

Transparency of environmental reporting in Russian and European oil and gas companies

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AFFIDAVIT

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ABSTRACT

Reporting has become a means of communicating a company's environmental responsibility to its stakeholders. To respond to the concerns of stakeholders, companies reveal the environmental performance, risk mitigation measures, and environmental monitoring practices in their reports. Nevertheless, corporate social responsibility initiatives of environmentally sensitive industries are often criticized, as sometimes companies do not disclose the real consequences of their business activities and use the corporate social responsibility reporting to propagate disinformation about their environmental performance. This is a form of greenwashing that is directed towards stakeholders and is aimed at the manipulation of stakeholders' perceptions and creating an environmentally responsible image.

The present research aims to analyse the differences in the transparency of environmental reporting between Russia and Europe that are the places of incorporation of many leading oil and gas companies. The leading Russian and European oil and gas companies were identified using the S&P Global Platts Top 250 Global Energy Companies Ranking from 2019. Factors such as dissimilar attitudes towards environmental protection and different national regulations regarding environmental performance disclosures can predetermine varied levels of transparency in environmental reporting.

Information for the qualitative content analysis was collected from the annual environmental and sustainability reports of the sampled companies. The transparency of reports is analysed using three factors: if a report is prepared in accordance with Global Reporting Initiative Standards, if it has external assurances, and if the company mentions environmentally sensitive information with respect to emergency situations, risks, accidents, and spills in their reports. The research tool Factiva was used to identify related media coverage for each specific company. Despite various previous studies on transparency in environmental reporting, this country and industry-specific analysis of environmental reporting identified the differences in the transparency of the reporting of leading European and Russian oil and gas companies. Results indicate that overall the European oil and gas companies demonstrate greater transparency in environmental disclosure based on the three transparency factors that are analysed in these study.

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LIST OF ABBREVIATIONS

AG – Joint-Stock Company (German: Aktiengesellschaft)

ASA – Public Limited Company (Norwegian: Allmennaksjeselskap)

ASAP – Accounting Sustainability Assurance Providers

CAQDAS – Computer-Assisted Qualitative Data Analysis Software

CCPI – Climate Change Performance Index

CGR – Compound Growth Rate

CSD – Corporate Social Disclosure

CSP - Carbon Disclosure Project

CSR – Corporate Social Responsibility

DJSI – Dow Jones Sustainability Indexes

E&P – Oil and Gas Exploration and Production

EIA – Energy Information Administration

EMAS – Eco-Management and Audit Scheme

EMEA – Europe, the Middle East and Africa

EMS – Environmental Management Systems

EPI – Environmental Performance Index

G4 – Fourth Generation of the GRI Guidelines

GAB – Great Australian Bight

GRI – Global Reporting Initiative

IOG – Integrated Oil and Gas Sector

ISO – International Standards Organization

LLC – Limited Liability Company

NAOC – Nigeria Agip Oil Company

NASAP – Non-Accounting Sustainability Assurance Providers

NGO – Non-Governmental Organization

OJSC – Open Joint-Stock Company

PAO – Public Joint-Stock Company (Russian: Публичное акционерное общество)

PLC – Public Limited Company

PLIF – Pipeline d'Ile-de-France

PR – Public Relations

PWC – PriceWaterhouseCoopers

ROIC – Return on Invested Capital

RUIE – Russian Union of Industrialists and Entrepreneurs

S.p.A. – Joint-Stock cCompany (Italian: Società per azioni)

SA – Public Company (French: Société Anonyme)

SASB – Sustainability Accounting Standards Board

SECR – Streamlined Energy and Carbon Reporting

UN – United Nations

WBCSD – World Business Council for Sustainable Development

1 INTRODUCTION

1.1 Background information

There is an undeniable importance of energy sources for the functioning of every sector of the economy as well as for human welfare as a whole. Because of an increasing world population and economic growth, consumption of energy resources and the demand for them increase consistently every year as humanity keeps driving living standards upwards (EIA, 2019; OECD, 2011). According to Energy Information Administration (EIA) forecasts, fossil fuels will remain dominant still accounting for 69 percent of global energy consumption in 2050, even if renewables will be the fastest-growing primary energy source between 2018 and 2050 (EIA, 2019). In addition, the oil and gas industry holds major potential to cause social and environmental hazards at local and global levels. Oil and gas production and transportation pose environmental risks throughout the entire supply chain by causing air emissions, marine and freshwater discharges, incidents and oil spills, and soil and groundwater contamination (UNEP & E&P Forum 1997). Further, they present danger to a diverse range of habitats and ecosystems (Amec Foster Wheeler, 2016).

At the same time, oil and gas producers face the challenges of meeting the increasing energy demands while minimising the negative effects related to the production and transportation of their products. In light of increasing environmental concerns, corporate social responsibility (CSR), and environmental reporting are gaining significance in the sustainability strategies of global companies. Reporting has become a means of communicating a company's environmental responsibility to all the stakeholders, including consumers, investors, NGOs, employees, government, and the community (Kolk, 2004). Companies from the environmentally-sensitive industries, such as oil and gas, chemical, or mining, are under even more scrutiny and pressure from the stakeholders (Crawford & Clark Williams, 2011). To respond to the concerns of the stakeholders, companies reveal in their reports the environmental performance, risk mitigation measures, and environmental monitoring practices.

Nevertheless, CSR initiatives are also sometimes criticized, as some companies leverage CSR to gain competitive advantage (Uyar et al., 2020). Therefore, CSR activities often gain scepticism among stakeholders especially when CSR is used by environmentally sensitive industries (Eisenegger & Schranz, 2011). Due to social and legislative pressure, they publicly claim of supporting environmentally-friendly initiatives and do not disclose the real consequences of their business activities. This misleading claims and selective disclosure of a company's environmental performance is a form of 'Greenwashing' or 'PR tricks', which is used by some companies to create an environmentally responsible image (Lyon & Maxwell, 2011; Uyar et al., 2020; Eisenegger & Schranz, 2011).

1.2 Research contributions

Despite various previous studies on environmental disclosure quality and transparency, there remains a research gap. This enables conduct of further analysis on the regional specifics of environmental reporting, allowing a comparison to be drawn between two regions of incorporation of many leading oil and gas companies: Russia and Europe.

There are many factors that can predetermine contrasting attitudes towards environmental protection and information disclosure in these regions. Based on the Climate Change Performance Index, Russia is among the worst performing countries, while most of the European countries have a much stronger focus on climate protection initiatives (Appendix 1; CCPI, 2020). European countries are also the leaders in environmental performance according to the Environmental Performance Index that represents 24 performance indicators covering each country's sustainability efforts, biodiversity, and environmental protection, pollution, and emissions (EPI, 2018). Furthermore, oil and gas producers from Russia and Europe sometimes have to comply with different environmental regulations and reporting standards, while considering the interests of different environmental organizations and community groups, which can also affect the extent and content of environmental disclosure. For instance, environmental activism in Russia still lags behind the European one, although it has been on the rise in recent years (CSIS, 2021; Davydova, 2014). The Russian public gives much less priority to environmental issues due to cultural reasons and lack of awareness about climate change (CSIS, 2021; Davydova, 2014). Nevertheless, 2017 was announced a year of ecology in Russia. In 2017 a number of new laws focused on environmental protection were introduced, as well as events to increase public awareness about ecological issues (State Duma, 2017).

Therefore, this study explores the differences or similarities in environmental disclosure practices between the six leading Russian and six leading European oil and gas companies identified, using the S&P Global Platts Top 250 Global Energy Companies Ranking for 2019 (S&P Global Platts, 2019a).

The most specific concern of this study is to examine transparency. This study is unique, as the transparency of the reports is identified through analysing three factors. The first factor is whether or not a report is prepared in accordance with the voluntary Global Reporting Initiative (GRI) Standards. Afterwards, I analyzed whether or not the report has the independent assurance of an external auditor or assurer who evaluates the accuracy, trustworthiness, and relevance of the disclosed information. The final factor concerns the existence of negative environmental news coverage in the reports.

According to the World Wildlife Fund (WWF) Russia, only 2% of oil spills in Russia become public knowledge. For instance, only 70–100 cases of oil spills out of 3,000–5,000 (Ria, 2019a) are revealed. This motivated the author to conduct an analysis regarding how many accidents

and other negative environmental news made public in the media are also covered by company reports. Thus, this research analyses if companies openly mention specific accidents, scandals, or risks connected with their environmental performance in their reports aimed at stakeholders.

Despite publicly claiming to support environmental initiatives, the leading oil and gas companies – ExxonMobil, Shell, Chevron, BP, and Total – spend nearly \$200 million a year on lobbying to delay or block environmental and climate change policies (Laville, 2019; InfluenceMap, 2019). Climate lobbying is outsourced by these companies to diverse trade groups such as the American Petroleum Institute (InfluenceMap, 2019). The report by InfluenceMap (2019) discovered that these oil and gas majors spend overall \$1 billion on lobbying and misleading climate-related branding. However, the official disclosure of this data is very limited according to NGO's (InfluenceMap, 2019). Additionally, scandals sometimes occur due to the unethical environmental practices of oil and gas companies. For instance, local Nigerian communities are currently seeking justice and compensation in the Dutch courts because of environmental pollution due to oil spills from pipelines owned by Shell (Clowes & Hurst, 2020). According to information provided by the Russian media, in 2019 alone, there were seven accidents on Gazprom's pipelines in Russia that led to loss of human life and ecological damage (Interfax, 2020). Moreover, environmental and social impacts from oil and gas activities in the Peruvian Amazon, which started during the first oil exploration boom in the 1970s, have led to unprecedented pollution, deforestation, fish stock declines, and disease and death of Indigenous people (Finer & Orta-Martínez, 2010; WWF-Peru, n.d.).

Despite the common differentiation between economic, social and environmental sustainability, all of these sustainability pillars are closely interconnected (Filho, Tortato & Frankenberger, 2021; Mello, 2013). The environment has a definite impact on society, its health, from air they breathe till food it consumes. The economic pillar is aimed at contributing not only to economic growth but to illuminating social and ecological problems. This study has a primary focus on environmental pillar of sustainability, as oil and gas production and consumption is closely associated with harmful environmental impacts (Anis and Siddiqui, 2015). Accidents in oil and gas facilities can occur due to equipment failures, personnel mistakes or natural disasters (Anis and Siddiqui, 2015). Nevertheless, the accidents that have an impact on the environment often also result in social problems or even injuries or deaths of employees. The hydrocarbon leakage and oil spills that end up in the environment have an impact on the local communities. At the same time, environmental accidents in this study can also motivate the companies to promote economic sustainability and efficiency within their business activities. Therefore, despite primarily focusing on environmental sustainability, this study will sometimes touch upon all three pillars of sustainability.

In summary, considering escalating environmental concerns and increasing energy demands, the current situation is a clear indicator that it is necessary to deepen research and conduct

further studies to reveal the attitudes of oil and gas companies towards environmental protection in different countries through environmental reporting analysis.

1.3 Objectives of the thesis

This research is focused on identifying the level of transparency in environmental reporting of leading Russian and European oil and gas producers as well as any changes in transparency between 2017 and 2019.

The choice of this time period has several reasons. 2017 was announced a year of ecology in Russia, which resulted in the introduction of a number of environmental regulations, as well as increased public attention to the ecological issues. The legislative changes embraced the reform in the field of waste management, which requires authorities to inspect, identify and remediate environmental damage from abandoned pollutants and waste. In addition, special environmental regulation was adopted for the conservation of forest resources, development of a system of specially protected natural areas, treatment of animals, and control of harmful emissions from enterprises (Bartholomy et al., 2020; State Duma, 2017). Therefore it is expected that from 2017 the environmental topic gained more importance in the Russian companies. As the analysis took place in 2020, the latest reports that were published were for 2019.

In this study, the following research questions are addressed:

RQ1: What are the differences in transparency of environmental performance disclosure between Russian and European oil and gas companies?

RQ2: How did differences in transparency of reports change during the three-year period from 2017 till 2019?

The research covers the following objectives:

- Objective 1: To analyse transparency of environmental reporting of specific reports by identifying if they are prepared in accordance to the GRI standards
- Objective 2: To examine the transparency of reports by analyzing if the report has external assurances
- Objective 3: To uncover the disclosure of environmentally sensitive information with respect to emergency situations, accidents and oil spills by scrutinizing the information published in the media about the performance of specific oil and gas companies
- Objective 4: To perform a critical analysis of the differences in environmental reporting of the leading Russian and European oil and gas companies

1.4 Structure of the thesis

The thesis is divided into six chapters. Chapter one provides background information on the topic of environmental performance and on the reporting of oil and gas companies. It also describes how this research contributes to existing studies in the area.

Chapter two contains the literature review of existing literature and empirical studies on the subjects of CSR and environmental reporting, as well as studies on transparency in reporting. Moreover, the second chapter considers three theories: stakeholder theory, legitimacy theory, and institutional theory. The theories explain the motivation of the companies to engage in CSR initiatives and to report on CSR. In addition, the reporting standards, guidelines, and regulations that have an impact on the transparency of the environmental reporting are discussed.

Chapter three explains how the data is collected and why qualitative content analysis was selected for this study. This section also explains how to guarantee the validity and reliability of the qualitative content analysis.

In the fourth chapter, the author presents a detailed description of the analysis of the reports on the three factors of transparency, that is, whether or not the reports were prepared in accordance with GRI Standards, whether or not they have external assurance, and what negative news coverage on environmental performance and accidents has been retrieved from the global news database Factiva.

Finally, the last chapter draws its conclusion from the entire thesis, reflecting on the literature review, answering the research questions, discussing the limitations of the study, and providing suggestions for future research. The bibliography is followed by an appendix that provides the results of the qualitative content analysis, processed by the computer-assisted qualitative data analysis software NVivo.

2 LITERATURE REVIEW

The literature review revolves around the topics of CSR and non-financial reporting, transparency in environmental reporting, and regulatory frameworks of environmental reporting in European countries and Russia. In this chapter, the fundamental theoretical concepts are introduced: stakeholder, legitimacy, and institutional theories. These theoretical concepts explain companies' motivation for environmental disclosure. In addition, this chapter summarizes the empirical studies of other researchers regarding environmental disclosure practices

2.1 Corporate social responsibility and environmental reporting

Globalization of the world economy alongside global environmental challenges have changed companies mindsets concerning their business aims. Businesses around the globe have become aware that, to meet social expectations and prosper, they also need to focus on ethical business practices rather than simply on profits (Bhāle & Bhāle, 2018). Considering that a business's licence to operate is held by their stakeholders, many companies are aiming to balance the interests of all stakeholders and to make the shift to addressing the triple bottom line of profit, people, and the planet with aim to guarantee their long-term competitive advantage and success (Salvioni et al., 2018; Idowu & Leal Filho, 2010; Bhāle & Bhāle, 2018).

The intensifying focus of society, government, and various institutions on sustainability in recent years has led to an increasing focus on external communication of companies' demonstration of their social responsibility (Salvioni et al., 2018).

The International Standards Organization (ISO)'s ISO 26000 defines social responsibility as 'a responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour that contributes to sustainable development, health and the welfare of society; takes into account the expectations of stakeholders; is in compliance with applicable law and consistent with international norms of behaviour; and is integrated throughout the organization and practised in its relationships' (ISO 26000, n.d.).

To demonstrate engagement in CSR, companies provide CSR reports (Frederiksen & Nielsen, 2015). These reports are usually aimed at enabling the stakeholders to evaluate the CSR performance of the company. Even though CSR reports are often used by companies as a marketing tool and a means to maximize profits, reports still reflect companies' ethical responsibilities, according to Frederiksen and Nielsen (2015).

Among other tools that are used by companies to communicate their environmental performance, Isenmann (2008) claims that reports are the leading instrument because of their reliability and credibility that stakeholders attribute to them. The reason for this could be that envi-

Environmental reports provide both descriptive qualitative information as well as quantitative data (Isenmann, 2008).

Environmental reports provide information about environmental impacts from a company's business activities. For instance, these reports disclose specific data on environment-related expenditures, environmental harm and benefits caused by business activities, pollution, audits, protection of natural resources, and other preventative measures (Phiri & Mantzari, 2018).

A survey of 69 companies conducted by Jones (2000) expressed that most companies (81%) provide information on environmental performance in environmental reports. The study embraced European, US, and Canadian companies from oil & gas, coal, chemical, utilities, metal, electronics, paper, construction, food, transportation, drugs & cosmetics, machinery, financial and automotive industries (Jones, 2000). Fifty-eight percent of respondents claimed that they provide environmental information in an annual or financial report. Thirty-one percent provide this information in a site/business unit-specific environmental report; 27% on the internet; 15% in government filings; 8% in Eco-Management and Audit Scheme statements; 8% in press releases; and 8% in newsletters (Jones, 2000). The reason for the preference towards separate environmental reports rather than an integrated one may be based on the different frameworks and standards for financial and non-financial reporting (Del Baldo, 2015). However, the respondents argue that these external communication tools provide different details of environmental information. Almost half of the participating companies claimed that an environmental report has a greater level of detail than other outlets of information revealing environmental performance (Jones, 2000). However, more and more companies integrate environmental information in their financial reports, as they believe this data is useful for their investors (KPMG, 2017).

Empirical studies illustrate that subject, volume, and initiatives of environmental disclosure depend on a company's characteristics, such as size, profitability, and industry (Gray et al., 2001). Stephen Brammer and Stephen Pavelin (2008) determined that a company's size and the specifics of business activities also have an effect on the quality of environmental disclosure. For instance, large companies and especially those operating in industries with a high environmental footprint (e.g., utilities and chemicals) tend to undertake high-quality disclosure (Brammer & Pavelin, 2008).

The research by Monaghan (2004, cited by Godschalk, 2008) discovered that companies that claim in their reports to apply environmental management systems (EMSs) did not perform significantly better than those without. The finding suggests that the major focus in environmental reports should be on environmental performance rather than on EMSs because an EMS is not a clear indicator of the positive environmental performance that is often promoted by companies in their reports (Godschalk, 2008).

Other studies indicate that voluntary disclosure varies according to the country of incorporation (Roberts et al., 1995; Van der Laan Smith et al., 2005). Van der Laan Smith et al. (2005) assume that ownership structure, corporate governance systems and cultural factors in a country influence the emphasis on environmental and social issues. For instance, Van der Laan Smith et al. (2005) established that Norway and Denmark, as countries with a stronger emphasis on social issues and stakeholders, are more likely to disclose the corporate sustainability performance and have higher quality reports than firms from countries with a weaker orientation on social issues and shareholders, as the US (Van der Laan Smith et al., 2005). To assess the quality of corporate social disclosure, the researchers measured the presence of numeric data in annual reports. The numeric data was represented by the number of employees, CO2 output per generating unit, and financial information, which provides additional information to the reader. The authors used sentence count, word count, and page measurement data devoted to corporate social disclosure. However, the authors note that methods of assessment of disclosure quality are subjective, as there is no all generally accepted method for analysing the quality of corporate social disclosure. However, the number of words or sentences of disclosed information is only a part of the analysis. It is also important to analyse the meaning of the disclosed information (Van der Laan Smith et al., 2005).

2.2 Transparency in environmental reporting

As the number of organizations that report on environmental performance is increasing, there is an increasing number of studies on transparency and bias in CSR and environmental disclosure (Phiri & Mantzari, 2018). The increasing number of sustainability and environment-related reports has generated criticism among many researchers (Phiri & Mantzari, 2018). The reasons for that is that companies often engage in CSR activities and publish environmental and sustainability reports only due to economical rationality and financial benefits that these activities provide to a company (Ihlen et al., 2011; Phiri & Mantzari, 2018). Corporate environmental disclosures are often used by companies to manipulate stakeholder opinion regarding a company's environmental performance (Cho et al., 2010). Moreover, the reports become an instrument of marketing communication to build corporate reputation (Kotler & Lee 2005; Phiri & Mantzari, 2018).

According to a definition by ISO 26000, 'transparency' is 'openness about decisions and activities that affect society, the economy and the environment, and willingness to communicate these in a clear, accurate, timely, honest and complete manner' (ISO 26000, n.d.).

Regardless of the quality of conduct, transparency in reporting can have a positive impact on a company's image (Hughey & Sulkowski, 2012). Nevertheless, the research by Cho et al. (2010) reveals that companies with poorer environmental performance tend to disclose this information selectively in their reports. They focus on the positive news, use more optimistic language, and simultaneously suppress poor performance.

The study by Frederiksen and Nielsen (2015) identifies that CSR reporting often does not effectively enable stakeholders to evaluate CSR performance, even though it is the main purpose of these reports. The reason is that companies do not present or refer to any clear or justified baseline that enables one to compare the company's performance. Frederiksen and Nielsen (2015) advise that companies should justify the acceptable environmental performance for their company (e.g., levels of pollution, water and energy use, and waste production) using well explained and justified baselines. For instance, it would provide more clarity to the stakeholder, if a company not just mentions the waste that was produced in the reporting period, but also explains what the acceptable volume of waste or CO₂ production is for this particular company, as well as providing justification why these baselines are reasonable for this type of business (Frederiksen and Nielsen, 2015).

Frynas (2010) conducted a study on the transparency of CSR ambitions of oil and gas companies. The results demonstrated that transparency in non-financial disclosures of the oil and gas companies is usually inadequate. More specifically, his study suggests that despite claiming to promote transparency initiatives, oil and gas companies publish selective information and use CSR to govern public perceptions (Frynas, 2010).

The Russian provider of consultancy services, CREON Group, and WWF-Russia developed an external assessment tool for measuring the environmental transparency of Russian oil and gas producers, which provides an environmental transparency rating. By analysing the influence of the rating on the transparency of the oil and gas companies, Shavarts et al. (2018) discovered that this rating indeed contributes to the transparency and environmental responsibility within the industry. However, the research faced some disclosure resistance from the Russian oil and gas sector, which was reluctant to share sensitive information concerning oil spills, ecological accidents, and Environmental Impact Assessment documentation (Shavarts et al., 2018).

At the same time, some authors established that external assurances, sustainability standards, and reporting frameworks do contribute to increased transparency in non-financial reporting (Weuster et al., 2020; Deloitte, 2016). Global reporting standards and frameworks for sustainability reporting include the GRI, the Sustainability Accounting Standards Board, the Carbon Disclosure Project, and Dow Jones Sustainability Indexes (Deloitte, 2016).

2.2.1 External assurances

In recent years, the number of CSR reports with external assurances has increased dramatically (Owen, 2007). The KPMG (2017) suggests that external assurances of reports increased by 67% from 2006 to 2017. External assurances are performed by independent auditors or organizations that evaluate accuracy, trustworthiness, and relevance of disclosed information (GRI, 2013). Although an external assurance for a sustainability report is voluntary, external assurances are a significant way to ensure the credibility of the data in the reports (Channuntapipat,

2018; Owen, 2007). Additionally, assurance practices provide benefits to companies, as they receive useful feedback on their risk mitigation measures, emergency issues, and performance management (Owen, 2007).

The quality of the independent option is ensured by the knowledge of assurance providers on the various multifaceted issues ranging from financial to environmental information, as well as expertise in 'assurance and assurance procedures, their client's industry, business and operations and the subject matter of the assurance engagement i.e. sustainability' (Channun-tapipat, 2018; Farooq & De Villiers, 2019).

Farooq and De Villiers (2019) categorized assurance providers into accounting sustainability assurance providers (ASAPs) and non-accounting sustainability assurance providers (NASAPs). The ASAPs work mainly for the big four accounting firms: PwC, E&Y International, Deloitte, and KPMG, providing their clients with financial and auditing services (Farooq & De Villiers, 2019). The NASAPs work for diverse 'multinational engineering consultancies and certification providers, locally operated sustainability consultancies and other assurance providers' (Farooq & De Villiers, 2019). In this study, most of the sampled companies rely on ASAPs for assurance of their reports.

Research by Weuster et al. (2020) on transparency in CSR reporting suggests that reports with assurances by external auditors are more comprehensive in their coverage and are less optimistic in verbal tone. This means that the reports with external assurances use more positively and less negatively connoted words, which enhances the transparency of the reports. At the same time, a more optimistic tone in reports is often connected with lower environmental performance and less transparency (Cho et al., 2010; Weuster et al., 2020; Deloitte, 2016).

2.2.1 Global Reporting Initiative

The Global Reporting Initiative (GRI) is an international NGO (Non Governmental Organization) that encourages the use of sustainability reporting guidelines for companies to become more sustainable, transparent, and responsible for their actions and impact (GRI, 2020; Bhāle & Bhāle, 2018). From 2000, GRI started providing frameworks for sustainability reporting (GRI, n.d.-c). The first framework was called GRI Guidelines (G1). From 2000 to 2018, the guidelines were expanded and improved from first generation of GRI Guidelines (G1) till the fourth generation Sustainability Reporting Guidelines (G4)(GRI, n.d.-c). In 2018, GRI completed the transition from G4 guidelines to the Sustainability Reporting Standards – GRI Standards (GRI, n.d.-c). Nowadays, GRI Standards is the latest version of the sustainability guidelines (GRI, n.d.-c). GRI Standards brought little content changes to the GRI Guidelines. The main changes embraced the naming of the disclosures, clarification of concepts and vocabulary, adjustment of structure and the format (Willaert, 2016; Bailly-Leclerc, 2016). GRI Standards include 3 general standards and 33 topic-specific standards in comparison to the singular structure of GRI G4

(Willaert, 2016; Bailly-Leclerc, 2016). This new structure allows to update individual GRI standards easier and more regularly (Willaert, 2016; Bailly-Leclerc, 2016).

The guidelines for environmental reporting developed by the GRI are the most widely accepted ones (Godschalk, 2008). Seventy-four percent of global corporations use GRI Standards for their reporting, including companies in Russia, where GRI is the leading framework for sustainability reporting (KPMG, 2015). In 2019, GRI initiated the development of the GRI Sector Standard: Oil and Gas. If introduced, this standard will create a foundation for improving transparency in the oil and gas sector and ensure companies report the right information on 22 critical sustainability topics covering climate change, the environment, health and safety, employment, communities, and governance (GRI, n.d.-a).

