the oil and gas sector's compliance with the GRI Guidelines. They merely use results obtained from the assessment to benchmark the sector's performance with other sectors in the business community. This notion provides the opportunity for conducting this research study, and obtaining an answer to the research question postulated previously in the introduction chapter of this thesis. In that consideration, an overview follows on the GRI Guidelines, their structure and applicability for this research study.

2.3.1 GRI Guidelines

Global Reporting Initiative (GRI) is an organization founded in 1997 by the Coalition for Environmentally Responsible Economies (CERES) and the Tellus Institute with the support of the United Nations Environment Programme (UNEP) (GRI, 2013). According to GRI (2013), in line with their mission to make sustainability reporting standard practice for all companies and organizations, the organization developed and launched its first version of the sustainability reporting framework (G1) in the year of 2000. Following the success made with the first version, GRI presented the next generation of reporting guidelines, known as G2, at the World Summit on Sustainable Development in Johannesburg (GRI, 2013). The long, inclusive, and multi-stakeholder development with over 3,000 experts from the business and civil sector, culminated with the creation of the third generation of GRI's Guidelines (G3) in 2006, when the final version of the G3 Guidelines was released. Due to its inclusive character and huge scope of comprehensiveness, the success of the G3 Guidelines was instantaneous. It became one of the most commonly used platforms for reporting sustainability amongst all companies in the world. GRI further extended their efforts and forged partnerships with many organizations working on the similar topic, where the UN Global Compact and the Organization for Economic Co-operation, can be mostly noted from the others. In 2011, GRI further updated and completed the G3 Guidelines by expanding them and adding guidance on the topics of reporting gender, community, and human rights-related performance. This update was published as the G3.1 version of the guidelines. Moreover, to further expand their coverage in the oil and gas sector and encourage consistent and high quality reporting, in collaboration with the International Petroleum Industry Environmental and Conservation Association (IPIECA), along with the American Petroleum Institute (API) and the International Association of Oil and Gas Producers (OGP), GRI published the Oil and Gas Sector Supplement (OGSS) in February, 2012 (GRI, 2012). Even though GRI released a new, updated G4 version of the guidelines in May, 2013, the G3.1/OGSS version was the last publicly available version of the guidelines when the companies were compiling and publishing their sustainability reports, and that is the reason why the same version has been used as a reference tool and a guidance document in this research.

2.3.1.1 GRI G3.1/OGSS Sustainability Reporting Guidelines

When compiling sustainability reports, organizations typically assess which information should be included in by doing a materiality assessment. GRI provides guidance for this process in their "Technical Protocol - Applying the Report Content Principles". Information provided in a report usually covers topics and indicators from the economic, social, and environmental spectrum of organization's activities. The extent of information provided is typically guided by the influence and decisions of relevant stakeholders for the company, and covers the extent of impacts of company's operational activities and the operations of their subsidiaries.

After a SR has been finalised, based on the level of to which they have applied the GRI Guidelines, the company who produced the report can declare level of compliance for their report to one of the three available levels of application: C, B or A. C level stands for beginner report writers, B is for advanced, and A level is assigned to more advanced reports. These levels are called GRI "Application levels", and they were made to assist organizations in communicating the degree of transparency of their sustainability reports against the guidelines (GRI, 2012). Furthermore, if a company chooses to seek external, third-party validation of their report and they obtain it, the sign "plus" (+) can be added to their letter in when disclosing the level of application (i.e. C+, B+, A+). It has to be noted that these application levels do not present the actual sustainability performance of the company, the quality of the report, or the level of compliance with the guidelines. They merely indicate the extent to which GRI's guidance has been applied in the report (GRI, 2012). Application levels have been removed in the latest G4 version, in turn for a basic statement which says "prepared in accordance with GRI".

The GRI G3.1/OGSS Guidelines are consisted of two parts: (1) defining report content, quality, and boundary; and (2) standard disclosures. The first part of the guidelines is provided as guidance for companies to determine their scope of the report, and assess which topics are most feasible to be covered by them. Key issues which should guide companies in compiling their reports, are as follows:

- Content - defined by reporting principles of materiality, stakeholder inclusiveness, sustainability context, and completeness;
- Quality - defined by principles of balance, comparability, accuracy, timeliness, reliability, and clarity (see Appendix B [4]);
- Boundary - defines the range of entities represented by the report

To improve reporting quality, GRI encourages companies to continually expand their scope and topic coverage over time, and embed sustainability reporting in their top level organizational strategy, action plans and outcomes (GRI, 2012). Second part of the GRI Guidelines builds upon first part's guidance on determining content, and specifies the base content that should appear in the final version of the SR. Three different groups for disclosures constitute this part: (1) strategy and profile; (2) management approach; and (3) performance indicators. Due to lack of guidance for reporting disclosures on management approaches (DMA), and the generic statements provided by companies, this section was not evaluated separately. Instead, it was included in the performance indicators section of the evaluation framework.

In order to address all aspects of sustainability, the GRI Guidelines cover a diverse range of topics in a two-tiered system: "core" and "comprehensive" coverage. Some of the topics address aspects such as economic performance, environmental regulations and compliance, pollution control measures, products and service quality management, health and safety of operations, employees and customers, as well as coverage on their workers' rights and benefit plans, indigenous people's rights and community investments (GRI, 2012). The oil and gas supplement contributes to this system by expanding it with additional sphere of covering, called Oil and Gas (OG) indicators. An overview on the final version of the evaluation framework used in this study, which is based on the G3.1/OGSS Guidelines, the composition

[4] The table has been created for the needs of a previous research paper on a similar topic, written by the same author – Martin Petrushevski. The title of the paper is "Sustainability reporting – What does Trelleborg AB report on?", and it has been written in 2013/2014 for the needs of the ARPEA class in the IIIEE University in Lund, Sweden.

of its groups, sections, categories, indicators and oil and gas supplements, can be seen in greater details on the table presented in Appendix A from the list of Appendices.

2.3.2 Integrated reporting (IR)

With the release of the GRI G4 Guidelines in May 2013, and the added emphasis on the materiality principle, the reporting process has been simplified for companies, with the expectation that they should report information on topics which are material only to their business (GRI, 2014a). This provides the opportunity for companies to focus their resources in compiling and publishing concise and specific information according to shareholders interests in their sustainability reports. Moreover, GRI foresees that the new path of sustainability reporting is not only aimed towards narrowing down the scope in the reports, but also its integration with financial reports (GRI, 2014b). GRI and IIRC foresee that businesses which will report their CSR activities separately from their routine operational practices will be accounted as if these activities were viewed separately from their core business. This new path in sustainability reporting, where operational data, financial and sustainability strategy and results are integrated, is called Integrated Reporting (IR), and is promoted jointly by the GRI and the International Integrated Reporting Council (IIRC) (GRI, 2014b).

In the early stages of development, SR may have started as "window-dressing, driven by public and government pressure, and something that is likely to fade away when these forces recede" (Kolk, 2003), but due to recent business developments, increased public awareness and pressure on companies, as well as the global uprise in legislations and regulations on mandatory non-financial reporting, it is fairly unlikely that SR will fade away any time in the near future. On the contrary, more countries are projected to uptake sustainability reporting policies in the near future. Moreover, with recent expansions towards integrated reporting, sustainability related information disclosure is envisioned to be embedded in all operational segments, and not viewed as a separate fragment of their operations.

2.4 Non-financial disclosures

Commencing from the moment when the definition for sustainable development was coined by the Bruntland Commission in their 1987 report "Our common future" (Brundtland, 1987), and its implementation in the Rio Declaration on Environment and Development in 1992 (Declaration, 1992), companies gained a platform for integrating three different aspects into their reporting practices: economy, society and environment (Herzig & Schaltegger, 2006). As mentioned previously, the incorporation of these three aspects of sustainability into business decisions has also been known as the TBL concept (Elkington, 1997; Slaper & Hall, 2011). The intertwined connection between these three concepts, and their meaning for this research paper, are further explained in the following paragraphs of this section.

The concept of CSR has been developing for a long period of time in the literature. First formal writings of the social responsibility concept have been noted in the 1930s and 1940s, where the term has been mainly used for addressing business executives in relation with their social responsibilities (Carroll, 1999). Over the years, many attempts were made to define and measure the concept. First meaningful results were achieved in the 1990s, where themes such as stakeholders, business ethics, corporate responsibility, sustainability and corporate citizenship, were coined into one umbrella concept – the concept of CSR (Carroll, 1999). With the continual expansion of themes included in the CSR concept, and the addition of initiatives such as sustainable development and TBL, the concept gained substantial popularity in the business sector during the late 1990s and early 2000s (Milne & Gray, 2013). One key addition

to the body of knowledge in the literature on this topic, which helped in defining and promoting the concepts, has been made by Mr. John Elkington, in his book – Cannibals with Forks: The triple bottom line of 21st Century (Elkington, 1997; Milne & Gray, 2013). In turn of growing awareness on corporate negligence, the author emphasizes that in order to take account of the full cost involved in doing business, it is important for companies to adequately and equally address the three bottom lines, known as "3P" concept: profit, people and plant (Elkington, 1997).

In recent years, the concepts of CSR and sustainability have mainly been used for portraying corporate sustainability practices to relevant stakeholders, present long-term sustainability and viability of the company, and show the extent of their efforts in contributing to sustainable development (Herzig & Schaltegger, 2006). Moreover, as Carrol (1999) predicted, the CSR concept remained an essential part of business language and practice, mainly due to its wide spectrum of constituting theories, and its adaptability to modern day expectations of the general public and business community. Nevertheless, some improvement in corporate behaviour can be achieved due to the public nature of CSR and SR, where public scrutiny helps identify and deal with problems which affect society and environment, and cannot really be identified solely by the company (Idowu, 2013; Kolk, 2003).

Transparency and truthfulness in information disclosures have been identified as some of the key ingredients for addressing social responsibility and public pressure for oil and gas companies (Spence, 2011). In reality, this is what the public wants from them, better self-regulation and reduction of risks against society, not just compliance with the laws (Spence, 2011). In an attempt to provide an answer to their needs and respond to general public pressure, most of the companies from the oil and gas sector embraced voluntary initiatives such as CSR and SR, engaged their stakeholders and started working on improving the social and environmental impacts of their operations by addressing all three aspects from the TBL model (Alazzani & Wan-Hussin, 2013; Spence, 2011). The effectiveness of these initiatives, and whether oil and gas sector companies actually manage to address all issues related to their sustainability through adopting CSR and SR practices, is further discussed over a critical review on the concepts in the next section of this chapter – SR criticism.

2.5 Sustainability reporting criticism studies

Sustainability is a concept which requires companies to envision and perform responsibly in many spheres of their presence. For the concept to be effective, resource extraction has to be in line with the productional capacity of the natural resources, and its distribution should be equally allocated amongst present and future generations (Declaration, 1992). However, present development models fail to equally address the three pillars of sustainability (economy, society and environment), and drive the whole society towards an unsustainable pattern of development. Authors find various factors which contribute in deterioration of sustainability, and most of them are found as un-sustainable practices of corporations, or failed attempts to successfully address issues related to the production, consumption and accounting instruments of the organizations. In order to keep this research study objective, in the following paragraphs of this section, an overview is given on the most relevant criticism found in the literature on the SR topic.

As the rate in sustainability reporting disclosures increased over the years, more researchers became interested in the quality of data provided by the companies (Boiral, 2013; Comyns, Figge, Hahn, & Barkemeyer, 2013). Various accusations arise on the truthfulness of the organizations, and the level of legitimacy and transparency they were reporting this data. Moreover, questions have been raised regarding information disclosure, and the availability of

classified information (Norman & MacDonald, 2004). To be more precise, questions have been raised on the kind of information stakeholders have a right to know. It has been found that it is really difficult to determine when the company has the legitimate right to keep some information away from the eyes of the public. Authors Norman and MacDonald in 2004 (2004), as well as ten years later the author of this study, found no specific guidance in the SR literature on how a company should adequately and thoroughly address these tentative issues in terms of classified information disclosure. In turn, companies present themselves in overly positive ways, failing to present negative aspects of their operations. This has been noted by Boiral (2013), where the author sees sustainability related disclosures can be seen as "simulacra that camouflage real sustainable-development problems, presenting an idealised version of company situations".

Even though the TBL concept has been widely recognised as the fundamental guidance idea for corporate sustainability, and has helped companies in addressing economic, social and environmental aspects of their management and reporting processes, some authors argue that in this process the concern for ecology has been neglected, contributing to greater levels of un-sustainability (Milne & Gray, 2013; Norman & MacDonald, 2004). The basic premise of these critics on SR and TBL is based on the contribution of these ideas and their practice, it reflects on whether they manage to significantly contribute to society's transition towards sustainability. The biggest problem arises in two institutional levels: companies envision themselves as the most novel and sustainable companies in their top level policies and agendas, but fail to deliver those promises by presenting poor and vague business-as-usual developments in their real-life operational practices (Milne & Gray, 2013). This notion has been supported with research done by other authors (Comyns et al., 2013; Hahn & Lülfs, 2013; Holder-Webb, Cohen, Nath, & Wood, 2009; Lougee & Wallace, 2008), where they build upon the idea that SR just provides a platform for companies to present overly positive views on sustainability, lack of negative voluntary disclosures, and failures in adequately addressing material issues with high level of quality.

Comyns et al. (2013), have raised another weakness in the process of SR – the assurance process. As most of GRI based reports seek external assurance, reliability and independence of the verifiers, as well as the scope of the verified part of the report, have come into question. Since the verification process has been voluntary, no uniform uptake of this additional aspect has been seen in the SR, thus failing in raising the overall level of quality in SR practices in the corporate world. In this regard, Comyns et al. (2013) give a suggestion for improving reporting quality, by introducing mandatory regulation on information which quality cannot be easily verified, to be included within the practices of making SR.

In response to critics about transparency and legitimacy of SR disclosures, the authors Hahn and Lülfs (2013) refer in the literature towards the GRI Guidelines. As the GRI Guidelines have been known for being a framework for providing guidance on sustainability reporting with various topic coverage, the gap in regulatory guidance on SR reporting noted in many developing countries, GRI envisions the solution in legitimate and transparent disclosures on positive and negative corporate contributions to sustainability (Hahn & Lülfs, 2013). However, companies fear putting at risk the corporate image and reputation by disclosing aspects which have been found to be negative in the general consensus between the society and the company's relevant stakeholders. That is one of the reasons they chose to intentionally omit compromising information in their reports, or present the information with vague and generic statements.

In conclusion of this chapter, the question arises: can organizations effectively report on sustainability? From all the information presented so far, the author of this research would like

to say – yes they can, but if they provide sufficient and transparent information on the extent of their efforts made in reaching sustainability. First of all, company leadership has to demonstrate commitment in their top level policies. This includes comprehensive coverage and disclosure on both positive and negative impacts on the society and environment, whilst pursuing corporate sustainability of the company in terms of their materiality. In addition to the premise given above, the GRI Guidelines have been found as the most suitable platform in helping companies report progress made in their pursuit for sustainability. As a most suitable platform for reporting sustainability, in the next section of this paragraph, an overview will be given on the currently available reporting assessment methodologies in the SR literature.

2.6 Sustainability reporting assessment methodologies

In order to find the most suitable methodology for evaluating the sustainability reports included in this study, this part of the literature analysis will deliver a systematic assessment on relevant literature available for the researcher. As a main source of information, scientific journals on the topic of sustainability reporting assessment methodologies have been utilised. The scope and limitations to this part of the literature review will be focused only on methodologies applicable in line with the GRI Guidelines. In conclusion, the most suitable evaluation framework will be selected, and presented adequately in the final parts of this section.

In different countries and over different periods of time, previous researchers have individually studied sustainability reporting disclosures, and based on different criteria in their evaluations, they have conducted various assessments of reporting practices. Evangelinos et al. (2010) delineate that, based on the purpose of the research, three most commonly used methodologies for content evaluation of sustainability reports can be the following: content analysis, scoring and questionnaire surveys. An overview of the content analysis methodology, and its applicability in this research, follows in the next section of this chapter. Further on, a review on previous sustainability scoring studies and its applicability to this research is performed in the scoring section, followed by the final section of this chapter - questionnaires, where the purpose and use of questionnaires is explained in more details.

2.6.1 Content analysis

Content analysis has been utilised by researchers as one of the most common methods for evaluating the extent to which current sustainability reports meet the requirements of the GRI Guidelines (Daub, 2007; Evangelinos, Skouloudis, Nikolaou, & Filho, 2010; Morhardt, Baird, & Freeman, 2002; Skouloudis, Evangelinos, & Kourmousis, 2009, 2010). The advantage in using this technique can be seen in the nature of its methodology, where authors have defined that it is a method for collecting and analysing information, through coding and quantifying data in qualitative, quantitative, or both assessments (Holsti, 1969). Quantitative approach is most commonly utilised for counting message elements and determining trends, themes and determining extent of coverage on certain topics of interest (Bernard & Ryan, 1998). Qualitative approach on the other hand is often used in interpreting meanings of information based on multiple factors, such as related theories and the researcher's knowledge and expertise in the area of research, along with results and interpretations obtained from the research study (Bernard & Ryan, 1998). The systematic and thorough approach provided by this methodology enables researchers to evaluate the extent and comprehensiveness of coverage on certain topics, and draw conclusions in regard with the presence or absence on certain wordings, subjects, terms, and ideas. For example, after data has been collected, coded

and analysed from the sustainability reports, final results obtained can further be adequately weighed, allocated, summarized and utilised for:

- Comparing quality, coverage and comprehensiveness of information disclosed on specific topics in the SR;
- Ranking whole sections of the research according to quality of data;
- Comparing quality of sections against other studies;
- Comparing performance of overall data obtained with studies which cover themes on related subjects.

Previously described characteristics make the content evaluation methodology most suitable for the needs of this study, which is to evaluate the level of compliance of sustainability reports from the oil and gas industry against the GRI Guidelines. In line with the scoring system developed in the following section (see Table 2), the content analysis methodology will be utilised to obtain data presented in the findings chapter of this research.

2.6.2 Scoring methodology

Scoring has been the most commonly used methodology for quantifying and classifying raw information samples in the form of textual material, visual images and illustrations, into nominal categories by allocating adequate scoring symbols (Holsti, 1969). Two different types of scoring methodologies have been identified in SR literature: alphabetical and numerical (Krut & Munis, 1998; Morhardt et al., 2002; Skouloudis et al., 2009). These two scoring systems differ from each other in a way that the alphabetical scoring methodology allocates adequate letters, and the numerical system numbers, to the section of information analysed. This allocation should be in line with a previously arranged rationale for the scoring range and methodological allocation procedure. In continuation of this section, an overview is given on the pros and cons of both types of scoring methodologies. Further in this section, the justification for the selection of the most suitable scoring methodology for this research study is given, and accordingly presented in the final section of this chapter – choice of methodology.