The GRI developed a set of global standards for sustainability reporting on economic (GRI 200), environmental (GRI 300), and social matters (GRI 400) (GRI, n.d.). These GRI standards are designed primarily as a set of standards for preparing sustainability reports (GRI, n.d.). The GRI 300 environmental standards provide reporting requirements on the reporting of environmental information. GRI 300 includes the following categories (GRI, 2020b):

- *GRI 301: Materials*
 - Disclosure 301-1 Materials used by weight or volume
 - Disclosure 301-2 Recycled input materials used
 - Disclosure 301-3 Reclaimed products and their packaging materials
- ¹¹_{SEP} *GRI 302: Energy*
 - Disclosure 302-1 Energy consumption within the organization
 - Disclosure 302-2 Energy consumption outside of the organization
 - Disclosure 302-3 Energy intensity
 - Disclosure 302-4 Reduction of energy consumption
 - Disclosure 302-5 Reductions in energy requirements of products and services
- ¹¹_{SEP} *GRI 303: Water and Effluents*
 - Disclosure 303-1 Interactions with water as a shared resource
 - Disclosure 303-2 Management of water discharge-related impacts
 - Disclosure 303-3 Water withdrawal
 - Disclosure 303-4 Water discharge
 - Disclosure 303-5 Water consumption
- ¹¹_{SEP} *GRI 304: Biodiversity*
 - Disclosure 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas
 - Disclosure 304-2 Significant impacts of activities, products, and services on biodiversity
 - Disclosure 304-3 Habitats protected or restored

- Disclosure 304-4 IUCN Red List species and national conservation list species with habitants in areas effected by operations
- ^[1]_{SEP} *GRI 305: Emissions*
 - Disclosure 305-1 Direct (Scope 1) GHG emissions
 - Disclosure 305-2 Energy indirect (Scope 2) GHG emissions
 - Disclosure 305-3 Other indirect (Scope 3) GHG emissions
 - Disclosure 305-4 GHG emissions intensity
 - Disclosure 305-5 Reduction of GHG emissions
 - Disclosure 305-6 Emissions of ozone-depleting substances (ODS)
 - Disclosure 305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions
- *GRI 306: Waste*
 - Disclosure 306-1 Waste generation and significant waste-related impacts
 - Disclosure 306-2 Management of significant waste-related impacts
 - Disclosure 306-3 Waste generated
 - Disclosure 306-4 Waste diverted from disposal
 - Disclosure 306-5 Waste directed to disposal
- ^[1]_{SEP} *GRI 307: Environmental Compliance*
 - Disclosure 307-1 Non-compliance with environmental laws and regulations
- *GRI 308: Supplier Environmental Assessment*
 - Disclosure 308-1 New suppliers that were screened using environmental criteria
 - Disclosure 308-2 Negative environmental impacts in the supply chain and ^[1]_{SEP} actions taken

The reporting principles of GRI (e.g., accuracy, balance, clarity, comparability, reliability, and timeliness) guarantee the quality and clear presentation of data in reports (GRI 101, 2016). A balance of data in the report implies that the company provides information regarding both the positive and negative aspects of its business (GRI 101, 2016). Timely reported information on a year-to-year basis (as well as accuracy and clarity in this information) ensures timely and well-reasoned decision-making by the stakeholders (GRI 101, 2016). Comparability of the data is an important aspect for assessing the company's environmental performance over time to compare the indicators with the company's previous performance, its objectives, and the performance of other companies (GRI 101, 2016).

Nevertheless, some authors discovered that GRI guidelines do not always guarantee the full transparency and reliability of reporting. Fonseca, McAllister and Fitzpatrick (2014), who analysed the GRI-based disclosure among mining companies, discovered that although the GRI reporting framework provides an easy way to disclose the impacts, GRI guidelines provide opportunities to camouflage the complex relationship between the mining industry and the envi-

ronment. In addition, the interviews with the mining corporation showed due to a large number of different indicators, the corporations do not provide the full picture of the environmental performance, which in the end can even mislead the readers (Fonseca, McAllister & Fitzpatrick, 2014).

At the same time, many analysts support the GRI reporting guidelines, as they do promote the transparency of the reporting and guide companies to accurate and accountable reporting on diverse environmental matters (Deloitte, 2016; Fonseca, McAllister & Fitzpatrick, 2014).

As GRI guidelines are voluntary, companies use them for assistance in developing a framework for environmental reports (Finch, 2015). Other companies prepare reports 'in accordance' with the guidelines to gain an official certification for their reports (Finch, 2015). If the report is done in accordance with GRI Standards, the organization should clearly claim this in the document. For instance, if the report is prepared in accordance with the core option, the company should publish the following claim in its documents: 'This report has been prepared in accordance with the GRI Standards: Core option'. The core option implies the minimum disclosure of main material topics, while comprehensive option has additional requirements for disclosure of governance and strategy related information (Rudyanto and Wimelda, 2020). If the organization prepared the report in accordance with the comprehensive option, the report should include the following statement: 'This report has been prepared in accordance with the GRI Standards: Comprehensive option' (GRI 101, 2016). The organizations must meet the minimum criteria to make these statements, as well as inform GRI when making these claims in the reports (GRI 101, 2016).

Many companies that use GRI guidelines or report 'in accordance' with GRI Standards attach the GRI Content Index to their reports. The GRI Content Index helps the readers to navigate the information in the report that specifies which standards were used in the report and in what section or page it is found (GRI, n.d.-b). The GRI advises companies to seek external assurance to reports that refer to the GRI Standards. Nevertheless, this is also a voluntary initiative (GRI, n.d.-d).

2.2.3 Regulatory framework of environmental reporting

Environmental policies and standards play a crucial role in the transparency of environmental reporting. The laws, regulations, guidelines, and standards can be developed by regulators, intergovernmental organizations, professional associations, industry bodies, and other organizations on the national and international level (Carrots & Sticks, 2020).

Carrots & Sticks (2020), with the support of the UN Environment Programme and the World Business Council for Sustainable Development (WBCSD)'s Reporting Exchange, published a report on global trends in the regulatory frameworks of sustainability reporting. Carrots & Sticks is an initiative launched by the UN Environment Programme with KPMG International

(Carrots & Sticks, n.d.). The report suggests that Europe still dominates in a number of overall voluntary and mandatory regulations, standards, and guidelines for sustainability disclosure, followed by the Asia Pacific region (Carrots & Sticks, 2020). Moreover, the requirements for mandatory reporting have skyrocketed in countries of the Global North during recent years (Carrots & Sticks, 2020).

In 2014, the directive on the disclosure of non-financial and diversity information (Directive 2014/95/EU) was adopted. This directive contributes to transparency and accountability of environmental reporting across Europe (CSR Europe & GRI, 2017). Directive 2014/95/EU has established the rules on disclosure of non-financial information from public-interest companies with more than 500 employees from 2018 onwards. It indicates the information that large companies are mandated by law to disclose regarding environmental, social, human, corruption, and bribery matters (CSR Europe & GRI, 2017). The exact requirements on how to report on social and environmental performance is not stipulated in Directive 2014/95/EU. Companies can use 'international, European, or national guidelines for their reports according to their own characteristics or business environment', such as 'sector of activity, geographical location and the nature and scale of climate-related risks and opportunities' (European Commission, n.d.; European Commission, 2019).

However, it is recommended for companies to refer to the UN Global Compact, the Organisation for Economic Co-operation and Development guidelines for multinational enterprises, and ISO 26000. Moreover, the European Commission published two guidelines: one on non-financial reporting and one on reporting climate-related information (European Commission, n.d.). In the United Kingdom, according to the Companies Act 2006, companies whose shares are traded on a stock exchange must disclose 'information on environmental matters (including the impact of the company's business on the environment), the company's employees, and social and community issues, including information about any policies of the company in relation to those matters and the effectiveness of those policies' (Companies Act 2006, 2015).

Moreover, to meet the Streamlined Energy and Carbon Reporting (SECR) requirements, the UK Department for Environment, Food & Rural Affairs designed the guidance for companies for assessing and reporting their energy consumption and CO₂ emissions to comply with SECR requirements (Department for Environment, Food & Rural Affairs, 2013). The purpose of SECR is to improve the energy efficiency of companies, reduce their environmental impact, and improve transparency for stakeholders (Education & Skills Funding Agency, 2020).

The environmental and social reporting in Russia so far remains voluntary. However, the draft federal law 'On Public Non-Financial Reporting' prepared by the Ministry of Economic Development of the Russian Federation (2017) is currently under consideration by the Russian government. The draft of this federal law was initiated in 2017. The federal law establishes the requirements for the preparation and disclosure of public non-financial reporting by compa-

nies. The Ministry of Economic Development believes that ‘it will make Russian companies more attractive to investors and more competitive in the international market’ (Chervonnaya, 2020).

As for the standards and guidelines for environmental reporting beyond the GRI guidelines, there are other organizations that contribute to the transparency of environmental reporting. The ISO published a set of standards – ISO 14000 – that mainly focuses on EMSs; environmental auditing, labels, and declarations; and lifecycle assessment (ISO, 2020). However, ISO standards do not provide exact guidelines on how to report environmental performance (Adams & Narayanan, 2007).

AccountAbility, a global consulting and standards firm that developed a set of standards for managing and reporting sustainability performance (AccountAbility, 2021; Del Baldo, 2015). The series of assurance standards AA1000 introduced by AccountAbility, provide a framework for sustainability assurance, and support companies on how to improve their long-term performance through adopting sustainability initiatives (Accountability, n.d.; AccountAbility, 2020).

The WBCSD assists companies on sustainability issues as well. The WBCSD developed reporting matters to provide guidelines to companies on sustainability reporting. After analysing company’s reports, the organization provides individualized feedback on how to improve sustainability reporting to make it more transparent, effective, and accessible for understanding (WBCSD, 2019).

In Russia, the most widely used standards for sustainability reporting are those of the GRI. However, when preparing sustainability reports, Russian companies also rely on other guidelines and standards, such as the UN Global Compact, the ISO 26000 Guidance on social responsibility, the Social Charter of Russian Business, and performance indicators of the Russian Union of Industrialists and Entrepreneurs (RUIE) on sustainable development via the indexes for responsibility and transparency and for sustainable development (RUIE, 2019; RUIE, 2020). The responsibility and transparency index reveals the completeness, transparency, and quality of disclosures (RUIE, 2020). The second index reflects the dynamics of the company’s social and environmental performance (RUIE, 2020). Moreover, the RUIE Council for Non-Financial Reporting conducts voluntary assurance of sustainability reports in accordance with the principles of responsible business practice that are described in the Social Charter of Russian Business (RUIE, n.d.).

2.3 Theoretical concepts

2.3.1 Stakeholder theory

The term 'stakeholder' refers to the individuals, groups of people, or organizations that have a valid interest in a company's activities and results, and who are affected by a company's performance (Weiss, 2008; Marquis and Huston, 2009; Freeman et al., 2010). Stakeholders may vary depending on the specifics of the business and industries a company operates in (Freeman et al., 2010). Freeman et al. (2010) claim that stakeholders are not necessarily part of the company's governing bodies. Clarkson (1995) defines primary and secondary stakeholders. Primary stakeholders hold direct interest in the company's business, and they include shareholders, employees, customers, and suppliers. Conversely, secondary stakeholders do not contribute directly to the value-creating process of the firm (Freeman, 2018). Moreover, they are not crucial for a company's survival, and they often do not have direct engagement with a company through transactions (Gossy, 2008; Clarkson 1995). Secondary stakeholders are often conceived as government, media, nongovernmental organizations (NGOs), competitors, and unions (Freeman, 2018). However, the interests of all groups of stakeholders have to be considered to create value and to contribute to a company's success. Special consideration should be given to the interests of the stakeholders who possess the most critical resources for a company's viability (Muhammad, 2009).

Stakeholder theory finds its reflection in CSR and explains the managers' motivation behind non-financial disclosures. Corporate social responsibility became a means of shaping the relationship between a company and its stakeholders (Phillips, 2003). Normative elements of the stakeholder theory explain CSR initiatives as moral obligations of a business to society (Brown & Forster, 2012).

According to the iron law of responsibility, described by Davis (1973), companies need to behave responsibly and should not abuse the power they possess because if they don't meet the expectations of society, companies can lose their power and legitimacy granted by society (Bhāle & Bhāle, 2018).

As expectations of stakeholders are routinely changing, a company should ensure regular communication with its stakeholders and should be aware of interest of its stakeholders (Bhāle & Bhāle, 2018). Climate change and global warming are pressing concerns facing society and the different stakeholder groups (Bhāle & Bhāle, 2018). Successful organizations should effectively manage the demands of stakeholder groups, which implies introduction of CSR initiatives.

Donaldson and Preston (1995) classify stakeholder theory via three aspects: descriptive, normative, and instrumental. The descriptive stakeholder theory describes a company as a 'constel-

lation of cooperative and competitive interests possessing intrinsic value' (Donaldson and Preston, 1995). This theory explains how an organization actually works and how it manages stakeholders' interests. Instrumental theory draws a connection between considering the interests of various stakeholders when managing organizations and achieving corporate goals (e.g., profitability, growth, and improved performance). Ethical and moral considerations are the basis of the normative stakeholder theory. According to this theory, the interests of stakeholders have an 'intrinsic value'. For instance, a company needs to consider their interests because it is fair from the moral standpoint (Donaldson & Preston, 1995; Gossy, 2008; Philips, 2003).

2.3.2 Legitimacy theory

Along with the stakeholder theory, legitimacy theory explains the motivations for engagement in undertaking concrete CSR activities, such as environmental reporting initiatives (Belal, 2008; Habisch, 2005). However, the legitimacy theory, in contrast, describes the behaviour of a company and its motivations for CSR within society, rather than only as related to stakeholders (Belal, 2008). Suchman (1995) provides a broad-based definition of legitimacy as a 'generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions'.

According to this theory, organizational legitimacy is necessary for a company's survival (Deegan, 2007). However, this implies not only a company's environmental, economic, and social performance, but also how society perceives the organization (Deegan, 2007). A social contract is a critical aspect for ensuring organizational legitimacy (Deegan, 2007). To meet the expectations of society, a company must act according to a social contract between the company and society (Moloi & Marwala, 2020; Deegan, 2007). The contract can be explicit or implied (Moloi & Marwala, 2020). For instance, legislation provides the explicit terms of the contract, while social norms and expectations provide implied terms of a social contract (Deegan, 2007).

Legitimacy theory suggests that, apart from gaining profits, companies are responsible for meeting the expectations of society, which is concerned about environmental and social consequences of companies' activities (Bhāle & Bhāle, 2018). As a result, companies engage in CSR and environmental reporting to gain the approval of society, to manipulate their perceptions, and to legitimize their business activities (Idowu & Leal Filho, 2010; Belal, 2008; Deegan, 2007; Bhāle & Bhāle, 2018). Particularly in cases of environmental scandals and accidents associated with the oil and gas industry that draw ample media attention, companies use CSR and environmental reporting to legitimize their actions in the eyes of society (Belal, 2008; Idowu & Leal Filho, 2010).

2.3.3 Institutional theory

Institutional theory provides a complimentary perspective to the stakeholder and legitimacy theories, as it describes how companies react to institutional pressures and expectations (Deegan, 2007). Institutional requirements can be defined as ‘cultural rules giving collective meaning and value to particular entities and activities, integrating them into large schemes’ (Miner, 2005). Institutional theory implies that various institutions, such as governments, communities, authorities, or professional associations, put normative pressure and requirements on companies (Fukukawa, 2014). To become legitimate, companies need to comply with the requirements and norms of the institutional environment in which they operate (Pilato, 2019).

Applying institutional theory to CSR suggests that social values, norms, and beliefs affect a company’s sustainable business behaviour and business decisions (Adelopo et al., 2018; J.L. Glover, Higgins & Larrinaga, 2014). However, while legitimacy theory concerns a company’s short-term motives for non-financial disclosure, institutional theory explains environmental and social disclosure practices being ‘common in [a] particular context’ (Larrinaga-Gonzalez, 2007).

2.4 Empirical studies

Gustafsson and Jonsson (2015) used environmental indicators from the GRI framework to discover what indicators companies mostly reported on over the five-year period between 2011 and 2015. The sample consisted of 22 companies listed at the Stockholm Stock Exchange from such sectors as banking, telecommunications, retail, basic resources, oil and gas, construction and materials, technology, industrial as well as personal goods and services. The oil and gas sector was represented by one company Lundin Petroleum. The same as in this study, Gustafsson and Jonsson (2015) analysed the reports and GRI Indexes tables through content analysis. Nevertheless, while in this study I analysed if and to what extent the reports are prepared in accordance with GRI standards, as well as to what extent companies report on the negative environmental news, Gustafsson and Jonsson (2015) investigated which GRI indicators are reported by companies and to what extent. The GRI Index table clearly informs the reader on which indicators the company reports and to what extent: fully, partially, or not reported. Gustafsson and Jonsson (2015) coded the data based on these three categories and established the reporting frequency of indicators. The authors concluded that energy and emissions are the most commonly reported indicators. However, the authors discovered that the indicators vary across sectors (Gustafsson & Jonsson, 2015).

Ojala’s (2015) study scrutinizes the development of environmental reporting practices for four multinational clothing retailers operating in Finland. By applying qualitative content analysis, the author analysed 31 reports of these companies from 2002 to 2013. The results indicate that, during this period, the number of reports and environmental indicators presented by the

companies increased (Ojala, 2015). Additionally, the author discovered that the most widely used legitimacy strategy is repairing legitimacy rather than gaining or maintaining legitimacy. It means that the companies react to the negative performance in their reports, by giving explanations, justifications or denial of environmental impact (Ojala, 2015). For instance, companies often explain that they did not have direct control over the incident, blame other companies or sub-suppliers (Ojala, 2015).

Jose and Lee (2006) applied content analysis to study environmental information disclosed by global corporations on their websites. Unlike other research on environmental reporting that is country or industry-specific, the study by Jose and Lee (2006) comprised the 200 largest global corporations from nine different industries. The results of the research demonstrate that, due to less stringent environmental regulations, US corporations disclose less environmental information than European companies. The study suggests that only one quarter of environmental reports have external environmental certifications (Jose & Lee, 2006). Additionally, the study shows that 15 out of 18 sampled oil and gas companies reported on the environmental performance, which is place five among nine industries that are analysed in the study (Jose & Lee, 2006).

Eljayash et al. (2013) performed a content analysis regarding differences in environmental disclosure practices between national and international oil and gas companies of Arab petroleum exporting countries. By counting the number of words, the authors assessed the quantity of environmental disclosures in the annual reports of oil and gas corporations published in 2008, 2009, and 2010. The quality of the reports was examined by an environmental disclosure index. Eljayash et al. (2013) studied the volume of different items presented in the reports by word count. More specifically, the authors analysed 16 items; among them are education and training, environmental management, risk management, air emission, and environmental auditing (Eljayash et al., 2013). Depending on the level of environmental disclosure about each item, a company received a score ranging from zero to three. For instance, if the disclosure was monetary, the score of disclosure was three. If the disclosure was quantitative, the item received a score of two. For qualitative information, a company received a score equivalent to one and a zero for no information on the item.

The results of the word quantity analysis demonstrate that the number of companies disclosing environmental information, as well as the number of words in the reports, rose over the course of the study period. As for the quality of environmental disclosure, the US companies received the highest score, and German companies received the lowest score among the international oil and gas companies (Eljayash et al., 2013). The highest score among the Arab petroleum exporting countries was assigned to Saudi Arabia, which is double as high as the score of the German companies (Eljayash et al., 2013).

Islam (2009) used similar research methods as in this study. Islam (2009) examined annual reports of multinational clothing companies that source part of their products from Bangladesh based on six categories: environment, energy, human resource, community involvement, product and safety, and others. The extent of disclosure was identified by calculating the number of words on the topics. The author discovered that human resource make up the largest percentage of all disclosures compared to other categories during the research period, while the reporting on health and safety topic has increased (Islam, 2009).

2.5 Conclusion

In this chapter, previous studies concerning CSR reporting and transparency in reporting have been reviewed. This chapter has provided an explanation regarding why companies engage in environmental reporting practices, whether they are complying with legal requirements or implementing voluntary initiatives to meet the expectations of stakeholders and society. This chapter has also highlighted the role of the GRI, external assurances, and regulatory frameworks in the increased transparency of environmental reports.

3 RESEARCH DESIGN

Empirical studies from other research on the environmental reporting practices have provided useful insights on the methods of data collection and the analysis of transparency in environmental reporting.

This chapter begins with the details regarding how the secondary data was obtained and analysed for the purpose of the present research. It reviews the sampling strategy of leading Russian and European oil and gas companies. Furthermore, the author provides information about how to enhance and maintain validity and reliability in data collection and analysis. Moreover, limitations, bias, and ethical concerns that result from the specifics of qualitative content analysis are considered in this chapter.

3.1 Data collection

Data collection involved gathering secondary data. The data for this part of the analysis was collected from annual, sustainability, and environmental reports of each of the companies sampled. BP Plc, Equinor ASA, OMV AG, Royal Dutch Shell, Lukoil, Novatek, Gazprom, and Rosneft provide environmental disclosure in their sustainability reports. Surgutneftegas discloses environmental information in their environmental reports. All of these companies present environmental performance as a part of the annual report as well.

Eni S.p.A. officially states on its webpage that ‘consolidated disclosure of non-financial information (NFI) composed under Legislative Decree no. 254/2016 is published within its Annual Report’ (Eni, 2019a). From 2005 to 2013, PJSC Tatneft used to issue sustainability reports. However, since 2014, the disclosure of information on activities in the field of corporate social responsibility has been conducted as part of the integrated annual report. Nevertheless, PJSC Tatneft provides an additional e-version of their sustainability report (Tatneft, n.d.). Total S.A. discloses its environmental strategy and performance through its universal registration document (annual report), and climate report (Total, n.d.).

To investigate the GRI and assurances of the reports, GRI indexes and assurance files available on the companies’ official webpages were scrutinized for this specific data apart from the reports. These files are sometimes uploaded separately from the reports on corporate webpages.

The next part of study investigated the negative information on accidents and environmental performance covered by media. To locate the news reports, the Factiva database was used. Factiva is the search tool by Dow Jones & Company that provides same-day and archival business information from nearly 8,000 sources from 118 countries in 22 languages. Factiva covers

information from news sources, trade publications, and television and radio transcripts (Dow Jones & Company, n.d.).

The news reports for the research were collected in English for sample firms, as well as in local languages of the sample companies to guarantee deeper coverage of the news. For instance, apart from news published in English, news was analysed in German for OMV, in French for Total, in Italian for ENI, in Norwegian for Equinor, and in Russian for six sample companies.

To investigate the news on a specific company, Factiva provides the feature to select the company name, narrowing a time period and add keywords in the text box. In this section of the data analysis, the inductive approach was applied. For this study, I searched for negative news connected to the companies' environmental performance. For instance, I categorized negative news as unfavourable information about the companies' environmental performance, and about the potential environmental risks that can result from the activities of the sampled companies. I used the following search terms to identify negative environmental news 'leak', 'spill', 'accident', 'incident', 'emission', and 'pollution'. After the trial search for different terms, I concluded that these search terms provide the most relevant search results and support the aims of this study. These terms helped to identify the matters of environmental risk and environmental impact caused by the sampled oil and gas companies. The time period was limited from 1 January 2017 to 31 December 2019.

The results of the search included news articles, on each of the selected companies, as well as its subsidiaries, where the chosen keywords were mentioned. The subsidiaries imply the companies that are majority-owned by the sampled companies. After all resulting articles were scrutinized, only the negative environmental news about the sample companies and their subsidiaries were maintained. If the company responsible for the accident is not known, the article was excluded from the research.

A partial list of the news sources used for this part of the research include the following: Dow Jones Institutional News, Greenpeace, The Guardian, TASS, Interfax, Regulatory News Service, Financial Times, This Day, Reuters News, Press Association National Newswire, Business Wire, AllAfrica, The Premium Times, Ros Business Consulting, Vedomosti, Rosbalt News Agency, RIA Novosti, Le Nouvelle Republique Dimanche, La Provincia Pavese, La Gazzetta del Mezzogiorno, Il Fatto Quotidiano, Agenzia Nazionale Stampa Associata – Regional Service, La Nazione, Charleston Gazette, The Telegraph, The Wall Street Journal, The New York Times, Washington Post, Associated Press, Upstream, and Platts Commodity News.

3.2 Sampling

The sampling for qualitative content analysis tended to be purposeful rather than random. The sampling strategy was chosen based on the aimed topic of study and comprises the companies that best represent the purpose of the study (Elo et al., 2014).

For qualitative studies, there is generally no agreed upon sample size because the optimal sample relies on the intent of the analysis, research questions, and accessibility of the data (Elo et al., 2014; Neuendorf, 2017). However, qualitative studies usually deal with a low sample size that is analysed in depth (Miles & Huberman, 1994). It is a common practice to include from one to 30 informants or sources of information in qualitative content analysis (Bengtsson, 2016).

The sample of the research is represented by the leading companies that operate in the integrated oil and gas sector as well as in the exploration and production of oil and gas. Companies must publicly report environmental performance on their corporate websites and have headquarters in Russia and Europe.

The leading oil and gas companies were chosen based on reputational case selection (Miles & Huberman, 1994). For instance, the leading companies are defined by the expert in the independent ranking compilation. Standard & Poor's (S&P) is one of the Big Three global rating agencies – alongside Moody's and Fitch – that provide research and analysis of the financial strength of companies and government entities (CFI, n.d.).

The sample is based on the S&P Global Platts Top 250 Global Energy Companies Ranking for 2019 (S&P Global Platts, 2019a; Appendix 2). The top 250 rankings are widely used by energy companies, the financial industry, and governments to categorize the largest players in the industry, monitor global trends, and assess their success against competitors (S&P Global Platts, n.d.-b). The S&P Global Platts Top 250 Global Energy Company Ranking is released at the end of September each year online and by press release (S&P Global Platts, n.d.-a). As the global companies in the ranking have different reporting standards, S&P uses the most current reporting period for its ranking.

All companies in the Top 250 Global Energy Companies Ranking have assets above \$5.5 billion (S&P Global Platts, n.d.-c). Companies are ranked by financial performance using four key metrics: asset worth, revenues, profits, and return on invested capital (Weber, 2019). In applying the S&P Global Platts formula, S&P adds each company's numerical ranking for asset worth, revenues, profits, and return on invested capital (ROIC) and assigns a rank of one to the company with the lowest total, two to the company with the second lowest total, and so on (S&P Global Platts, n.d.-c).

The ranking includes companies from all regions of the world and from different industries of the energy sector: integrated oil and gas, multi-utilities, oil and gas exploration and production, oil and gas refining and marketing, oil and gas storage and transportation, and renewable electricity (S&P Global Platts, n.d.-c). To identify the companies for this study, a comparable case selection was applied (Miles & Huberman, 1994). For instance, the selection of the companies was made based on the same relevant characteristics over time (Miles & Huberman, 1994).

My analysis includes companies operating in integrated oil and gas (IOG) and oil and gas exploration and production (E&P) sectors. As the sample is industry and country specific, the sample size is limited to six Russian companies (OJSC Lukoil, OJSC Gazprom, Surgutneftegas OJSC, OJSC Rosneft Oil Co, Novatek, and Tatneft) and six European companies (Royal Dutch Shell plc, Equinor ASA, TOTAL SA, BP plc, Eni S.p.A., and OMV AG). Table 1 represents the key figures of the 12 companies sampled.

Platts Rank 2019	Company	Country	Assets		Revenues		Profits		Return on invested capital		3-Year CGR%	Industry
			\$million	rank	\$million	rank	\$million	rank	ROIC%	rank		
1	Royal Dutch Shell plc	Netherlands	399194	1	388379	2	23352	1	8	57	13.6	IOG
3	OJSC LUKOIL	Russia	87894	30	123214	9	9494	7	13	16	11.8	IOG
4	OJSC Gazprom	Russia	319085	4	126101	8	22329	2	8	59	10.6	IOG
5	Equinor ASA	Norway	112508	24	78556	20	7535	13	11	28	10.7	IOG
8	TOTAL SA	France	256762	7	184106	6	11446	6	7	78	8.7	IOG
9	Surgutneftegas OJSC	Russia	78747	34	23572	60	12138	5	18	5	15.7	IOG
11	OJSC Rosneft Oil Co	Russia	201827	11	120042	10	8418	10	6	83	15.8	IOG
16	BP p.l.c.	United Kingdom	282176	6	297220	4	9382	8	5	112	10.2	IOG
20	Eni S.p.A.	Italy	133048	17	85966	16	4638	21	5	104	1.9	IOG
38	OMV AG	Austria	41543	77	25774	53	1616	61	7	78	0.6	IOG
40	PJSC Tatneft	Russia	18419	143	13961	95	3248	33	27	2	18.1	E&P
51	PAO NOVATEK	Russia	18651	142	11915	107	2511	41	15	10	20.7	E&P

TABLE 1. Profiles of the companies (S&P Global Platts, 2019b)

3.3 Content analysis

This study investigates transparency in environmental disclosure in the reports of leading Russian and European oil and gas producers. To analyse and summarize the textual data in the reports, content analysis is considered the most feasible research method. Moreover, this approach is widely used by researchers to assess a company's social and environmental disclosures (Vourvachis & Woodwars, 2015). More specifically, Eljayash et al. (2013), Ojala (2015), Gustafsson and Jonsson (2015), and Jose and Lee (2006) have used content analysis for studying environmental disclosure practices in company reports.

Content analysis is used by researchers to identify the presence of certain words, themes, or concepts within textual data (Columbia University, 2019). During the content analysis, researchers can use data from interviews, historical documents, media, books, newspaper headlines, or speeches. To analyze the textual data, the researcher can code the data for easier text interpretation (Columbia University, 2019). Some researchers use the term 'textual analysis' instead of qualitative content analysis (Baxter, 2020; White and Marsh, 2006). Content analysis can be quantitative or qualitative. In quantitative content analysis, statistical testing serves as an argument basis for proof. In qualitative content analysis, an accurate and thorough description of a specific case serves as evidence for answering a research question (White and Marsh, 2006). The qualitative content analysis does not necessarily include numbers. If it does, the information is presented in form of counts or percentages (White and Marsh, 2006).

There are two approaches for qualitative content analysis: inductive and deductive (Elo et al., 2014). For data analysis in this study, both approaches were applied. In the deductive approach, the codebook is created before the study process based on the existing theory and expectations (Drisko & Maschi, 2015; Bengtsson, 2016). For instance, such categories as 'in accordance to GRI' and 'citing GRI' were created using a word search query to identify the predefined categories and word combinations. An inductive approach was applied when there was no specified data query. The data from reports was used as a basis for creating a codebook, codes were adjusted throughout the study process, and conclusions were drawn from the examined reports (Drisko & Maschi, 2015; Bengtsson, 2016).

Both inductive and deductive content analysis include three phases: preparation, organization, and reporting of results. During the first phase, the suitable data is collected, and the units of analysis are selected (Elo et al., 2014). During the coding, the manifest content is analysed. As part of the manifest content analysis, the researcher remains close to the original and obvious text rather than interpreting the implicit meaning of the text (Bengtsson, 2016).

In the inductive approach, during the organization phase, the researcher codes the data and creates the categories and abstraction (Elo et al., 2014). Upon categorizing the data and distinguishing the patterns within the datasets, a descriptive analysis is applied to interpret the results and summarize the differences between the two datasets: Russian and European oil and gas companies.

3.3.1 Computer-assisted qualitative data analysis software (CAQDAS)

To effectively manage and analyse qualitative data, a computer-assisted qualitative data analysis software (CAQDAS) was used. This software can save time in creating and assigning codes and can provide assistance during text interpretation. Additionally, CAQDAS plays the role of a database when making a qualitative content analysis. The software makes it easy to find and

select words or sentences in the text and code them, and it also saves the source of information (Gibbs, 2002). Moreover, it is able to provide some basic calculations, such as word count. Nevertheless, the idea of the qualitative content analysis is to interpret the results, which can be done only by the analytical work of the researcher (Gibbs, 2002).

Such CAQDAS as NVivo, Atlas.ti, AQUAD, Dedoose, and MAXQDA provide a range of tools that can help make the analytical process more comprehensible and transparent (Kaefer et al., 2015). These CAQDAS have minor differences in features, text formats they can accept, tools for visualizing data, and internal or external text storage (Krippendorff, 2004). Most CAQDAS provide tools to visually map data by creating charts, diagrams, and models (Easterby-Smith et al., 2013). The software packages change quite rapidly as the developers continuously improve the features and user-friendliness of the CAQDAS (Krippendorff, 2004).

For this qualitative content analysis, NVivo was used. Students are provided with the license for 12 months of access to NVivo (NVivo, n.d.). Moreover, a number of authors suggest that NVivo is one of the dominant packages in the CAQDAS market, as it provides a wide range of tools and has a user-friendly interface (Easterby-Smith et al., 2013; Gibbs, 2002).

For data analysis, reports of the sampled companies were imported to NVivo. As we apply the deductive approach to analyse if the report is prepared in accordance with GRI Standards, the coding category 'in accordance with GRI' was created. According to GRI 101 Foundation (2016), companies that prepare the report do so 'in accordance' with GRI Standards and should clearly claim that the report 'has been prepared in accordance with the GRI Standards'. As companies can use slightly different word combinations in a claim of reporting in accordance with the GRI Standards, a query was created that could include the following word combinations: 'in accordance with the GRI', 'in accordance with GRI', 'report in accordance with the Global Reporting Initiative's', 'in accordance with the core option of the Global Reporting Initiative', 'in accordance core', and 'in accordance with the core option'. The result of the search was coded (Appendix 3). To add context, additional manual coding was performed.

To discover if some of the sampled companies refer to GRI guidelines, the code 'citing GRI' was created. The researcher performed a 'GRI' query among the companies that do not prepare their reports 'in accordance' with GRI Standards. The results of the search query were coded (Appendix 4).

By applying the deductive approach, the external assurance data was coded. The 'external assurance' code includes the statements that specify that the report is assured, as well as information about the external assurer or auditor.

For the last section of the analysis, the negative environmental news that was identified in Factiva about each sampled company was grouped based on the topic of discussion. To dive into the data, manually coded the reports for this section of the analysis. If a company men-

tions an accident or its efforts to minimize the impact from an accident that was identified in Factiva within their reports, this information was coded for further analysis (Appendix 6).

3.4 Validity and reliability

The core principle of the reliability of qualitative content analysis is that the reliability data is obtained by duplicating the research under various circumstances. There are three types of reliability: stability, reproducibility, and accuracy (Krippendorff, 2013). Stability refers to the tendency for coders to consistently re-read, re-code, or re-analyse the same data in the same way across a time period (Krippendorff, 2013). Reproducibility refers to the reproduction of the data by several researchers in the same way. Accuracy refers to 'the extent to which the classification of text corresponds to a standard or norm statistically' (Myers, 2020).

Nevertheless, as the result of the qualitative content analysis is based on the researcher's assumption, coding errors can occur. In this respect, 80% is an acceptable margin for reliability (Columbia University, n.d.). To guarantee the reliability of the research conducted by the individual researcher and to identify possible errors, the researcher can conduct the analysis of the same data at two time intervals with at least 10 days difference (Schreier, 2012).

The validity of the data provides assurance that the results of the research are true and correspond to the facts (Krippendorff, 2013; Drisko & Maschi, 2015). With respect to validity, some authors use the term 'trustworthiness' (Krippendorff, 2013; Toma, 2006; Elo et al., 2014; Bengtsson, 2016). The correct choice in the data collection method is essential to maintain the trustworthiness of the research. The method of data collection should represent the aim of the study and be most appropriate for answering the research question (Elo et al., 2014).

To ensure the sampling validity, the representatives should be selected accurately, and they should best represent the research topic (Elo et al., 2014; Krippendorff, 2013). Commonly, the sampling approach in the qualitative study is based on the methodology and subject of the research rather than on the need to generalize the results (Elo et al., 2014).

During data analysis and interpretation, the researcher should minimize possible errors and accurately interpret the information from the textual data (Elo et al., 2014). Errors can be minimized by use of software and quality checks (Bengtson, 2000). The researcher should systematically and carefully report the results, paying particular attention if the conclusions have been drawn correctly (Elo et al., 2014). The content should be presented in a clear and understandable manner allowing the reader to look for alternative interpretations and make their own conclusions from the original data (Elo et al., 2014). This maintains the creditability of the information and ensures that the researcher did not misinterpret the text (Elo et al., 2014).

In general, the generalizability of qualitative research is a controversial topic (Polit & Beck, 2010). The results of the qualitative analysis are usually relevant to the particular context (Polit

& Beck, 2010). The goal of the qualitative content analysis is to gain multiple partial insights and meaning about the issue through in-depth study (Polit & Beck, 2010; Bengtsson, 2016; Drisko & Maschi, 2015). Therefore, the extrapolation that is needed for the generalization cannot be completely justified (Polit & Beck, 2010).

The use of quotations can also enhance the trustworthiness of results, as they provide confirmation regarding the researcher's interpretation of the content (Kyngäs et al., 2020; Elo et al., 2014). Nevertheless, they need to be used carefully when drawing conclusions because too many quotations can make the results unclear and weaken the analysis (Elo et al., 2014). The accurate description of the analysis process, as well as the explanation why these conclusions were specifically drawn, is essential for the trustworthiness of results (Drisko & Maschi, 2015; Elo et al., 2014). Furthermore, use of figures, tables, and attachments can provide additional details and insights for understanding (Elo et al., 2014).

3.5 Limitations and bias

Some limitations of this research result from the specifics of qualitative content analysis. As qualitative content analysis concerns text interpretation and assumptions, bias during the coding and analysis process could arise (Bengtsson, 2016).

Bias can be caused by a researcher's personal experiences, expectations, and background (Reis & Judd, 2000). Coder bias can create the potential for coding inaccuracies and errors. A researcher's preconceptions about the topic can result in intentional or unintentional bias (GAO, 1996). Such bias can be avoided through the training of the researcher, quality control checks or supervision by another researcher, and use of CAQDAS (GAO, 1996; Reis & Judd, 2000; Salmons & Lynn, 2009; Klenke et al., 2016). Since content analysis is conducted by an individual researcher, it is the researcher's responsibility to ensure the trustworthiness and reliability of the data analysis (Bengtsson, 2016).

Other challenges the researcher can face during data collection and analysis include missing documents, inappropriate documents, and uncodable documents. To ensure the quality and reliability of the research, inappropriate and uncodable documents should be excluded from the research, while specifying the reasons for elimination. If a considerable number of documents is missing, it is inappropriate to continue with content analysis as a research method (GAO, 1996). Nevertheless, the reports that are analysed in this research are publicly available on the companies' webpages. Therefore, this limitation has not occurred in this research.

3.6 Ethical issues

To avoid any ethical problems, the researcher should be aware of privacy issues around media disclosure. There is a difference between analysing conventional media and online media dis-

closures. Conventional mass media channels provide publicly available information in newspapers or on television, while data published on the internet can sometimes have a private or semi-private character. For instance, access to some data requires passwords or memberships. The information on the internet can be considered public if there are no restrictions to assess it (Elliott, 2005).

Before obtaining data, the researcher should consider the ethical issues. To define whether the information published online should be considered public or private, it is necessary to consult the relevant terms and conditions of the online platform. Commonly, information is provided about how the data can be handled by users and by third parties (Townsend & Wallace, 2016). In this study, the information from the reports and media was not protected with the privacy settings and is considered public.

3.7 Research summary

This research uses secondary data obtained from annual, sustainability, and environmental reports on the official webpages of the six Russian and six European oil and gas companies sampled. The leading oil and gas companies were identified based on the S&P Global Platts Top 250 Global Energy Companies Ranking for 2019, which ranks companies by financial performance.

The author used qualitative content analysis, which is often used in similar studies to analyse textual data. The results of the qualitative content analysis can be interpreted within the specific context and applied to the particular companies in the study, rather than generalized.

The analysis of the companies' transparency regarding environmental performance is based on three aspects: compliance with GRI guidelines, external assurance of the reports, and the correspondence between disclosure of environmentally sensitive information with information in the media about the company's performance.

To ensure the reliability and validity of the study, the author used CAQDAS NVivo and also analysed the data at two different time intervals. The results of the data analysis are presented in the next chapter.

4 DATA DESCRIPTION AND ANALYSIS

4.1 Global Reporting Initiative

To analyse transparency in environmental reporting through use of the GRI guidelines, a content analysis of the sampled companies' reports was performed. In the first stage, the author investigated which reports were prepared in accordance with GRI Standards. According to GRI 101 Foundation (2016), if the report is prepared in accordance with GRI Standards, the company should clearly state this in the report.

The companies can use slightly different word combinations when claiming to use the GRI Standards. For instance, sampled companies used the following word combinations in their statements: 'in accordance with the GRI', 'in accordance with GRI', 'report in accordance with the Global Reporting Initiative's', 'in accordance with the core option of the Global Reporting Initiative', 'in accordance core', and 'in accordance with the core option'. After discovering that not all the companies sampled prepared the reports in accordance with GRI Standards, it was decided to analyse if other companies – namely Surgutneftegas OJSC and PJSC Tatneft – instead refer to the GRI in their reports in some other manner.

Table 2 illustrates the results of the analysis of the reports with respect to the use of GRI Standards (Appendix 3). 'In accordance' refers to the reports that are prepared in accordance with the GRI Standards. 'Citing' refers to the reports that use the GRI Guidelines but do not meet the full requirements of the GRI Standards (GRI Database, 2016). 'N/A' means that there was no mentioning of GRI Standards or Guidelines in the report.

Company	2017	2018	2019
European			
Royal Dutch Shell plc	In accordance	In accordance	In accordance
Equinor ASA	In accordance	In accordance	In accordance
TOTAL SA	In accordance	In accordance	In accordance
BP p.l.c.	In accordance	In accordance	In accordance
Eni S.p.A.	In accordance	In accordance	In accordance
OMV AG	In accordance	In accordance	In accordance
Russian			

OJSC LUKOIL	In accordance	In accordance	In accordance
OJSC Gazprom	In accordance	In accordance	In accordance
Surgutneftegas OJSC	N/A	N/A	N/A
OJSC Rosneft Oil Co	In accordance	In accordance	In accordance
PJSC Tatneft	Citing	Citing	Citing
PAO NOVATEK	In accordance	In accordance	In accordance

TABLE 2. Comparison of reports regarding GRI Standards and Guidelines

All sampled European companies used GRI guidelines for their reports throughout the three-year period from 2017 to 2019. Eni claims to have reported in accordance with GRI Standards through use of the following statements:

- ‘The Non-financial information is drafted in accordance with the Decree 254/2016 and the “Sustainability Reporting Standards”, published by the Global Reporting Initiative (GRI Standards), which represent the reporting standard adopted, “In accordance core” level...’ (Eni, 2017).
- ‘The document is drafted in accordance with the “core” option of the GRI Standards’ (Eni, 2018).
- ‘The Consolidated Disclosure of Non-Financial Information is prepared in accordance with the Italian Legislative Decree 254/2016 and the “Sustainability Reporting Standards”, published by the Global Reporting Initiative (GRI Standards), according to the “core” option...’ (Eni, 2019b).

In its reports, BP claims the following: ‘We report in accordance with the Global Reporting Initiative’s G4 core guidelines’ (BP, 2017), ‘We report in accordance with the core option of the Global Reporting Initiative standards’ (BP, 2018), and ‘We use sustainability reporting guidance from IPIECA for environmental and social issues and report in accordance with the core option of the Global Reporting Initiative (GRI) standards’ (BP, 2019).

The reports of the Norwegian Equinor (formerly Statoil) state the following: ‘The external assurance concludes that the report is presented in all material respects, in accordance with the GRI G4 Sustainability Reporting Guidelines “core” reporting level’ (Statoil, 2017), ‘This report has been prepared in accordance with the GRI Standards: Core option’ (Equinor, 2018), and ‘This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option’ (Equinor, 2019).

The OMV sustainability reports of 2017, 2018, and 2019 use the same formulation, claiming

that the report was prepared 'in accordance with the Global Reporting Initiative (GRI) Standards: Core option'.

Shell states the following in its sustainability reports: 'We report in line with guidelines developed by IPIECA, the global oil and gas industry association for environmental and social issues, and in accordance with the Global Reporting Initiative (GRI) version 4' (Shell, 2017). The 2018 and 2019 reports both claim that 'this report has also been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option' (Shell, 2018; Shell, 2019).

The French company Total asserts that its universal registration documents and climate reports are prepared 'in accordance with the GRI Standards "CORE" option'. This claim is clearly stated in the GRI index tables (Total, 2017a; Total 2018a; Total, 2019a).

As for the Russian oil and gas companies, four out of six companies claim in their reports that the reports are prepared in accordance with GRI Standards. Gazprom and Lukoil use identical statements in their sustainability reports, claiming 'this report has been prepared in accordance with the GRI Standards' (Gazprom, 2017; Gazprom, 2018; Gazprom, 2019; Lukoil, 2017; Lukoil, 2018; Lukoil, 2019). In the sustainability reports of Rosneft, it is also clearly stated that the reports were 'prepared in accordance with the Global Reporting Initiative' (Rosneft, 2017; Rosneft, 2018; Rosneft; 2019).

In their sustainability reports from 2017 to 2019, Novatek provides tables with the key data regarding report preparation on each report. The tables mentions the following: 'Key Standards applied: GRI Standards' and 'In accordance option used: Core' (Novatek, 2017; Novatek 2018). In addition, Novatek (2019) states the following in its 2019 sustainability report: 'This Report has been prepared in accordance with the GRI Standards: Core option'.

European companies OMV AG, Shell, BP, TOTAL, Eni, and Equinor and Russian companies Gazprom, Rosneft, Lukoil, and Novotek provide the GRI content index in their reports. This makes it easier to navigate the information in the report and further contributes to transparency in the reports.

Despite the fact that Tatneft does not officially state that their reports are prepared in accordance with the GRI Standards (as is required by GRI 101 Foundation), they do attach the GRI content index in the digital versions of the 2018 and 2019 sustainability reports (Tatneft, 2018a; Tatneft, 2019a). The company also states that it has been using the principles of GRI since 2005 (Tatneft, 2017). Tatneft refers to the GRI Standards in its annual reports as follows:

- 'This annual report complies with the following sustainable development standards: - G4 Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI).' 'The indicators included in the guidelines and technical protocols of GRI were used when pre-

paring the Report' (Tatneft, 2017).

- 'The annual report of Tatneft has been formed based on 11. Series of standards: of the Institute of Social and Ethical Accountability AA1000; ISO 26000: 2010 Guidance on Social Responsibility; GRI; . . .' (Tatneft, 2018b).
- '. . . the content of the Annual Report takes into account the following documents and Guidelines: . . . ISO 26000 Guidance on Social Responsibility; GRI Sustainability Reporting Guide; AA1000 Series of Standards developed by the International Institute for Social and Ethical Reporting (AccountAbility); . . .' (Tatneft, 2019b).

From the sampled companies, the Russian Surgutneftegas OJSC is the only company that does not mention 'GRI' or 'Global Reporting Initiative' in any of its environmental reports between 2017 and 2019 (Surgutneftegas, 2017; Surgutneftegas, 2018; Surgutneftegas, 2019).

4.2 External assurances

The number of external assurances performed by independent organizations constitutes the second indicator used in this research to identify a company's level of transparency in their environmental reporting. External assurers assess the accuracy, trustworthiness, and relevance of information disclosed in reports (GRI, 2013).

The information regarding external assurances was manually coded and analysed with presence of any assurance of environmental information (Appendix 5). Table 3 illustrates the results of the analysis of external assurances for the reports of the leading Russian and European oil and gas companies during the three-year period from 2017 to 2019.

Company	2017	2018	2019
European			
Royal Dutch Shell plc	✓	✓	✓
Equinor ASA	✓	✓	✓
TOTAL SA	✓	✓	✓
BP p.l.c.	✓	✓	✓
Eni S.p.A.	✓	✓	✓
OMV AG	✓	✓	✓
Russian			
OJSC LUKOIL	✓	✓	✓

OJSC Gazprom	✓	✓	✓
Surgutneftegas OJSC	X	X	X
OJSC Rosneft Oil Co	✓	✓	✓
PJSC Tatneft	X	✓	✓
PAO NOVATEK	X	✓	✓

TABLE 3. Comparison of reports regarding external assurances

All the sampled European companies had their reports between 2017 and 2019 assured by external assurers or auditors. The assurances of the European companies are attached to the reports. They provide information regarding which aspects of the reports were assured and state the auditing organizations and dates for each external assurance.

Such companies as Ernst & Young, Deloitte PWC, KPMG, Lloyd's Register Quality Assurance Ltd, and fbK Grant Thornton acted as the assurers for the reports of the sampled companies. In addition, Russian companies Gazprom, Lukoil, and Tatneft received assurances from external auditors and also public endorsement from the Council of the RUIE. Public assurance by RUIE certifies that the report has been prepared in accordance with the principles of responsible business practice established in the Social Charter of Russian Business (RUIE, n.d.). Gazprom and Lukoil received this public assurance from RUIE for their reports for all reporting periods. As for Tatneft, its 2019 report was certified by RUIE.

The British company BP attaches independence assurance statements to BP's suitability and environmental activities. Their 2017 sustainability report was assured by Ernst & Young LLP, while the reports for 2018 and 2019 were assured by Deloitte LLP.

The independent auditor's report on the consolidated disclosure of non-financial information of Eni in 2017 and 2018 was prepared by Ernst & Young S.p.A. PWC S.p.A. performed as the independent auditor for the 2019 annual report. The auditor's reports confirm that the annual reports of Eni are prepared in accordance with the GRI Standards.

The sustainability reports of Equinor (formerly Statoil) were assured by KPMG AS in the years 2017 and 2018 and by Ernst & Young SA in 2019. The external companies performed the assurances of the environmental information and confirmed that the reports were prepared in accordance with the GRI Standards.

Lloyd's Register Quality Assurance Ltd. acted as a limited external assurance provider for the environmental information disclosed in the sustainability reports of Shell during the three-year period. For instance, the company provided external assurance regarding the direct and indi-

rect greenhouse gas emissions of Shell as well as net carbon footprint data.

Austrian OMV had all its sustainability reports assured by Ernst & Young Wirtschaftsprüfungsgesellschaft m.b.H. The assurer did not identify any misstatements in the reports and confirmed that the reports were prepared in accordance with the GRI Standards.

Ernst & Young et Associés verified that there are no significant misstatements with respect to the CSR and non-financial information published in Total's registration documents.

As for the Russian oil and gas companies, only half of the sampled companies had their reports assured by external organizations in 2017. Surgutneftegas, Tatneft and Novotek did not provide any information on the assurance of the non-financial or environmental information in their 2017 reports. The annual reports of Tatneft attach the independent auditor's report on the financial data. At the same time, Novotek clearly mentions in its 2017 sustainability report that 'the Company does not seek external assurance, with the report internally audited by highly skilled specialists' (Novatek, 2017).

Nevertheless, in 2018, the transparency of Russian companies improved in this respect. In the years to follow, Novatek had its reports assured by PricewaterhouseCoopers (PwC) Audit, who found no evidence that the reports were not prepared in accordance with reporting criteria and GRI Standards.