Alphabetical scoring can be defined as a scoring system which is based on symbols with typographical character (i, ii, iii, iv, etc.) (Krut & Munis, 1998; Morhardt et al., 2002). It can be used for evaluating data in sustainability reports by classifying the extent of information disclosures, from (i) if no information has been found in relation to a given topic, to (v) the information provided exceeds the allocation requirements (Krut & Munis, 1998). Even though this scoring system has its benefits, and may be utilised by other authors, it has to be disregarded for future use in this study. Two major shortcomings have been observed so far: first of all, last use of this methodology for evaluation of SR noted in the literature was around 15 years ago, a period when the GRI Guidelines were not even created (Krut & Munis, 1998). Second, since environmental performance can be measurable and modifiable for scientific analysis and statistical analysis (Holsti, 1969; Morhardt et al., 2002), the typographical structure of the methodology presents an obstacle for aggregating and allocating weights in scores, thus increasing the difficulty of the assessment and making the overall evaluation almost impossible.

As quantification is considered to be one of the most important characteristics of content analysis, the development of numerical terms in the assessment can provide a framework for

reporting findings on a "more", "less" or "increasing" basis (Holsti, 1969). An outline on how scoring methodologies were used in studies to rank data can be seen on Appendix C from the list of Appendices. It can be seen from Appendix C that, if explained and justified in accordance with the needs of this research study, a zero to four ranking scale can be the most applicable framework for analysing content in sustainability reports. An overview on historical developments in applicability of the methodology in previous SR assessment studies, follows in the next paragraphs of this section.

First researchers known to utilise the GRI guidelines as a template for evaluating information in a numerical scoring system were Morhardt et al. (2002). The authors selected four sectors from the industry (motor vehicles and parts, electronics, petroleum-refining, and gas and electric utilities), as ranked in the Fortune Global 500 list, and analysed 40 companies in total (ten companies from each sector). Only companies with high levels of reporting disclosures were selected to participate in the study. Officially, the data scoring allocation ranged from zero (0) - not mentioned, to three (3) - absolute or relative metrics mentioned, data of good quality in relation with the company. In several cases they even allocated four (4) points, but the authors did not really provide an explanation on the rationale behind this allocation. This allocation methodology has been found quite reasonable, but due to the lack of clarity, depth and detailed explanation on the point allocation, in combination with the outdated version of the GRI Guidelines (G2), it has been excluded as a final version of the evaluation framework.

Skouloudis et al. (2009, 2010), utilised the GRI 2002 (G2) guidelines as a reference document for developing a numerical scoring system, to be used in assessing quality of SR disclosures against the guidelines. A zero (0) to four (4) score allocation system has been constructed for scoring each of the 141 selected GRI topics. The authors based the system on the hypothesis that all GRI topics have the same weight in the final grade, and allocated scores selectively. For example, higher scores were given for issues which they found to be more relevant, whereas one point was allocated for issues such as the date provided of the most recent report (Skouloudis et al., 2009).

Furthermore, Skouloudis et al. (2012), built upon previously work, and expanded their evaluation methodology by creating a numerical scoring methodology based on the GRI G3 Guidelines. The assessment framework they created was composed of 119 topics and indicators, and used a scoring scale ranging from one (1), where no relevant information is reported, to four (4) points, where coverage is considered to be full, comprehensive and meets the requirements of the GRI Guidelines. Their rationale for the scoring allocation methodology is based on the hypothesis that all GRI topics have the same weight and that their assessment does not directly evaluate corporate performance. This all can be seen from a positive perspective, and certain elements can be utilised for creation of the scoring range in this research study, but the fact that they fail to refer to GRI's criteria for defining reporting quality, and increase objectivity in the score allocation, can be seen as a shortcoming in utilisation of an exact replica of their evaluation methodology.

Alazzani (2013), has used content analysis for analysing SR and scoring environmental practices of eight companies against the GRI (G3) Guidelines. The author chose to evaluate only the environmental performance indicators and determine trends in disclosure practices only for this segment of the sustainability reports. Based on the presence (one point) or absence (zero points) of certain words and concepts in relation with the environmental activities of the organization, adequate scores were allocated. Another similar two-point scoring system has been developed previously by Lynch (2010), and utilised to examine the annual reports of Australian state government departments for types of information disclosed in relation with environmental disclosure practices. Lynch (2010) also based his scoring range

based on the presence of information in relation with the environment, zero – no information provided, to one – if the information is present. As this score allocation is fairly basic, and addresses only the presence or absence of information, due to the complex requirements of the GRI (G3.1/OGSS) indicators, it will have to be excluded from future considerations for utilisation in this research.

2.6.3 Questionnaires

Questionnaires have mainly been used by SR researchers for evaluating participants relevant to their studies in obtaining their personal views on the materiality of the provided social and environmental information to the various decisions they make (Deegan & Rankin, 1997; Evangelinos et al., 2010). This methodology has been further utilised for comparing different sectors in quality of environmental reporting disclosures (Stray & Ballantine, 2000), and applicability and predictive power of legitimacy theory in annual environmental disclosures (O'Donovan, 2002). The most recent application of this methodology has been observed in a study used to evaluate 69 firms on the use of environmental management systems, environmental performance evaluation frameworks, and corporate sustainability reporting in Portugal (Ramos, Cecílio, Douglas, & Caeiro, 2013). The possible use found for this methodology in this research study, has mainly been seen in evaluating the personal views of people relevant to the production of the evaluated sustainability report. In this regard, it has to be mentioned that in order to improve the quality of this research study, an extensive effort has been made to contact all ten companies selected for evaluation in this research. The results from their assessments have been adequately shared, and a feedback on the quality of the assessment has been requested from a person relevant to compiling the sustainability report, or sustainability of the company in general. From all ten companies, only one company – Total, replied with their comments and feedback on the results shared. Having this into consideration, and the lack of feedback of the companies, the author of this research felt that it would be meaningless and irrelevant to prepare and hand out questionnaires on any kind of basis to the participants of this study.

2.6.4 Choice of methodology

As it can be seen from the literature review above, the content analysis method has been defined as the overarching methodology in scoring, ranking, and overall evaluating sustainability reports for comparability reasons. Combined with the GRI guidelines, the most extensive and elaborate content analysis methodology developed by Skouloudis et al. (2012) and expanded by the author of this research, has been found as the most suitable methodology for performing the assessment in this study. A detailed overview on the scoring range (Table 2) and the applicability of the methodology, has been given previously in the methodology section of the introduction chapter.

3 Findings

First section of this chapter, is going to present in greater details the final template used for evaluation of the sustainability reports of the companies. In order to come one step closer to obtaining an answer to the research question, the second section of this chapter will present an overview on the companies included in this research, and elaborate the collection of results obtained from the assessment, separately for each company included in this evaluation.

3.1 Evaluation template

The evaluation template developed in this study has been used to evaluate the level of compliance of sustainability reports from the top ten companies of the oil and gas industry against the GRI Guidelines. An overview on the template, and the way it has been utilised, follows in the next paragraphs of this section.

Final version of the evaluation template created, has been based on the GRI G3.1/OGSS Guidelines, and is in accordance with GRI's reporting principles for defining quality. It is consisted of a zero (0) to four (4) rankings system, which has been utilised for scoring and ranking the evaluated data. In order to keep track of the assessment, on the very top of template two available fields provide the opportunity for entering the "name of the company" and the "year" of the report under evaluation.

The first column provides a label on the "Profile Disclosure". Numerical ranking has been used for the first part of the GRI Guidelines (Profile Disclosures) in the form of 1.1, 1.2, 2.1, ending with 4.17, which is the last indicator for this section of the guidelines. Ranking used in the second part (Management Approach & Performance Indicators), is a combination between letters and numbers in relation with the indicator at stake (EC1, EC2, EN2, OG1, SO3, PR4, etc.). Some fields contain multiple lines across the cell. This indicates that the indicator is "core" and it is assumed to be of greater material value for the company.

Second column of the template contains the "Disclosure" field. In this field, a brief explanation is provided on the GRI topic, and the basic indicator requirements for fulfillment. Some of them contain more details on compiling and completion the requirements. This additional information has been added by the "comment" option, and can be seen by hovering over the fields which contain the small red triangle in the upper-right corner.

Number of topics per each section, is presented in the third column.

The fourth column requests for the "Location of Disclosure". This usually is presented in the GRI-compliance table by the companies. If the information is not provided, the researcher tries to find the information by himself. If absolutely no information can be found in relation with the indicator at stake, then the field is left out blank.

The field "Max. Score" stands for maximum score, which is four (4) points. This is the maximum points, per indicator, which the evaluated company can obtain. It can be used to see how many maximum points can be gained per section. It also contributes for calculating the final maximum points per report.

The most important field from the whole evaluation framework, can be seen in the "Score" field. This is the field where the evaluator has to assign a score in the range between zero (0) and four (4) points. The rationale behind the allocation and its methodology, has been

previously explained in the methodology section of this research. Next field in the framework goes in line with the scoring field, and it helps calculate the "% of Compliance" with GRI's indicator requirements. It is basically a mathematic formula, which calculates the weight of the score obtained, against the possible score per indicator. Results obtained can be used to help in providing an answer to the research question, and evaluate the performance (compliance) per indicator, section, or whole report in general.

The "Comments" section has been used to write down information in relation with the indicator evaluated, provide a feedback on the data, comment on the missing (or unfulfilled) information, and fill in comments made by the organization on the indicator at stake.

"Level of reporting" and "Level of reporting match 1 (y), 0 (n)" were initially implemented to evaluate the level of compliance obtained in the assessment with the one provided by the organizations. Since not all organizations provided their level of compliance in the GRI table, this part has been left out of the assessment, and will not be used to present the scores obtained.

In continuation, a sample section from the evaluation table, and the columns described previously, has been presented in more details on the following figure (Figure 2):

Name of organization		Year							
STANDARD DISCLOSURES PART I: Profile Disclosures									
1. Strategy and Analysis									
Profile Disclosure	**Disclosure**	**Topics (2)**	**Location of Disclosure**	**Max. Score**	**Score**	**% of Compliance**	**Level of reporting**	**Level of reporting match 1 (y), 0 (n)**	**Comments**
1.1	Statement from the most senior decision-maker of the organization.	1		4		0			
1.2	Description of key impacts, risks, and opportunities.	1		4		0			
Final score per section		2		8	0	0	2	0	
2. Organizational Profile									
Profile Disclosure	**Disclosure**	**Topics (10)**	**Location of disclosure**	**Max. Score**	**Score**	**% of Compliance**	**Level of reporting**	**Level of reporting match 1 (y), 0 (n)**	**Comments**
2.1	Name of the organization.					0			
2.2	Primary brands, products, and/or services.		The reporting organization should indicate the nature of its role in providing these products and services, and the degree to which it utilizes outsourcing.			0			
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.					0			
2.4	Location of organization's headquarters.					0			
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	1		4		0			
2.6	Nature of ownership and legal form.	1		4		0			

Figure 2 - GRI-based evaluation template, used in this study to evaluate the sustainability reports
Data Source: GRI G3.1/OGSS Guidelines, with amendments

3.2 Results

In pursuit to obtain an answer to the research question postulated in the introduction section, results obtained are presented in this section, but will be further analysed and discussed in the following chapters of this research. Order of companies is going to be in accordance with the rankings obtained from the Forbes G2000 list (see Table 1), which were mentioned previously in the methodology section of this research. Short history and company description is going to be provided for each company prior the presentation results obtained from the assessment. This is going to be done in order for the reader to be briefly introduced with the company profile and the range of their activities.

3.2.1 Exxon Mobil Corporation (ExxonMobil)

According to Forbes G2000 rankings in 2013, and Exxon Mobil's corporate website and sustainability report, Exxon Mobil is the largest publicly traded oil and gas company in the world, with its headquarters in Irving, Texas (ExxonMobil, 2012; Forbes, 2013a). The

company provides energy services (petroleum products) to their customers via three branches of their operations: upstream, downstream and chemical. They acknowledge that their services come with responsibilities towards people affected from their operational practices, and envision themselves as a viable company, competent for long-term investments and gaining competitive advantage.

Under upstream production, they include exploration and production of oil and natural gas in 36 countries, production sites in 23 countries, and sales of natural gas in 33 countries. Daily, the company has a 4.2 million oil-equivalent barrels of net oil and gas production. Downstream production is mainly composed of refineries and distribution centres for their fuels, lubricants and other high-value products and feedstocks for their customers. They currently have 32 refineries in 17 countries, with sales of 6.2 million barrels per day of petroleum-based products (ExxonMobil, 2012). Exxon Mobil's chemical division manufactures a variety of petroleum-based products, such as packaging materials, plastic bottles, automobile bumpers, synthetic rubber, solvents, etc. The company has interests in 46 wholly owned and joint-venture manufacturing locations worldwide, and has 24 million metric tonnes of prime product sales.

The information provided in the paragraphs above has been used to describe the company profile, and has been used in the evaluation spreadsheet to cover some indicators from the first part of the GRI Guidelines, profile disclosures. In total, the company obtained a score of 280 points, or in other terms, 50 per cent compliance rate with the GRI Guidelines.

As seen from the assessment, the company provides sufficient information to adequately address indicators in the "strategy and analysis" section, "report parameters" and "governance" sections, and obtain almost maximum points in the assessment. Key risks identified include: population growth and energy demand; emission reductions; and technology and trade.

Regarding the awards received, they received the 2013 Green Cross for Safety® medal in October 2012 for their comprehensive commitment to safety excellence. This award has been provided by the National Safety Council (NSC).

The company provides sufficient information in regards with the report profile, and additionally provides a materiality matrix figure for explanation on the identification and allocation of the most relevant issues for the business and the stakeholders in term of society's sustainability objectives. In terms of the report parameters section, ExxonMobil provided the name of the person responsible for compiling the report, and postal and email addresses for contacting people about the report. Third-party assurance has been sought by the company and provided by Lloyd's Register Quality Assurance, Inc. on an annual basis for ExxonMobil's safety, health and environmental reporting systems. Their disclosures were identified to be in line with the IPIECA performance indicators and guidance for sustainability disclosures.

Information provided on corporate governance is quite sufficient and extensive, except that the company does not provide sufficient information on the highest governance body in its committees, in term of age breakdown and links between their compensation and the company's performance in terms of the environmental, social and environmental aspects of their operations. They also fail to provide the processes in place for ensuring conflicts of interests are avoided.

In order to address the internal policies relevant to the economic, environmental and social aspects of the company, ExxonMobil has created the Operations Integrity Management

System (OIMS). Moreover, this is the leading management system on all issues related to safety, security, health, and environmental and social risks in the company. Regarding the external charters, principles and other initiatives in relation to the economic, environmental and social aspects, the company is a member of the American Chemistry Council (ACC), and prescribes to the voluntary principles on security and human rights.

The company provides less coverage on the topics included in the second part of the GRI Guidelines, and consequently, obtains less points in the evaluation spreadsheet. Best coverage on topics has been noted in the economic section with a total score of 60 per cent coverage, followed by the environmental section with 35 per cent coverage on the indicators. The social aspects have been covered more or less equally, with the scores varying in 28 per cent for labor practices and decent work, 27 per cent for society, 25 per cent on human rights, and 13 per cent of coverage on product responsibility.

From the economic performance indicators, the company provides extensive information in regards with their direct and indirect revenue generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments. The company fails to provide information on whether they received financial assistance from governments, and the range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation. Furthermore, no information could be found on the first supplementary OGSS indicator and last indicator in this section - "Volume and type of estimated proved reserves and production".

In the environment indicators section: materials, energy and water have not been covered adequately by ExxonMobil. Consequently, these sections gained fairly low scores in the evaluation. It can be seen from the assessment, that in terms of the environment, the company has most interest in the emissions, effluents and waste generated from their operational practices. They provide extensive coverage on their direct and indirect greenhouse gas (GHG) emissions, and their environmental expenditures, investments and monetary fines for non-compliance with environmental laws and regulations.

From the labor practices and decent work social point of view, ExxonMobil provides more information in terms of their workforce, the diversity amongst the employees, their training, and employee health and occupational health and safety. Human rights have been addressed in terms of security, investment and procurement practices, and indigenous communities. Regarding society, information with highest quality could be found on public policy and lobbying, and involuntary resettlement and effects on livelihoods from the process. Product responsibility has been covered least extensively from all sections, and most information could be found on life cycle stages and product stewardship.

Score allocation, and final score obtained per section and overall for ExxonMobil, can be seen in greater details on Table 3.

Table 3 - Evaluation score obtained for ExxonMobil against the GRI G3.1/OGSS Guidelines

Part	Category	Score[5]	Compliance[6]
I	Strategy and Analysis	8/8	100

[5] Maximum points available per section/Points obtained in the assessment

[6] Compliance rate with the GRI Guidelines, expressed in percentage (%)

	Organizational Profile	34/40	85
	Report Parameters	52/52	100
	Governance, Commitments, and Engagement	61/68	90
II	Economic	24/40	60
	Environmental	52/148	35
	Social: Labor Practices and Decent Work	17/60	28
	Social: Human Rights	12/48	25
	Social: Society	15/56	27
	Social: Product Responsibility	5/40	13
	Total points obtained / % of compliance	**280/560**	**50**

3.2.2 Royal Dutch Shell

Royal Dutch Shell, or for the sake of consistency - Shell, is a global group of energy and petrochemical companies, with its headquarters in The Hague, Netherlands, and operations in more than 70 countries and around 92,000 employees (Shell, 2013). They have been ranked on the second position of Forbes world's biggest oil and gas companies in the 2013 rankings list (Forbes, 2013a). The company's main aim is to address the needs of society and provide energy in economically, environmentally and socially responsible ways (Shell, 2012). Shell is comprised of three main business sectors: upstream, downstream, and projects and technology.

The upstream sector is divided into two groups: upstream Americas, upstream international, covering interests in Europe, Asia, Middle East, Russia, Australia, Oceania and Africa. The purpose of this sector is to extract crude oil and gas, and deliver both oil and natural gas to the markets. Bitumen, a petroleum product, is extracted as well, converted into synthetic crude oil, and is placed on the market in addition to the other petroleum products. Wind power is also mentioned as a mean for generating electricity.

Shell's downstream sector is responsible for manufacturing, supplying and marketing oil and chemical products worldwide. Refineries, chemical plants, and the supply and distribution of feedstocks and products are included in the downstream production.

Projects and technology section is responsible for planning and delivering Shells' major projects. They also drive the research and innovation programme for creating new energy solutions to their practices. This branch is also connected and provides services to Shell's upstream and downstream business sections.

Shell obtained a total score of 365 points in the evaluation, which means they have a compliance rate of 65.2% with the GRI G3.1/OGSS Guidelines (see Table 4). As it can be seen from Table 4, the company provides sufficient information to cover extensively the first part of the GRI Guidelines, but fails to address all indicator requirements contained in the second part of the guidelines in an adequate and comprehensive manner.

Table 4 - Evaluation score obtained for Shell against the GRI G3.1/OGSS Guidelines

Part	**Category**	**Score**[7]	**Compliance**[8]

[7] Maximum points available per section/Points obtained in the assessment

[8] Compliance rate with the GRI Guidelines, expressed in percentage (%)

I	Strategy and Analysis	8/8	100
	Organizational Profile	38/40	95
	Report Parameters	52/52	100
	Governance, Commitments, and Engagement	68/68	100
II	Economic	33/40	83
	Environmental	77/148	52
	Social: Labor Practices and Decent Work	21/60	35
	Social: Human Rights	14/48	29
	Social: Society	34/56	61
	Social: Product Responsibility	20/40	50
	Total points obtained / % of compliance	**365/560**	**65.2**

From the information provided, it can be seen that the organization manages to provide a detailed description on key impacts, risks and opportunities for the company, and provides sufficient details on the company profile and report parameters, including policies for seeking and obtaining external assurance of the report. Key topics of concern identified are: fluctuating oil prices; trading and treasury risks; future hydrocarbon developments; and reputation management.

The external assurance provided by Lloyd's Register Quality Assurance, Inc. has been limited to assurance on Shell's direct and indirect GHG emissions data for the year of 2012. It is important to be noted as well, that the company recognises risks associated with climate change, and has devoted a whole section on it in the report. The report obtained a GRI Application Level Check, stating that the report is in line with the GRI G3.1 Guidelines and that it fulfils requirements for obtaining of Application Level A+.

From the awards obtained in the reporting period, it can be seen that the company obtained the third place of the international oil companies in the Goldman Sachs GS SUSTAIN ESG (environmental, social and governance), and has been included in FTSE4Good Index since 2001, including the last year reported – 2012.

Stakeholder engagement has been seen as a high priority in the organization, due to the information presented on the types of stakeholders included in the report, and the approaches and frequency to stakeholder engagement practices. In result of these engagements, key topics and concerns have been raised. Some of them are hydraulic fracking, the Arctic, Nigeria, oil sands, and biofuels.

Shell provided contact details such as the name, post and email address, in regards to the person responsible for the published report.

In regard to the points not obtained from the organizational profile section, the company fails to present a total geographic breakdown of the markets served and the types of customers and beneficiaries on a sector-wise level. Some information has been provided in regards of the upstream business unit, but the information is not extensive to cover the needs of the indicator. Thus, not all maximum available points have been awarded for this indicator in the scoring allocation assessment.

The economic section of the report has been covered quite extensively, providing information on generated and distributed revenue, operating costs, employee compensation, community investments, and political and other charitable contributions. A comprehensive description of

the indirect economic impacts of the organization has been provided, with a focus on local communities, oil sands, proved reserves and production, and countries such as Iraq and Nigeria. By providing clear and comprehensive information on these topics, it can be seen that the company clearly understands the extent of their significant indirect economic impacts, and can obtain maximum points in the score allocation in this assessment.

From the environmental section of the assessment, it can be seen that the company gives most attention to issues related to renewable energy, description of significant impacts and strategies for managing impacts on biodiversity, habitats protected or restored, emissions on effluents and waste, and compliance with environmental laws and regulations.

In the social coverage, the company addressed most comprehensively issues in terms of local communities, customer health and safety, product and service labelling, and biofuels.

It has to be stated that the company does provide a comment on each indicator in their GRI-compliance table. Most of the comments refer that the company understands the indicator requirements, but does not aggregate that data on Group level, so no specific information could be found in regards to that indicator. In this case, one point was allocated to the company for providing some (basic) information on the adequate indicator requirements.

3.2.3 PetroChina Company Limited (PetroChina)

PetroChina is a company established in 1999, upon the restructuring of China National Petroleum Corporation (CNPC). Today, with 86 per cent, CNPC is the biggest shareholder of this company. The company's headquarters can be found in Beijing, China. Currently, it holds the third position in Forbes G2000 most powerful oil and gas companies(Forbes, 2013a). In terms of operational practices, this is a company which provides energy services, mainly oil and gas, to its customers in China on an economic and socially responsible approach of application. The core business of their operations is composed of five (5) sectors: (1) oil and gas exploration and production; (2) production, transportation and storage of crude oil and petrochemical products; (3) production and marketing of petrochemical products; (4) natural gas transportation and distribution; and (5) international business (PetroChina, 2012).

From the initial information provided in the sustainability report, it can be seen that the company has a very high rate of oil and gas equivalent reserve replacement ratio (at over 100 per cent), has a 916.5 million barrels of crude oil production per year, and that the company accounts for over 40% of all oil products in China.

For the evaluation needs of this company, the document identified with most comprehensive information on the TBL was PetroChina's 2012 sustainability report. In addition to that document, the company refers to a 2012 environmental report, but the researchers failed to locate and utilise the report for this study. An outreach attempt was made to the company and close collaborators to the company for obtaining the environmental report, but unfortunately the document has not been retrieved. In this regard, the extremely low score obtained for the environmental section of the evaluation could be a result of this miss-communication, or lack of information provided in general by the company.

Final evaluation scores obtained, show that PetroChina fails to extensively cover most of the GRI indicator requirements in its 2012 sustainability report. This is the reason for the low final score obtained of 148 points, and 26.4 per cent compliance rate with the guidelines. The only category which has been covered extensively is the strategy and analysis section, with a

compliance rate of 100 per cent. For more details about the score allocation in PetroChina's case, please check the following table (Table 5).

Table 5 - Evaluation score obtained for PetroChina against the GRI G3.1/OGSS Guidelines

Part	Category	Score[9]	Compliance[10]
I	Strategy and Analysis	8/8	100
	Organizational Profile	26/40	65
	Report Parameters	17/52	33
	Governance, Commitments, and Engagement	46/68	68
II	Economic	18/40	45
	Environmental	9/148	6
	Social: Labor Practices and Decent Work	7/60	12
	Social: Human Rights	2/48	4
	Social: Society	8/56	14
	Social: Product Responsibility	7/40	18
	Total points obtained / % of compliance	**148/560**	**26.4**

Coverage on the organizational profile and corporate governance has been with a rate of 65 and 68 per cent, respectively. Most comprehensive information has been provided on topics related to the company's organizational structure and brands and services, as well as information on the corporate governance mechanisms, internal controls, and shareholder interests. The company has also managed to identify and reply adequately to key topics and concerns which have been raised through stakeholder engagement. Key topics identified are mainly addressed towards balancing the company's development and resources, and the TBL: environment, society, and economy.

Awards received in the reporting period have been mainly obtained as "Asia's top companies in investor relations", and top companies in investor and CSR relations in China. Some awards were awarded on individual leaders from the company, as well. In addition, the company is a member of the UN Global Compact scheme, and states that it has made significant progress in aligning UN Global Compact's ten principles for corporate responsibility into their operational practices.

PetroChina fails to provide contact details in regards to people responsible for creating and publishing the report, and external assurance policy.

From the economic aspect point of view, the company provides some information on their economic performance, to be more precise on their direct and indirect economic value generated and distributed, and financial implications and other risks and opportunities for the organization's activities due to climate change. Information with less quality could be found on market presence and topics in relation with wage allocation in terms of gender, and spending on locally-based suppliers. No information has been provided on the volume and estimated proved reserves and production, consequently leading to zero score allocation for that indicator.

[9] Maximum points available per section/Points obtained in the assessment

[10] Compliance rate with the GRI Guidelines, expressed in percentage (%)

The environmental category has been covered with information of poor quality, and only the topics of energy saved due to conservation and efficiency improvements, biodiversity, GHG emissions, and impacts of products and services, have been covered with some information. Rest of the topics were not addressed at all, leading to a fairly low overall score for the environmental section of the evaluation.

Labor section has been covered vaguely as well in PetroChina's 2012 sustainable development report. Some information has been provided on the workforce, in terms of contract type, education and gender allocation, expressed in overall percentages. Occupational health and safety practices have been poorly addressed as well, but still with better quality than the other sections from the labor practices and social group. As last in the assessment, the customer health and safety part has been identified as the section with highest level of comprehensive coverage on the GRI indicator requirements.

3.2.4 Chevron

Chevron is a company focused on satisfying the needs of the present and future generations, by producing energy and providing services on a safe and reliable way (Chevron, 2012). The company envisions support and contributions to health care, education and economic development as partners with governments, suppliers, and communities. At the moment when this research paper was written, this company has been ranked on the fourth position in Forbes G2000 rankings list for most powerful oil and gas companies in the world for the year 2013 (Forbes, 2013a). Their business strategy is divided in three (3) units: (1) exploration and production, of oil and natural gas; (2) manufacturing, products and transportation, which further composed of manufacturing, global trading, products, pipelines, lubricants, shipping and oronite divisions; and (3) other businesses, constituted of chemicals, mining, power, and technology divisions. The company headquarters are located in San Ramon, California.

Overall results obtained from the assessment, show that Chevron obtained a score of 199 points in total, with a 35.5 per cent compliance rate against the GRI G3.1/OGSS Guidelines. Topics from the first part were covered more comprehensively, as compared with topics from the second part of the guidelines. Information with highest quality has been provided for topics included in the organizational profile and report parameters categories. Least information has been provided on the TBL parameters, with a particular emphasis on lack of coverage in the social and environmental categories. Final score obtained, as well as compliance with the GRI Guidelines for Chevron, can be seen in more details on the following table (Table 6):

Table 6 - Evaluation score obtained for Chevron against the GRI G3.1/OGSS Guidelines

Part	Category	Score[11]	Compliance[12]
I	Strategy and Analysis	4/8	50
	Organizational Profile	40/40	100
	Report Parameters	47/52	90
	Governance, Commitments, and Engagement	33/68	49
II	Economic	15/40	38
	Environmental	33/148	22

[11] Maximum points available per section/Points obtained in the assessment

[12] Compliance rate with the GRI Guidelines, expressed in percentage (%)

	Social: Labor Practices and Decent Work	9/60	15
	Social: Human Rights	3/48	4
	Social: Society	10/56	18
	Social: Product Responsibility	10/40	18
	Total points obtained / % of compliance	**199/560**	**35.5**

From the information disclosed in the CR report, it can be seen that Chevron gives more accent on topics related to the operational excellence and risk management, process safety, workforce safety, environmental stewardship, biodiversity, economic development, and social investment. Hence, the company fails to identify key issues in relation with the company's operational practices and their key impacts, risks, and opportunities.

The company provides extensive information and obtains maximum points in terms of their primary brands, products and/or services, operational structure, number of countries where the organization operates, nature of ownership, scale of reporting organization and significant changes during the reporting period.

In terms of the reporting parameters, the company provides a name and a post address for the person responsible for the report. Additionally, it seeks and obtains external assurance from Lloyd's Register Quality Assurance, Inc. for the calendar year of 2012, on processes for reporting health, environmental and safety (HES) performance indicators (Chevron, 2012). The auditors confirmed that Chevron's disclosures are in line with the IPIECA/API/OGP Oil and Gas Industry Guidance on Voluntary Sustainability Reporting (2010).

In terms of awards received, they have received for the third year consecutively the Diversity Leader Award from Profiles in Diversity Journal, and have ranked the top tier of the energy sector in CDP's questionnaire.

Chevron fails to obtain more than half points in the governance section, mainly due to lack of information in sections related to shareholders, stakeholders and highest governance body performance and structure.

From the economic section, highest points have been obtained for coverage on issues related to the direct economic value generated and distributed, and coverage on defined benefit plan obligations. Chevron also provides extensive information on the first oil and gas indicator, volume and type of estimated proved reserves and production, and obtains maximum points for it in the evaluation table.

Most of the points allocated in the environmental section are one zero (0) points. From the allocated scores, the most given scores were (1) and two (2) points, with the exception of the "Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation" and "Benzene, Lead and Sulphur content in fuels" indicators, where the information disclosed in the report was considered to be sufficient for the score of four (4) points to be allocated.

The only theme in the social aspect of the evaluation table to obtain the maximum score of four (4) points, was Public policy positions and participation in public policy development and lobbying. Rest of the information was concentrated on topics related to the workforce of the company and their benefits, rates of injury and occupational health and safety, education and training of employees, indigenous people and local communities. Some information has been provided on product responsibility and biofuels.

3.2.5 Gazprom

Gazprom is a global energy company which explores, produces, transports and sells petroleum-based products (oil, gas and gas condensates). They provide gas to more than half Russian consumers, and exports gas to more than 30 countries worldwide. The company is also active in the field of production and distribution of thermal and electric power (Gazprom, 2011). Their headquarters are located in Moscow, Russia. According to the 2013 Forbes G2000 list, Gazprom has been situated on the fifth position in the oil and gas sector's most powerful companies rankings (Forbes, 2013a). With 18 per cent share of the total gas supplies in the world, Gazprom is a company with highest amount of natural gas reserves worldwide. Their current large scale gas-exploiting activities have been aimed for implementation in the Yamal Peninsula, the Arctic shelf, Eastern Siberia, and the Far East.

The organization branches out into seven (7) different sectors: (1) hydrocarbon exploration and production; (2) gas transmission and storage; (3) gas conversion and condensate processing; (4) oil refining; (5) marketing and gas distribution; (6) energy; and (7) other businesses.

Results obtained from the assessment, show that for Gazprom's sustainability report an overall score of 315 points has been allocated, with a compliance rate of 56.3 per cent with the GRI G3.1/OGSS Guidelines. Information has been disclosed with solid quality for the first part of the GRI-based evaluation framework. Strategy and analysis, as well as organizational profile categories, have been covered with 100 per cent compliance rate, whereas the remaining two categories obtained a 90 per cent compliance rate with the GRI Guidelines. In continuation of the assessment, it can be seen that the company addressed the economic, and most of the social categories, with higher level of information and compliance rate in the evaluation, as compared to the environmental aspect of the performance indicators. For greater details on the score allocation and the GRI compliance rate, please refer to the following table (Table 7):

Table 7 - Evaluation score obtained for Gazprom against the GRI G3.1/OGSS Guidelines

Part	Category	Score[13]	Compliance[14]
I	Strategy and Analysis	8/8	100
	Organizational Profile	40/40	100
	Report Parameters	47/52	90
	Governance, Commitments, and Engagement	64/68	94
II	Economic	24/40	60
	Environmental	39/148	26
	Social: Labor Practices and Decent Work	21/60	35
	Social: Human Rights	26/48	54
	Social: Society	36/56	64
	Social: Product Responsibility	10/40	25
	Total points obtained / % of compliance	**315/560**	**56.3**

[13] Maximum points available per section/Points obtained in the assessment

[14] Compliance rate with the GRI Guidelines, expressed in percentage (%)

It can be seen from the evaluation framework and Gazprom's sustainability report 2011, that in order to reply to various sustainability risks related to the organization, the company has developed an integrated risk management system (IRMS). The system has been deployed and utilised on a company-wide level, as well as on their subsidiaries and affiliated companies. The company identified that their biggest risks come in relation with the environment, and therefore, they deployed top level policies on protecting nature and insurance in compliance with laws and regulations, and they reduced their environmental risks on a corporate level.

The organizational profile has been described in great details, sufficient enough to obtain maximum points in the evaluation framework for that section. From the awards received in the reporting period, three have been in relation with the sustainability of the company: Russian organization of high social effectiveness (2010); the Government of Moscow Environmental Protection Award (2011); and Russian organization of high social effectiveness (2011).

Interesting component to extract from the information provided, is the fact that Gazprom's sustainability reporting cycle is biennial. Since the 2013 report has not been published prior the assessment, as the latest publicly available sustainability-related document, Gazprom's 2011 sustainability report was taken under consideration for the evaluation process in this research. In terms of the contact person responsible for the report, the company provides contact details on the public relations, and information and communications department, postal address and telephone included.

The company reported the application level B in accordance with the GRI G3.1 Guidelines and the oil and gas and electric utilities sector supplements, but did not state whether they have a policy for seeking external assurance of the report. Since the mark plus (+) could not be found next to the application level, it will be assumed that they did not seek the external assurance, and none was provided for this report.

Even though the governance section has been addressed quite extensively, the organizations fails to provide information on all indicator requirements and does not obtain a perfect score for the section. Thorough information has been provided on most of the core indicators, where the company manages to successfully address indicator requirements on the topics of governance body structure, number and gender issues; and topics related to stakeholders and shareholders engagement. From the external charters, principles and initiatives they commit to, the Carbon Disclosure Project (CDP) can be mentioned as one of the most important for covering issues in relation with climate change and GHG emissions.

Comprehensive details on Gazprom's economic performance have been provided for obtaining most points in relation with indicators covering topics on the direct and indirect economic impacts of the organization. The company does not provide information on indicators such as: significant assistance received from the government, and range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation, whereas minimum information has been provided on the indicator referring to the policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation. In addition, quite extensive information has been provided on the oil and gas sector indicator: volume and type of estimated proved reserves and production. From the information disclosed, it can be seen that Gazprom's total natural gas reserves stood at 35,046.9bn m3 (A+B+C1 reserves), with a current discounted value of $299.2bn.

In the environmental section of the report, most information has been disclosed on issues in relation with energy efficiency (3 points), total water withdrawal by source (4 points), and

impacts on biodiversity (4 points). Most of the other topics have not been addressed at all, whereas others were contained basic to moderate quality of information for covering the GRI performance indicator requirements. It is important to state that the organization states that it utilised environmental impact assessments in line with the planning and executing stages of their operations.

The social group of indicators (all categories included) has been addressed with the highest quality of information disclosed, when compared with the previous companies analysed in this research. With a score of 36 points, and a 64 per cent compliance rate, the society category from the social evaluation section is the highest scoring social section amongst all other evaluated companies. Gazprom provides extensive information on the following indicator topics: public policy; anti-competitive behaviour; compliance; involuntary resettlement; and asset integrity and process safety. Less comprehensive information has been provided on the topics related to the local communities and corruption.

3.2.6 BP

BP is an oil and gas producing company which aims to meet worldwide growing energy demand in a responsible way, and thus, create value for its shareholders (BP, 2012). According to BP (2012), the company headquarters are located in London, UK, and it has operations in 80 countries with around 85,700 employees and $20.4bn operating cash flow. With this performance, the organization has been ranked sixth by overall company power in Forbes G2000 oil and gas sector rankings list for the year 2013 (Forbes, 2013a). BP's business model is divided in two major segments: upstream and downstream. The upstream segment is responsible for exploration, development and production of petroleum-based products, whereas the downstream segment manages the hydrocarbon value chains over three core sections: fuels, lubricants, and petrochemicals (BP, 2012). Activities which carry these processes for oil and gas activities are: finding, developing and extracting, transporting and trading, manufacturing and marketing. Moreover, from the information disclosed in the profile description section, it can be seen that enhancing safety and risk management are the driving top level policies for the company for earning back the trust and enhancing the company value. The company aims to become a safety leader in the industry, and take care of its employees and their corporate environment in a responsible way.

Final results from the assessment show that by the quality of the disclosed information, BP obtained an overall score of 338 points, and a 60.4 per cent overall compliance rate with the GRI G3.1/OGSS Guidelines. As found in the previous cases, highest compliance rate against the guidelines has been noted for categories included in the first part of the evaluation framework: strategy and analysis section with 100 per cent, report parameters with 92 per cent, and organizational profile with 90 per cent compliance rate. From the second section – performance indicators, the social (society), economic and the environmental categories with 64, 63, and 54 per cent accordingly, have obtained higher scores in the evaluation framework, as compared with the other categories. More details on results obtained from the assessment and final scores allocated, can be found on the following table (Table 8):

Table 8 - Evaluation score obtained for BP against the GRI G3.1/OGSS Guidelines

Part	Category	Score[15]	Compliance[16]
I	Strategy and Analysis	8/8	100
	Organizational Profile	36/40	90
	Report Parameters	48/52	92
	Governance, Commitments, and Engagement	57/68	84
II	Economic	25/40	63
	Environmental	80/148	54
	Social: Labor Practices and Decent Work	22/60	37
	Social: Human Rights	13/48	27
	Social: Society	36/56	64
	Social: Product Responsibility	13/40	33
	Total points obtained / % of compliance	**338/560**	**60.4**

In regard to the first category, BP obtains maximum points available due to the fact that they provide quite extensive information in regards to the statement of the most senior decision-maker of the organization, and they successfully manage to describe the key impacts, risk, and opportunities in relation to the company's operations. Further on, the company provides extensive information on the organizational profile topic, presents financial and operating data related with the scale of the reporting organization, but fails to present any of the awards received in the 2012 reporting period.