According to the information in the Tatneft GRI Index Table (2019c), which was published in their Interactive sustainability report for 2019, the environmental disclosure of Tatneft was assured by PwC. Nevertheless, the assurance report was not officially published. In addition, Tatneft's Interactive sustainability report for 2018 provides a Public Assurance Statement in the Russian language. The public assurance was performed by the 'stakeholder representatives', who 'follow the principles of independence and an objective approach in assessing and drawing the conclusions' (Tatneft, 2018c). It is not specified who the stakeholder representatives are. They confirm that Tatneft 'follows the principles of responsible business practices, sequence of actions to contribute to improvement quality of life and social infrastructure in the territories activities' (Tatneft, 2018c).

Gazprom's sustainability reports received limited assurance by the audit firm fbK Grant Thornton, who confirmed that the reports comply with the requirements of the GRI Standards. For a limited assurance, the auditor collects less evidence for drawing a conclusion about the report, while reducing the assurance engagement risk. After the reviewing of reports, an auditor states if he or she discovered any evidence that a company represents information inaccurately or false (CFI, n.d.; ICEAW, n.d.).

JSC KPMG provided external assurances to the sustainability reports of Lukoil, confirming that the reports were performed in accordance with GRI Standards.

The sustainability reports of Rosneft were assured by independent assurer Ernst & Young LLC. The assurer confirmed that the information in the reports was presented fairly. They also verified the sustainability reports were prepared in accordance with GRI Standards.

Surgutneftegas was the only company from the sampled ones that did not provide external assurances of its environmental reports.

4.3 Negative environmental news

4.3.1 European companies

In this section of the data analysis, the inductive approach was applied. For instance, there was no predetermined data query. The reports were reviewed for the content, coded and categorized into 'topics' during the reviewing process. Grouping the articles in the categories involved recognizing ideas that run through the data and finding common denominators among the documents.

Table 4 represents the results of the comparison of the media topics with the information published in the reports of the sampled leading European oil and gas companies. The negative environmental news identified in the articles from Factiva were grouped together into category 'main topics'. In other words, the main topics were identified by grouping the discussions over one problem in one category. For instance, the plans of Equinor on the exploration of the Great Australian Bight (GAB) were discussed by many media during 2018 and 2019. The author identified the articles that discussed the potential environmental risks associated with the exploration, the impacts on the local community, as well as protest of the environmentalists against drilling in the GAB. Considering that several articles deliver the same main idea, the articles were combined under the main topic of 'Fight against oil and gas drilling in the Great Australian Bight'. In this sense, the main topics are the groups of meaningful words or general ideas of the articles from the media.

I analysed the presence of a topic from the media in a report. If a company mentioned the identified accident, incident, or subject in the report, this was considered as a reference in the report to the topic (Appendix 6).

To measure the quantity of disclosure on the topic, the word count of the topic coverage in a report was performed. The word counting is a useful approach that provides more details and measurement on the disclosed information. Furthermore, word count was used in many sustainability disclosure researchers to provide the quantitative basis for the comparison for the volume of the disclosure (Eljayash et al., 2013; Islam, 2009; Belal, 2008) The minimum length of words was increased to four characters. As advised by NVivo, this allows to eliminate results like 'it', 'an', 'the', 'was' or 'as' (Qdatraining, 2011), and give a more precise result on the meaningful words.

Company	Main topic	Publication year of articles	Reference in reports	Word count
European				
Royal Dutch Shell plc	Lawsuit: massive crude oil pollution in Ogoniland, Rivers State	2019	Sustainability report 2017,2018, 2019	343
	Small oil leak during a ship-to-ship oil transfer in Brazil waters	2018	X	0
	Pollution in the Niger Delta	2018	Sustainability report 2019	65
	Road-tanker incident in Pakistan	2017	Sustainability report 2017	119
	Penalty for Bonga oil spill	2018	Sustainability report 2019	9
Equinor ASA	Mongstad refinery spill 2017	2017	X	0
	Mongstad refinery spill 2018	2018	Sustainability report 2018	25
	Fight against oil and gas drilling in the Great Australian Bight	2018 2019	Sustainability reports 2017,2018, 2019	351
	Hammerfest gas leak	2018	Sustainability report 2019	29
	Aasgard gas leak	2017	X	0
	Gas leak at the Aasta Hansteen field in the Norwegian Sea	2019	X	0
	Statfjord oil spill	2019	X	0
	Oil spill on Grand Bahama	2019	Sustainability report 2019	124
TOTAL SA	Drilling in environmentally sensitive Amazon River basin	2017 2018	X	0
	PLIF pipeline leak	2019	Universal Registration document 2019	54
	Fire of a crude oil pump in the Total refinery of Normandy	2019	Universal Registration document	70

			2019	
	Joint venture of Hanwha General Chemicals and French Total was attempting to cover up two leakages	2019	X	0
	Pollution incident at Akoka after a fuel leakage at Total Filling station	2018	X	0
	Reboiler leak resulted at above normal gas emissions at Port Arthur	2018	X	0
	Propylene leak at La Porte PP plant	2019	X	0
	Environmentalist concerns about gas discovery in South Africa	2019	X	0
	Court for environmental contamination in Argentine Patagonia	2018	X	0
BP p.l.c.	10 years since Deepwater Horizon	2018 2019	☑Sustainability Report 2019	64
	BP-owned Atlantic Richfield Co. must pay nearly \$29 million for the cleanup of arsenic that is threatening a Montana town's groundwater	2018 2019	X	0
	Spill of drilling fluids next to the coast of Nova Scotia	2018	X	0
	Protests against drilling in Great Australian Bight	2018	X	0
	Leaking Oil and Natural Gas Well in Alaska from a well in Prudhoe Bay	2017	X	0
Eni S.p.A.	Protests against exploration of Kwa-Zulu-Natal province in South Africa	2019	X	0
	Shell and Eni are taking weeks to respond to reports of spills and publishing misleading information about the cause of spills	2018	X	0
	Lawsuit: pollution in Bayelsa state	2017	X	0
	Oil leak in Eni's Ragusa does not stop, oil spills into the Moncillè stream	2019	X	0
	Spill of crude oil spill of 400 tons the Eni Oil Center (Cova) in Viggiano	2017	Annual report 2017	85
	Fire at ethylene plant of Versalis	2019	X	0

	Accident at the Eni plant in Taranto caused a 'slight spill of LPG'	2018	X	0
	Fire at the Milazzo (RM) refinery	2017	X	0
	Naphtha spill from a ship docked inside the Versalis plant	2019	X	0
	Stop of Livorno refinery due to flood (The hydrocarbons then ended up in the sea)	2017	Annual report 2018	57
OMV AG	Drilling in Great South Basin in New Zealand waters	2018 2019	X	0
	Explosion rocked Austria's OMV gas distribution hub near Baumgarten	2017	Sustainability report 2017	24
	Sanction for gas and petroleum transportation via pipelines without the environmental permit	2019	X	0
	Gas leak and explosion at Tisau oil station	2017	X	0

TABLE 4. Presence of negative news in the reports of the European companies

There were five main topics identified that were reported in the news concerning accidents and environmental risks regarding Shell's activities. In 2019, a court in the UK ordered Shell subsidiaries to pay damages to the communities of Ogoni due to massive pollution in Rivers State that lasted 50 years (This Day, 2019a; This Day, 2019b). Shell refers to the pollution in Ogoniland, by describing the clean-up efforts and their support to the local communities (Shell, 2017; Shell, 2018, Shell, 2019). The pollution in Ogoniland was reported in all three annual reports, amounting to 343 words, which emphasize the importance of this problem for Shell. Based on the number of words, this is the second most discussed topic among the European oil and gas companies. Another incident that was widely covered by the media was the road-tanker incident in Pakistan, where 215 people were killed (Associated Press, 2017). This accident was discussed in two sections of the report amounting 119 words on the topic. Chief Executive Officer Ben van Beurden expressed his concerns and sadness about the accident in the Introduction from the CEO section of the sustainability report for 2017. Moreover, the Transport and Safety section of the report explains the reasons and causes of the incident, while mentioning that 'Shell Pakistan Limited is implementing a long-term relief plan for those impacted' (Shell, 2017). Shell mentions that the number of spills in the Nigerian Delta increased from 2018 to 2019 and explains that the main reasons behind such an enormous volume of oil spills in the Nigerian Delta are sabotage and oil theft (Shell, 2019). In 2018, Shell received a penalty of \$3.6 billion for the 2011 Bonga oil spill. Although the problem was addressed in the 2019 sustainability report, the reporting on the problem amounted only 9

words, which is the lowest number of words on negative environmental news by European oil and gas companies. Shell mentions in its report that the spill at the Bonga field amounted for 4.8 thousand tonnes (This Day, 2018; Shell 2019). The only topic that was not covered by Shell is that a small crude oil leak occurred in Brazilian waters during a ship-to-ship oil transfer in 2018 (Alper, 2018).

Another European company, Equinor, referred to four out of eight topics that were covered by the media. The potential environmental risks and impacts on the local community as related to the drilling in the Great Australian Bight (GAB) resulted in numerous discussions and protests (Wright & Duffy, 2019; Pisani, 2018; Manning, 2019; Boisvert & Puddy, 2018). The GAB has rich marine life and is the location of Australia's most productive fishery (Wright & Duffy, 2019). In a worst-case scenario, the oil from a spill could even reach the coast of the port city Albany in Western Australia, and the consequences on marine life could be disastrous (Wright & Duffy, 2019; Boisvert & Puddy, 2018). The largest amount of disclosed words in Equinor's report and overall in the reports of the European companies are devoted to the drilling plans in the GAB. Equinor discussed this problem in all studied sustainability reports. Equinor states that they have been developing their environmental plan over a two-year period to meet the concerns of the stakeholders. They brought together 'research teams to study the oceanography, ecology, and geochemistry of the GAB and the socio-economics of the region' (Equinor, 2017; Equinor, 2018; Equinor, 2019). Two other topics Mongstad refinery spill and Hammerfest gas leak were less discussed but still covered by the reports, amounting to 25 and 29 words respectively. In 2018, there was an incident in the Mongstad production facility in Norway (Schjøberg, 2018a). Equinor claims that the volumes of leaks increased from 2017 to 2018 and that 'the largest spill, a 70m³ naphtha leak at the Mongstad refinery in Norway, accounts for about half of the total volume' (Equinor, 2018). The leak of liquid hydrocarbon mixtures (nafta) occurred during loading from the refinery to a ship (Equinor, 2018). Another incident revealed by the media is the gas leak from the vehicle's safety valves at the Hammerfest liquefied natural gas plant in 2018 (Offshore Energy, 2018; Schjøberg, 2018b). Equinor notes that there were two events in 2018 with major accident potential: one of them, a pressure vessel valve at the Hammerfest plant with weaknesses that could have resulted in a situation of overpressure and large leakage (Equinor, 2019). One more topic that was covered both by the media and by Equinor's 2019 sustainability report is the onshore spill in the Bahamas that happened during Hurricane Dorian (Kelly, 2019; The Bahamas Weekly, 2019; Insurance Journal, 2019). Equinor confirmed that the spill amounted to 55,000 barrels out of 1,870 million barrels stored at its Bahamas terminal (Equinor, 2019). Equinor devoted 124 words of its report to this spill, which can be considered as a high value in comparison to other topics covered by the European companies. As for the gas leak at the Aasta Hansteen, Statfjord, and Aasgard fields, Equinor did not provide any details about these leaks in its reporting (Schjøberg, 2019; Schjøberg, 2017; Reuters, 2019; Danganan, 2019). In addition, in 2017, the

Mongstad plant ceased operations due to the naphtha leakage that was stopped after two hours (Coleman 2017). Equinor does not refer to this leak specifically in its reports as well.

Total reported on two accidents that happened in 2019 (La Nouvelle République Dimanche, 2019; Turner & Lanitis, 2019). There were two significant accidents in 2019: one at the Île-de-France Pipeline (PLIF) and the other at the Normandy Refinery. Both of these incidents are mentioned in the reports of Total. Total reported about these accidents with 54 and 70 words respectively. The incident at the PLIF occurred in February 2019, when 900 m³ of hydrocarbons leaked into the environment. In its report, Total explains that the spill on the PLIF at Autouillet resulted in soil pollution over approximately four hectares as well as pollution of water courses (Total, 2019c). As for the incident at the Normandy refinery, Total mentions that the major fire at the Normandy refinery did not cause any serious damages or injuries (Total, 2019c). Seven environmentally sensitive topics were not mentioned in their reports. The drilling near the mouth of the Amazon River was widely discussed in the media from different perspectives. Therefore the drilling in Amazon River was grouped in one topic. Media followed the entire process from the environmental assessment to the protests of environmentalists (Agence France Presse, 2018a; Nogueira, 2017; Gosden, 2017). The drilling near the mouth of the Amazon River with a unique system of coral reefs created discussions because of environmental risks. The Brazilian regulators rejected the environmental assessment of Total due to 'deep uncertainties' in an emergency plan with respect to an oil spill that could cause dramatic damages to the environment and biodiversity of the area (Agence France Presse, 2018a; Nogueira, 2017; Gosden, 2017). Another environmental concern was raised by Greenpeace Africa due to a significant gas discovery on the southern coast of South Africa (Nigerian Tribune, 2019; Frankson, 2019). Additionally, in 2019, Hanwha General Chemicals and Total both faced allegations of attempting to cover up two leakages in Korea (Bo-gyung, 2019). At least 110 tonnes of harmful substances leaked into the environment and affected the local population (Bo-gyung, 2019). Another topic that was not mentioned in the reports is the fuel leakage from the underground tank in Akoka at the Total filling station, which resulted in pollution of water sources and posed health risks to local communities (Ejoh, 2018; Fasogbon, 2018). Moreover, in 2018, the Indigenous people in Argentine Patagonia sued oil and gas multinationals – Total among them – for massive environmental pollution in the area (Agence France Presse, 2018b). Finally, the reboiler leak and the resulting 'above-normal gas emissions' at the Total refinery in Port Arthur and the propylene leak at La Porte PP plant in Texas were also not mentioned in Total's reports (Molinski, 2018; Moore, 2019).

In the process of the negative environmental news analysis, five topics were identified that were discussed by the media concerning the environmental performance of BP. The BP-owned Atlantic Richfield Co. was ordered to pay nearly \$29 million for its role in the 45-year arsenic environmental pollution in Montana (Volz, 2018; Sherman, 2019). Canadian Press (2018) revealed news about a 136 cubic-metre spill of drilling fluids from BP Canada's oil exploration

operation on the coast of Nova Scotia. Moreover, the drilling in the environmentally sensitive GAB was widely discussed by the media and environmentalists (Hasham, 2018). In 2017, an oil and natural gas leak occurred at a well in Prudhoe Bay, Alaska (Molinski, 2017). The volume of oil and gas leaked as well as the environmental damage was unknown when the article was published (Molinski, 2017). Nevertheless, Deepwater Horizon still remains one of the widely discussed topics (Fears, 2019; Dean, 2019; Dominion Post, 2018). The Dominion Post (2018) notes that the 'oil spill is likely to last decades'. BP recalled to this accident in its sustainability report 2019 as well, where BP reported that '20 April 2020 marks 10 years since Deepwater Horizon' and shared information on its efforts to improve their safety performance (BP, 2019).

The Italian oil and gas producer Eni reported on two topics mentioned in the media, but eight subjects remained undeclared in the reports. For instance, the drilling plans at KwaZulu-Natal coast faced resistance and protests by environmentalists, as the drilling authorization was granted without assessment of potential environmental damage (Carnie, 2019). In 2018, a research project was published by Amnesty International, presenting evidence that it took Eni and Shell weeks to respond to spills in the Niger Delta (The Premium Times, 2018). Moreover, the companies revealed misleading information concerning the impact of spills (The Premium Times, 2018). The Ikebiri community in Bayelsa State sued Eni and its Nigerian subsidiary, Nigeria Agip Oil Company (NAOC), for environmental pollution (The Nation, 2017; Ezeobi, 2017; Eziukwu, 2017). By 2017, there were 11 million barrels of oil spilled in the Delta, which is twice as much as was spilled during the Deepwater Horizon disaster (Ezeobi, 2017). The oil leak in Eni's Ragusa that resulted in oil spills in the Moncille Stream was also not mentioned in the reports (La Rocca, 2019). Such topics as an accident at the Eni plant in Taranto, a fire at the ethylene plant of Versalis in 2019 (which occurred due to an oil leak caused by a pipe break), a fire at the Milazzo (RM) refinery where three workers were injured, and a naphtha spill from a ship docked inside the Versalis plant (resulting in 'a strong bad, acrid smell, which was perceived clearly from Marghera to the historic center of Venice') were not covered in the reports either (Il Quotidiano Di Puglia, 2018; Reuters, 2017; La Nuova, 2017). In 2018, there were protests in Taranto due to the strong smell of gas in the city caused by a leak of liquified petroleum gas from the Eni plant (Il Quotidiano Di Puglia, 2018). Nevertheless, Eni provided information on the crude oil spill of 400 tonnes at the Eni Oil Center (Cova) in Viggiano (Il Fatto Quotidiano, 2017; Paccès, 2017). Eni specifies that the volume of oil spilled in 2017 was almost twice as high as oil spilled in 2016, which is 'mainly due to the spill from a tank located in Cova in Val d'Agri where the company implemented all the remediation actions to reduce the environmental damage and to prevent any future accident through infrastructure upgrading' (Eni, 2017). This topic provided slightly more comprehensive coverage of 85 words, compared to 59 words devoted to the incident at Livorno refinery. In its 2018 annual report, Eni refers to the incident at Livorno refinery in 2017, which happened due to a storm and flood, when a slight loss of hydrocarbons ended up in the sea (Staffetta Quotidiana, 2017).

Austrian OMV covered one of four topics identified by the negative news search. OMV reported 24 words on the explosion at the Austrian gas hub near Baumgarten in the Occupational safety section of their 2017 sustainability report and noted that ‘one contractor employee died as a result of this incident’ (OMV, 2017). Drilling plans in of the Great South Basin in New Zealand raised multiple discussions in the media and protests from environmentalists in 2019, due to the high risks of deep-water drilling (Young, 2019; Alper, 2018; Radio New Zealand, 2019; McPhee, 2019). The articles that covered the plans of OMV to drill in the Great South Basin, as well as risks and protests associated with these plans, were combined into the ‘Drilling in Great South Basin in New Zealand waters’ topic. Nevertheless, there was no information in the reports on the issue. There was no information on the gas leak and explosion at Tisau Oil Statoil or about the application of sanctions on OMV Petrom SA for operations without an environmental permit (Dorin, 2017; Marchese, 2019).

4.3.2 Russian companies

The results of the analysis of the negative environmental news in the media published in English and Russian languages and the comparison of the topics presented in the media with what was presented in the reports of the sampled companies are presented in Table 5.

Company	Main topic	Publication year of articles	Reference in the report	Word count
Russian				
OJSC LU-KOIL	Fire at refinery in Perm due to leak of oil products	2017	X	0
	Oil leak from a mothballed oil pipeline In the Sosnogorsk region in pipeline ‚Te-buk‘	2017	X	0
	Two breakthroughs of oil pipeline in the Pechora region	2017	X	0
	Emissions due to the burning oil wells in Komi	2017	Sustainability report 2017	51
	Oil refinery Lukoil Neftohim in the Bulgarian Burgas will be fined over 50 thousand euros for pollution	2018	X	0
	Urayneftegaz violated the forest Russian legislation in the Khanty-Mansi Autonomous Okrug 42 times in a year	2018	X	0
	Pollution and gross violations of environmental standards in Sicily	2018	X	0
	Unauthorized tie-in into the oil pipeline near the village of Mulyanka	2018	X	0

	Incident due to the depressurization of tanks on Yareganefit oil plant	2018	X	0
	Waste disposal by unauthorized company - Ecosystem LLC	2018	X	0
	Pollution in Lukoil-Western Siberia near the Langepas-Pokacha	2017	X	0
	Fire in Kstovo at the oil refinery LUKOIL-Nizhegorodnefteorgsintez	2017	Sustainability report 2018	37
	Increasing courts due environmental violations in Western Siberia	2017	X	0
	Huge illegal burials of drilling waste in Western Siberia	2018	X	0
	Pollution on the territory of Kondinsky Lakes natural park due to spill	2018	Sustainability report 2018	82
	Fine for flaring associated petroleum gas in the Khanty-Mansi Autonomous Okrug	2017	X	0
	Large oil spill at the Vozeyskoye field of the Lukoil-Komi company	2017	X	0
OJSC Gazprom	Leak tightness problems at the European storage Reden facility	2017	ⓧX	0
	Accident at the Moscow oil refinery	2019	ⓧX	0
	Presence in the atmosphere of a dangerous substance is 400 times above acceptable limits due to refinery Gazprom Neft's Omsk plant	2017	Sustainability report 2017	16
	Pollution in Moscow was 17 times the norm in southern Moscow	2017	Sustainability report 2017	26
	Massive poisoning due to the release of an odorant from the gas distribution station	2019	X	0
	Release of hydrogen sulfide and oil liquid due to oil well depressurization of Gazpromneft-Orenburg	2017	X	0
	The release of the hydrogen sulphide by Gazprom Dobycha Astrakhan into the air exceeded the norm by almost 100 times	2019	X	0
	Gas release during repair work on one of the wells of the Zapolyarnoye field	2019	ⓧX	0
	Gas pipeline construction through the territory Ukok Quiet Zone natural park (UNESCO World Heritage)	2018	ⓧX	0
	Numerous gas distribution and pipeline accidents in the Russian territory with minor impact (mainly due to ruptures)	2017 2018 2019	Sustainability report 2018	58

Surgut-neftegas OJSC	Kinef refinery accident 2017	2017	X	0
	Kirishi Refinery Hit by Two Fires in Three Days	2019	X	0
	Liquid containing gas leaked from a well at the East Siberian Talakan oil and gas condensate field	2017	X	0
	Corrosion of pipes as the main reason of ecological accidents	2018	Sustainability report 2018, 2019	316
	Production in Natural Park Numto	2018	Sustainability report 2017,2018, 2019	437
	Oil leak in Surgut due to criminal tie-in	2018	Sustainability report 2018	45
	Forest pollution due to the Bystrinskoye field spill	2017	X	0
	Pollution in Lyantor	2017	X	0
OJSC Rosneft Oil Co	Pollution from oil pipeline accident RN-Sakhalinmorneftegaz	2017	X	0
	Oil spill close to the Nogliki town due to a pipeline break	2018	X	0
	Fire at Rosneft's Angarsk refinery and petrochemical complex	2019	X	0
	Gasoline leak from the pipeline of the Syzran Refinery (tie-in)	2018	X	0
	3538 pipeline failures with oil spills due to of obsolete and corroded pipes	2018	Sustainability report 2018	102
	Wate disposal by unauthorized company - Ecosystem LLC	2018	X	0
	Lena River pollution due to the accident in Ust-Kut	2017	X	0
	Huge illegal burials of drilling waste in Western Siberia	2018	X	0
	Fine for environmental pollution due to oil spills of RN-Yuganskneftegaz	2017	X	0
	Fire due to leak occurred in one of the reservoirs in Nizhnevartovsk	2018	X	0
	Forest pollution in the Nefteyugansk region of Yugra due to the oil spill	2017	X	0
	River pollution due to the spill in the Kushnarenkovsky district of Bashkiriya	2018	X	0
	Accident at the well of the Rosneft subsidiary in Yamal	2018	X	0

	Forest pollution as a result of a pipe break in the Purovsky region	2018	X	0
	Fire at the Kuibyshev oil refinery in Samara	2018	X	0
PJSC Tat-neft	Fine for soil pollution in the Almet'yevsk region	2018	☒X	0
	Fine for environmental pollution in Leninogorsk	2018	☒X	0
	Nature reserve in Tataria was polluted with oil	2019	☒X	0
	Nizhnekamsk city court: Violation of environmental legislation	2019	☒X	0
	Protests against the plans to create industrial facilities for the production of maleic anhydride (MAN) in the Almet'yevsk region	2019	☒X	0
	Fine for illegal disposal of environmentally hazardous waste in Tatarstan	2018	☒X	0
	Soil pollution due to the discharged oil products next to Petuhovka	2017	☒X	0
	Bolshoi Cheremshan River pollution due to the oil spill by Nurlatneft	2018	☒X	0
PAO NOVATEK	Waste disposal by unauthorized company - Ecosystem LLC	2018	X	0
	Protests against the construction of the NOVATEK Large-Capacity Marine Facilities Construction Center	2018	X	0
	Protests against the cutting down of green spaces in Moscow	2019	X	0
	The fire and subsequent explosion of a truck fuel tank at a field in the Yamalo-Nenets Autonomous Okrug	2019	X	0

TABLE 5. Presence of negative environmental news in the reports of the Russian companies

Lukoil referred to three of 17 topics identified in the media. In 2017, a fire at the refinery in Perm occurred that was caused by a leak of oil products (Platts, 2017). The same year, there was a leak at LUKOIL-Komi's mothballed Tebuk pipeline that polluted the water in the Prosek-Yol Stream (BNK, 2017). In addition, two breakthroughs of the Lukoil-Komi LLC oil pipeline in the Pechora region due to corrosion were recorded in 2017 (Tass, 2017c). The fire at the wells of the Alabushin field lasted for several days, which raised serious concerns and protests from local residents and created environmental risks (Britskaya, 2017). Lukoil reported on the issue by mentioning an uncontrollable blowout of petroleum products and a subsequent fire at LUKOIL-Komi A. Alabushin fields during geophysical work that took place on 10 April 2017 (Lu-

koil, 2017). Another incident that occurred in 2017 was a large industrial fire at the Lukoil-Nizhegorodnefteorgsintez oil refinery in Kstovo when a gasoline tank with a volume of 10,000 cubic metres caught fire. As a result, four employees of the contractor were killed (Pavlova, 2017). This was the second incident that was mentioned by Lukoil. In its sustainability report 2017 Lukoil reported that 'the accident occurred during the installation of the fire extinguisher system for tank R-1549 in the marketable product and crude storage unit, which led to a fire. At the time this report is issued, an investigation into the reasons for the incident is still ongoing' (Lukoil, 2017). Moreover, illegal burials of drilling waste were discovered in Western Siberia (RBC, 2018). The waste belonged to Lukoil and Rosneft (RBC, 2018). The environmental damage amounted to 500 billion rubles (RBC, 2018). In 2018, an oil spill on the territory of the Kondinskies Lakes Natural Park was identified (Uralinformburo, 2018). The spill was quickly eliminated (Uralinformburo, 2018). Nevertheless, the environmental organization Green Front believes that the pollution affected several times larger territories than was announced by the company and insists on continued monitoring of the swamp area (Uralinformburo, 2018). The sustainability report 2018 of Lukoil covered this topic by mentioning that a water conduit failure occurred at the Kondinskies Lakes Natural Park, which their response eliminated (Lukoil, 2018). All three covered problems have a below average coverage of 51, 37 and 82 respectively. In 2018, the media reported that oil refinery Lukoil Neftohim in the Bulgarian Burgas would be fined 100,000 leva for air pollution (Regnum, 2018). The news agency Rosbalt (2018a) reported that the Urayneftegaz subsidiary of Lukoil violated forest legislation 42 times in 2018. Additionally, Lukoil in Sicily received warnings from prosecutors for gross violations of environmental standards. Local residents complained of water and air pollution in the area (Business World Agency, 2018). The media reported that, in 2018, there was illegal tapping and product theft at the oil pipeline near the village of Mulyanka, which resulted in a minor oily liquid spill. According to the press, the accident did not cause any environmental impact (Nakanune, 2018a). In 2018, an incident also occurred due to the depressurization of tanks at the Yareganefit oil plant (Komiinform, 2018). Although the river was not polluted, experts identified excess of the maximum permissible concentration of oil products in one of the water samples from the Badjael Stream (Komiinform, 2018). Furthermore, in 2018, Rosneft, Lukoil, and Novatek were involved in a scandal based on waste disposal by an unauthorized company – Ecosystema LLC – and 'suspicious documentation' (Novyi region, 2018). In 2017, eco-activists discovered traces of an oil spill with an area of 2,000 square metres near Langepas (Nakanune, 2017). In this case, Lukoil-Western Siberia received fines for forest pollution and for its untimely reporting and response to the pipeline accident (Nakanune, 2017). In 2017, Region-inform (2017) reported that there was an increasing number of claims in arbitration courts against Lukoil-Western Siberia related to environmental violations, mainly soil pollution, violations of forestry legislation, and illegal storage of drilling waste. Another large oil spill occurred at the Vozeiskoye field in Komi due to the depressurization at the oil-gathering reservoir (Prime, 2017). The last incident that was mentioned in the media is a fine for violations of associated

gas utilization that was received by Ritek, a production subsidiary of Lukoil (Kommersant, 2017).