BP did not provide full information on the contact person responsible for the report. The company only disclosed an email address which deals with sustainability issues: "sustainability at bp dot com".

From information presented on the report parameters segment, and issues in relation with determining materiality, it can be seen that the company selected higher priority categories such as employee and contractor safety, climate change, the geopolitical context, and drilling in deep-water environments (BP, 2012).

In terms of external assurance, the company obtained an independent limited assurance statement from Ernst & Young. The auditors identified that BP has successfully applied the GRI G3.1 Guidelines to a level consistent with the A+ Application Level. Physical inspections on any of BP's operating sites were excluded in the assessment.

Governance structure of the organization is presented in extensive details, except the company fails to provide a linkage between the organization's performance and compensation for members of the highest governance body, senior managers, and executives. Even though the GRI-compliance table states that the company has addressed the precautionary principle through their website, no information could be found on the company's approach towards this principle.

The organization provides a detailed list of memberships in organizations on their corporate website. Some of the most relevant for this research paper are American Petroleum Institute

[15] Maximum points available per section/Points obtained in the assessment

[16] Compliance rate with the GRI Guidelines, expressed in percentage (%)

(API), IPIECA and International Association of Oil and Gas Producers (OGP), Carbon Disclosure Project (CDP), UN Global Compact and GRI.

From the economic perspective, it can be seen that the company understands and clearly presents data on direct and indirect economic impacts of their operations, but fails to provide more comprehensive information on the market presence aspect of the economic indicators section. Information on financial and other risks and opportunities in relation to climate change has also been presented in greater details by BP on multiple platforms: their sustainability report, AR/20-F form and their corporate website. It can be seen furthermore in the economic section that, the company does not aggregate data, and therefore does not disclose the information publicly, on the significant financial assistance received from government economic performance indicator.

The environmental performance indicators section contains information with various quality. Most comprehensive coverage could be found on the energy and emissions sections. From information disclosed on the OG2 total amount invested in renewable energy indicator, it can be seen that the company invested $7.6 billion in lower-carbon businesses and are on track to meet BP's commitment to invest $8 billion by 2015 (BP, 2012). Additionally, the company provides information that they invested $1 billion in alternative energy in the reporting period of 2012. As found in the assessment, water and energy are topics which have been addressed with information of lower quality and comprehensiveness by BP in their sustainability disclosures. With the exception of no information provided on transport impacts, the rest of the topics in the environmental section have more or less comprehensive coverage on GRI's performance indicators requirements.

Information found on social aspects of the organization show that BP provides data with lower quality, as compared with the previous sections from the evaluation framework. Most comprehensive coverage could be found on topics related to employment practices, training and career developments from the labor practices and decent work category; indigenous people and communities in the human rights category; public policy, anti-competitive behaviour, compliance with laws and regulations and involuntary resettlement in the society category; and marketing communications in the product responsibility section of the social aspect performance indicators.

3.2.7 Petrobras

Petrobras is a publicly traded business corporation based in Rio de Janeiro, Brazil, which operates in the segments of oil, gas and energy industry (Petrobras, 2012a). It has been ranked on the seventh position in Forbes 2013 G2000 leading oil and gas companies rankings (Forbes, 2013a). Mission of Petrobras is to work on a safe and profitable way, with responsible consideration on the social and environmental aspects in the Brazilian and international markets (Petrobras, 2012a). Moreover, the company envisions itself becoming one of the world's top five energy integrated companies by 2020.

As an integrated company with the production of non-renewable petroleum-based products, and renewable biofuels and other alternative energy sources, the company's main performance figures include: net revenues and profits of R$304.89 and R$23.57 billion, respectively; approximately 2.5 million barrels of oil equivalent per day; 15 refineries; 7 biofuel plants; 19 thermoelectric plants; and 4 wind energy plants (Petrobras, 2014b). Their business activities include sectors of: oil and gas exploration and production; oil and natural gas refining; petrochemicals; biofuels production; distribution; generation of electric energy; and transportation and trade (Petrobras, 2014a).

Petrobras has obtained the highest overall score of 464 points and 82.9 per cent of compliance rate with the GRI G3.1/OGSS Guidelines in the assessment, conducted for the needs of his study, as compared against all other evaluated companies from the oil and gas sector. Even though the compliance rate has been noted for the first part of the evaluation framework (strategy, profile and report parameters), most of the scoring points have been awarded for disclosing comprehensive information on the economic, environmental, and social performance indicators. Category with the lowest quality of information in the evaluation is the social: labor practices and decent work category, with 35 points obtained (out of 60), and a GRI-compliance rate of 58 per cent. For a detailed overview on the score allocation and compliance rate obtained, please refer to the following table (Table 9):

Table 9 - Evaluation score obtained for Petrobras against the GRI G3.1/OGSS Guidelines

Part	Category	Score[17]	Compliance[18]
I	Strategy and Analysis	8/8	100
	Organizational Profile	40/40	100
	Report Parameters	52/52	100
	Governance, Commitments, and Engagement	59/68	87
II	Economic	36/40	90
	Environmental	126/148	85
	Social: Labor Practices and Decent Work	35/60	58
	Social: Human Rights	32/48	67
	Social: Society	41/56	73
	Social: Product Responsibility	35/40	88
	Total points obtained / % of compliance	**464/560**	**82.9**

From the information disclosed by Petrobras, it can be seen that the company manages to successfully approach and describe key impacts, risks and opportunities for the company in their 2012 sustainability report. Some of the main topics include accident prevention, human rights in the business chain, climate change, sensitive and protected areas, biodiversity, environmental liabilities and spills (Petrobras, 2012a).

The organizational profile section has been covered extensively with quality information in relation to all GRI required indicators. From the provided information, the company covers aspects such as markets served with included geographical breakdown, and types of customers; scale of the reporting organization with an extensive coverage on employees, stakeholder relations, and economic performance of the company.

Awards received in the reporting period include receiving awards for being the most favourite company to work and young people's dream company in Brazil, and the only Latin American company ranked among the top 100 global corporations from the business perspective, and from the environmental, they gained the 2012 Brazil "Environmental Innovation" award for introducing the second-generation ethanol technology.

[17] Maximum points available per section/Points obtained in the assessment

[18] Compliance rate with the GRI Guidelines, expressed in percentage (%)

Report contact issues have been addresses adequately: contact details have been provided on the report, and in terms of seeking external assurance, Petrobras obtained it and provided a version of the assurance statement in the Portuguese version of their 2012 sustainability report. PricewaterhouseCoopers were identified as auditors, and the final audit confirmed the report's compliance against the GRI G3.1 Guidelines (Petrobras, 2012b).

Topics included in the governance, commitments and engagement section have been covered extensively, thus, obtaining a relatively high score in the evaluation. Indicators in relation with the company governance structure, shareholder interests, internal and external charters, as well as memberships and stakeholder engagement have been obtained maximum scores in the evaluation allocation framework. In terms of strategic membership, Petrobras participates in various forums, councils and associations which are related to sustainability issues and challenges. They are participants in IPIECA, and in the Regional Association of Oil and Natural Gas Companies in Latin America and the Caribbean (ARPEL). Petrobras participates as well in World Business Council for Sustainable Development (WBCSD) and the Brazilian Business Council for Sustainable Development (CEBDS). The company identified and defined 13 categories of stakeholders with their Petrobras Integrated Communication Plan (PIC). On the negative side of the assessment, evaluation on the performance of the highest governance bodies has been identified as an area which has been covered with information of low compliance against the GRI Guidelines, and therefore, was allocated a low score in the evaluation spreadsheet.

With 90 per cent, the economic chapter has the highest compliance rate in the second part of the disclosures, as compared with the remaining chapters from this section of the evaluation framework. Information with high level of quality has been provided on the economic performance of the company, with an emphasis on the direct and indirect economic value generated and distributed. Even though extensive information has been provided by Petrobras, its quality and comprehensiveness has not been found to be sufficient to cover all indicator requirements in the market presence section.

Petrobras is one of the companies which has provided most information on the environmental performance indicators, and thus, accordingly obtained one of the highest scores and compliance rates in the assessment. Information provided on most of the indicators is extensive and detailed, accompanied with performance data, relevant dates, policies, achievements and planned future practices on the related issues. Indicators with lower quality information and coverage have been identified as: initiatives to reduce indirect energy consumption and reductions achieved; land owned and biodiversity; impacts on biodiversity; IUCN Red List species affected by operations; water discharge by quality and destination; volume of formation of produced water; biodiversity affected from water runoff; and amount of packing reclaimed.

From all groups in the social section, product responsibility has the highest compliance rate with 88 per cent, followed by the society, human rights and labor practices and decent work sections, with 73 per cent, 67 per cent, and 58 per cent, adequately. Highest coverage of maximum points, has been identified on indicators such as: breakdown of employees by age group, gender and diversity; prevention of compulsory labor; indigenous and local communities and their rights; site decommissioning; public policy and lobbying; anti-competitive behaviour; compliance with laws and regulations; asset integrity and process safety; products and service labelling; marketing communications; customer privacy; compliance fines; and biofuels.

3.2.8 Total

Since Total's creation in 1924, the company has been able to establish themselves as one of the biggest energy companies in the world (Total, 2014). It has been ranked on the eight position, as one of the top ten most powerful companies in the 2013 Forbes G2000 oil and gas sector rankings (Forbes, 2013a). According to latest numbers aggregated in December 2013, the company operates in more than 130 countries, with almost 99,000 employees in their three business branches: upstream, refining and chemicals, and marketing and services. The upstream sector operates in more than 50 countries and is mainly focused towards producing energy from non-renewable (oil and natural gas), and renewable (solar and biomass) sources (Total, 2014). Total's production rate from the non-renewable energy source section in the upstream sector reached 2.3 million barrels of oil equivalent per day in 2013. The refining capacity of the refining and chemicals sector equivalent around 2 million barrels per day. The company headquarters are located in Courbevoie, France.

In order to obtain comprehensive results for Total's sustainability related disclosures, a comprehensive assessment methodology was employed across company-related multiple platforms: 2012 CSR report, form 20-F 2012, registration document 2012, Global Compact: Communication in Progress (COP) 2011-2012 document, response to investor cdp 2013, charter indigenous and tribal peoples, and their corporate website. Information obtained show a final overall score of 459 points, and an 82 per cent compliance rate against the GRI G3.1/OGSS Guidelines. The company provided sufficient information to cover indicator requirements from the first part of the evaluation framework with high level of quality and comprehensiveness, thus, obtaining a 100 per cent compliance rate in the evaluation. Moreover, high quality information has been provided for the second part of the evaluation framework, the performance indicators category, as well. Categories with highest level of compliance against the guidelines have been identified as the economic (90 per cent), environmental (83 per cent), and labor practices and decent work (82 per cent), and society (80 per cent) from the social categories. Final score allocation and compliance rates can be seen in more details on the following table (Table 10):

Table 10 - Evaluation score obtained for Total against the GRI G3.1/OGSS Guidelines

Part	Category	Score[19]	Compliance[20]
I	Strategy and Analysis	8/8	100
	Organizational Profile	40/40	100
	Report Parameters	52/52	100
	Governance, Commitments, and Engagement	68/68	100
II	Economic	36/40	90
	Environmental	123/148	83
	Social: Labor Practices and Decent Work	49/60	82
	Social: Human Rights	18/48	38
	Social: Society	45/56	80
	Social: Product Responsibility	20/40	50
	Total points obtained / % of compliance	**459/560**	**82**

[19] Maximum points available per section/Points obtained in the assessment

[20] Compliance rate with the GRI Guidelines, expressed in percentage (%)

Total is the first and only company which has been a part of this assessment to obtain a perfect score of 100 per cent per category for the first part of the evaluation spreadsheet. The company provided extensive and comprehensive information in relation to all indicator requirements from these categories. For example, in terms of the second indicator in the strategy and analysis section, the company provided a section of 20 pages in the registration document covering risk affiliated topics such as: financial risks, industrial and environmental risks, economic environment, risks related to oil and gas exploration and production, economic and political factors, ethical conduct and miss-compliance, legal aspects, and insurance and risk management.

From the organizational profile section, it can be seen that Total manages to successfully address issues related to the operational structure of the organization, stakeholder relations, scale of the reporting organization in terms of employees, net sales, total capitalization, quantity of products or services provided, and significant changes in the reporting period.

Awards received include Total in some of the main environmental, social and governance (ESG) indexes, such as DJSI World index, DJSI Europe, and FTSE4Good Index Series. The company also obtained a second position, a rating of "B-", and a "Prime Status" in a rankings pole observation done by a German sustainable investment rating agency in 2012.

Total is one of the companies which provided a full name and a direct email contact for the person responsible for the report. Moreover, the reporting scope and method has been clearly defined, and limited external assurance has been provided on information consolidated for social, environmental, and societal aspects of the company by the organization Ernst & Young (Total, 2012). No direct relation was made to the GRI Guidelines.

From evaluating results obtained for the governance, commitments, and engagement section, it can be seen that the company provided extensive information on topics related to the governance structure, such as information on the highest governance body and the breakdown of the committees under the higher governance body. Shareholder relations have been covered extensively as well, by providing information on the mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body indicator.

In terms of internal and external environmental, economic and social principles and charters, Total has developed global partnerships in various sectors: CLOV in Angola (energy efficiency), United Nations Environment Programme-World Conservation Monitoring Centre (UNEP-WCMC), IPIECA, UN Global Compact, Extractive Industries Transparency Initiative (EITI), the Voluntary Principles on Security and Human Rights (VPSHR) and the Women's Empowerment Principles (WEP) (Total, 2012).

According to Total's CSR Report (2012), stakeholder engagement resulted by identifying various topics for discussion, and in turn, some suggested improvements were as follows: better explanation to be provided on materiality and issues and challenges related to it; policy for managing risks; and improvements needed on the human rights footprint area.

The economic section of the TBL concept has been addressed with high level information quality and comprehensiveness, thus, thus resulting with a relatively high compliance score of 90 per cent against the GRI Guidelines. Even though the company states that they have full coverage on all indicators, except one (significant financial assistance received from government), according to the assessment deployed, they fail to completely cover all indicator requirements, and obtain three scoring points per indicator, on the following topics: policy,

practices, and proportion of spending on locally-based suppliers at significant locations of operation; development and impact of infrastructure investments and services; and significant indirect economic impacts and extent of their impacts.

Information disclosed in the environmental section contributes significantly to a better overall score of the evaluated report. Extensive coverage has been provided on material, energy, biodiversity, products and services, compliance with laws and regulations, transport, and environmental expenditures. Less information has been found on water related topics, such as total water withdrawal by source, water sources significantly affected by withdrawal of water, and percentage and total volume of water recycled and reused. Most of the indicators have been covered in the emissions, effluents and waste section, except emissions of ozone-depleting substances, total water discharge by quality and destination, and hazardous waste.

Two categories in the social section have significantly higher compliance rate against the GRI Guidelines: labor practices and decent work with 82 per cent, and with 80 per cent - society. The product responsibility category has a 50 per cent compliance rate. With 38 per cent compliance rate, the human rights category has been determined as the lowest scoring category in the social section. Topics with high level of information disclosure have been identified as the following: employment, labor/management relations; diversity and gender issues; number of significant disputes with local communities and indigenous peoples; site decommissioning; product and service information; marketing communication; compliance with laws and regulations; and biofuels.

3.2.9 China Petrochemical Corporation (Sinopec Group)

Based in Beijing, China, Sinopec group is one of the biggest Chinese energy and petrochemical companies. The company bases its production capacities mainly on non-renewable petroleum based products. In 2013, it has been ranked on the ninth position of Forbes G2000 oil and gas sector rankings table. However, alternative energy and non-fuel business are included as branches of their business practices as well. Core business departments of the company have been divided in: exploration, development and production of petroleum and natural gas; petroleum refining, marketing and distribution; chemicals production and marketing; petroleum and petrochemical engineering services; international trade; storage facilities and logistics; and research and development.

Performance numbers for 2012 show that the company produced 69.49 million tonnes of crude oil, had a natural gas output equivalent to 20.2 billion m^3, ethylene's production reached 9.54 million tonnes, and chemical products sales reached a total of 54.35 million tonnes (Sinopec, 2012). Over the 2012 reporting period, the company operated in 43 overseas countries with a total trading volume of 225 million tonnes and 25.54 million tonnes for crude oil and refined products, accordingly.

Results obtained from the assessment, show that with 165 total points, and a compliance rate of 29.5 against the GRI G3.1/OGSS Guidelines, Sinopec is one of the oil and gas companies which obtained low overall scores in the evaluation. Highest scoring categories have been identified as strategy and analysis, and organizational profile sections, with a compliance rate of 100 per cent and 83 per cent, respectively. Sections with least amount of coverage, were identified as the environmental with 9 per cent, and three social group categories: labor practices and decent work, and human rights with 17 per cent, and society with 16 per cent compliance rate. More details on scores obtained from the assessment and their allocation, can be found on the following table (Table 11):

Table 11 - Evaluation score obtained for Sinopec against the GRI G3.1/OGSS Guidelines

Part	Category	Score[21]	Compliance[22]
I	Strategy and Analysis	8/8	100
	Organizational Profile	33/40	83
	Report Parameters	27/52	52
	Governance, Commitments, and Engagement	30/68	44
II	Economic	18/40	45
	Environmental	13/148	9
	Social: Labor Practices and Decent Work	10/60	17
	Social: Human Rights	8/48	17
	Social: Society	9/56	16
	Social: Product Responsibility	9/40	23
	Total points obtained / % of compliance	**165/560**	**29.5**

Strategy and analysis is the only section of the evaluated report which obtained maximum points in both of the indicators, thus resulting with a compliance rate in information disclosure of 100 per cent against the GRI guidelines. Chairman's statement and description of key impacts, risks, and opportunities were addressed adequately, and information provided was comprehensive and detailed. From the information provided, it could be seen that the company identified risks in regard with the macroeconomic situation, cyclical effects from the industry, company-related policies and legislations, uncertainties of oil and gas resources, investment and currency risks.

Information disclosed in the organizational profile section has been mainly focused on providing data on company's primary brands, products and services, and scale of the reporting organization, whereas topics in relation with the details on number and names of countries where the company has operations with significant importance towards the sustainability issues, have not been covered adequately.

Awards received include many recognitions towards the Chairman of Sinopec – Fu Chengyu, in terms of his executive management skills, and many awards received for outstanding performance in the fields of CSR, investment opportunities, healthy and happy enterprise, and business prosperity and leadership (Sinopec, 2012).

From the report parameters category of the evaluation framework, Sinopec provided more detailed information on basic reporting components, such as the reporting period, date, reporting cycle and boundary of the report. Sinopec failed to provide more information on the process for report content inclusion, such as materiality, prioritizing topics within the report, and stakeholder identification. Moreover, no information related to the basis for reporting on joint ventures and other branches of the company, data measurement techniques, explanation for re-statements, and significant changes in the reporting period in terms of the reporting structure, was not found in the disclosed report. The GRI-compliance table was presented in the report, and maximum points were allocated accordingly for that information disclosure. In terms of external assurance, a Chinese CSR report rating expert committee was formed in

[21] Maximum points available per section/Points obtained in the assessment

[22] Compliance rate with the GRI Guidelines, expressed in percentage (%)

2012 to evaluate Sinopec's 2012 CSR report. Results provided, show that the company obtained four out of five stars for completeness, five out of five stars for materiality, five out of five stars for balance, four out of five stars for comparability, five out of five stars for readability, five out five stars for creativity, and five out five stars overall ratings.

Sinopec disclosed extensive information on the first three indicators from the governance chapter, on topics such as governance structure of the organization, whether Chair of the highest governance body is also an executive officer, number and gender of members of the highest governance body. Further on, the company fails to provide detailed information on the mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body, processes in place for the highest governance body to ensure conflicts of interest are avoided, explanation whether the precautionary approach or principle has been addressed by the organization, membership in organizations, basis and approaches for stakeholder engagement, and key topics raised from stakeholder engagement.

Indicators included in the TBL section of the evaluation framework have not been addressed with adequate information, and consequently have obtained lower scores in the assessment. The economic performance indicators got the highest compliance rate of 45 per cent, followed by the product responsibility, labor practices and decent work, human rights, and society categories of the social section, with 23 per cent, 17 per cent, 17 per cent, and 16 per cent, accordingly. Lowest score of 13 points, and a 9 per cent compliance rate, has been allocated for information disclosed in relation with environmental issues of Sinopec's sustainability report in the assessment.

Out of all indicators in the performance indicators, most points have been obtained on indicators covering the direct economic value generated, volume and type of estimated proved reserves, freedom of association, practices related to customer satisfaction, with scores value of three, four, three, and four points, respectfully.

3.2.10 Eni

Eni is a major integrated energy company from the oil and gas sector. Based in Rome, Italy, the company spreads its activities in finding, producing, transporting, and marketing of petroleum-based products, across 90 countries, with a total of staff of around 78,000 employees (Eni, 2012). According to Forbes G2000 rankings (2012), in 2012 Eni has been ranked on the tenth position in the top ten oil and gas companies in the world by corporate value. In regard to the organizational performance, Eni reported a net reported profit at €7.79 billion (approximately $10.67 billion), and 7.17 billion barrels oil equivalent of net proved oil and gas reserves for the reporting year of 2012. The company's business activities are spread across three inter-connected sectors: exploration and production, gas and power, and refining and marketing.

For the needs of this assessment, Eni's 2012 annual report has been utilised. In the beginning of the report, the company discloses that all TBL-related information has been incorporated in the report by the latest trend in sustainability disclosures – integrated reporting, due to the fact that the company has undertaken participation in the IIRC Pilot Program (Eni, 2012).

Results obtained from the assessment show that Eni has obtained an overall score of 375 points, and a 67 per cent compliance rate against the GRI G3.1/OGSS Guidelines. It has been found that information with very high quality has been disclosed for the first part of the evaluation framework, covering the strategy and analysis, organizational profile, and report parameters with 100 per cent compliance rate against the GRI Guidelines. The governance,

commitments, and engagement section has been addressed with a slightly lower information quality, resulting with a compliance rate of 94 per cent in the assessment. From the second part of the evaluation framework, it can be seen that information with highest level of quality and comprehensiveness has been disclosed for the economic performance indicators, followed by the labor practices and decent work with 60 per cent, and the environmental and society categories, with 52 per cent and 50 per cent compliance rate, accordingly. For more details on the score allocation and compliance rate against the GRI Guidelines for Eni's 2012 annual report, please refer to the following table (Table 12):

Table 12 - Evaluation score obtained for ENI against the GRI G3.1/OGSS Guidelines

Part	Category	Score[23]	Compliance[24]
I	Strategy and Analysis	8/8	100
	Organizational Profile	40/40	100
	Report Parameters	52/52	100
	Governance, Commitments, and Engagement	64/68	94
II	Economic	38/40	95
	Environmental	77/148	52
	Social: Labor Practices and Decent Work	36/60	60
	Social: Human Rights	17/48	35
	Social: Society	28/56	50
	Social: Product Responsibility	18/40	38
	Total points obtained / % of compliance	**375/560**	**67**

From the information disclosed in the first category, strategy and analysis, it can be seen that the company manages to successfully present information on both of the included indicators: statement of the most senior decision maker of the organization, and description of key impacts, risks, and opportunities.

Next chapter of the evaluation framework, organizational profile includes extensive coverage on all indicator requirements, including information on the operational structure of the organization, scale of reporting organization with number of employees, net sales, debt and equity, and quantity of products or services provided.

In regards to awards received in the reporting period, the company includes information on inclusion in worldwide renowned sustainability indexes, such as FTSE4Good, Dow Jones Sustainability Index, Aspi, ECPI, vigeo, CDP and Stoxx (Eni, 2012).

Information disclosed on report parameters has been found adequate for covering all indicator related topics. The assurance process of the report has been externally verified by an independent auditor, Enrst & Young, with limited assurance on sustainability data and information included in the report (Eni, 2012). The auditors identified that the consolidated sustainability statements were in line with the GRI G3.1/OGSS Guidelines.

[23] Maximum points available per section/Points obtained in the assessment

[24] Compliance rate with the GRI Guidelines, expressed in percentage (%)

Governance, commitments, and engagement chapter includes disclosures with high quality information on most of the indicators, with exception on indicators covering topics as: number and gender of members of the highest governance bodies; process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees; internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation; and procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance. All indicators mentioned have been allocated a score of three points. Key topics and concerns raised through stakeholder engagement have been identified as: the financial community, institutions and international organizations, local communities, NGOs, universities and research bodies.

Information disclosed on economic performance indicators shows that most of the indicators have been covered adequately with comprehensive high quality information, thus resulting with obtaining maximum four points in the assessment. Only two indicators obtained a lower score of three points: procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation; and development and impact of infrastructure investments and services.

The environmental performance indicators section obtained a score of 77 points, and a 52 per cent compliance rate against the GRI Guidelines. Out of that, seven indicators obtained a maximum score of four points per indicator, four indicators obtained a score of three points per indicator, seven indicators obtained a score of two points per indicator, five indicators obtained a score of one per indicator, and nine indicators got allocated zero points per indicator. Areas of interest for information disclosure for the company were direct energy consumption, energy efficiency, water withdrawal and water recycling and reuse, GHG emissions and initiatives for GHG emission reductions, volume of flared hydrocarbon, and compliance with laws and regulations.

In relation with the social aspect of the performance indicators, Eni disclosed most comprehensive information in the labor practices and decent work category, successfully covering issues in relation with employment workforce, their diversity and benefits, labor issues, rates of injury, human rights and supplier relations, non-discrimination, indigenous communities affected by the company's operations, anti-competitive behaviour, compliance with laws and regulations, asset integrity and product safety, and finally, programs for adherence to laws, standards, and voluntary codes related to marketing communications.

4 Analysis

Results obtained show that the overall quality of the reports varies significantly. For example, highest overall score of 464 points and an 82.9 per cent compliance rate has been identified for the sustainability report disclosed by Petrobras in 2012, whereas the lowest overall score of 148 points and 26.4 per cent compliance rate, has been found for PetroChina's 2012 sustainability report. The first and second position do not differ significantly in their scores. Total's report has been assigned with an overall compliance score of 82 per cent, which is a minor 0.9 per cent difference from Petrobras's first ranked sustainability report. Third, fourth, and fifth position have been awarded to Eni, Shell, and BP, for their adequate final compliance scores of 67 per cent, 65.2 per cent, and 60.4 per cent. With 56.3 per cent compliance rate, Gazprom's sustainability report has been ranked on the sixth position, followed by ExxonMobil's report overall compliance rate of 50 per cent. Chevron, Sinopec, and PetroChina have the last three positions in the rankings table, with 35.5 per cent, 29.5 per cent, and 26.4 per cent compliance rates, accordingly.

Average compliance rate identified for final overall results is 55.5 per cent. In this regard, as identified by Skouloudis et al. (2010), three (3) different clusters of companies can be divided considering the average compliance rate of the reports: (1) companies who achieved an above average compliance rate (Petrobras and Total); (2) companies who's results are notably close to the average (Eni, Shell, BP, Gazprom, and ExxonMobil); and companies who's final overall results scored notably lower than the average (Chevron, Sinopec, and PetroChina). Moreover, the final overall average score of 55.5 per cent for the GRI compliance rate rankings of the oil and gas companies included in this evaluation, has been identified to be quite similar to the score of 55 per cent, obtained for the same sector by the KPMG agency in their 2013 report quality survey (see Figure 1). More details on the final score allocation in terms of the GRI compliance rate, have been provided on the following figure (Figure 3):

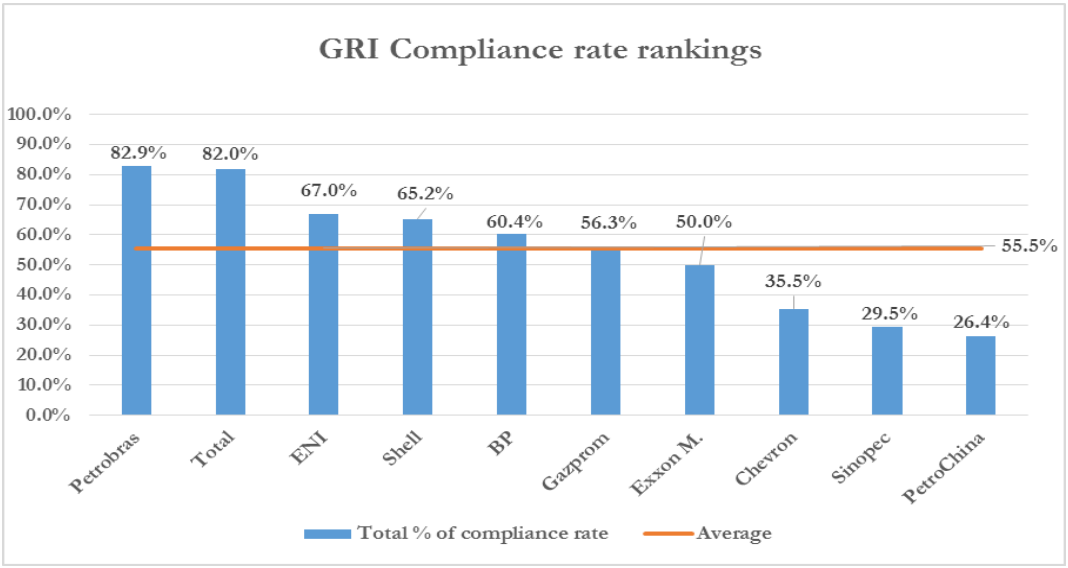

Figure 3 - Rankings of oil and gas companies' compliance rate against the GRI G3.1/OGSS Guidelines

In the following sections of this chapter, an overview will be given on results obtained for all reports included in the assessment, as compared against the evaluation criteria developed,

which is in line with the GRI-based indicator requirements and reporting principles for defining content quality. The presentation will begin with the first chapter of the first part of the evaluation framework – strategy and analysis, followed by the rest of the chapters included in the first part: organizational profile; report parameters; and governance, commitments and engagement. Overview on the second part of the evaluation framework has been based mainly on the performance indicators, or commonly known as the TBL in the SR literature. Sections included in the second part of the framework are: economic, environmental, and social. The social section further expands into the following categories: labor practices and decent work; human rights; society; and product responsibility.

4.1 Strategy and Analysis

Starting from the strategy and analysis section, it can be seen that except for Chevron, all of the other evaluated companies obtained a score of 100 per cent compliance rate against the GRI Guidelines. All of the companies managed to successfully address the indicator elements recommended by GRI, and provided a detailed statement from the most senior decision maker of the organization. Even though most of the statements were mainly economically-oriented, the companies still realised and addressed issues related with society, environment, and their long-term feasibility and dependence on future sustainability developments.

In terms of the key impacts, risks, and opportunities indicator, most of the companies provided information in a detailed and structured manner, thus successfully covering all indicator requirements, and obtaining maximum points in the evaluation. Topics presented in the reports show a variety in company priorities. Most of the companies place economically related risks in the first place, followed by industrial and environmental risks, climate change, compliance with laws and regulations, risks of resource depletion, and reputational risks. Final results obtained for the strategy and analysis section of the assessment, can be seen in further details on the following figure (Figure 4):

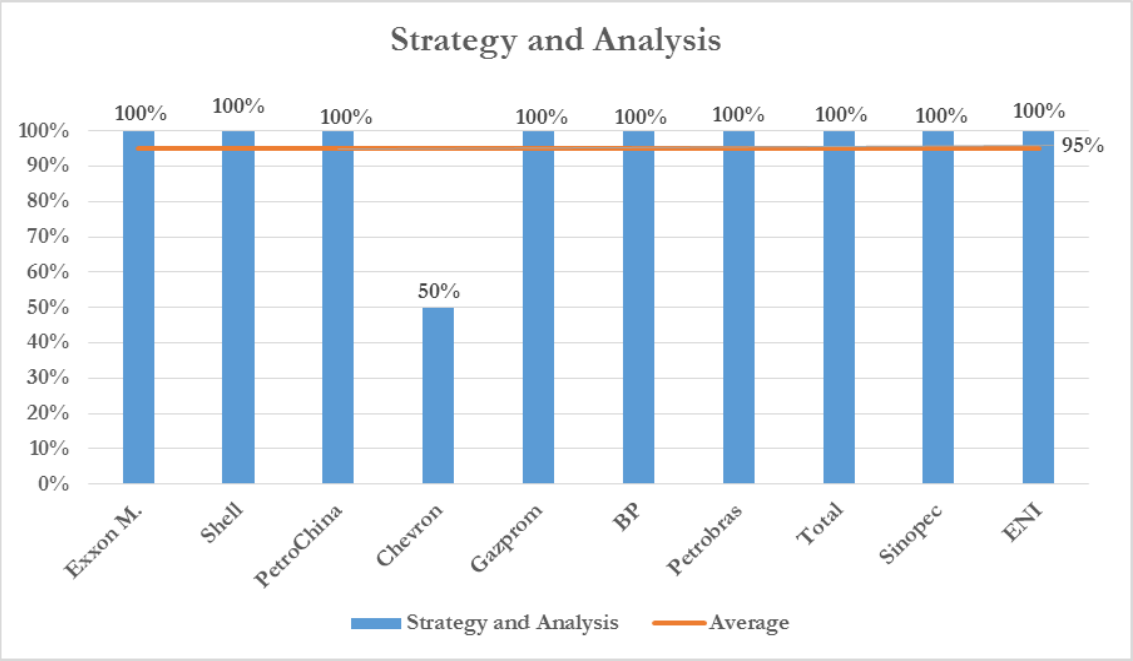

Figure 4 - Evaluation results obtained for the strategy and analysis section of the assessment

4.2 Organizational Profile

Results obtained for the organizational profile category of the evaluation framework, show that half of the companies obtained a perfect score of 100 per cent compliance, and the other half of the companies obtained scores ranging from 95 per cent (Shell), to 65 per cent compliance rate (PetroChina). Most of the companies disclosed comprehensive information, and obtained maximum points in the evaluation, on generic, easy-to-obtain information such as: the name of the company; primary brands, products, and/or services; location of the organization's headquarters; and nature of ownership and legal form. When asked to provide detailed information on the countries where the organization operates, accompanied by a geographic breakdown of the operations and markets served, the companies started providing less extensive information, or just briefly mentioned the names of the countries, without providing any further details on the indicator requirements. Scale of the reporting organization is one indicator with extensive requirements for reporting completeness, thus many companies failed to provide all information required, and obtain maximum scoring points in terms of: number of employees; net sales; total capitalisation broken down by debt and equity; and quantity of products or services provided.

From the awards received in the reporting period indicator, many companies disclosed information on how they obtained awards in relation with sustainability investments (such as the Dow Jones sustainability index, and Goldman Sachs), environmental and economic performance, CSR related topics, ethical investment (such as the FTSE4Good Index) safety excellence, energy conservation (such as CDP), corporate and individual leadership, as well as awards received for best performance, or most desired company to work for, on a country-wise level (Petrobras, Gazprom, China). More details on the results obtained for the organizational profile section of the evaluation, follow on the following figure (Figure 5):

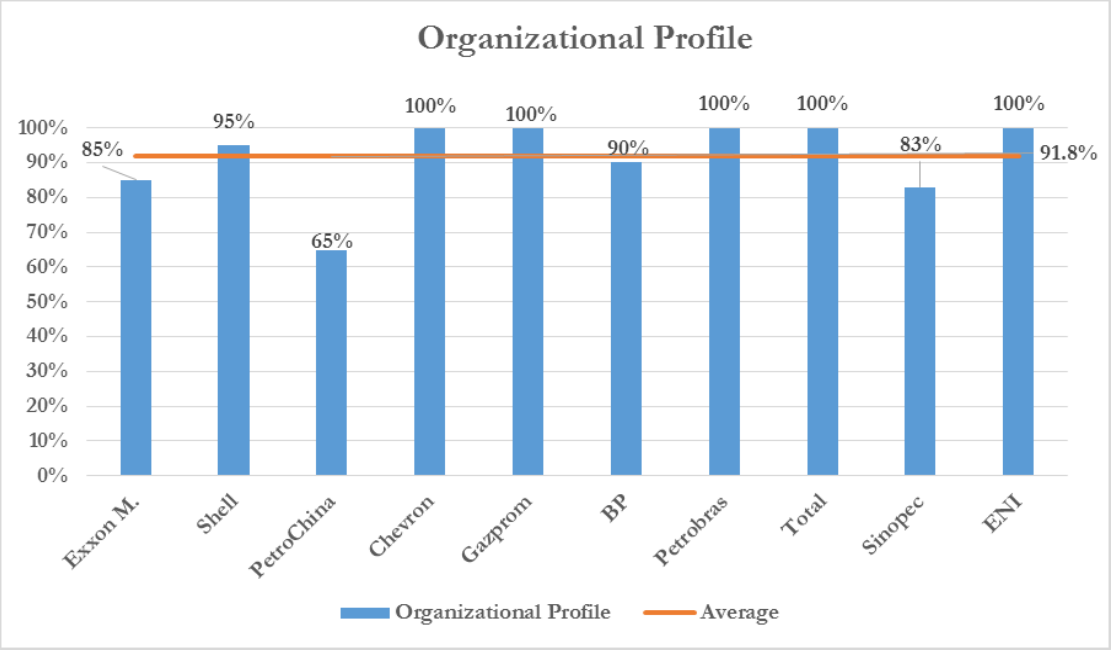

Figure 5 - Evaluation results obtained for the organizational profile section of the assessment

4.3 Report Parameters

Most of the companies analysed managed to provide extensive information, and obtain high scores in the assessment, on all indicators included in the report parameters chapter of the evaluation framework. With a compliance rate of 52 per cent for Sinopec, and 33 per cent for PetroChina, these are the only two companies who obtained scores significantly lower than the group average score of 85.7 per cent for the report parameters category. These two organizations failed to provide information on the process for defining report content, on topics such as: materiality; topic prioritisation in the report; and stakeholder identification, and basis for reporting on other entities controlled by the organization, data measurement techniques, and significant changes and re-statements made in the reporting period.