Gazprom reported on three of 10 identified topics. In 2017, the Gazprom Neft's refinery in Omsk was accused of air pollution (NEFTE Compass, 2017). The Federal Service for Supervision of Natural Resources revealed the presence of a dangerous substance in the atmosphere 400 times above acceptable limits (NEFTE Compass, 2017). In its 2017 sustainability report, Gazprom specifies that stakeholders can find information on the condition of the atmospheric air in the area around Omsk Oil Refinery and the impact 'on the enterprise's official portal since August 2016' (Gazprom, 2017). The number of words devoted to the air pollution around Omsk Oil Refinery amounts to only 16 words. There is no descriptive information on the negative environmental impact. The reader is only referred to where to search for the data. In the same year, Gazprom's refinery in the Moscow suburb of Kapotnya exceeded the emissions of the hydrogen sulphide levels 17 times the norm (Interfax, 2017b). Gazprom mentioned its measures on monitoring the air quality around the Moscow refinery in 26 words. Gazprom informs the stakeholders that 'the data on conditions of the atmospheric air in the plant's area of impact has been shown on a special street Eco-Informer since October 2015' (Gazprom, 2017). During the news analysis, there were numerous gas distribution and pipeline incidents identified in the Russian territory with minor or no impact (Tass, 2017a; Interfax, 2017c; RIA, 2017b; Tass, 2017b; Vedomosti, 2017a; Ria, 2018; Tass, 2018c; Interfax, 2019; Rosbalt, 2017d; Yuga, 2018). The incidents on Gazprom's gas distribution infrastructure that resulted in minor supply disruptions in some districts, houses, or towns were gathered under the 'Numerous gas distribution and pipeline incidents in the Russian territory with minor impact (mainly due to ruptures)' topic. The incidents on Gazprom's gas distribution infrastructure have the most coverage among other topics connected to Gazprom's environmental performance amounting 58 words. Gazprom admits that the total oil and petroleum product spills – amounting to 70 tonnes in 2018 – happened due to 917 pipeline ruptures. Ninety-four percent of ruptures happened due to internal corrosion as a result of corrosive substance transmission in the fields (Gazprom, 2018). Gazprom also referred to the impact from the pipeline accidents: 'The damages assessed due to accidents in 2018 amounted to RUB 1.74 million. Most of the compensation was accounted for by damage inflicted as a result of incidents at the Gazprom Neft Group's pipelines in 2017 and minor (by the territory affected) land contamination in the Vostochno-Messoyakhskoye northern onshore deposit of the Russian Federation (YaNAA)'. Nevertheless, there were six topics not covered by Gazprom in its group reports. The release of hydrogen sulphide and oil products leakage due to oil well depressurization of Gazpromneft-Orenburg resulted in the hydrogen sulfide poisoning of 16 people, among them 13 children (Vedomosti, 2017b). Another massive poisoning happened near Nizhny Novgorod due to a violation of the operation of the gas supply equipment at the gas distribution station of Gazprom (Tass, 2019). The emergency situation at the well at the Gazprom Dobycha Astrakhan resulted in the release of hydrogen sulphide into the air at almost 100 times the norm

(Kavkazskij uzel, 2019). Another environmental risk was identified during an assessment at their largest European storage facility, Reden, where leak tightness problems were discovered (Interfax, 2017d). In 2019, a minor incident happened at the Zapolyarnoye field, where during repair work, one of the wells released gas (Sever-press, 2019). As a result of the incident, one employee of the contractor received a micro-injury (Sever-press, 2019). The plans of Russian Gazprom and China to build the Altai gas pipeline through the Ukok Quiet Zone Natural Park (which is a UNESCO World Heritage Site) raised protests from environmentalists, notably WWF Russia and Greenpeace Russia (ASI, 2018). The accident at the Moscow oil refinery that occurred in 2018 due to 'the corrosion of a horizontal section of the furnace's pipeline' was covered in the media as well. Economic damage amounted to 4 billion rubles (Interfax, 2019b).

The production at Natural Park Numto and accidents due to pipelines corrosion were the most covered topics by Surgutneftegas, amounting 316 and 437 words respectively. The corrosion of pipes was reported as the main reason for accidents that had an environmental impact in Khanty-Mansi Autonomous Okrug (Podobedova, 2018). According to one article, Surgutneftegas had four accidents in the region during 2017 (Podobedova, 2018). Surgutneftegas described the measures and investments to handle the problem in its reports. As the main measures to ensure environmental safety of its operations, the company invests in 'repairing and replacing pipelines, protecting oilfield equipment and facilities from corrosion, preventing equipment failures and oil contamination' (Surgutneftegas, 2018; Surgutneftegas, 2019). In 2017, Surgutneftegas repaired 579.9 kilometres of pipelines, 616 kilometres in 2018, and 686.5 kilometres in 2019 (Surgutneftegas, 2017; Surgutneftegas, 2018; Surgutneftegas, 2019). By the end of 2024, Surgutneftegas plans to update all pipelines so that they have internal anticorrosion coatings (Surgutneftegas, 2018). Production in the environmentally sensitive Natural Park Numto is another topic covered in all environmental reports of Surgutneftegas (Nakanune, 2018b). The company discussed the biological monitoring of the area, its actions to minimize negative impacts from its business activities, cooperation with the research institutes for protection of the local environment, and financial investments in the area (Surgutneftegas, 2017; Surgutneftegas, 2018; Surgutneftegas, 2019). The oil leak due to the criminal tie-in in Khanty-Mansiysk Autonomous Okrug-Yugra was also covered with 45 words in the Surgutneftegas 2019 environmental report (Kommersant, 2018). Surgutneftegas reported two oil spills in 2018. As reported, 'one of them was due [to] a criminal tie-in, the second due to internal corrosion of the pipeline, and a total land area of 1.21 hectares was reclaimed' (Surgutneftegas, 2018). The other five topics were not covered by the Surgutneftegas reports. For instance, a flaring incident after a gas explosion during the inspection of the standby flare line at the Kirishinefteorgsintez refinery killed two gas rescue workers and injured two more workers (Interfax, 2017a). In 2019, the same refinery was hit by two fires within three days (NEFTE Compass, 2019). Nobody was injured (NEFTE Compass, 2019). In 2017, the Ministry of Energy of Russia reported on the liquid containing gas leakage from a well at Talakan field (Reuters, 2017b). Nobody was injured during the accident (Reuters, 2017b). In 2017, a major oil spill occurred at

Bystrinskoye field in the Khanty-Mansi Autonomous Okrug due to a pipeline rupture. As a result, about 15 kilometres of the Bystrinka River and coastal zone became polluted (Rosbalt, 2017c). The company faced a fine for pollution and its concealing of environmental information about the incident (Rosbalt, 2017b). In 2017, the public environmental organization, Green Front, discovered five hectares of oil-contaminated land in Lyantor (Budnik, 2017). The Federal Service for Supervision of Natural Resources confirmed that Surgutneftegaz concealed information about the pollution (Budnik, 2017).

Rosneft reported on one subject discussed in the media. In 2017, over 3,538 oil pipeline accidents with environmental impacts were recorded, including oil spills at Khanty-Mansi Autonomous Okrug (Podobedova, 2018). Three thousand, four hundred, and ninety-six of these accidents occurred on Rosneft's pipelines (Podobedova, 2018). Alexey Knizhnikov, the head of the environmental policy program of the fuel and energy complex of WWF Russia, has noted that the main reason for the huge gap between the number of accidents on the pipelines of Rosneft and other Russian oil companies is that Rosneft has the largest number of reserves in Khanty-Mansi Autonomous Okrug, as well as the largest number of obsolete and corroded pipes (Podobedova, 2018). Apart from reporting on the number of pipeline failures and oil spills, Rosneft describes its program and investments for pipeline replacements and upgrading in 102 words, which is slightly below the average number of words on a topic by Russian companies (Rosneft, 2018). The program will be fully implemented by 2023 (Rosneft, 2018). By the end of 2018, '177 pieces of the most critical pipelines were replaced, 319 dead legs of process pipelines were eliminated, and over 2 thousand elements of pipelines were replaced' (Rosneft, 2018). In 2017, the prosecutor's office of the Komsomolsk district of Khabarovsk Krai identified 640,000 square metres of pollution during a check of Gologo Lake caused by an oil pipeline accident of the Rosneft subsidiary RN-Sakhalinmorneftegaz (Foreign Affairs, 2017). In 2018, Rosneft was part of an eco-scandal because of its waste disposal by an unauthorized company – Ecosystema LLC – and 'suspicious documentation' (Novyi region, 2018). The spill of six tonnes of oil due to a pipeline failure next to the town of Nogliki in the Sakhalin Region, the gasoline leak from the pipeline of the Syzran Refinery due to the tie-in, and river pollution from oily liquid in Bashkiria due to pipe depressurization were all not mentioned in the reports (Prime, 2018; Business World Agency, 2018; Tass, 2018a). The depressurization (decreasing of a reservoir pressure below hydrate stability) of an old pipe also resulted in the feedstock leak and fire at Rosneft Angarsk refinery (Platts, 2019). In 2017, Rosneft polluted the Lena River with oil products because of an accident in Ust-Kut (Rosbalt, 2017a). The Center for Strategic Planning and Management of Medical and Biological Risks to Health of the Ministry of Health discovered unauthorized dumps of drilling waste at the Rosneft and LUKOIL-Western Siberia fields. The unaccounted burials of waste at Rosneft fields belong to the fourth hazard class and amounted to about 20 million cubic metres (RBC, 2018). In 2018, an accident occurred at the exploration well at the Rosneft subsidiary, LLC Kynsko-Chaselskoe Neftegaz, in the Yamalo-Nenets Autonomous District with a blowout up to 2 metres but without any impact, as report-

ed (Vedomosti, 2018). Two forest pollution accidents became public via the media. The court of the Nefteyugansk region recovered more than 119 million rubles from Rosneft's subsidiary RN-Yuganskneftegaz for oil spills that polluted the forest (RIA, 2017a). The second case was in the Purovsky district as a result of a pipe break (Tarko-Sale, 2018). Moreover, there were two more fire cases published by the media but not covered by Rosneft's reports. At the Nizhnevartovsk oil and gas production enterprise, there was a fire because a leak occurred in one of the tanks (Rosbalt, 2018b). Two workers were injured (Rosbalt, 2018b). Another fire occurred at the Kuibyshev oil refinery in Samara 'in the furnace space of a process furnace, which was in the pre-commissioning mode after repair' (Tass, 2018b). The incident had no environmental impact according to the press (Tass, 2018b).

Tatneft appeared in the media with respect to eight topics of discussion. However, Tatneft did not specify any of these incidents in their reports. In 2018, Tatneft was obliged to pay almost one million rubles for soil contamination in the Almet'yevsk region of the Republic of Tatarstan and half a million rubles for environmental pollution in Leninogorsk when the Bezymianny Stream was polluted with oil products due to repair work on the well (Tatar-inform, 2018a; Tatar-inform, 2018b). Tatneft had to pay another smaller fine of 40,000 rubles for the illegal disposal of environmentally hazardous waste in Tatarstan between 2017 and 2018 (Tatar-inform, 2018c). Moreover, Tatneft was accused of discharging oil products in the village of Petukhovka (Tatar-inform, 2017). As a result, 'the fertile soil layer on an area of 270 square meters was destroyed' (Tatar-inform, 2017). Another land contamination of 30 square metres occurred on the territory of a state nature reserve of regional significance, Chatyr-Tau, in the Aznakayevsky district of Tataria during repair work at the Aznakaevskneft well (Regnum, 2019a). The Bolshoi Cheremshan River pollution due to an oil spill by Nurlatneft in 2018 is one more case of environmental pollution by Tatneft (Biktimirova, 2018). In 2019, the Nizhnekamsk city court investigated three enterprises for violation of environmental legislation and for exceeding the maximum permissible concentration of harmful substances in the air (Tatar-inform, 2019). One of the enterprises was Tatneft-AZS (Tatar-inform, 2019). The plans of Tatneft to create industrial facilities for the production of maleic anhydride in the Almet'yevsk faced resistance and protest from local residents who did not want to accept the chemical plant in the city (Regnum, 2019b). More than 5,500 signatures were collected via the petition (Regnum, 2019b).

Novotek was not as widely discussed in the media as other Russian companies with regard to incidents and environmental risks. This could be partially due to the low number of incidents compared to other Russian oil and gas companies (WWF, 2017; WWF, 2018; WWF, 2019). There were four topics identified that were connected to environmental risk. Novotek appeared to be in the same scandal as Rosneft and Lukoil connected to the waste disposal by unauthorized company, Ecosystem LLC (Novyi region, 2018). Two construction projects of Novatek, Large-Capacity Marine Facilities Construction Center and a health and hotel complex

faced resistance and protest from the local populations due to the projects' impact on the landscape and environment (Sever Post, 2018; RBC, 2019). Although, Novatek mentioned the constructions of Large-Capacity Marine Facilities Construction Center, the company did not mention any risk, negative impact, or protests (Novatek, 2019). The incident with the fire and subsequent explosion of a truck fuel tank at a field in the Yamalo-Nenets Autonomous Okrug that killed two workers was also not covered in the reports (Ria, 2019b). In the end, Novotek did not refer to any of these issues in their sustainability reports.

4.4 Comparison of the European and Russian companies

The first transparency factor of environmental reporting that was analysed in this study was whether or not a report is prepared in accordance with the voluntary Global Reporting Initiative (GRI) Standards. Concerning this transparency factor, overall the European oil and gas companies demonstrate greater transparency than Russian oil and gas companies, as all of the European companies prepared the reports in accordance with GRI Standards.

Afterwards, I analyzed whether or not the report has the independent assurance of an external auditor or assurer who evaluates the accuracy, trustworthiness, and relevance of the disclosed information. Analysis of external assurances of the reports demonstrates that the European companies are more transparent in this indicator, as the reports of the six leading European oil and gas companies were externally assured during the three-year period. In 2017, only three of six Russian companies had their sustainability reports externally assured.

The final factor of transparency that was analysed in this study concerns the existence of negative environmental news coverage regarding the reports. Table 6 draws the comparison of the news coverage by the reports of the sampled companies.

Company	Number of topics	Number of matches in the reports	Average word count per topic	Coverage
European				
Royal Dutch Shell plc	5	4	109	80 %
Equinor ASA	8	4	66	50 %
TOTAL SA	9	2	14	22 %
BP p.l.c.	5	2	13	40 %
Eni S.p.A.	10	2	14	20 %
OMV AG	4	1	6	25 %
Total European	41	15	35	37 %
Russian				
OJSC LUKOIL	17	3	10	18 %
OJSC Gazprom	10	3	10	30 %
Surgutneftegas OJSC	8	3	100	37 %
OJSC Rosneft Oil Co	14	1	7	7 %

PJSC Tatneft	8	0	0	0 %
PAO NOVATEK	4	0	0	0 %
Total Russia	61	10	19	16 %

TABLE 6. Comparison of the reporting on the negative environmental news

The results of the analysis demonstrate that European companies provided details on 15 topics from 41 identified in the news. The total coverage of environmentally sensitive topics by the European oil and gas companies amounted to 37%. The Russian oil and gas companies referred to 10 identified topics out of 61, covering 16% of what was mentioned in the media. At the same time, the average number of words devoted to a topic by the European companies is greater than by the Russian companies, amounting 35 and 19 words. As a result, the leading European oil and gas companies appear to be more transparent in the three transparency factors of this study.

Nevertheless, among Russian companies, Gazprom showed a higher level of transparency than some European companies. The reports of Gazprom were prepared in accordance with GRI and have external assurances during the analysed period. In addition, the company provided 37 % coverage of environmentally sensitive topics, which is higher than half of the European companies in this study.

Despite the fact that reports of Suggutneftegas were not prepared in accordance to GRI and were not externally assured, Suggutneftegas showed greater transparency than four Russian companies in the last transparency factor, amounting to 37% of the environmental news coverage.

At the same time, Italian oil and gas company Eni provided a less transparent environmental disclosure than other sampled European companies, as well as Russian Gazprom. While Royal Dutch Shell plc showed the most transparent environmental disclosure among all sampled companies. Nevertheless, this is mainly due to the last factor of transparency in this study – coverage of the negative environmental news in the reports.

The average quantity of the reporting on a topic of the Russian oil and gas companies amounted to 117 words, which is slightly above the average of the European companies amounting to 101 words. This is mainly due to the comprehensive coverage of production at Natural Park Numto and accidents due to pipelines corrosion by Surgutneftegas. Nevertheless, the quantity of the reporting does not demonstrate the quality or transiency of the reporting, but rather provides more details on the coverage of the negative environmental news in this study.

The analyses of the changes in the transparency within the three-year period shows, that the transparency of the Russian companies slightly improved due to the increase of the external

assurances of the reports. While the transparency of the disclosure by the European oil and gas companies remained stable.

During the analysed period all European companies have their reports prepared in accordance to GRI Standards and externally assured. The number of leading Russian oil and gas Russian companies that prepared reports in accordance to GRI Standards remained constant. The number of companies with assured reports improved in 2018 and 2019 and amounted to five out of six. Table 7 summarises the changes in the negative environmental news coverage of the European and Russian leading oil and gas companies during the analysed three-years period.

	2017	2018	2019
European companies	45%	18%	50%
Russian companies	13%	25%	17%

TABLE 7. Changes in the negative environmental news coverage

As for the last factor of transparency, the coverage of the environmental news by the Russian companies remains relatively stable. European companies show greater transparency in this aspect in the years 2017 and 2019. Nevertheless, there was a drop in the negative news coverage by the European companies in 2018.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter focuses on the findings from the content analysis of environmental reporting of the Russian and European oil and gas companies and reflects on the literature review of secondary sources. It discusses the contributions of this study to existing research and answers the research questions stated in the first chapter. Limitations and recommendations for further research are outlined in the last section of this chapter.

5.2 Research aim and objectives

This study has aimed to identify the differences in the transparency of environmental reporting for the leading Russian and European oil and gas companies. The literature review has explained the reasons and motivations of companies to disclose environmental information in their reports. Companies use sustainability and environmental reports as a means to communicate their performance, as an instrument of marketing communication, as a means of

building corporate reputation, or as a means to manipulate opinions of the various stakeholders (Salvioni et al., 2018; Cho et al., 2010; Kotler & Lee 2005; Phiri & Mantzari, 2018). Moreover, to understand the motivation for environmental reporting, the author has scrutinized three theories: stakeholder theory, legitimacy theory, and institutional theory. The theories explain that, to meet the expectations of the stakeholders, society, and various institutions in the present day, companies must engage in CSR (Bhāle & Bhāle, 2018; Deegan, 2007; Belal, 2008). Legitimacy theory explains that companies engage in CSR to manipulate perceptions and to legitimize their business activities (Idowu & Leal Filho, 2010; Belal, 2008; Deegan, 2007; Bhāle & Bhāle, 2018). Institutional theory discusses that, to become legitimate, companies need to comply with the requirements of the institutional environment (Pilato, 2019). The results of this study show that all sampled oil and gas companies use reporting to communicate environmental information to their stakeholders, which is underpinned by the stakeholder theory. In addition, the legitimacy theory is somewhat reflected by fact that oil and gas companies refer to their accidents in the reports by providing the reasons for the incidence and their measures for minimizing the impact. In this way, companies try to convey good citizenship and accountability. In addition, the study suggests that most of the sampled oil and gas companies prepare the reports in accordance with GRI Standards and externally assure their reports. The behaviour can be explained by institutional theory as companies engage in these sustainability initiatives to comply with regulations, norms of the society, industry and market.

Secondly, the literature review has revealed that companies sometimes disclose selective information in their reports to create an environmentally responsible image (Cho et al., 2010; Frynas, 2010; Frederiksen & Nielsen, 2015). Such manipulations of stakeholder perceptions – or even greenwashing – often occurs within the environmentally sensitive industries (Frynas, 2010; Eisenegger & Schranz, 2011). Frynas (2010) discovered that oil and gas companies usually fail to maintain full transparency of non-financial disclosures, as they usually publish selective information in their reports.

In the empirical studies, I identified multiples factors that contribute to transparency in environmental reporting, which became a base for this study For instance, external assurances, sustainability standards, and reporting frameworks contribute to increased transparency in non-financial reporting (Weuster et al., 2020; Deloitte, 2016). That is why the author examines compliancy with the GRI as the most widely accepted standard for non-financial reporting (Godschalk, 2008). The second factor in transparency investigated is the assurances by external auditors, as the reports with external assurances are considered to be more comprehensive and transparent (Weuster et al., 2020). The last aspect considered is the analysis of publication of selective information regarding negative news about the companies' environmental performance.

Qualitative content analysis was applied as the research method. The author analysed and

compared the three factors of transparency of the six leading Russian companies and the six leading European companies, selected based on the S&P Global Platts Top 250 Global Energy Companies Ranking for 2019. The data analysis is based on three annual reporting periods from 2017 to 2019.

First, to answer the research question, the author investigated if the reports were prepared in accordance with the GRI Standards. Based on GRI 101 Foundation (2016), the author searched for a clear statement of this in the reports. The results revealed that all sampled European oil and gas companies prepared their reports in accordance with the GRI Standards. Two Russian companies, Surgutneftegas and Tatneft, do not report in accordance with the GRI Standards. Nevertheless, Tatneft has stated that it applies the GRI Guidelines in its reports. The analysis of the first factor demonstrated that European companies are more transparent in their environmental disclosures. At the same time, there was no change in the use of GRI Standards within the three-year period.

The transparency of the Russian companies slightly improved due to the increase of the external assurances of the reports. While the transparency of the disclosure by the European oil and gas companies remained stable. The analysis of the external assurances of the reports revealed that the reports of the European oil and gas companies were externally assured from 2017 to 2019. As for the Russian companies, four out of six companies had their reports externally assured during the investigated period. The transparency of the environmental reporting of the Russian companies with respect to assurance improved from 2017 to 2019, as Novotek introduced external assurance of its reports in 2018. Nevertheless, there was one Russian company that had no external assurance of its reports during the three-year period: Surgutneftegas. Hence overall the European oil and gas companies demonstrated greater transparency in environmental disclosure based on the second factor as well.

The third transparency factor in this research concerns companies' reporting on the negative environmental news covered by the media. After identifying negative news via Factiva, the author investigated if the same topics were also covered by the reports. The analysis revealed that European companies provide more details on accidents, environmental risks, and performance by discussing the problems they face and mentioning exact names of the locations of the incidents. The European companies covered 37% of the negative environmental news in their reports, while Russian companies reported 16% of the topics. The European oil and gas companies outperform Russian companies in the average number of words devoted to negative environmental news. However, it is important to note that the word count in this study is not considered as a factor of transparency of the disclosure, but rather plays a complementary role with the coverage of a topic.