Rest of the companies provided sufficient information on these and the remaining topics of this reporting chapter. Out of the information disclosed, it can be seen that most of the companies provided a contact person in regards with the report or its contents, and identified key materiality issues, such as: climate change, employee safety, local communities and indigenous peoples, and overall reporting quality.

All companies, with the exception of PetroChina and Gazprom, have obtained third-party assurance for their whole, or parts included in their reports. Sinopec is the only company which obtained full-report disclosure assurance, and scored extremely high on all evaluated aspects in the assessment. The rest of the companies obtained limited external insurance on parts of the report, which mainly included aspects in relation with their environmental and social disclosures. Most common external verifiers were identified as Ernst & Young, and Lloyd's Register Quality Assurance, Inc. Out of all companies which provided assurance, five companies identified their compliance with the GRI G3.1 Guidelines, and only one of them confirmed that they comply with the additional oil and gas sector supplement (OGSS). Final results obtained for the report parameters chapter, can be seen in more details on the following figure (Figure 6):

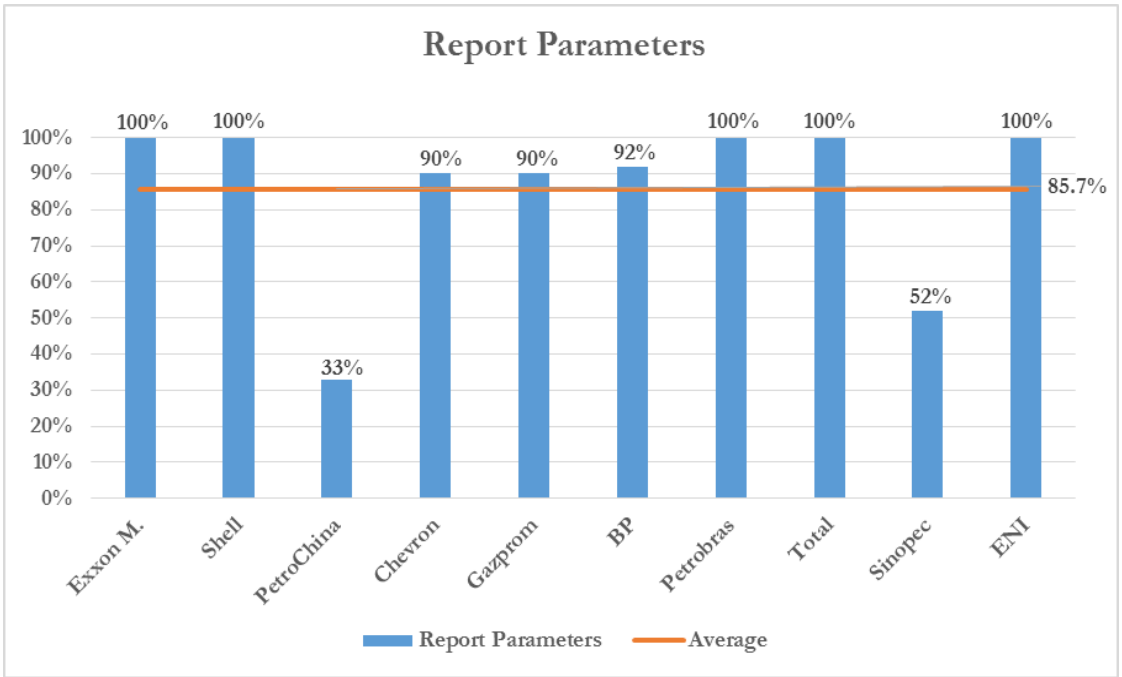

Figure 6 - Evaluation results obtained for the report parameters section of the assessment

4.4 Governance, Commitments and Engagement

This final section of the first part of the evaluation framework, has been addressed with information of various quality across all evaluated reports of the oil and gas companies. For example, the highest scoring companies, Total and Shell, obtained a 100 per cent compliance rate against this category. Rest of the scores assigned, contribute to compliance score allocation, ranging from the second highest overall of 94 per cent in Gazprom and Eni, to the lowest score of 44 per cent obtained by Sinopec. Most of the companies presented information sufficient enough to cover the requirements for the indicators covering the governance of the organization, and all information related to the highest governance body and its performance. Except Chevron and PetroChina, all other organizations provided extensive information on the indicator mechanisms for shareholders and employees to provide recommendations.

All organizations provide information on their internal mechanisms, such as codes of conduct, mission, values and principles, and external charters relevant to the economic, environmental, and social performance of the company. Out of the external charters, the companies most commonly report that they endorse and adhere to the GRI Guidelines and IPIECA, OGP, and API associations, followed by the UN Global Compact and CDP.

In terms of the precautionary approach indicator, six out of ten companies report on whether they use the precautionary approach in their practices or not.

The list for most commonly stakeholder groups identified and engaged by the oil and gas companies consists of: employees, shareholders, local communities and indigenous peoples, suppliers, and governments. As a result of these engagements, most common key topics identified are: environmental safety, health and worker safety, local communities and customers. For more details on the final score allocation for this section, please refer to the following figure (Figure 7):

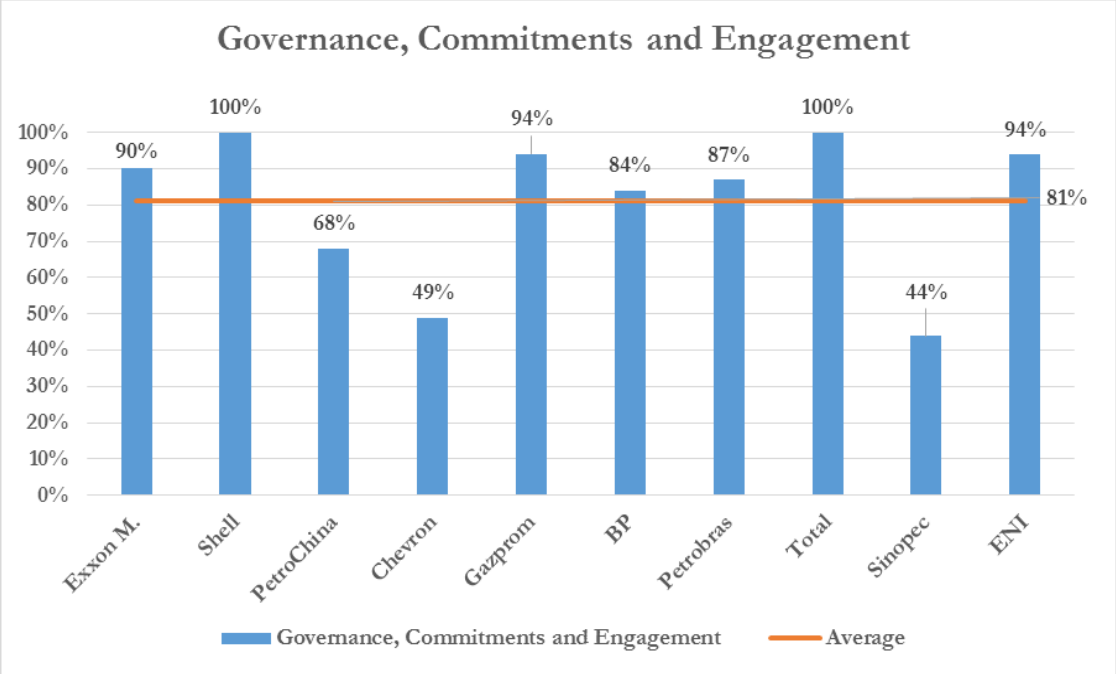

Figure 7 - Evaluation results obtained for the governance, commitments and engagement section of the assessment

4.5 TBL performance indicators

This section of the chapter gives an overview on three categories of indicators which have been most closely related to the sustainability performance of the company, the TBL performance indicators: economic, environmental, and social. The social indicators are further categorized into four sections: labor practices and decent work, human rights, society, and product responsibility. An aggregated overview on the disclosures made by the oil and gas sector companies in relation with the TBL indicators, follows in the next sections of this chapter.

4.5.1 Economic performance indicators

Results obtained from the economic chapter of the evaluation, show that the approach in addressing indicators from this area of the triple bottom line varies significantly amongst companies in the oil and gas industry. In turn, final score allocation and compliance rate varies amongst the evaluated companies. For example, the highest compliance score obtained is 95 per cent for Eni, whereas the lowest score of 38 per cent, has been allocated to Chevron for the quality of information disclosed in relation with the economic performance indicators. Three more companies scored higher than the group average of 66.9 per cent compliance rate: Petrobras and Total with 90 per cent, and Shell with 83 per cent. More information on the score allocation for the economic performance indicators chapter, can be found on the following figure (Figure 8):

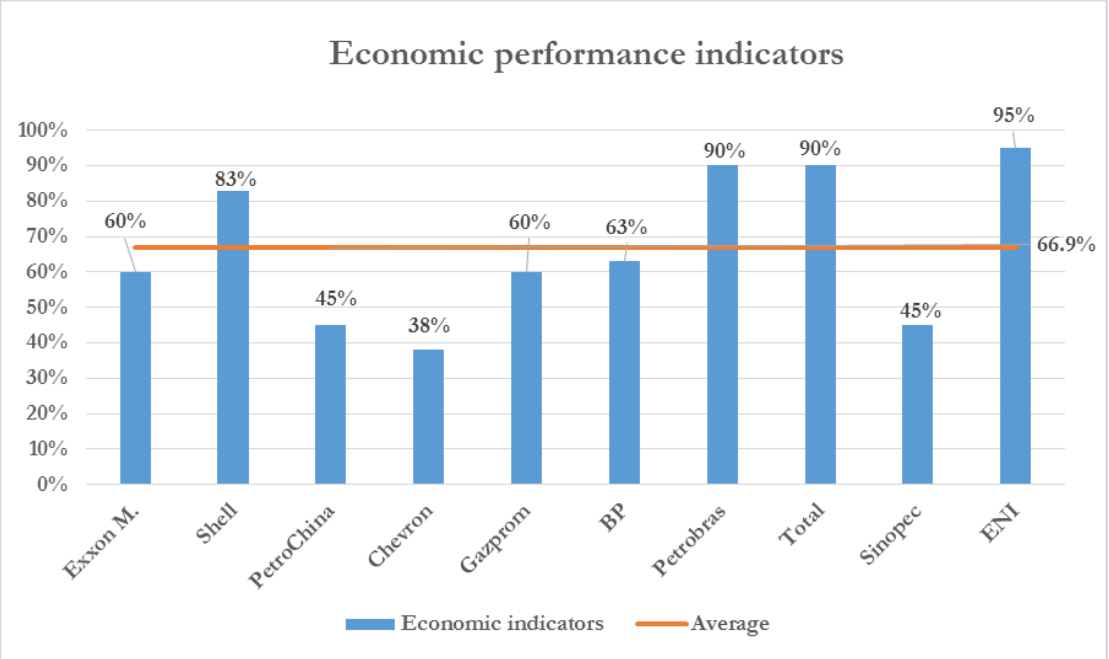

Figure 8 - Evaluation results obtained for the economic performance indicators section of the assessment

With some exceptions, information with highest quality has been found on the following economic indicators: direct and indirect economic value generated and distributed; financial risks and opportunities due to climate change; coverage on the defined benefit plan obligations; policies and procedures on spending on locally based suppliers; and development of infrastructure investments. Most of the companies provided information on the geographic breakdown of their operations by providing the names of continents, regions and countries where they operate.

The indicator volume and type of estimated proved reserves and production, has been found as one of the most important indicators for the companies, since nine out of ten companies provided extensive information on the indicator requirements, and obtained high scores in the evaluation. The oil and gas companies evaluated in this assessment provided least information on whether they received significant assistance from the governments; and range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.

4.5.2 Environmental performance indicators

Final scores obtained from the evaluation, show that the environmental performance indicators section has one of the lowest average compliance rates of 42.4 per cent across all categories. This means that, with exceptions, information disclosed regarding the environmental performance of the company has mainly low quality data, and that most of the related indicator requirements have not been addressed adequately. This example can be adequately seen from the extremely low performance scores obtained by the two Chinese companies: Sinopec with 9 per cent, and PetroChina with 6 per cent compliance rate against the GRI G3.1/OGSS Guidelines.

In order to present a better picture on the environmental performance of the evaluated companies, a group-by-group presentation of results is going to follow in the next paragraphs of this section.

Most of the companies failed to report on the materials section of the environmental performance indicators. They did not provide information with sufficient quality to address indicators related to materials used by weight and volume, and percentage of reused materials.

In terms of energy, the companies provided information with mixed quality and comprehensiveness. They mainly provided more information on the indicator covering the direct energy consumption, but on the other side, managed to provide less information the indirect energy consumption indicator. The companies provided figures in relation with the amount of money invested in renewable energy, but failed to provide data for the amount of energy generated by their renewable energy sources. Energy efficiency has been covered adequately by most of the companies, by mainly presenting data on energy conservation and initiatives to conserve energy across the operational activities of the companies.

Almost all companies provided data on water related indicators in general, but failed to go into details and breakdown the water withdrawal by source. Most of them failed to identify which water sources have been significantly affected by withdrawing water for their company's needs.

The biodiversity group of indicators has shown to be a great deal of interest for the companies. Most of them acknowledge that their operations have an effect on biodiversity, and that they work on managing the effects and impacts on biodiversity coming from their operational practices. Further details in terms of the location and size owned in close proximities to protected areas and areas of high biodiversity value have rarely been provided by the companies. Most of the high-scoring companies provided extended information on the habitats protected and restored indicator. The least covered indicator has been identified as the number of IUCN Red List species indicator.

From the emissions, effluents and waste section, it can be seen that almost all companies disclose information on their direct and indirect GHG emissions, other relevant GHG

emissions, and initiatives to reduce GHG emissions and reductions achieved. Less information has been provided by the companies on the water discharge by quality and destination indicator. Waste, and especially hazardous waste, have been identified as indicators with low level of coverage as well, in terms of quality of reported information quality. Almost all companies provided data on the volume of flared and vented hydrocarbons and total number and volume of significant spills. Most of the companies which provided data on the spills, failed to go into details and provide the total number, location, volume, material and type of spills.

Some of the highest scoring companies managed to address all three indicators from the products and services section, and obtain maximum points in the scoring allocation. The rest of the companies addressed the indicator requirements by providing vague and non-coherent information. The indicator with least amount of coverage was identified as the percentage of products sold and their packaging materials reclaimed by category. Most of the companies provided external links to Benzene, Lead and Sulphur content in their fuels.

In terms of compliance, all companies like to present some information on this indicator. The level of quality varies, but nonetheless, most of the indicator requirements have been met by disclosing information on the monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.

Transport has been identified as one of the least covered indicators in this evaluation. Most of the companies fail to provide detailed information on the extent and impact related to the transport of raw materials, finished products, business travel, company vehicles, etc.

Not all companies provided consolidated information in relation with the total environmental protection expenditures and investments by type. Most of the information found has been partial, and related to selected areas of interest for the organizations.

Final score allocation for the environmental performance indicators section in terms of compliance against the GRI G3.1/OGSS Guidelines can be seen on the following figure (Figure 9):

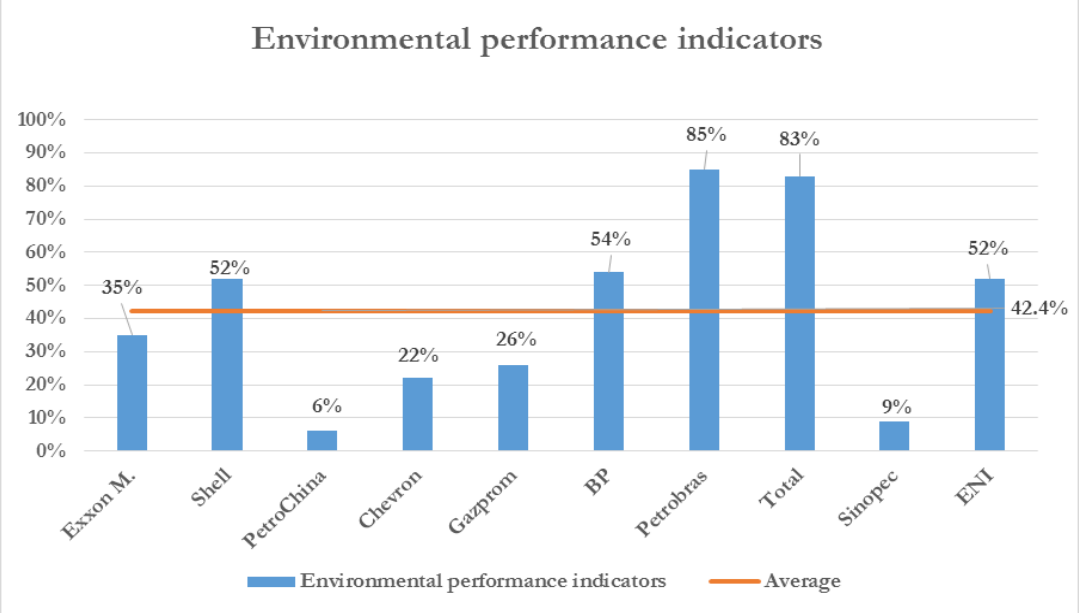

Figure 9 - Evaluation results obtained for the environmental performance indicators section of the assessment

4.5.3 Social performance indicators

The social group of performance indicators has been divided into four categories: labor practices and decent work; human rights; society; and product responsibility. Average score obtained for all four clusters of social performance indicators is 37.6 per cent. A detailed overview on the performance of each category in terms of scores obtained from the assessment, follows in the next sections of this chapter.

4.5.3.1 Labor practices and decent work

Results obtained for this section of the evaluation, show that with a compliance rate of 82 per cent, Total it the only company which has managed to disclose information with significantly higher quality than rest of the companies evaluated. With a score of 58 per cent, Petrobras is second in the evaluation. BP, Gazprom, and Shell are significantly close to the group average of 37.9 per cent compliance rate against the GRI Guidelines. Sinopec, Chevron, and PetroChina have obtained the lowest scores in the evaluation group, with 17 per cent, 15 per cent, and 12 per cent, accordingly. More details on the final allocation scores for the labor practices and decent work category, can be seen on the following figure (Figure 10):

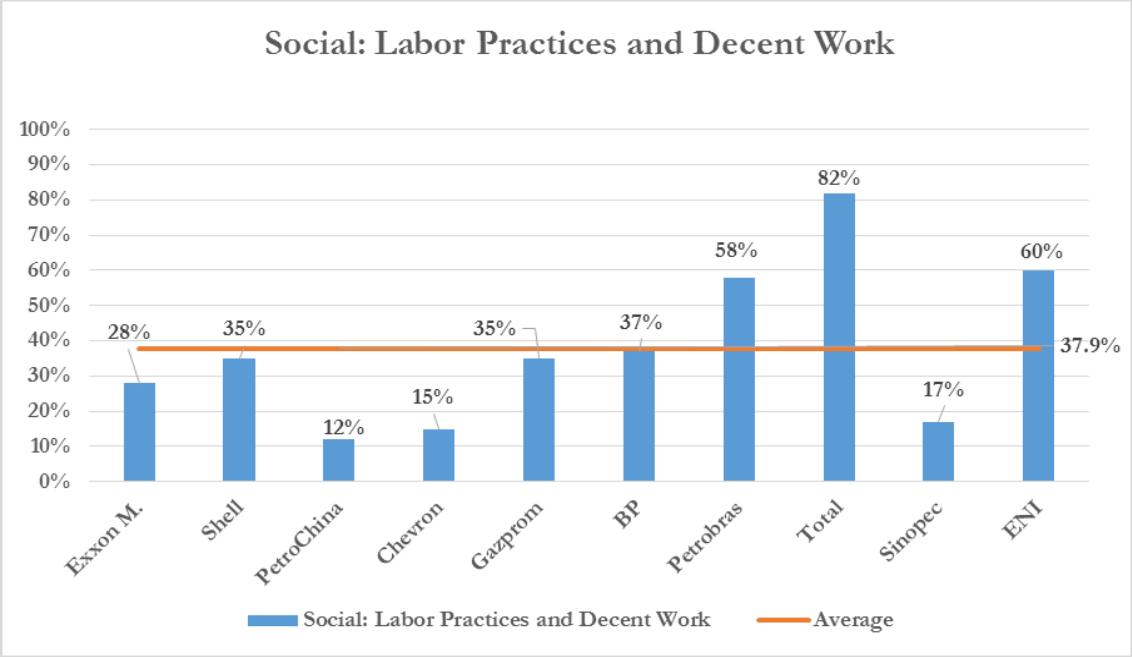

Figure 10 - Evaluation results obtained for the labor practices and decent work performance indicators section of the assessment

Out of the groups included in this social performance indicator, highest compliance rate has been identified for the groups covering the following issues: employment and workforce turnover breakdown; occupational health and safety; training; and diversity. Even though these were the groups which obtained the highest compliance rate, most of the indicator requirements were barely met, thus obtaining average scores in the assessment. For example, even though they provided total employee numbers, most of the companies which obtained lower overall scores, failed to give further details on other indicator requirements, such as the regional, age group, and gender breakdown of their employees.

Total is the only company which provided extensive information and obtained maximum points in the assessment for the labor/manager relations indicator. Most of the remaining

companies provided vague and generic information, and accordingly, obtained low scores and compliance rate in the final evaluation.

Occupational health and safety has been identified as a major issue for most of the companies, thus adequate and comprehensive information has been reported by the companies in their reports. Detailed data was provided especially in terms of rates of injury, and training of the employees in occupational health and safety measures, whereas less quality data has been identified for the last indicator in this section, health and safety topics covered in formal agreements with trade unions.

Even though almost all companies provide information on the training and education section, they do not successfully categorise the reported information and provide further details on it, as requested by the indicator requirements. In turn, most of the aggregated points are halved in the assessment, and low compliance rate is obtained for this section.

Diversity is an indicator addressed by all companies included in this study. Results obtained show that companies have a various approach in providing data on the diversity indicator requirements. Gender and age are the most common diversity topics identified, followed by geographic allocation, and minority group.

With the exception of Total, most of the remaining companies partially cover, or none at all, the last indicator in the labor group of indicators, equal remuneration for women and men.

4.5.3.2 Human rights

With an average score of 30 per cent, this section of the evaluation framework contains data with lowest quality information for all reports included in this assessment, and consequently, has the lowest compliance rate across all evaluated chapters against the GRI G3.1/OGSS Guidelines. Petrobras obtained the highest compliance of 67 per cent, whereas the lowest scoring companies were identified as PetroChina and Chevron, and for the quality of their disclosed information, were awarded accordingly the 4 per cent compliance rate. More details on the final allocation can be seen on the following figure (Figure 11).

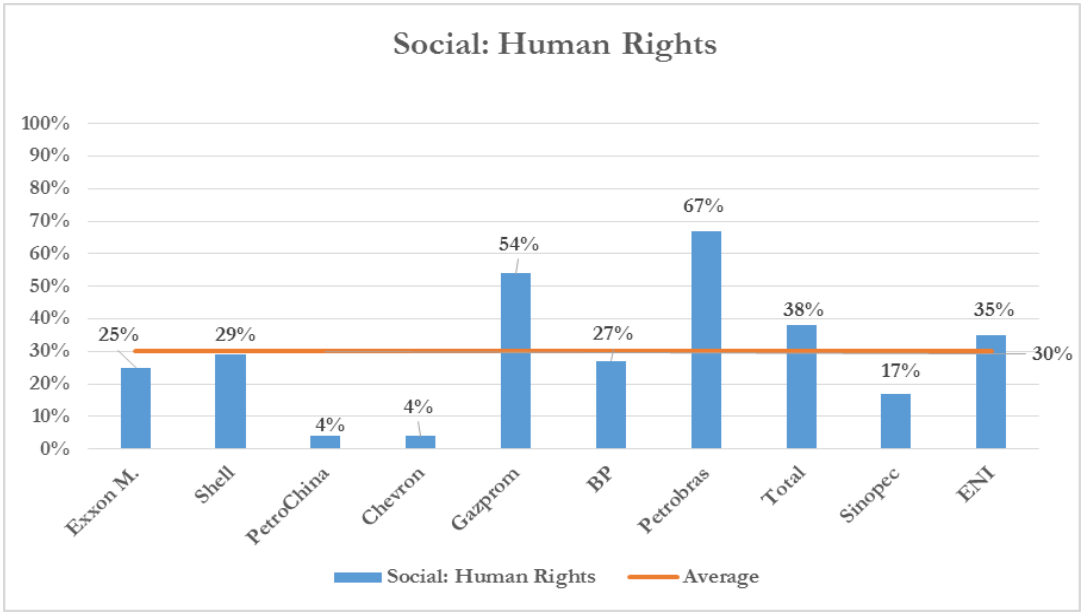

Figure 11 - Evaluation results obtained for the human rights performance indicators section of the assessment

Out of the groups contained in this chapter, the companies most frequently disclosed information with higher quality on the following topics: non-discrimination; child labor; and indigenous rights. They presented policies in terms of non-discrimination, excluded operating and dealing with companies which support and have children as their labor, and expressed their actions taken towards managing incidents and violations involving indigenous peoples' rights. Most of the companies failed to acknowledge whether they use human rights and impact assessments in their operational practices.

None of the companies evaluated managed to provide sufficient data for obtaining maximum points on the indicator related to remediation and grievance mechanisms.

4.5.3.3 Society

Results obtained for the society group of performance indicators, show that six companies managed to obtain a better score than the group average of 46.7 per cent. Highest score has been allocated to Total, 80 per cent, followed by Petrobras with 73 per cent, BP and Gazprom with 64 per cent, Shell with 61 per cent, and Eni with 50 per cent. Low compliance rate against the GRI Guidelines has been noted for ExxonMobil with 27 per cent, Chevron with 18 per cent, and Sinopec with 16 per cent. The compliance rate of 14 per cent has been assigned to PetroChina for their disclosures made in regards to the society indicators. A detailed overview on the compliance score allocation, has been presented on the following figure (Figure 12):

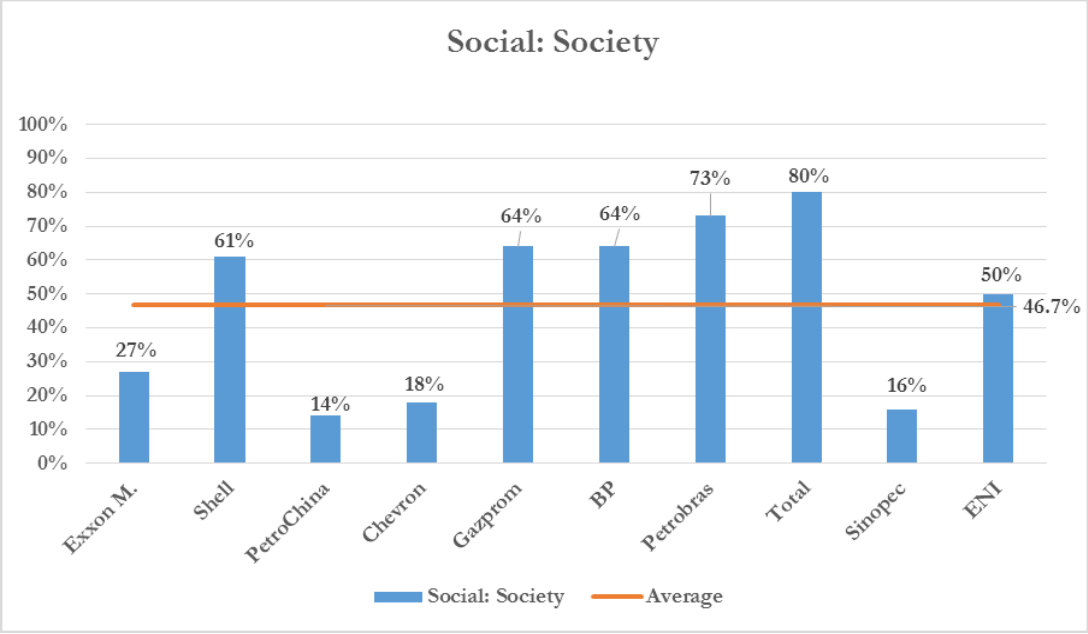

Figure 12 - Evaluation results obtained for the society performance indicators section of the assessment

Society group of indicators includes seven (7) sections of social performance indicators: (1) local communities; (2) corruption; (3) public policy; (4) anti-competitive behaviour; (5) compliance; (6) involuntary resettlement; and (7) asset integrity and process safety. Out of these seven groups, most comprehensive disclosures have been identified for the following topics: local communities; public policy; and compliance with laws and regulations. The evaluated companies have successfully disclosed information on the impact on local communities from their operations, and actions taken to prevent and mitigate those impacts.

Less information has been provided on the number and description of significant disputes with local communities and indigenous peoples, and site decommissioning.

Most of the companies have high level policies in terms of corruption, but fail to provide information on the percentage and total number of business units analysed for risks related to corruption, percentage of employees trained on anti-corruption policies and procedures, and actions taken in response to incidents of corruption. The most common information provided in regards to the last indicator is the following: "no cases of corruption were identified by the company".

Out of the information disclosed on the compliance indicator, it can be seen that most of the companies provide a detailed overview on their monetary, but fail to address the indicator requirements for non-monetary sanctions for non-compliance with laws and regulations.

In regards to the involuntary resettlement indicator, from the information disclosed, it can be seen that none of the organizations resettled involuntarily people due to their operations.

4.5.3.4 Product responsibility

With an average score of 35.6 per cent compliance rate against the GRI Guidelines, this is the second lowest scoring group from the social aspect of the evaluation framework. Only one company obtained a significantly higher compliance rate, 88 per cent, and that company was Petrobras. From the rest of the companies, two companies obtained a score of 50 per cent, Shell and Total, and one company obtained a score of 38 per cent, Eni. All other companies scored low in the assessment, obtaining fairly low compliance rates against the GRI Guidelines. Lowest compliance rate was allocated to Exxon Mobil, for the lowest quality of information disclosed on topics included in the product responsibility performance indicator. For a detailed overview on the compliance rate allocation, please refer to the following figure (Figure 13):

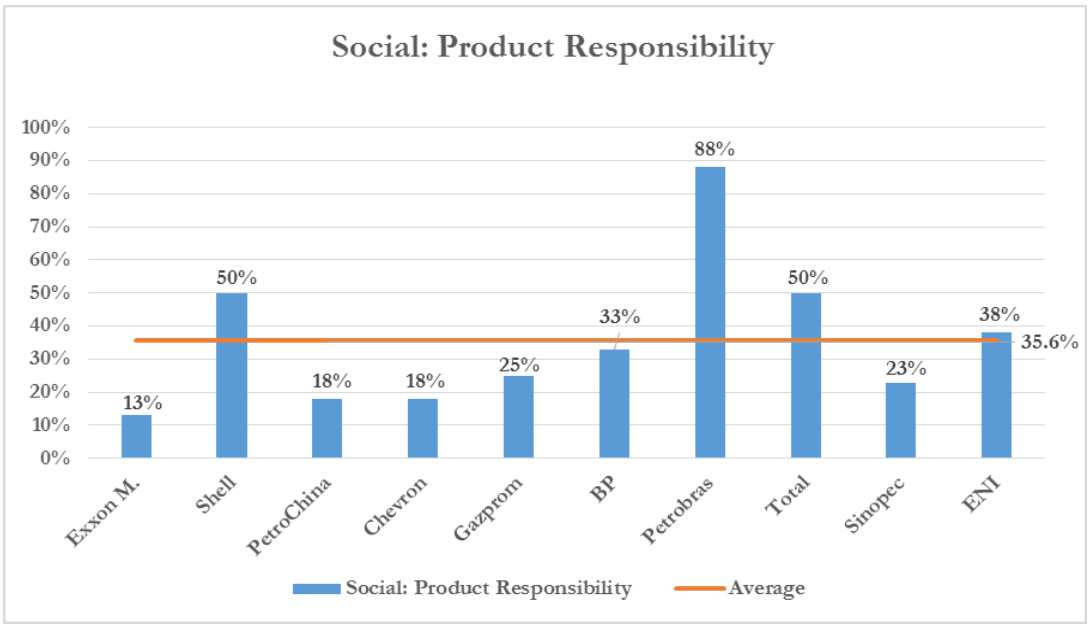

Figure 13 - Evaluation results obtained for the product responsibility performance indicators section of the assessment

Out of all topics included in this indicator, most comprehensive information has been disclosed on the following topics: life cycle stages in which health and safety impacts of products and services are assessed for improvement; product and service labelling; and biofuels. Information reported shows that the companies know which areas of their products can be improved, adequately label their products and show information to prove it, and present sufficient data on biofuels produced and/or purchased.

The rest of the indicators in this category has been covered with vague information of poor quality by the oil and gas companies, or no information has been disclosed in their relation at all.

4.6 Concluding analysis remarks

This section of the analysis chapter concludes that during the reporting period analysed, empirical findings on the companies included in this evaluation show that they provided more extensive and comprehensive information on the clusters of criteria regarding the strategy, profile, reporting criteria, and corporate governance of the company. With an average score of 95 per cent, the highest compliance rate has been observed for the strategy analysis section, followed by the organizational profile section with 91.8 per cent average score. The report parameters section follows with 85.7 per cent average score. Governance, commitments and engagement is on the last rankings position in the first section with an average score of 81 per cent.

Eight of ten companies provided external assurance documents on their reports, the remaining two did not provide any information on external assurance of their report. Five out of the ten companies pledged their compliance with the GRI G3.1 Guidelines, and only of them - Eni, confirmed their compliance with the additional oil and gas sector supplement (OGSS). Two companies, ExxonMobil and Chevron, created their reports using the IPIECA sustainability reporting guidelines. The two Chinese companies, PetroChina and Sinopec, provided no third party assurance document that they comply with the GRI Guidelines. Sinopec presented an external assurance document obtained from a Chinese CSR report rating expert committee. Criteria used by this committee for evaluating the quality of the report was different than the GRI Guidelines.

Information with less quality and comprehensiveness in disclosures has been found on the more sustainability related criteria from the economic, environmental, and social performance categories. The economic chapter obtained the highest compliance rate of 66.9 per cent. With an average score of 42.4 per cent, the environmental performance indicators are on the second position in this group, followed by the social performance indicators with an average score of 37.6 per cent. What may be the causes to the observed shortcomings in reporting, will be further discussed in the discussion chapter of this research.

5 Discussion

In order to evaluate sustainability related disclosures from the top ten companies in the oil and gas industry, this research study deployed an assessment methodology which was based on the most commonly utilised framework for reporting sustainability - the GRI Guidelines. The methodology was utilised for evaluating quality of the information disclosed in terms of sustainability practices of the company, and determining the extent and comprehensiveness of reported content compliance against the GRI G3.1/OGSS Guidelines. Actual, real-life performance of the companies in terms of sustainability could not be, and was not, measured with this methodology.

Two major shortcomings can be identified in using the selected methodology. The first shortcoming can be seen in the choice for score allocation across the GRI indicators. The selected framework contains 140 indicators, which are spanning across 10 different categories, and all of them have been assigned equal weights in the score allocation. However, due to the materiality principle, different indicators can have different value for companies. The companies can have different priorities in their sustainability reporting practices, and choose to report only issues which have been identified as most relevant to their stakeholders. GRI replied to these requirements by developing different weights for different sectors, and allocating different core indicators in the sector supplements. Consequently, this was one of the reasons for including the oil and gas sector supplement (OGSS) as an addition to the research. Due to lack of uptake and implementation of this addition in the oil and gas sector, further analysis of OGSS core indicators was omitted from the research, the equal weights allocation system was kept for generalizability of data objectiveness in the research. As a result, data with significant value for this research was obtained from the final assessment.

The second shortcoming can been identified in appropriateness of score allocation when evaluating the studies. The study has been done by a single researcher, and due to the subject of human error, some scores could have been allocated inappropriately. To alleviate this problem, the researcher sent out all results obtained to the respective companies, and asked the companies to review results obtained, and provide their feedback and comments on the quality of the score allocation. Only one company replied, Total, with their comments and suggested corrections in the evaluation of their report. Overall quality of the assessment could have been raised if all companies replied and provided their inputs on the allocation results.

Nonetheless, the quality of the research and the usefulness of this methodology should not be undermined. KPMG (2013), identified in their sustainability reporting survey that the overall average score obtained for the oil and gas industry was 55 per cent, whereas the score identified in this study equals to 55.5 per cent. That is an insignificant 0.5 per cent difference in results obtained between both studies. The content analysis methodology utilised in this research has also been used to evaluate sustainability related disclosures across ten sections of the framework, including the triple bottom line: economy, environment, and society. Results obtained from the assessment helped to reveal areas of interest for companies, and determine key trends in disclosure practices, which in turn helped obtain an answer to the research question in this study.

In line with Skouloudis et al.'s (2012) segmentation of airport industry CSR reporters, and Jenkins and Yakovleva's (2006) CSR reporting types identified in the mining sector, new rankings scheme proposed in this study is to be in accordance with the level of compliance against the GRI Guidelines:

5.1 The frontrunners (Petrobras and Total)

These two companies are the frontrunners in the oil and gas sector in terms of sustainability related disclosures. They provided the two most comprehensive and inclusive reports. The compliance rate against the GRI Guidelines is relatively high, as compared to the other companies. Information disclosed on their sustainability achievements is of great quality. Data presented on the first and the second part of the Guidelines, shows that these two companies have good information collection systems in place, and that they can adequately collect and convey comprehensive information in terms of their sustainability practices. Both of the companies disclosed high quality data on the TBL indicators as well, and thus, accordingly obtained high scores in the assessment. In turn, their overall compliance rate against the GRI Guidelines is higher than the average in the oil and gas sector. Petrobras confirmed their compliance against the GRI G3.1 Guidelines with the external assurance statement, whereas no information of that kind could be found for Total. Total only provided a GRI-compliance table on their website.