The most covered environmental news by the European companies was the drilling in the Great Australian Bight, covered by Equinor, and massive crude oil pollution in Ogoniland by Shell. The

production at Natural Park Numto and accidents due to pipelines corrosion were the most covered topics among the Russian oil and gas companies. Surgutneftegas discussed these topics in its reports with 316 and 437 words respectively. In environmental transparency rating of oil and gas companies by WWF-Russia and CREON Group, Surgutneftegas was often one of three leaders over the seven years of the existence of this ranking, and scores more points as sampled Gazprom, Rosneft, Tatneft, Novatek (CREON Group, 2020). Among other criteria, WWF-Russia and CREON Group use as well 'Informing the public (through the company website) about emergencies/accidents and mitigation measures' as a criteria of transparency (Rational Approach, 2020).

Nevertheless, Russian Gazprom showed a higher level of transparency than some European companies. While Italian Eni proved to be less transparent in environmental reporting than Gazprom, and its European counterparts.

Despite various previous studies on transparency in environmental reporting, the I performed a country and industry specific analysis of environmental reporting based on three significant factors of transparency identified in the existing literature and studies. The research contributed to existing studies through identifying the differences in transparency between two regions of incorporation of many leading oil and gas companies: Russia and Europe. The study contributes to the previous studies that proved that the environmental disclosure initiatives and transparency depend on the company's characteristics, such as country of incorporation (Gray et al., 2001; Roberts et al., 1995; Van der Laan Smith et al., 2005). Van der Laan Smith et al. (2005) identified that companies that are incorporated in countries with a stronger emphasis on environmental and social issues have a higher quality of sustainability reports. At the same time, my study showed that the transparency of the reporting in Russia is inferior to the transparency of the reporting in Europe, which can be explained by the different emphasis on environmental issues as well. This study discovered that Russian, as well as European oil and gas companies, publish selective information in their reports on the negative environmental news, that contribute to the research of Frynas (2010), who identified that oil and gas companies usually fail to maintain full transparency of non-financial disclosures and usually publish selective information in their reports.

My works suggests that, based on the three factors of transparency that I identified, the leading European oil and gas companies overall perform environmental reporting more transparently than the Russian companies. Nevertheless, the awareness and concern of the Russian public and the government of the environmental problems are increasing. Therefore, it can be expected that Russian oil and gas companies will give greater priority to environmental issues to comply with the stricter environmental regulations and demands of the stakeholders. However, it would be inaccurate to generalize the findings of this study and to project the results on all Russian and European oil and gas companies, as qualitative researches are aimed at

providing insights within a particular context (Polit & Beck, 2010; Bengtsson, 2016; Drisko & Maschi, 2015).

5.3 Limitations and suggestions for future research

Future research could further investigate the types of sustainability topics companies report on, such as social sustainability, covering the human rights, labour, injuries, and indigenous peoples, as well as economic sustainability, which could include sustainable supply chains, economic impact, contribution to the community, employee benefits, innovations for the sustainable future and anti-corruption behaviour. The accidents can be categorized based on the size of the environmental impact and on the type of pollution. A researcher could investigate if companies mainly refer to the accidents that have major environmental damage in their reports or the accidents that have victims. Moreover, an analysis of companies' press releases, interviews, and other publications could be used to provide a clearer picture of what accidents companies refer to and make public. Furthermore, performing the sentiment analysis to evaluate a language on how companies report on their accidents and poor environmental performance, and categorizing the text as positive, negative, or neutral could be one more factor of transparency in environmental reporting.

This study analyses the disclosure on the environmental performance of the leading oil and gas companies, which misses the phenomenon of outsourcing environmentally harmful activities, drilling, construction or supply services activities to smaller companies. Although the control over safety and incidents, as well as reputational risk typically lies on the operator (S&P Global Ratings, 2019) some oil and gas companies do not perform strong oversight over their subcontractors in the developing countries. The lack of control and weak local regulations lead to unprecedented pollution in the developing worlds, as it happened in the Peruvian Amazon, where the government leased over 70 percent of the land to oil and gas companies (Finer & Orta-Martínez, 2010).

Another limitation of this study is the use of the sustainability reporting guideline GRI as the indicator of transparency, which is criticized by some researchers. Some researchers believe that GRI guidelines provide companies with the possibilities to manipulate the data and to select the most desirable information for publishing in their reports (Fonseca, McAllister & Fitzpatrick, 2014; Brown, de Jong & Lessidrenska, 2009).

Despite the fact that many authors use the word count approach to measure the disclosure on environmental indicators (Van der Laan Smith et al., 2005; Eljayash et al., 2013; Islam, 2009), this study used words count only to compliment the coverage of the environmentally negative information. This is due to the fact that a number of words does not contribute to the transparency of the reporting. Interpreting the meaning of disclosed information could serve as a transparency indicator for future studies. For instance, as in the study of Ojala (2015), future

studies can analyse if companies use environmental disclosure of repairing, gaining or maintaining legitimacy.

The external assurance could also be categorized based on the type of sustainability data that was assured. This research discovered that external auditors assure different types of environmental data. In this study, the auditors mainly confirmed that a report is prepared in accordance with the GRI Standards. However, the reports of Shell were assured on direct and indirect greenhouse gas emissions.

Future research could be extended to different countries or regions. For instance, US, Chinese, and Saudi Arabian oil and gas companies were not part of this research. Nevertheless, the companies incorporated in these countries are among the global leaders. Conversely, analysing companies during a longer time period would provide a greater understanding of the trends and changes in transparency in the reporting. Another proposition would be to conduct further analysis that embraces different industries and draws comparisons between them to discover what industries provide more transparent non-financial reporting.

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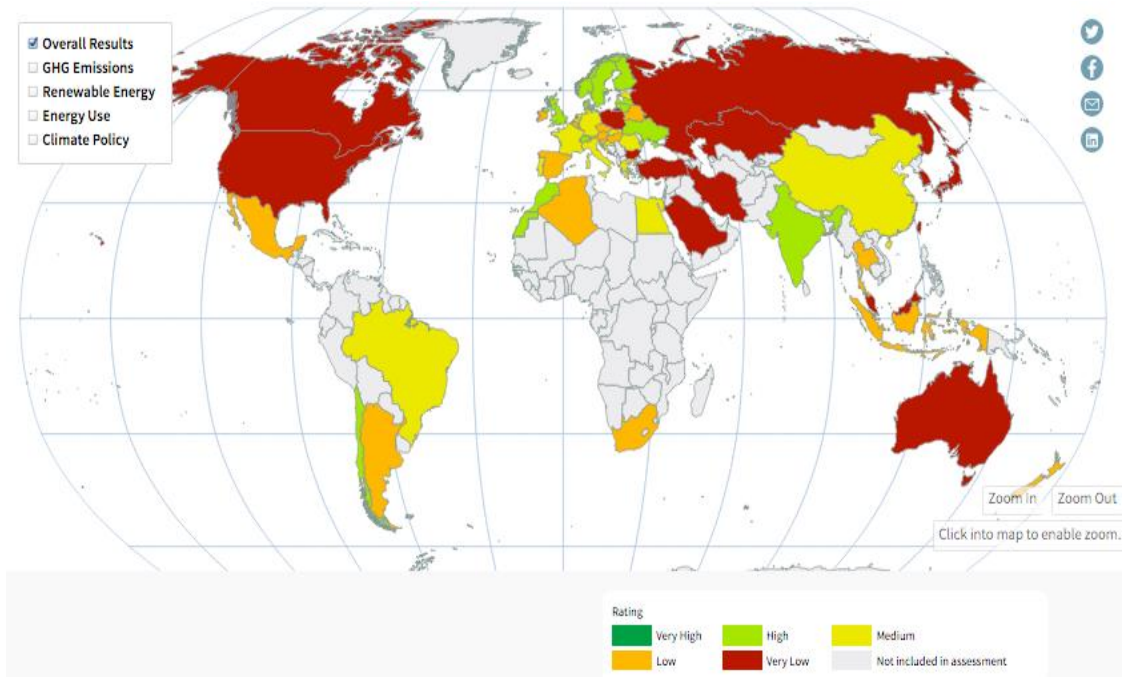
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Appendix 1. Climate Change Performance Index by individual countries (CCPI, 2020)



Appendix 2. Top 250 Global Energy Companies Ranking 2019

Platts Rank 2019	Company	State or Country	Region	Industry
1	Royal Dutch Shell plc	Netherlands	EMEA	Integrated oil and gas
2	Exxon Mobil Corp	Texas	Americas	Integrated oil and gas
3	OJSC LUKOIL	Russia	EMEA	Integrated oil and gas
4	OJSC Gazprom	Russia	EMEA	Integrated oil and gas
5	Equinor ASA	Norway	EMEA	Integrated oil and gas
6	Chevron Corp	California	Americas	Integrated oil and gas
7	Phillips 66	Texas	Americas	Oil and gas refining and marketing
8	TOTAL SA	France	EMEA	Integrated oil and gas
9	Surgutneftegas OJSC	Russia	EMEA	Integrated oil and gas
10	China Petroleum & Chemical Corp	China	Asia/Pacific Rim	Integrated oil and gas
11	OJSC Rosneft Oil Co	Russia	EMEA	Integrated oil and gas
12	ConocoPhillips	Texas	Americas	Oil and gas exploration and production
13	CNOOC Ltd	Hong Kong	Asia/Pacific Rim	Oil and gas exploration and production
14	China Shenhua Energy Co Ltd	China	Asia/Pacific Rim	Coal and consumable fuels
15	E.ON SE	Germany	EMEA	Multi-utilities
16	BP p.l.c.	United Kingdom	EMEA	Integrated oil and gas
17	Oil & Natural Gas Corp Ltd	India	Asia/Pacific Rim	Integrated oil and gas
18	Valero Energy Corp	Texas	Americas	Oil and gas refining and marketing
19	Reliance Industries Ltd	India	Asia/Pacific Rim	Oil and gas refining and marketing
20	Eni S.p.A.	Italy	EMEA	Integrated oil and gas
21	PTT Plc	Thailand	Asia/Pacific Rim	Integrated oil and gas
22	NextEra Energy Inc	Florida	Americas	Electric utilities
23	Enterprise Products Partners LP	Texas	Americas	Oil and gas storage and transportation
24	JXTC Holdings Inc	Japan	Asia/Pacific Rim	Oil and gas refining and marketing
25	Indian Oil Corp Ltd	India	Asia/Pacific Rim	Oil and gas refining and marketing
26	Enel SpA	Italy	EMEA	Electric utilities
27	Occidental Petroleum Corp	Texas	Americas	Integrated oil and gas
28	Petróleo Brasileiro SA - Petrobras	Brazil	Americas	Integrated oil and gas
29	PetroChina Co Ltd	China	Asia/Pacific Rim	Integrated oil and gas
30	Ecopetrol SA	Colombia	Americas	Integrated oil and gas
31	EOG Resources Inc	Texas	Americas	Oil and gas exploration and production
32	OJSC Transneft	Russia	EMEA	Oil and gas storage and transportation
33	Suncor Energy Inc	Canada	Americas	Integrated oil and gas
34	Marathon Petroleum Corp	Ohio	Americas	Oil and gas refining and marketing
35	Plains All American Pipeline LP	Texas	Americas	Oil and gas storage and transportation
36	Iberdrola SA	Spain	EMEA	Electric utilities

37	Ørsted A/S	Denmark	EMEA	Electric utilities
38	OMV Aktiengesellschaft	Austria	EMEA	Integrated oil and gas
39	Centrais Elétricas Brasileiras SA - Eletrobras	Brazil	Americas	Electric utilities
40	PJSC Tatneft	Russia	EMEA	Oil and gas exploration and production
41	Tokyo Electric Power Co Holdings Incorporated	Japan	Asia/Pacific Rim	Electric utilities
42	Repsol SA	Spain	EMEA	Integrated oil and gas
43	Coal India Ltd	India	Asia/Pacific Rim	Coal and consumable fuels
44	Bharat Petroleum Corp Ltd	India	Asia/Pacific Rim	Oil and gas refining and marketing
45	Polski Koncern Naftowy ORLEN Spółka Akcyjna	Poland	EMEA	Oil and gas refining and marketing
46	SK Innovation Co Ltd	South Korea	Asia/Pacific Rim	Oil and gas refining and marketing
47	Exelon Corp	Illinois	Americas	Electric utilities
48	China Yangtze Power Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
49	Formosa Petrochemical Corp	Taiwan	Asia/Pacific Rim	Oil and gas refining and marketing
50	Duke Energy Corp	North Carolina	Americas	Electric utilities
51	PAO NOVATEK	Russia	EMEA	Oil and gas exploration and production
52	Energy Transfer LP	Texas	Americas	Oil and gas storage and transportation
53	Canadian Natural Resources Ltd	Canada	Americas	Oil and gas exploration and production
54	The Southern Co	Georgia	Americas	Electric utilities
55	Hindustan Petroleum Corp Ltd	India	Asia/Pacific Rim	Oil and gas refining and marketing
56	American Electric Power Co Inc	Ohio	Americas	Electric utilities
57	Dominion Energy Inc	Virginia	Americas	Multi-utilities
58	Enbridge Inc	Canada	Americas	Oil and gas storage and transportation
59	SSE plc	United Kingdom	EMEA	Electric utilities
60	Yanzhou Coal Mining Co Ltd	China	Asia/Pacific Rim	Coal and consumable fuels
61	National Grid plc	United Kingdom	EMEA	Multi-utilities
62	CLP Holdings Ltd	Hong Kong	Asia/Pacific Rim	Electric utilities
63	NTPC Ltd	India	Asia/Pacific Rim	Independent power producers and energy traders
64	TC Energy Corp	Canada	Americas	Oil and gas storage and transportation
65	MOL Hungarian Oil & Gas Co	Hungary	EMEA	Integrated oil and gas
66	Empresas Copec SA	Chile	Americas	Oil and gas refining and marketing
67	HollyFrontier Corp	Texas	Americas	Oil and gas refining and marketing
68	Shaanxi Coal Industry Co Ltd	China	Asia/Pacific Rim	Coal and consumable fuels
69	The Kansai Electric Power Co Incorporated	Japan	Asia/Pacific Rim	Electric utilities
70	Rosseti OJSC	Russia	EMEA	Electric utilities
71	PPL Corp	Pennsylvania	Americas	Electric utilities
72	Concho Resources Inc	Texas	Americas	Oil and gas exploration and

				production
73	Husky Energy Inc	Canada	Americas	Integrated oil and gas
74	OJSC Inter RAO UES	Russia	EMEA	Electric utilities
75	Electricité de France SA	France	EMEA	Electric utilities
76	Public Service Enterprise Group Incorporated	New Jersey	Americas	Multi-utilities
77	Xcel Energy Inc	Minnesota	Americas	Electric utilities
78	Kinder Morgan Inc	Texas	Americas	Oil and gas storage and transportation
79	Idemitsu Kosan CoLtd	Japan	Asia/Pacific Rim	Oil and gas refining and marketing
80	Consolidated Edison Inc	New York	Americas	Multi-utilities
81	DTE Energy Co	Michigan	Americas	Multi-utilities
82	ONEOK Inc	Oklahoma	Americas	Oil and gas storage and transportation
83	Galp Energia SGPS SA	Portugal	EMEA	Integrated oil and gas
84	Neste Oyj	Finland	EMEA	Oil and gas refining and marketing
85	AGL Energy Ltd	Australia	Asia/Pacific Rim	Multi-utilities
86	GAIL (India) Ltd	India	Asia/Pacific Rim	Gas utilities
87	Woodside Petroleum Ltd	Australia	Asia/Pacific Rim	Oil and gas exploration and production
88	Chubu Electric Power Co Incorporated	Japan	Asia/Pacific Rim	Electric utilities
89	Power Grid Corp of India Ltd	India	Asia/Pacific Rim	Electric utilities
90	Sempra Energy	California	Americas	Multi-utilities
91	WEC Energy Group Inc	Wisconsin	Americas	Multi-utilities
92	Pioneer Natural Resources Co	Texas	Americas	Oil and gas exploration and production
93	Entergy Corp	Louisiana	Americas	Electric utilities
94	Tokyo Gas Co Ltd	Japan	Asia/Pacific Rim	Gas utilities
95	YPF Sociedad Anónima	Argentina	Americas	Integrated oil and gas
96	Polskie Górnictwo Naftowe i Gazownictwo SA	Poland	EMEA	Integrated oil and gas
97	Marathon Oil Corp	Texas	Americas	Oil and gas exploration and production
98	The Hong Kong & China Gas Co Ltd	Hong Kong	Asia/Pacific Rim	Gas utilities
99	Beijing Enterprises Holdings Ltd	Hong Kong	Asia/Pacific Rim	Gas utilities
100	Türkiye Petrol Rafinerileri A.S.	Turkey	EMEA	Oil and gas refining and marketing
101	CGN Power Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
102	Chesapeake Energy Corp	Oklahoma	Americas	Oil and gas exploration and production
103	The AES Corp	Virginia	Americas	Independent power producers and energy traders
104	Encana Corp	Canada	Americas	Oil and gas exploration and production
105	Eversource Energy	Massachusetts	Americas	Electric utilities
106	Saudi Electricity Co	Saudi Arabia	EMEA	Electric utilities
107	Veolia Environnement SA	France	EMEA	Multi-utilities

108	Kunlun Energy Co Ltd	Hong Kong	Asia/Pacific Rim	Oil and gas storage and transportation
109	Cosmo Energy Holdings Co Ltd	Japan	Asia/Pacific Rim	Oil and gas refining and marketing
110	EDP - Energias de Portugal SA	Portugal	EMEA	Electric utilities
111	Ameren Corp	Missouri	Americas	Multi-utilities
112	Continental Resources Inc	Oklahoma	Americas	Oil and gas exploration and production
113	Inpex Corp	Japan	Asia/Pacific Rim	Oil and gas exploration and production
114	EnBW Energie Baden-Württemberg AG	Germany	EMEA	Electric utilities
115	FirstEnergy Corp	Ohio	Americas	Electric utilities
116	UGI Corp	Pennsylvania	Americas	Gas utilities
117	Anadarko Petroleum Corp	Texas	Americas	Oil and gas exploration and production
118	Magellan Midstream Partners LP	Oklahoma	Americas	Oil and gas storage and transportation
119	China Gas Holdings Ltd	Hong Kong	Asia/Pacific Rim	Gas utilities
120	Fortum Oyj	Finland	EMEA	Electric utilities
121	ENGIE SA	France	EMEA	Multi-utilities
122	Pembina Pipeline Corp	Canada	Americas	Oil and gas storage and transportation
123	CK Infrastructure Holdings Ltd	Hong Kong	Asia/Pacific Rim	Electric utilities
124	Korea Electric Power Corp	South Korea	Asia/Pacific Rim	Electric utilities
125	Snam S.p.A.	Italy	EMEA	Oil and gas storage and transportation
126	Tohoku Electric Power Co Incorporated	Japan	Asia/Pacific Rim	Electric utilities
127	GS Holdings Corp	South Korea	Asia/Pacific Rim	Oil and gas refining and marketing
128	Korea Gas Corp	South Korea	Asia/Pacific Rim	Gas utilities
129	China Resources Gas Group Ltd	Hong Kong	Asia/Pacific Rim	Gas utilities
130	China Coal Energy Co Ltd	China	Asia/Pacific Rim	Coal and consumable fuels
131	NRG Energy Inc	New Jersey	Americas	Independent power producers and energy traders
132	Fortis Inc	Canada	Americas	Electric utilities
133	Uniper SE	Germany	EMEA	Independent power producers and energy traders
134	Devon Energy Corp	Oklahoma	Americas	Oil and gas exploration and production

135	CMS Energy Corp	Michigan	Americas	Multi-utilities
136	Plains GP Holdings LP	Texas	Americas	Oil and gas storage and transportation
137	CPFL Energia SA	Brazil	Americas	Electric utilities
138	Huaneng Power International Inc	China	Asia/Pacific Rim	Independent power producers and energy traders
139	China National Nuclear Power Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
140	Centrica plc	United Kingdom	EMEA	Multi-utilities
141	Manila Electric Co	Philippines	Asia/Pacific Rim	Electric utilities
142	Kyushu Electric Power Co Incorporated	Japan	Asia/Pacific Rim	Electric utilities
143	Peabody Energy Corp	Missouri	Americas	Coal and consumable fuels
144	Terna SpA	Italy	EMEA	Electric utilities
145	Power Assets Holdings Ltd	Hong Kong	Asia/Pacific Rim	Electric utilities
146	Aker BP ASA	Norway	EMEA	Oil and gas exploration and production
147	China Resources Power Holdings Co Ltd	Hong Kong	Asia/Pacific Rim	Independent power producers and energy traders
148	Cimarex Energy Co	Colorado	Americas	Oil and gas exploration and production
149	Red Eléctrica Corporación SA	Spain	EMEA	Electric utilities
150	Santos Ltd	Australia	Asia/Pacific Rim	Oil and gas exploration and production
151	Zhejiang Zheneng Electric Power Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
152	SDIC Power Holdings Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
153	CNX Resources Corp	Pennsylvania	Americas	Oil and gas exploration and production
154	CEZ a. s.	Czech Republic	EMEA	Electric utilities
155	Inner Mongolia Yitai Coal Co Ltd	China	Asia/Pacific Rim	Coal and consumable fuels
156	ENN Energy Holdings Ltd	China	Asia/Pacific Rim	Gas utilities

157	Atmos Energy Corp	Texas	Americas	Gas utilities
158	Grupa LOTOS SA	Poland	EMEA	Oil and gas refining and marketing
159	Diamondback Energy Inc	Texas	Americas	Oil and gas exploration and production
160	RWE Aktiengesellschaft	Germany	EMEA	Multi-utilities
161	Yancoal Australia Ltd	Australia	Asia/Pacific Rim	Coal and consumable fuels
162	Naturgy Energy Group SA	Spain	EMEA	Gas utilities
163	Southwestern Energy Co	Texas	Americas	Oil and gas exploration and production
164	PG&E Corp	California	Americas	Electric utilities
165	Pinnacle West Capital Corp	Arizona	Americas	Electric utilities
166	Cheniere Energy Inc	Texas	Americas	Oil and gas storage and transportation
167	Ultrapar Participações SA	Brazil	Americas	Oil and gas storage and transportation
168	Evergy Inc	Missouri	Americas	Electric utilities
169	Huaneng Lancang River Hydropower Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
170	CenterPoint Energy Inc	Texas	Americas	Multi-utilities
171	Emera Incorporated	Canada	Americas	Electric utilities
172	Datang International Power Generation Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
173	World Fuel Services Corp	Florida	Americas	Oil and gas refining and marketing
174	Electricity Generating Public Co Ltd	Thailand	Asia/Pacific Rim	Independent power producers and energy traders
175	Electric Power Development Co Ltd	Japan	Asia/Pacific Rim	Independent power producers and energy traders
176	Huadian Power International Corp Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
177	Alliant Energy Corp	Wisconsin	Americas	Electric utilities
178	Edison International	California	Americas	Electric utilities
179	Andeavor Logistics LP	Ohio	Americas	Oil and gas storage and transportation
180	China Longyuan Power Group Corp Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
181	OJSC Federal Hydro-Generating Co - RusHydro	Russia	EMEA	Electric utilities
182	VERBUND AG	Austria	EMEA	Electric utilities
183	Osaka Gas Co Ltd	Japan	Asia/Pacific Rim	Gas utilities
184	Acciona SA	Spain	EMEA	Electric utilities
185	Companhia Energética de Minas Gerais	Brazil	Americas	Electric utilities
186	Polska Grupa Energetyczna SA	Poland	EMEA	Electric utilities
187	GD Power Development Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
188	Shanxi Lu'an Environmental Energy Development Co Ltd	China	Asia/Pacific Rim	Coal and consumable fuels
189	A2A S.p.A.	Italy	EMEA	Multi-utilities
190	The Chugoku Electric Power Co Inc	Japan	Asia/Pacific Rim	Electric utilities
191	S-Oil Corp	South Korea	Asia/Pacific Rim	Oil and gas refining and marketing
192	SM Energy Co	Colorado	Americas	Oil and gas exploration and production

193	Thai Oil Pcl	Thailand	Asia/Pacific Rim	Oil and gas refining and marketing
194	PT Adaro Energy Tbk	Indonesia	Asia/Pacific Rim	Coal and consumable fuels
195	OGE Energy Corp	Oklahoma	Americas	Electric utilities
196	Phillips 66 Partners LP	Texas	Americas	Oil and gas storage and transportation
197	Oil India Ltd	India	Asia/Pacific Rim	Oil and gas exploration and production
198	The Williams Companies Inc	Oklahoma	Americas	Oil and gas storage and transportation
199	Hera S.p.A.	Italy	EMEA	Multi-utilities
200	Grupo Energía Bogotá SA E.S.P.	Colombia	Americas	Gas utilities
201	Cenovus Energy Inc	Canada	Americas	Integrated oil and gas
202	National Fuel Gas Co	New York	Americas	Gas utilities
203	Enagás SA	Spain	EMEA	Oil and gas storage and transportation
204	PBF Energy Inc	New Jersey	Americas	Oil and gas refining and marketing
205	Murphy Oil Corp	Arkansas	Americas	Oil and gas exploration and production
206	Inter Pipeline Ltd	Canada	Americas	Oil and gas storage and transportation
207	Energisa SA	Brazil	Americas	Electric utilities
208	Companhia Paranaense de Energia - COPEL	Brazil	Americas	Electric utilities
209	Aboitiz Power Corp	Philippines	Asia/Pacific Rim	Independent power producers and energy traders
210	Yangquan Coal Industry (Group) Co Ltd	China	Asia/Pacific Rim	Coal and consumable fuels
211	Hellenic Petroleum SA	Greece	EMEA	Oil and gas refining and marketing
212	Interconexión Eléctrica SA E.S.P.	Colombia	Americas	Electric utilities
213	Gulfport Energy Corp	Oklahoma	Americas	Oil and gas exploration and production
214	Rabigh Refining & Petrochemical Co	Saudi Arabia	EMEA	Oil and gas refining and marketing
215	Origin Energy Ltd	Australia	Asia/Pacific Rim	Integrated oil and gas
216	Jiangsu Guoxin Corp Ltd	China	Asia/Pacific Rim	Electric utilities
217	Vistra Energy Corp	Texas	Americas	Independent power producers and energy traders
218	Shanghai Electric Power Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
219	MDU Resources Group Inc	North Dakota	Americas	Multi-utilities
220	Brookfield Infrastructure Partners LP	Bermuda	Americas	Multi-utilities
221	California Resources Corp	California	Americas	Oil and gas exploration and production
222	Seven Generations Energy Ltd	Canada	Americas	Oil and gas exploration and production

223	The Tata Power Co Ltd	India	Asia/Pacific Rim	Electric utilities
224	Huaneng Renewables Corp Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders
225	Italgas S.p.A.	Italy	EMEA	Gas utilities
226	Hawaiian Electric Industries Inc	Hawaii	Americas	Electric utilities
227	NHPC Ltd	India	Asia/Pacific Rim	Independent power producers and energy traders
228	ACEA S.p.A.	Italy	EMEA	Multi-utilities
229	Hokkaido Electric Power Co Incorporated	Japan	Asia/Pacific Rim	Electric utilities
230	Lundin Petroleum AB (publ)	Sweden	EMEA	Oil and gas exploration and production
231	Abu Dhabi National Energy Co PJSC	United Arab Emirates	EMEA	Multi-utilities
232	PT Perusahaan Gas Negara Tbk	Indonesia	Asia/Pacific Rim	Gas utilities
233	Shanxi Xishan Coal & Electricity Power CoLtd	China	Asia/Pacific Rim	Coal and consumable fuels
234	Apache Corp	Texas	Americas	Oil and gas exploration and production
235	DCP Midstream LP	Colorado	Americas	Oil and gas storage and transportation
236	Iren SpA	Italy	EMEA	Multi-utilities
237	EVN AG	Austria	EMEA	Electric utilities
238	Cosan Ltd	Brazil	Americas	Oil and gas refining and marketing
239	HK Electric Investments & HK Electric Investments Ltd	Hong Kong	Asia/Pacific Rim	Electric utilities
240	Whiting Petroleum Corp	Colorado	Americas	Oil and gas exploration and production
241	Parsley Energy Inc	Texas	Americas	Oil and gas exploration and production
242	Shenergy Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders independent power producers and energy traders
243	Reliance Infrastructure Ltd	India	Asia/pacific rim	Electric utilities
244	ATCO Ltd	Canada	Americas	Multi-utilities
245	Elia System Operator SA	Belgium	Emea	Electric utilities
246	Equatorial Energia SA	Brazil	Americas	Electric utilities
247	Shikoku Electric Power Co Incorporated	Japan	Asia/Pacific	Electric utilities

248	Huadian Fuxin Energy Corp Ltd	China	Asia/Pacific	Independent power producers and energy traders
249	Oil Search Ltd	Papua New Guinea	Asia/Pacific Rim	Oil and gas exploration and production
250	Beijing Jingneng Clean Energy Co Ltd	China	Asia/Pacific Rim	Independent power producers and energy traders

TABLE 8. Top 250 Global Energy Companies Ranking 2019 (S&P Global Platts, 2019b)

Appendix 3. In accordance to GRI

Dateien\\European companies\\BP\\2017 BP Sustainability Report - § 1 Referenz kodiert [0,07% Abdeckung]
<i>Referenz 1 - 0,07% Abdeckung</i>
International reporting standards We report in accordance with the Global Reporting Initiative's G4 core guidelines and the UN Global Compact's 10 principles on human rights, labour, environment and anti-corruption.
Dateien\\European companies\\BP\\2018 BP Sustainability Report - § 1 Referenz kodiert [0,06% Abdeckung]
<i>Referenz 1 - 0,06% Abdeckung</i>
We report in accordance with the core option of the Global Reporting Initiative standards. We also support the UN Global Compact's 10 principles on human rights, labour, environment and anti-corruption.
Dateien\\European companies\\BP\\2019 BP Sustainability Report - § 1 Referenz kodiert [0,04% Abdeckung]
<i>Referenz 1 - 0,04% Abdeckung</i>
Reporting standards We use sustainability reporting guidance from IPIECA for environmental and social issues and report in accordance with the core option of the Global Reporting Initiative (GRI) standards.
Dateien\\European companies\\Eni\\2017 ENI Annual-Report - § 2 Referenzen kodiert [0,05% Abdeckung]
<i>Referenz 1 - 0,04% Abdeckung</i>
The Non-financial information is drafted in accordance with the Decree 254/2016 and the "Sustainability Reporting Standards", published by the Global Reporting Initiative (GRI Standards), which represent the reporting standard adopted, "In accordance core" level and had undergone a limited assurance by the independent company which provided assurance to Eni's Annual Report as of December 31st
<i>Referenz 2 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards and content index
Dateien\\European companies\\Eni\\2018 ENI Annual-Report - § 2 Referenzen kodiert [0,03% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>

The Consolidated Disclosure of Non-Financial Information is drafted in accordance with the Decree 254/2016 and with the “Sustainability Reporting Standards”, published by the Global Reporting Initiative (GRI Standards), which represent the reporting standard adopted. The document is drafted in accordance with the “core” option of the GRI Standards and had undergone a limited assurance by the independent company which provided assurance to Eni Group’s Annual Report as of December 31, 2018.
<i>Referenz 2 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards and content index
Dateien\\European companies\\Eni\\2019 ENI Annual-Report - § 2 Referenzen kodiert [0,02% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>
The Consolidated Disclosure of Non-Financial Information is prepared in accordance with the Italian Legislative Decree 254/2016 and the “Sustainability Reporting Standards”, published by the Global Reporting Initiative (GRI Standards), according to the “core” option and was subject to limited assurance by an independent company, auditor of the Eni Group’s Annual Report as of December 31, 2019.
<i>Referenz 2 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards and content index
Dateien\\European companies\\Equinor\\2017 Equinor (Statoil) Sustainability Report - § 1 Referenz kodiert [0,06% Abdeckung]
<i>Referenz 1 - 0,06% Abdeckung</i>
This report has been externally assured by KPMG. The external assurance concludes that the report is presented in all material respects, in accordance with the GRI G4 Sustainability Reporting Guidelines “core” reporting level.1
Dateien\\European companies\\Equinor\\2018 Equinor Sustainability Report - § 2 Referenzen kodiert [0,24% Abdeckung]
<i>Referenz 1 - 0,10% Abdeckung</i>
Reporting standards This report has been prepared in accordance with the GRI Standards: Core option. A GRI Index is available at equinor.com. We view this report to be our Communication on Progress to the United Nations (UN) Global Compact (advanced reporting level).
<i>Referenz 2 - 0,14% Abdeckung</i>
Assurance This report has been externally assured by KPMG, with reasonable level of assurance for selected climate, environment and safety indicators, and a limited level of assurance for the rest of the report. The independent assurance statement (see Appendices) concludes that the report is presented in all material respects, in accordance with the GRI Standards: Core option.
Dateien\\European companies\\Equinor\\2019 Equinor Sustainability Report - § 3 Referenzen kodiert [0,20% Abdeckung]

<i>Referenz 1 - 0,07% Abdeckung</i>
Reporting standards This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option. A GRI Index is available at equinor.com. The sustainability report should be read in conjunction with the GRI index.
<i>Referenz 2 - 0,05% Abdeckung</i>
The independent assurance statement, as listed in appendix, concludes that the report is presented in all material respects, in accordance with the GRI Standards: Core option.
<i>Referenz 3 - 0,08% Abdeckung</i>
Conclusion For the limited assurance engagement, nothing has come to our attention that causes us to believe that the Sustainability Report is not prepared, in all material respects, in accordance with GRI and the criteria defined by the CEO and Executive Management.
Dateien\\European companies\\OMV\\2017 OMV Sustainability Report - § 9 Referenzen kodiert [0,44% Abdeckung]
<i>Referenz 1 - 0,11% Abdeckung</i>
Report scope and boundaries OMV Sustainability Report 2017, a document published yearly (last Sustainability Report was published on May 22, 2017), has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option, and in line with the Austrian Nachhaltigkeits- und Diversitätsverbesserungsgesetz and guided by Oil and Gas Sector Disclosures presented following the launch of GRI G4 Guidelines.
<i>Referenz 2 - 0,03% Abdeckung</i>
Health related KPIs in accordance with the GRI are provided in the chapter Performance in Detail.
<i>Referenz 3 - 0,03% Abdeckung</i>
Safety related KPIs in accordance with the GRI are provided in the chapter Performance in Detail.
<i>Referenz 4 - 0,03% Abdeckung</i>
KPIs related to water management in accordance with GRI are provided in the chapter Performance inDetail.
<i>Referenz 5 - 0,04% Abdeckung</i>
KPIs related to greenhouse gas emissions and energy consumption in accordance with the GRI are provided in the chapter Performance in Detail.
<i>Referenz 6 - 0,03% Abdeckung</i>
KPIs related to employees in accordance with the GRI are provided in the chapter Performance in Detail.

<i>Referenz 7 - 0,03% Abdeckung</i>
Lost-Time Injury Severity is used to report the Lost Day Rate, in accordance with the GRI Indicator 403-2-a
<i>Referenz 8 - 0,06% Abdeckung</i>
Engagement We were requested to perform a limited assurance engagement related to selected indicators in the "Sustainability Report 2017" in accordance with the GRI Standards CORE Option of OMV Aktiengesellschaft (hereafter "OMV").
<i>Referenz 9 - 0,09% Abdeckung</i>
The objective of our engagement was neither a financial audit nor a financial audit review. We did not perform any further assurance procedures on data, which were subject of the annual financial audit, the corporate governance report or the risk reporting. We merely checked that data was presented in accordance with the GRI Standards.
Dateien\\European companies\\OMV\\2018 OMV Sustainability Report - § 3 Referenzen kodiert [0,15% Abdeckung]
<i>Referenz 1 - 0,08% Abdeckung</i>
Report Scope and Boundaries, Material Topics OMV's 2018 Sustainability Report, a document published annually (most recent Sustainability Report published on April 26, 2018), was prepared in accordance with the Global Reporting Initiative (GRI) Standards Core option, in line with the Austrian Nachhaltigkeits- und Diversitätsverbesserungsgesetz (Sustainability and Diversity Improvement Act), and guided by Oil and Gas Sector Disclosures presented following the launch of the GRI G4 Guidelines.
<i>Referenz 2 - 0,05% Abdeckung</i>
The objective of our engagement was neither a financial audit nor a financial audit review. We did not perform any assurance procedures on data, which were subject of the annual financial audit, the corporate governance report or the risk reporting. We merely checked that data was presented in accordance with the GRI Standards.
<i>Referenz 3 - 0,03% Abdeckung</i>
(F) 102-53 Contact point for questions regarding the report (F) 102-54 Claims of reporting in accordance with the GRI Standards (F) 102-55 GRI content index (F) 102-56 External assurance
Dateien\\European companies\\OMV\\2019 OMV Sustainability Report - § 3 Referenzen kodiert [0,12% Abdeckung]
<i>Referenz 1 - 0,07% Abdeckung</i>

<p>OMV's 2019 Sustainability Report, a document published annually (most recent Sustainability Report published on April 18, 2019), was prepared in accordance with the Global Reporting Initiative (GRI) Standards Core option. This Report is the combined, consolidated, non-financial report of the OMV Group in line with the Austrian Nachhaltigkeits- und Diversitätsverbesserungsgesetz (Sustainability and Diversity Improvement Act; NaDiVeG), namely in accordance with Section 267a of the Austrian Commercial Code, and guided by Oil and Gas Sector Disclosures presented following the launch of the GRI G4 Guidelines.</p>
<i>Referenz 2 - 0,01% Abdeckung</i>
<p>Claims of reporting in accordance with the GRI Standards</p>
<i>Referenz 3 - 0,04% Abdeckung</i>
<p>The objective of our engagement was neither a financial audit nor a financial audit review of past-oriented financial information. We did not perform any further assurance procedures on data, which were subject of the annual financial audit, the corporate governance report and the risk reporting. We merely checked this data was presented in accordance with the GRI Guidelines.</p>
<p>Dateien\\European companies\\Shell\\2017 Shell Sustainability Report - § 1 Referenz kodiert [0,05% Abdeckung]</p>
<i>Referenz 1 - 0,05% Abdeckung</i>
<p>REPORTING GUIDELINES We report in line with guidelines developed by IPIECA, the global oil and gas industry association for environmental and social issues, and in accordance with the Global Reporting Initiative (GRI) version 4 (See GRI index for full details).</p>
<p>Dateien\\European companies\\Shell\\2018 Shell Sustainability Report - § 1 Referenz kodiert [0,05% Abdeckung]</p>
<i>Referenz 1 - 0,05% Abdeckung</i>
<p>REPORTING GUIDELINES We report in line with guidelines developed by IPIECA, the global oil and gas industry association for environmental and social issues. This report has also been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option (see GRI index for full details).</p>
<p>Dateien\\European companies\\Shell\\2019 Shell Sustainability Report - § 1 Referenz kodiert [0,05% Abdeckung]</p>
<i>Referenz 1 - 0,05% Abdeckung</i>
<p>Reporting guidelines We report in line with guidelines developed by IPIECA, the global oil and gas industry association for advancing environmental and social performance. This report has also been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option (see GRI index for full details).</p>
<p>Dateien\\European companies\\Total\\2017 Total Reports - § 3 Referenzen kodiert [0,01% Abdeckung]</p>
<i>Referenz 1 - 0,01% Abdeckung</i>
<p>Total – GRI Standards content index, in accordance with CORE level (self-declared)</p>

<i>Referenz 2 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards
<i>Referenz 3 - 0,01% Abdeckung</i>
This report has been prepared in accordance with the GRI Standards 'CORE' option.
Dateien\\European companies\\Total\\2018 Total Reports - § 3 Referenzen kodiert [0,01% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
GRI Standards Content Index - in accordance with CORE level (self-declared)
<i>Referenz 2 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards
<i>Referenz 3 - 0,01% Abdeckung</i>
This report has been prepared in accordance with the GRI Standards: Core option.
Dateien\\European companies\\Total\\2019 Total Reports - § 3 Referenzen kodiert [0,01% Abdeckung]Referenz 1 - 0,01% Abdeckung
<i>Referenz 2 - 0,01% Abdeckung</i>
in accordance with the CORE option (self-declared)
<i>Referenz 2 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards
<i>Referenz 3 - 0,01% Abdeckung</i>
This report has been prepared in accordance with the GRI Standards: Core option.
Dateien\\Russian companies\\Gazprom\\2017 Gazprom Sustainability Report - § 4 Referenzen kodiert [0,09% Abdeckung]
<i>Referenz 1 - 0,06% Abdeckung</i>
in 2017, stakeholders' interest was focused on the following aspects of gazprom's activities: gazprom group's economic performance, its presence in the global and domestic markets, compliance with social, economic and environmental requirements of the law, the environmental management System and the environmental policy of pJSc gazprom, occupational health and safety situation at the group's production units, and antitrust compliance. this report provides details on these issues, among others. the report was prepared in accordance with the gri Sustainability reporting guidelines, core option.
<i>Referenz 2 - 0,01% Abdeckung</i>
Gri 102-54 claims of reporting in accordance with the gri Standards selected by the organization
<i>Referenz 3 - 0,01% Abdeckung</i>

“this report has been prepared in accordance with the gri Standards: core option.”
<i>Referenz 4 - 0,01% Abdeckung</i>
the information is represented in accordance with gri Standards and the gri oil and gas Sector Supplement.
Dateien\\Russian companies\\Gazprom\\2018 Gazprom Sustainability Report - § 4 Referenzen kodiert [0,04% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
This Report has been prepared in accordance with the GRI standards: Core option
<i>Referenz 2 - 0,01% Abdeckung</i>
Claim of reporting in accordance with the GRI standards
<i>Referenz 3 - 0,01% Abdeckung</i>
This report has been prepared in accordance with the GRI standards: Core option.
<i>Referenz 4 - 0,02% Abdeckung</i>
The Report represents information on all vectors of Gazprom’s activities in sustainable development during the reporting period. The information is represented in accordance with GRI Standards and the GRI Oil and Gas Sector Supplement.
Dateien\\Russian companies\\Gazprom\\2019 Gazprom Sustainability Report - § 9 Referenzen kodiert [0,22% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
This Report has been prepared in accordance with the GRI Standards: Core option
<i>Referenz 2 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards
<i>Referenz 3 - 0,01% Abdeckung</i>
This Report has been prepared in accordance with the GRI Standards: Core option. Appendix 1. GRI Content Index
<i>Referenz 4 - 0,02% Abdeckung</i>
The Report contains information on all areas of Gazprom’s sustainable development activities in the reporting period in accordance with the GRI Standards and the GRI Oil and Gas Sector Supplement.
<i>Referenz 5 - 0,04% Abdeckung</i>
We have undertaken a limited assurance engagement of the accompanying Gazprom Group’s Sustainability Report 2019 (hereinafter referred to as the Report) compliance with the requirements of GRI Sustainability Reporting Standards to the report prepared in accordance with the Core option. Responsibility of PJSC «GAZPROM» PJSC «GAZPROM» is responsible for preparation of the Report in compliance with the requirements of GRI Sustainability Reporting Standards to the report prepared in accordance with the Core option.

<i>Referenz 6 - 0,03% Abdeckung</i>
Our Responsibility Our responsibility is to express a limited assurance conclusion on the Report compliance with the requirements of GRI Sustainability Reporting Standards to the report prepared in accordance with the Core option based on the procedures we have performed and the evidence we have obtained.
<i>Referenz 7 - 0,02% Abdeckung</i>
A limited assurance engagement undertaken in accordance with this standard involves assessing compliance of the Report with the requirements of GRI Sustainability Reporting Standards to the report prepared in accordance with the Core option.
<i>Referenz 8 - 0,05% Abdeckung</i>
Analysis of information in the Report for compliance with the requirements of GRI Sustainability Reporting Standards to the report prepared in accordance with the Core option. The procedures were performed only in relation to data for the year ended 31 December 2019. The evaluation of reliability of the information on performance in the Report was conducted in relation to compliance with the requirements of Standards to the report prepared in accordance with the Core option and information referred to in the section of the Report "Appendix 1. GRI Content Index".
<i>Referenz 9 - 0,05% Abdeckung</i>
Accordingly, we do not express a reasonable assurance opinion about compliance of the Report, in all material respects, with the requirements of Standards to the report prepared in accordance with the Core option. Limited Assurance Conclusion Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Report has not complied, in all material aspects, with requirements of GRI Sustainability Reporting Standards to the report prepared in accordance with the Core option.
Dateien\\Russian companies\\Lukoil\\2017 LUKOIL Sustainability Report - § 4 Referenzen kodiert [0,13% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>
This report has been prepared in accordance with the GRI Standards (Core option) 2.1. GRI Index 102-55
<i>Referenz 2 - 0,02% Abdeckung</i>
102-54 102-55 102-56 Claims of reporting in accordance with the GRI Standards GRI content index External assurance
<i>Referenz 3 - 0,05% Abdeckung</i>
In the process of preparing reporting information, we performed an analysis of whether the Company's activity complies with the Sustainable Development Targets of the 2030 Agenda for Sustainable Development and with the procedure for identifying material topics in accordance with GRI Standards.
<i>Referenz 4 - 0,04% Abdeckung</i>

Management is responsible for the preparation and presentation of the Report that is free from material misstatement in accordance with the GRI Standards, and for the information and statements contained therein.
Dateien\\Russian companies\\Lukoil\\2018 LUKOIL Sustainability Report - § 3 Referenzen kodiert [0,05% Abdeckung]
<i>Referenz 1 - 0,03% Abdeckung</i>
Source: bulletin «Occupational injuries in the Russian Federation in 2017», updated on June 6, 2018, official website of Federal State Statistic Service In accordance with the GRI Occupational Health and Safety (2018) standard.
<i>Referenz 2 - 0,01% Abdeckung</i>
This report has been prepared in accordance with the GRI Standards (Core option)
<i>Referenz 3 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards GRI Content Index External assurance
Dateien\\Russian companies\\Lukoil\\2019 LUKOIL Sustainability Report - § 3 Referenzen kodiert [0,08% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
This report has been prepared in accordance with the GRI Standards (Core option)
<i>Referenz 2 - 0,02% Abdeckung</i>
The procedure for determining the material topics of the Report is performed in accordance with the Global Reporting Initiative (GRI) standards, with a focus on SASB standards and UN Global Sustainable Development Goals.
<i>Referenz 3 - 0,05% Abdeckung</i>
Management is responsible for the preparation and presentation of the Report that is free from material misstatement in accordance with the GRI Standards, and for the information contained therein. Management's Responsibilities Management is responsible for the preparation and presentation of the Report that is free from material misstatement in accordance with the GRI Standards, and for the information contained therein.
Dateien\\Russian companies\\Novatek\\2017 Novatek Sustainability Report - § 4 Referenzen kodiert [0,05% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>
The previous Sustainability Report was prepared in accordance with GRI G4 Guidelines.
<i>Referenz 2 - 0,01% Abdeckung</i>
Key standards applied Version "In accordance" option used

<i>Referenz 3 - 0,01% Abdeckung</i>
GRI Guidelines GRI Standards
<i>Referenz 4 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards
Dateien\\Russian companies\\Novatek\\2018 Novatek Sustainability Report - § 3 Referenzen kodiert [0,02% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
Key standards applied Version "In accordance" option used
<i>Referenz 2 - 0,01% Abdeckung</i>
GRI Guidelines GRI Standards Core
<i>Referenz 3 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards
Dateien\\Russian companies\\Novatek\\2019 Novatek Sustainability Report - § 6 Referenzen kodiert [0,09% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
102-54 102-56 This Report draws on the Global Reporting Initiative (GRI) Standards as the core guidelines. This Report has been prepared in accordance with the GRI Standards: Core option,
<i>Referenz 2 - 0,01% Abdeckung</i>
Key standards applied "In accordance" option used
<i>Referenz 3 - 0,01% Abdeckung</i>
GRI Standards Core
<i>Referenz 4 - 0,02% Abdeckung</i>
We periodically conduct materiality assessments in accordance with the GRI Reporting Principles and prepare a materiality matrix
<i>Referenz 5 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards
<i>Referenz 6 - 0,05% Abdeckung</i>
We assessed the qualitative and quantitative information that is disclosed in the Sustainability Report and is referred to or included in the GRI Content Index (hereinafter – the "Selected Information")~. The Selected Information has been prepared in accordance with the GRI Sustainability Reporting Standards (Core option) published by the Global Reporting Initiative (hereinafter – the "GRI Standards")~.