5.2 The better-than-average reporters (Eni and Shell)

Eni and Shell made reasonable efforts to comply with the GRI Guidelines by providing sustainability related information in accordance with GRI indicator requirements. They obtained good overall scores in the assessment, and adequately were ranked as better-than-average reporters in this assessment. Their sustainability related disclosures for the first part of the evaluation chart were identified as with good quality and high level of adherence against the GRI Guidelines. The economic group of performance indicators was addressed adequately as well, but the coverage on the environmental and social groups of performance indicators dropped considerably, resulting in lower scores allocated in the assessment. Both of the companies confirmed their compliance against the GRI G3.1 Guidelines through their external assurance statements. Eni added their compliance against the oil and gas sector supplement as well.

5.3 The mediocre reporters (BP, Gazprom and ExxonMobil)

These three companies reported on sustainability related issues of the company with average quality of data, as compared with the remaining companies of the oil and gas sector. Even though they provided information with good quality for the first three sections: strategy; organizational profile; and report parameters; the quality of information degraded slowly towards the remaining categories in the evaluation framework. In turn, they received higher scores for the first three categories, and lower scores for the rest. In the end, the companies obtained scores which have been found as average, or mediocre, when compared to the overall scores of the other companies included in the assessment. All three companies obtained limited external assurance. Two of them, BP and Gazprom, have confirmed their adherence to the GRI G3.1 Guidelines, whereas ExxonMobil confirmed their compliance with the IPIECA reporting guidelines.

5.4 The trailers (Chevron, Sinopec and PetroChina)

Last three companies in terms of overall score against the GRI Guidelines were identified as Chevron, Sinopec and China. These three companies failed to address adequately all GRI indicator requirements, and in turn, obtained low scores across all evaluated categories of indicators. Least information has been provided on the most sustainability related indicators, the economic, environmental, and social group of indicators. Chinese companies have been identified as laggard on reporting CSR related issues well behind companies from other

countries in the oil and gas industry. Considerable room for improvement has been identified for the reporting practices of these three companies. In terms of external assurance, Chevron confirmed their adherence to the IPIECA/OGP/API reporting guidelines. This in turn might be the reason why Chevron scored so low in the assessment. Sinopec presented external assurance document, but they did not disclose whether they comply with the GRI Guidelines. The external verifiers accredited very high scores to Sinopec's performance in many areas of the report: completeness, materiality, balance, comparability, readability, creativity, and overall ratings. Given that Sinopec's report scored very low against the GRI framework, 165 overall points and a compliance rate of 29.5 per cent, it is really difficult to estimate to what criteria the external verifiers allocated these points of excellence to the Chinese company. PetroChina did not disclose whether they adhere towards any reporting guidelines. Nevertheless, as noted by KPMG (2013), China is a country where the SR practices are in a growing state, quality of reports published could increase as the number of disclosures grows over time in the country.

5.5 Concluding discussion remarks

Research question postulated in this study has been found as a legitimate question, and results obtained from the assessment have managed to provide a constructive and detailed answer to the question requirements. The GRI Guidelines proved to be a comprehensive and demanding, readily available framework for disclosing sustainability related information of companies. No new research questions emerged in the course of preparing this study. Nevertheless, the research could be improved by better inclusion of the companies in the research process. The companies could provide further insights on the quality of the assessment, they could provide answers to a set of questionnaires in regards with the sustainability performance of the company, and the companies would give their feedback on whether the information collected has been successfully conveyed to their readers.

Parameters identified which affected the study results the most were the inclusiveness of the GRI-compliance table and the quality of the reported content. The inclusiveness of the GRI-table made information easily identifiable in the reported content. If the quality of the GRI-compliance table was not adequate, more time was spent in search for the missing data, and even sometimes the data mentioned in the table was not found, resulting in a lower compliance score in the assessment. Ability of organizations to disclose information with good quality has been identified as the parameter which affects final overall results the most. If data has been disclosed with low quality by the companies, consequently low scores are allocated in the assessment, thus, resulting with low compliance rate against the GRI Guidelines.

Results obtained from this assessment could be utilised in multiple ways. First of all, they guided the researcher towards obtaining an answer to the research question postulated in this study. As a result, four groups of reporters have been identified by the level of compliance against the GRI Guidelines. Second, due to the universality of the GRI Guidelines, the results from this assessment could be utilised by a company evaluated in this study to assess their SR performance, identify key issues and areas for improvement, and benchmark their report against others in the sector, or if they wish, compare results with companies from other sectors. Third potential use of results has been identified as, providing a platform for addressing legitimacy and accountability perspectives of SR, where potential researchers could take up the research results and evaluate further the economic benefits of SR, in terms of increased efficiency due to availability of data, potential impacts on production processes and products, stakeholder relations, and reputational risk management.

6 Conclusions

Over the last four decades, several factors had contributed in elevating the level of sustainability reporting in the oil and gas industry. Major environmental disasters caused by the operational negligence of oil and gas companies were some of the initial factors which lead to an increase in public awareness on the extent of potential environmental impacts, and their consequential demand for accountability and liability of the companies responsible for those incidents. Driven by public and governmental pressure, as well as the desire to remain competitive, manage their reputation, and keep their licence to operate, the oil and gas companies started voluntarily disclosing information on the status of implementation of their corporate social responsibilities in the form of corporate responsibility, or as mainly referred throughout this study – sustainability reports.

At the present, non-financial reporting practices have been made mandatory for bigger corporations in most of the developed and developing countries in the world. In turn, companies are being required to produce and publish sustainability reports annually by law. GRI helps companies to disclose sustainability related information by providing a guidance framework for measuring, compiling, and publishing sustainability related information. This framework is most commonly known as the GRI Guidelines. As being one of the most utilised sustainability reporting frameworks, these guidelines have been utilised for fulfilling the main objective of this study, which is to evaluate the extent of compliance of sustainability reports disclosed by oil and gas sector companies, against the GRI G3.1/OGSS Guidelines. In turn, the research question in this study was structured in line with the guidelines, as well as the research methodology outlined in this study. In continuation, an assessment framework was developed for evaluating the results, and adequately presenting them in the findings and analysis sections of the study. The discussion chapter has been utilised to summarise and discuss results obtained, and as a result, provide an answer on the research question postulated in the introductory chapter of this study. In continuation of this final chapter of the study, main findings and conclusions obtained are presented, followed by an outline on the contribution made to the body of literature by this research. The study concludes by providing suggestions for improving quality of these types of studies and gives recommendations for future research.

6.1 Main findings and conclusions

This study set forth to evaluate the extent of compliance of sustainability reports from the oil and gas industry with the GRI Guidelines for sustainability reporting. In order to obtain an answer to the research question postulated in this research study, a content analysis methodological approach has been utilised. Results obtained from the study guided the researcher in creating a new rankings scheme were companies were segregated in accordance with the results obtained for their overall report compliance against the GRI Guidelines. Four categories were identified:

- The frontrunners;
- The better-than-average reporters;
- The mediocre reporters; and
- The trailers.

The first group of companies obtained highest overall points in the assessment, had the highest compliance rate with the GRI Guidelines, and in result, were adequately allocated in the frontrunners category in the final rankings table. Second group of the companies, the better-than-average reporters, obtained relatively high overall scores in the assessment, and accordingly obtained relatively high compliance rates against the GRI Guidelines. Scores obtained by the third group of companies, the mediocre reporters, were considered to be around the group overall average, and in turn, were considered to have an average compliance rate against the GRI Guidelines. The last group of the companies obtained overall scores which were considerably lower than the group average, and in result, their group was named the trailers. Moreover, results obtained for this group of companies showed that they have a considerably lower compliance rate with the GRI Guidelines, as compared with other companies from the oil and gas sector.

Results obtained from the assessment show that reporting companies obtained higher scores for the first part of the evaluation framework: strategy and analysis (95 per cent average score); organizational profile (91.8 per cent average score); report parameters (85.7 per cent average score); and governance (81 per cent average score). Considerably lower scores were allocated for information disclosed in relation with the second part of the evaluation framework, the TBL performance indicators: economic (66.9 per cent average score), environmental (42.4 per cent average score), and social (37.6 per cent average score).

In terms of external assurance, eight out of ten companies obtain limited verification of quality on parts, or sections of their reported content. Most of the companies express their compliance with the GRI G3.1 Guidelines, and some of them confirm their compliance with another oil and gas related reporting guidelines - the IPIECA oil and gas sector reporting guidance supplement.

Since the GRI Guidelines have shown to be a demanding framework for most of the companies, the universality of the methodological approach utilised in this study, has shown to be most applicable for evaluating content quality and comprehensiveness across all-round SR disclosures of the organizations. Its applicability to other sectors and SR frameworks should be tested in future SR related studies.

6.2 How the study contributed to body of literature

This research study contributes to the body of literature on sustainability reporting by testing the applicability of content analysis methodology for evaluating sustainability reporting compliance against the GRI Guidelines. The methodology used in this research proved to be fitting for the evaluation, and consequentially, the obtained results in the findings and analysis sections helped provide an answer for the research question, which was further concluded in the discussion part of the study. This methodology should be tested further for its applicability in accordance with the new GRI Guidelines, version G4, and its applicability in other sectors of the industry.

6.3 Suggestions for future research

Quality of future research related to SR related disclosures could be increased by including relevant representatives from the companies under evaluation. Their comments and feedback on the quality of the assessment could help raise overall quality of the research. The companies could further provide inputs on issues such as: why the reported content has its current quality; the methodological obstacles and difficulties in measuring and reporting on

performance data; and the applicability of the GRI Guidelines in general on their sustainability reporting practices.

Even though external assurance should add credibility and raise the overall quality of the report, its effectiveness could be put into question after looking at some of the results obtained from research. Future studies could be directed towards finding ways to evaluate legitimacy and credibility in third party assurance statements.

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Appendices

Appendix A – GRI G3.1/OGSS Sustainability Reporting Guidelines

Group	Type	Category	Aspect	Core	Additional	OG[25]
Strategy and Profile	Profile	Strategy	Strategy and Analysis	2	0	0
			Organisational Profile	10	0	0
		Report Parameters	Report Profile	4	0	0
			Report Scope and Boundary	7	0	0
			GRI Content Index	1	0	0
			Assurance	1	0	0
		Governance, Commitments, and Engagement	Governance	10	0	0
			Commitments to External Initiatives	3	0	0
			Stakeholder Engagement	4	0	0
Management Approach and Performance Indicators	Economic	Economic	Economic Performance	4	0	0
			Market Presence	2	1	0
			Indirect Economic Impacts	1	1	1
	Environmental	Environment	Materials	2	0	0
			Energy	2	3	2
			Water	1	2	0
			Biodiversity	2	3	1
			Emission, effluents and waste	7	3	3
			Products and services	2	0	1
			Compliance	1	0	0
			Transport	0	1	0
			Overall	0	1	0
	Social	Labor Practices and Decent Work	Employment	3	1	0
			Labor/Management Relations	2	0	0
			Occupational Health and Safety	2	2	0
			Training and Education	1	2	0
			Diversity and Equal Opportunity	1	0	0
			Equal Remuneration for Women and Men	1	0	0
		Human Rights	Investment and Procurement Practices	3	0	0
			Non-discrimination	1	0	0
			Freedom of Association and Collective Bargaining	1	0	0
			Child Labor	1	0	0
			Forced and Compulsory Labor	1	0	0

[25] Oil and Gas Sector supplement

		Security Practices	0	1	0
		Indigenous Rights	0	1	0
		Assessment	1	0	1
		Remediation	1	0	0
	Society	Local Communities	3	0	2
		Corruption	3	0	0
		Public Policy	1	1	0
		Anti-Competitive Behaviour	0	1	0
		Compliance	1	0	0
		Involuntary Resettlement	0	0	1
		Asset Integrity and Process Safety	0	0	1
	Product Responsibility	Customer Health and Safety	1	1	0
		Product and Service Labelling	1	2	0
		Market Communication	1	1	0
		Customer Privacy	0	1	0
		Compliance	1	0	0
		Biofuels	0	0	1
Total indicators (by category)			**97**	**29**	**14**
Total Indicators (per report)					**140**

Appendix B – GRI's reporting principles for defining quality

Reporting principles for defining quality	Definition	Explanation
Balance	The report should reflect positive and negative aspects of the organization's performance to enable a reasoned assessment of overall performance.	The overall presentation of the report's content should provide an unbiased picture of the reporting organization's performance. The report should avoid selections, omissions, or presentation formats that are reasonably likely to unduly or inappropriately influence a decision or judgment by the report reader. The report should include both favorable and unfavorable results, as well as topics that can influence the decisions of stakeholders in proportion to their materiality. Reports should clearly distinguish between factual presentation and the reporting organization's interpretation of information.
Comparability	Issues and information should be selected, compiled, and reported consistently. Reported information should be presented in a manner that enables stakeholders to analyze changes in the organization's performance over time, and could support analysis relative to other organizations.	Comparability is necessary for evaluating performance. Stakeholders using the report should be able to compare information reported on economic, environmental, and social performance against the organizations past performance, its objectives, and, to the degree possible, against the performance of other organizations. Consistency in reporting allows internal and external parties to benchmark performance and assess progress as part of rating activities, investment decisions, advocacy programs, and other activities. Comparisons between organizations require sensitivity to factors such as differences in organizational size, geographic influences, and other considerations that may affect the relative performance of an organization. Where necessary, report preparers should consider providing context that will help report users understand the factors that may contribute to differences in performance between organizations. Maintaining consistency with the methods used to calculate data, with the layout of the report, and with explaining the methods and assumptions used to prepare information, all facilitates comparability over time. As the relative importance of topics to a given organization and its stakeholders change over time, the content of reports will also evolve. However, within the confines of the Principle of Materiality, organizations should aim for consistency in their reports over time. An organization should include total numbers (i.e., absolute data such as tonnes of waste) as well as ratios (i.e., normalized data such as waste per unit of production) to enable analytical comparisons. When changes occur with the boundary, scope, length of the reporting period, or content (including the design, definitions, and use of any Indicators in the report), reporting organizations should, whenever practicable, restate current disclosures alongside historical data(or vice versa). This ensures

		that information and comparisons are both reliable and meaningful overtime. Where such restatements are not provided, the report should explain the reasons and implications for interpreting current disclosures.
Accuracy	The reported information should be sufficiently accurate and detailed for stakeholders to assess the reporting organization's performance.	Responses to economic, environmental, and social topics and Indicators can be expressed in many different ways, ranging from qualitative responses to detailed quantitative measurements. The characteristics that determine accuracy vary according to the nature of the information and the user of the information. For example, the accuracy of qualitative information is largely determined by the degree of clarity, detail, and balance in presentation within the appropriate Report Boundary. The accuracy of quantitative information, on the other hand, may depend on the specific methods used to gather, compile, and analyze data. The specific threshold of accuracy that is necessary will depend partly on the intended use of the information. Certain decisions will require higher levels of accuracy in reported information than others.
Timeliness	Reporting occurs on a regular schedule and information is available in time for stakeholders to make informed decisions.	The usefulness of information is closely tied to whether the timing of its disclosure to stakeholders enables them to effectively integrate it into their decision-making. The timing of release refers both to the regularity of reporting as well as its proximity tithe actual events described in the report. Although a constant flow of information is desirable for meeting certain purposes, reporting organizations should commit to regularly providing a consolidated disclosure of their economic, environmental, and social performance at a single point in time. Consistency in the frequency of reporting and the length of reporting periods is also necessary to ensure comparability of information overtime and accessibility of the report to stakeholders. It can be of value for stakeholders if the schedules for sustainability reporting and financial reporting realigned. The organization should balance the need to provide information in a timely manner with the importance of ensuring that the information is reliable.

Clarity	Information should be made available in a manner that is understandable and accessible to stakeholders using the report.	The report should present information in a way that is understandable, accessible, and usable by the organization's range of stakeholders (whether in print form or through other channels). A stakeholder should be able to find desired information without unreasonable effort. Information should be presented in a manner that is comprehensible to stakeholders who have a reasonable understanding of the organization and its activities. Graphics and consolidated data tables can help make the information in the report accessible and understandable. The level of aggregation of information can also affect the clarity of a report if it is either significantly more or less detailed than stakeholders expect.
Reliability	Information and processes used in the preparation of a report should be gathered, recorded, compiled, analyzed, and disclosed in a way that could be subject to examination and that establishes the quality and materiality of the information.	Stakeholders should have confidence that a report could be checked to establish the veracity of its contents and the extent to which it has appropriately applied Reporting Principles. The information and data included in a report should be supported by internal controls or documentation that could be reviewed by individuals other than those who prepared the report. Disclosures about performance that are not substantiated by evidence should not appear in SR unless they represent material information, and the report provides unambiguous explanations of any uncertainties associated with the information. The decision-making processes underlying report should be documented in a manner that allows the basis of key decisions (such as processes for determining the report content and boundary or stakeholder engagement) to be examined. In designing information systems, reporting organizations should anticipate that the systems could be examined as part of an external assurance process.

Appendix C – GRI-based sustainability report scoring studies

Study	Points	Rating qualifications / requirements
Morhardt et al 2002	0	not mentioned
	1	anecdotal or briefly mentioned
	2	more detail, but characterizing only selected facilities or using only self-comparison metrics
	3	company-wide absolute or relative metrics that could be compared with other companies
Daub et al (2007)	0	No meaningful information is provided on the specific criterion.
	1	Patchy information is provided.
	2	The reporting provides good information on the criterion. However, one relevant area/indicator is not addressed.
	3	The reporting includes full information to the criterion.
Skouloudis and Konstantinos (2009)	0	The report does not include any information relevant to the specific GRI topic. No coverage
	1	The report provides generic or brief statements, without specific information on the organization's approach to the topic
	2	The report includes valuable information on the topic but there are still major gaps in coverage. The organization identifies the assessed issue, but fails to present it sufficiently
	3	The provided information is adequate and clear. It is evident that the reporting organization has developed the necessary systems and processes for data collection on the assessed topic and tempts to present it in a consistent manner
	4	Coverage of the specific issue can be characterized as "full" in the report. It provides the organization's policy, procedures/programs and relevant monitoring results for addressing the issue. The organization meets the GRI requirements
Skouloudis et al (2010)	0	when a specific topic was not mentioned in the report
	1	brief or generic statements
	2	more detailed coverage
	3	extensive coverage
	4	coverage is full and systematic, allowing comparability of provided information
Skouloudis et al (2012)	0	no relevant information is disclosed
	1	no explanation provided
	2	no explanation provided
	3	no explanation provided
	4	coverage is full and comprehensive
Lozano (2013)	0	There is a total lack of information for the indicator, it is nonexistent, or the information was not found.
	1	The information presented is of poor performance. This is given when there is some information, but it is too general, or it has little detail or coverage.

	2	The information presented is of regular or fair performance. This is assigned when the data covers around half of the issues in the indicator, or when there is good detail but it only covers some areas (for example, the curriculum category).
	3	The information presented is considered to indicate good performance. This is assigned when there is complete and detailed information for that particular indicator.
Alazzani (2013)	0	Absence of certain words and concepts
	1	Presence of certain words and concepts