Dateien\\Russian companies\\Rosneft\\2017 Rosneft Sustainability Report - § 4 Referenzen kodiert [0,14% Abdeckung]
<i>Referenz 1 - 0,04% Abdeckung</i>
This Report is prepared in accordance with the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards), including where relevant the oil and gas sector disclosures. In reporting its financial and operating performance, the Company is guided by International Financial Reporting Standards (IFRS).
<i>Referenz 2 - 0,03% Abdeckung</i>
The 2017 Sustainability Report has been externally assured by EY and has been prepared in accordance with the Core option of the GRI Standards. The external assurance statement is provided on pages 128 – 129 of this Report.
<i>Referenz 3 - 0,06% Abdeckung</i>
Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the information in the Report does not represent fairly, in all material respects, the sustainability policies, activities, events and performance of the Company for the year ended December 31, 2017 in accordance with the GRI Standards and sustainability reporting principles of the Company.
<i>Referenz 4 - 0,01% Abdeckung</i>
GRI 102-54 Claims of reporting in accordance with the GRI Standards
Dateien\\Russian companies\\Rosneft\\2018 Rosneft Sustainability Report - § 4 Referenzen kodiert [0,09% Abdeckung]
<i>Referenz 1 - 0,03% Abdeckung</i>
This Report is prepared in accordance with the GRI Standards, including where relevant the oil and gas sector disclosures. In reporting its financial and operating performance, the Company is guided by International Financial Reporting Standards (IFRS).
<i>Referenz 2 - 0,03% Abdeckung</i>
The 2018 Sustainability Report has been externally assured by EY and has been prepared in accordance with the Core option of the GRI Standards. The Independent Assurance Report is included as a separate Annex to this Report (page 134–135).
<i>Referenz 3 - 0,03% Abdeckung</i>
of the Company for the year ended 31 December 2018 in accordance with the GRI Standards and the Company’s sustainability reporting principles and approaches to defining certain sustainability as set out in the Report.
<i>Referenz 4 - 0,01% Abdeckung</i>
Claims of reporting in accordance with the GRI Standards

Dateien\\Russian companies\\Rosneft\\2019 Rosneft Sustainability Report - § 3 Referenzen kodiert [0,08% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>
<p>The Report was prepared in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI Standards, core option).</p>
<i>Referenz 2 - 0,05% Abdeckung</i>
<p>Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the information in the Report does not represent fairly, in all material respects, the sustainability policies, activities, events and performance of the Company for the year ended 31 December 2019 in accordance with the GRI Standards and the Company's sustainability reporting principles and approaches to defining certain sustainability as set out in the Report.</p>
<i>Referenz 3 - 0,01% Abdeckung</i>
<p>Claims of reporting in accordance with the GRI Standards</p>

Appendix 4. Citing GRI

Dateien\\Russian companies\\Tatneft\\2017 Tatneft Annual Report - § 3 Referenzen kodiert [0,04% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>
This annual report complies with the following sustainable development standards: - G4 Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI) - AA 1000 Standard for Stakeholder Engagement - ISO:26000 Standard – Guidance on Social Responsibility - Social Charter of Russian Business - International Integrated Reporting Standard
<i>Referenz 2 - 0,01% Abdeckung</i>
Since 2005, the Company has promoted sustainable development and social responsibility, following the principles of GRI.
<i>Referenz 3 - 0,01% Abdeckung</i>
The indicators included in the guidelines and technical protocols of GRI were used when preparing the Report to compare the Company's effectiveness with other companies' results.
Dateien\\Russian companies\\Tatneft\\2018 Tatneft Annual Report - § 2 Referenzen kodiert [0,01% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
The annual report of TaTNEFT has been formed based on the following principal documents
<i>Referenz 2 - 0,01% Abdeckung</i>
11. Series of standards: of the Institute of Social and Ethical Accountability AA1000; ISO 26000: 2010 Guidance on Social Responsibility; GRI
Dateien\\Russian companies\\Tatneft\\2019 Tatneft Annual Report - § 2 Referenzen kodiert [0,02% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
, the content of the Annual Report takes into account the following documents and Guidelines:
<i>Referenz 2 - 0,01% Abdeckung</i>
<ul style="list-style-type: none"> • ISO 26000 Guidance on Social Responsibility; • GRI Sustainability Reporting Guide; • AA1000 Series of Standards developed by the International Institute for Social and Ethical Reporting (AccountAbility);

Appendix 5. Assurances and auditing

Dateien\\European companies\\BP\\2017 BP Sustainability Report - § 3 Referenzen kodiert [0,12% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
Independent assurance statement
<i>Referenz 2 - 0,06% Abdeckung</i>
We have reviewed information or explanation on selected statements on BP's sustainability activities presented in the Report and we are not aware of any misstatements in the assertions made.
<i>Referenz 3 - 0,04% Abdeckung</i>
Ernst & Young LLP, London 16 April 2018 Ernst & Young's Visit bp.com/assurance for Ernst & Young's specific observations.
Dateien\\European companies\\BP\\2018 BP Sustainability Report - § 4 Referenzen kodiert [0,12% Abdeckung]
<i>Referenz 1 - 0,06% Abdeckung</i>
Deloitte conducts independent assurance on the Advancing Low Carbon activities, including assessing the application of BP's process and criteria for accrediting activities, and GHG emissions offset and saved within the programme.
<i>Referenz 2 - 0,01% Abdeckung</i>
Independent assurance statement
<i>Referenz 3 - 0,03% Abdeckung</i>
We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.
<i>Referenz 4 - 0,01% Abdeckung</i>
Deloitte LLP, London 10 April 2019
Dateien\\European companies\\BP\\2019 BP Sustainability Report - § 4 Referenzen kodiert [0,09% Abdeckung]
<i>Referenz 1 - 0,05% Abdeckung</i>
Deloitte conducts independent assurance on ALC activities, including: assessing the application of our process and criteria for accrediting activities, and confirming greenhouse gas (GHG) emissions that are offset and saved through the programme.
<i>Referenz 2 - 0,01% Abdeckung</i>
Independent assurance statement

<i>Referenz 3 - 0,03% Abdeckung</i>
We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.
<i>Referenz 4 - 0,01% Abdeckung</i>
Deloitte LLP, London 27 March 2020
Dateien\\European companies\\Eni\\2017 ENI Annual-Report - § 3 Referenzen kodiert [0,29% Abdeckung]
<i>Referenz 1 - 0,25% Abdeckung</i>
Page 115 : (56,133) - (512,779)
<i>Referenz 2 - 0,04% Abdeckung</i>
The Non-financial information is drafted in accordance with the Decree 254/2016 and the “Sustainability Reporting Standards”, published by the Global Reporting Initiative (GRI Standards), which represent the reporting standard adopted, “In accordance core” level and had undergone a limited assurance by the independent company which provided assurance to Eni’s Annual Report as of December 31st
<i>Referenz 3 - 0,01% Abdeckung</i>
External assurance
Dateien\\European companies\\Eni\\2018 ENI Annual-Report - § 2 Referenzen kodiert [0,12% Abdeckung]
<i>Referenz 1 - 0,09% Abdeckung</i>
Page 257 : (77,154) - (501,785)
<i>Referenz 2 - 0,02% Abdeckung</i>
The Consolidated Disclosure of Non-Financial Information is drafted in accordance with the Decree 254/2016 and with the “Sustainability Reporting Standards”, published by the Global Reporting Initiative (GRI Standards), which represent the reporting standard adopted. The document is drafted in accordance with the “core” option of the GRI Standards and had undergone a limited assurance by the independent company which provided assurance to Eni Group’s Annual Report as of December 31, 2018.
Dateien\\European companies\\Eni\\2019 ENI Annual-Report - § 2 Referenzen kodiert [0,11% Abdeckung]
<i>Referenz 1 - 0,09% Abdeckung</i>
Page 269 : (46,141) - (492,772)
<i>Referenz 2 - 0,02% Abdeckung</i>

The Consolidated Disclosure of Non-Financial Information is prepared in accordance with the Italian Legislative Decree 254/2016 and the "Sustainability Reporting Standards", published by the Global Reporting Initiative (GRI Standards), according to the "core" option and was subject to limited assurance by an independent company, auditor of the Eni Group's Annual Report as of December 31, 2019.
Dateien\\European companies\\Equinor\\2017 Equinor (Statoil) Sustainability Report - § 2 Referenzen kodiert [0,10% Abdeckung]
<i>Referenz 1 - 0,06% Abdeckung</i>
This report has been externally assured by KPMG. The external assurance concludes that the report is presented in all material respects, in accordance with the GRI G4 Sustainability Reporting Guidelines "core" reporting level.
<i>Referenz 2 - 0,04% Abdeckung</i>
1 The independent assurance report, outlining the conclusion, is included in the Appendices ii Statoil, Sustainability report 2017
Dateien\\European companies\\Equinor\\2018 Equinor Sustainability Report - § 1 Referenz kodiert [0,14% Abdeckung]
<i>Referenz 1 - 0,14% Abdeckung</i>
Assurance This report has been externally assured by KPMG, with reasonable level of assurance for selected climate, environment and safety indicators, and a limited level of assurance for the rest of the report. The independent assurance statement (see Appendices) concludes that the report is presented in all material respects, in accordance with the GRI Standards: Core option.
Dateien\\European companies\\Equinor\\2019 Equinor Sustainability Report - § 1 Referenz kodiert [0,12% Abdeckung]
<i>Referenz 1 - 0,12% Abdeckung</i>
Assurance This report has been externally assured by EY, with reasonable level of assurance for selected climate, environment and safety indicators, and a limited level of assurance for the rest of the report, excluding forward looking information. The independent assurance statement, as listed in appendix, concludes that the report is presented in all material respects, in accordance with the GRI Standards: Core option.
Dateien\\European companies\\OMV\\2017 OMV Sustainability Report - § 3 Referenzen kodiert [0,16% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>
Assurance Statement To the Board of OMV Aktiengesellschaft Independent Assurance Report
<i>Referenz 2 - 0,06% Abdeckung</i>
Engagement We were requested to perform a limited assurance engagement related to selected indicators in the "Sustainability Report 2017" in accordance with the GRI Standards CORE Option of OMV Aktiengesellschaft (hereafter "OMV").

<i>Referenz 3 - 0,08% Abdeckung</i>
<p>Based on the scope of our review nothing has come to our attention that causes us to believe that the selected indicators in the Reporting were not prepared, in accordance with the criteria identified above.</p> <p>Vienna, April 26th 2018 Ernst & Young Wirtschaftsprüfungsgesellschaft m.b.H</p>
Dateien\\European companies\\OMV\\2018 OMV Sustainability Report - § 3 Referenzen kodiert [0,11% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>
<p>Independent assurance regarding selected non-financial disclosures in the Sustainability Report 2018 of OMV Aktiengesellschaft.</p>
<i>Referenz 2 - 0,04% Abdeckung</i>
<p>We were requested to perform a limited assurance engagement regarding the selected non-financial disclosures of OMV Aktiengesellschaft (hereafter "OMV") in the non-financial report 2018 (hereafter "Reporting") in accordance with the requirements of the GRI Standards CORE Option.</p>
<i>Referenz 3 - 0,05% Abdeckung</i>
<p>Based on the scope of our review nothing has come to our attention that causes us to believe that the disclosures and data relating to the focal areas in the Reporting were not prepared in accordance with the criteria identified above.</p> <p>Vienna, April 11th 2019 Ernst & Young Wirtschaftsprüfungsgesellschaft m.b.H.</p>
Dateien\\European companies\\OMV\\2019 OMV Sustainability Report - § 3 Referenzen kodiert [0,08% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
<p>Report about the Independent Assurance of the non-financial Reporting 2019</p>
<i>Referenz 2 - 0,04% Abdeckung</i>
<p>We have performed a limited assurance engagement regarding the non-financial reporting 2019 (hereafter "Reporting") in accordance with the requirements of the § 267a UGB Nachhaltigkeits- und Diversitätsverbesserungsgesetz (NaDiVeG) and the GRI Standards CORE Option of OMV Aktiengesellschaft (hereafter "OMV"), Wien.</p>
<i>Referenz 3 - 0,04% Abdeckung</i>
<p>Based on our assurance procedures we haven't noted any issues that causes us to believe that in all material matters the Sustainability Reporting 2019 is not in accordance with § 267a UGB (NaDiVeG) as well as with the GRI-Standards.</p> <p>Vienna, March 24, 2020 Ernst & Young Wirtschaftsprüfungsgesellschaft m.b.H.</p>
Dateien\\European companies\\Shell\\2017 Shell Sustainability Report - § 1 Referenz kodiert [0,07% Abdeckung]
<i>Referenz 1 - 0,07% Abdeckung</i>

Lloyd's Register Quality Assurance Ltd has provided limited assurance of our direct and indirect greenhouse gas emissions (GHG) data for 2017. Limited assurance means nothing has come to the auditor's attention that would indicate that the GHG data and information as presented in the GHG Assertion were not materially correct. The assurance statements are available at shell.com.

Dateien\\European companies\\Shell\\2018 Shell Sustainability Report - § 1 Referenz kodiert [0,06% Abdeckung]

Referenz 1 - 0,06% Abdeckung

Lloyd's Register Quality Assurance Ltd has provided limited assurance of our direct and indirect greenhouse gas emissions data for 2018. Limited assurance means nothing has come to the auditor's attention that would indicate that the greenhouse gas data and information as presented in the Greenhouse Gas Assertion were not materially correct. The assurance statements are available at www.shell.com

Dateien\\European companies\\Shell\\2019 Shell Sustainability Report - § 2 Referenzen kodiert [0,13% Abdeckung]

Referenz 1 - 0,06% Abdeckung

Lloyd's Register Quality Assurance Ltd has provided limited assurance for our Net Carbon Footprint assertion for each year from 2016 to 2019. Limited assurance means nothing has come to the auditor's attention that would indicate that the Net Carbon Footprint data and information as presented in the Net Carbon Footprint Assertions were not materially correct.

Referenz 2 - 0,07% Abdeckung

Lloyd's Register Quality Assurance Ltd has provided limited assurance of our direct and indirect greenhouse gas emissions data for 2019. Limited assurance means nothing has come to the auditor's attention that would indicate that the greenhouse gas data and information as presented in the Greenhouse Gas Assertion were not materially correct. The assurance statements are available at www.shell.com.

Dateien\\European companies\\Total\\2017 Total Reports - § 2 Referenzen kodiert [0,01% Abdeckung]

Referenz 1 - 0,01% Abdeckung

5.5.2 Limited assurance on CSR Information

Referenz 2 - 0,01% Abdeckung

Based on our work, we have not identified any significant misstatement that causes us to believe that the CSR Information, taken together, has not been fairly presented, in compliance with the Criteria.

Paris-La Défense, the 14th March 2018

French original signed by: Independent Verifier

ERNST & YOUNG et Associés

Dateien\\European companies\\Total\\2018 Total Reports - § 2 Referenzen kodiert [0,01% Abdeckung]

<i>Referenz 1 - 0,01% Abdeckung</i>
Independent third party's report on the consolidated non- financial statement presented in the management report
<i>Referenz 2 - 0,01% Abdeckung</i>
Based on our work, we have not identified any significant misstatement that causes us not to believe that the consolidated non-financial statement complies with the applicable regulatory provisions and that the Information, taken together, is fairly presented, in compliance with the Criteria. Paris-La Défense, the 13th March 2019 French original signed by: Independent third party ERNST & YOUNG et Associés
Dateien\\European companies\\Total\\2019 Total Reports - § 2 Referenzen kodiert [0,01% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
Independent third party's report on the consolidated non-financial performance statement presented in the management report
<i>Referenz 2 - 0,01% Abdeckung</i>
Based on the procedures performed, nothing has come to our attention that causes us to believe that the consolidated non-financial performance statement is not presented in accordance with the applicable regulatory requirements and that the Information, taken as a whole, is not presented fairly in accordance with the Guidelines, in all material respects. Paris-La Défense, March 18th, 2020 French original signed by: Independent third party ERNST & YOUNG Associés
Dateien\\Russian companies\\Gazprom\\2017 Gazprom Sustainability Report - § 4 Referenzen kodiert [0,42% Abdeckung]
<i>Referenz 1 - 0,14% Abdeckung</i>
Page 227 : (62,102) - (538,791)
<i>Referenz 2 - 0,13% Abdeckung</i>
Page 228 : (56,139) - (526,775)
<i>Referenz 3 - 0,13% Abdeckung</i>
Page 229 : (61,132) - (529,771)
<i>Referenz 4 - 0,02% Abdeckung</i>
the report has been approved by a professional auditor – audit firm FBK grant thornton. the report was endorsed by the council of the russian union of industrialists and entrepreneurs in terms of its nonfinancial statements.
Dateien\\Russian companies\\Gazprom\\2018 Gazprom Sustainability Report - § 4 Referenzen kodiert [0,45% Abdeckung]
<i>Referenz 1 - 0,14% Abdeckung</i>
Page 199 : (87,90) - (549,743)

<i>Referenz 2 - 0,15% Abdeckung</i>
Page 200 : (84,80) - (559,742)
<i>Referenz 3 - 0,15% Abdeckung</i>
Page 201 : (70,80) - (545,742)
<i>Referenz 4 - 0,02% Abdeckung</i>
The report has been approved by a professional auditor – audit firm fbK Grant Thornton. The report was endorsed by the Council of the Russian Union of Industrialists and entrepreneurs (RUle) in terms of its nonfinancial statements.
Dateien\\Russian companies\\Gazprom\\2019 Gazprom Sustainability Report - § 3 Referenzen kodiert [0,14% Abdeckung]
<i>Referenz 1 - 0,09% Abdeckung</i>
Page 278 : (57,167) - (512,810)
<i>Referenz 2 - 0,02% Abdeckung</i>
Gazprom’s Sustainability Report has been approved independently by FBK LLC and received public assurance from the Russian Union of Industrialists and Entrepreneurs (RUIE), a national non-governmental organization.
<i>Referenz 3 - 0,03% Abdeckung</i>
Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Report has not complied, in all material aspects, with requirements of GRI Sustainability Reporting Standards to the report prepared in accordance with the Core option. FBK, LLC
Dateien\\Russian companies\\Lukoil\\2017 LUKOIL Sustainability Report - § 4 Referenzen kodiert [0,17% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>
Independent Limited Assurance Report Appendix 3 on the LUKOIL Group Sustainability Report 2017
<i>Referenz 2 - 0,09% Abdeckung</i>
Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion. Based on the procedures performed and described in this report, nothing has come to our attention that causes us to believe that Management’s statement that the Report is prepared, in all material respects, based on the GRI Standards and is free from material misstatement, is not fairly stated.
<i>Referenz 3 - 0,01% Abdeckung</i>
Anton Ivanovich Oussov JSC “KPMG” Moscow, Russia 17 May 2018

<i>Referenz 4 - 0,05% Abdeckung</i>
The RUIE Council for Non-Financial Reporting, having given the Report a positive assessment, supported the Company's commitment to responsible business practices, and noted the reporting consistency, confirms that the LUKOIL Group 2017 Sustainability Report has passed public assurance.
Dateien\\Russian companies\\Lukoil\\2018 LUKOIL Sustainability Report - § 3 Referenzen kodiert [0,30% Abdeckung]
<i>Referenz 1 - 0,20% Abdeckung</i>
Page 76 : (648,97) - (1121,787)
<i>Referenz 2 - 0,05% Abdeckung</i>
We believe an important factor in meeting these objectives is the performance of an independent audit of the information disclosed, as well as a public verification of the Report. The audit firm's opinion under a limited assurance engagement with respect to the Report is published on page 146. The conclusions on the public verification of the Report, by the RSPP Non-Financial Reporting Council, are published on page 150.
<i>Referenz 3 - 0,05% Abdeckung</i>
The Board of Non-Financial Reporting of the Russian Union of Industrialists and Entrepreneurs, after issuing a positive assessment of the Report which supports the Company's adherence to the principles of responsible business practices and highlighting the consistent development of the reporting, confirms that the LUKOIL Group 2018 Sustainability Report has passed public assurance.
Dateien\\Russian companies\\Lukoil\\2019 LUKOIL Sustainability Report - § 4 Referenzen kodiert [0,33% Abdeckung]
<i>Referenz 1 - 0,27% Abdeckung</i>
Page 91 : (0,0) - (595,841)
<i>Referenz 2 - 0,03% Abdeckung</i>
We believe that independent audits of disclosed information and external assurance of the Report contribute to these objectives. The audit firm's opinion is published on page 175. The conclusion of the RSPP Council on Non-Financial Reporting concerning the external assurance of the Report is published on page 179.
<i>Referenz 3 - 0,01% Abdeckung</i>
Independent Practitioner's Limited Assurance Report on Sustainability Report of LUKOIL Group for 2019
<i>Referenz 4 - 0,02% Abdeckung</i>
APPENDIX 9. CONCLUSION OF THE BOARD OF NON-FINANCIAL REPORTING OF THE RUSSIAN UNION OF INDUSTRIALISTS AND ENTREPRENEURS ON THE PUBLIC ASSURANCE REVIEW RESULTS OF THE SUSTAINABILITY REPORT OF LUKOIL GROUP FOR 2019

Dateien\\Russian companies\\Novatek\\2017 Novatek Sustainability Report - § 1 Referenz kodiert [0,02% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>
The Company does not seek external assurance, with the Report internally audited by highly skilled specialists.
Dateien\\Russian companies\\Novatek\\2018 Novatek Sustainability Report - § 3 Referenzen kodiert [0,08% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
APPENDIX 1. Independent Limited Assurance Report to Management of PAO NOVATEK
<i>Referenz 2 - 0,06% Abdeckung</i>
Based on the procedures we have performed and the evidence we have obtained: <ul style="list-style-type: none"> • nothing has come to our attention that causes us to believe that the Selected Information for the year ended 31 December 2018 has not been prepared, in all material respects, in accordance with the requirements of the GRI Standards; and • nothing has come to our attention that causes us to believe that the Selected Information does not meet the Core requirements in accordance with the Guidelines of the GRI Standards~
<i>Referenz 3 - 0,01% Abdeckung</i>
Audit organisation: AO PricewaterhouseCoopers Audit
Dateien\\Russian companies\\Novatek\\2019 Novatek Sustainability Report - § 3 Referenzen kodiert [0,05% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
INDEPENDENT LIMITED ASSURANCE REPORT TO THE MANAGEMENT OF PAO NOVATEK
<i>Referenz 2 - 0,03% Abdeckung</i>
Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information for the year ended 31 December 2019 has not been prepared, in all material respects, in accordance with the Reporting Criteria~.
<i>Referenz 3 - 0,01% Abdeckung</i>
Audit organization: AO PricewaterhouseCoopers Audit
Dateien\\Russian companies\\Rosneft\\2017 Rosneft Sustainability Report - § 3 Referenzen kodiert [0,09% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
Independent Assurance Report on the Sustainability Report 2017
<i>Referenz 2 - 0,01% Abdeckung</i>

Ernst & Young LLC June 6, 2018
<i>Referenz 3 - 0,08% Abdeckung</i>
Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the information in the Report does not represent fairly, in all material respects, the sustainability policies, activities, events and performance of the Company for the year ended December 31, 2017 in accordance with the GRI Standards and sustainability reporting principles of the Company. Nothing has come to our attention that causes us to believe that the Report is not prepared 'in accordance' with the GRI Standards using the Core option.
Dateien\\Russian companies\\Rosneft\\2018 Rosneft Sustainability Report - § 3 Referenzen kodiert [0,08% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
Independent Assurance Report on the Sustainability Report 2018
<i>Referenz 2 - 0,01% Abdeckung</i>
Ernst & Young LLC 7 June 2019
<i>Referenz 3 - 0,07% Abdeckung</i>
Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the information in the Report does not represent fairly, in all material respects, the sustainability policies, activities, events and performance of the Company for the year ended 31 December 2018 in accordance with the GRI Standards and the Company's sustainability reporting principles and approaches to defining certain sustainability as set out in the Report. Nothing has come to our attention that causes us to believe that the Report is not prepared 'in accordance' with the GRI Standards using the Core option.
Dateien\\Russian companies\\Rosneft\\2019 Rosneft Sustainability Report - § 2 Referenzen kodiert [0,07% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
Independent Assurance Report on the Sustainability Report 2019
<i>Referenz 2 - 0,07% Abdeckung</i>
Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the information in the Report does not represent fairly, in all material respects, the sustainability policies, activities, events and performance of the Company for the year ended 31 December 2019 in accordance with the GRI Standards and the Company's sustainability reporting principles and approaches to defining certain sustainability as set out in the Report. Nothing has come to our attention that causes us to believe that the Report is not prepared 'in accordance' with the GRI Standards using the Core option. D.E. Lobachev Partner Ernst & Young LLC 17 June 2020
Dateien\\Russian companies\\Tatneft\\2017 Tatneft Annual Report - § 2 Referenzen kodiert [0,03% Abdeckung]

<i>Referenz 1 - 0,02% Abdeckung</i>
<p>Subject of audit We have audited the Company's financial statements, which include: • Balance sheet as of December 31, 2017 • Statement of financial results for the year ending on that date • Statement of changes in equity for the year ending on that date • Statement of cash flows for the year ending on that date • Explanations with respect to the balance sheet and the financial results report</p>
<i>Referenz 2 - 0,01% Abdeckung</i>
Independent Auditor: JSC PricewaterhouseCoopers Audit
Dateien\\Russian companies\\Tatneft\\2018 Tatneft Annual Report - § 7 Referenzen kodiert [0,09% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
Independent Auditor's Report
<i>Referenz 2 - 0,02% Abdeckung</i>
<p>Subject of audit We have audited the Company's accounting statements, which include: • Balance Sheet as of December 31, 2018; • Profit and Loss Statement for the year ended on that date; • Capital Statement for the year ended on that date; • Cash Flow Statement for the year ended on that date; • Notes to the Balance Sheet and the Profit and Loss Statement.</p>
<i>Referenz 3 - 0,01% Abdeckung</i>
Independent auditor Joint Stock Company PricewaterhouseCoopers Audit
<i>Referenz 4 - 0,03% Abdeckung</i>
<p>PUBLIC ASSURANCE CONCLUSION OF THE COMPANY REPORT TATNEFT IN THE AREA OF SUSTAINABLE DEVELOPMENT IN 2018 We, the stakeholder representatives, have the knowledge and competencies in corporate responsibility and sustainable development, public non-financial reporting, we comply with ethical standards, we follow the principle of independence and an objective approach in assessing and drawing the conclusions, while expressing our personal expert opinion, and not the opinion of the organizations we represent.</p>
<i>Referenz 5 - 0,02% Abdeckung</i>
<p>Based on the above, we give our positive assessment and We support the Company's commitment to the principles of responsible business practices, sequence of actions to contribute to improvement quality of life and social infrastructure in the territories activities.</p>
<i>Referenz 6 - 0,01% Abdeckung</i>
<p>We confirm that the report of the TATNEFT Company in the field of sustainable development for 2018 passed public assurance.</p>
<i>Referenz 7 - 0,01% Abdeckung</i>
<p>The protocol was conducted by: Acting Corporate Secretary -- Deputy Chief of Staff Corporate Secretary of PJSC TATNEFT D. M. Gamirov</p>

Dateien\\Russian companies\\Tatneft\\2019 Tatneft Annual Report - § 4 Referenzen kodiert [0,03% Abdeckung]
<i>Referenz 1 - 0,01% Abdeckung</i>
Independent Auditor's Report To the Shareholders and Board of Directors of PJSC
<i>Referenz 2 - 0,02% Abdeckung</i>
Subject of audit We have audited the Company's accounting statements, which include: • Balance Sheet as of December 31, 2019; • Profit & Loss Statement for the year then ended; • Statement of Changes in Equity for the year then ended; • Statement of Cash Flows for the year ended on that date; • Notes to the Balance Sheet and Profit & Loss Statement.
<i>Referenz 3 - 0,01% Abdeckung</i>
Joint Stock Company PricewaterhouseCoopers Audit
<i>Referenz 4 - 0,01% Abdeckung</i>
Independent audit of environmental and climate performance indicators by PwC. Public assurance of the RSPP.

Appendix 6. Negative environmental news

Dateien\\European companies\\BP\\2019 BP Sustainability Report - § 1 Referenz kodiert [0,12% Abdeckung]
<i>Referenz 1 - 0,12% Abdeckung</i>
<p>20 April 2020 marks 10 years since Deepwater Horizon Making BP safer, reducing risk and rebuilding trust was the key focus of the 10-point plan that Bob Dudley, then our chief executive, announced in 2011. A decade later, we've achieved improvements in our safety performance through training and technology, heightened standards and continuing work on incident prevention. Our BP values and behaviours are embedded across the group. They continue to reinforce systemic working and an open culture where people feel empowered to speak up if they believe something is not right.</p>
Dateien\\European companies\\Eni\\2017 ENI Annual-Report - § 2 Referenzen kodiert [0,08% Abdeckung]
<i>Referenz 1 - 0,04% Abdeckung</i>
<p>Oil spills due to operations (higher than one barrel), 94% of which relating to the E&P segment, more than doubled from 2016. This was mainly due to the spill from a tank located in COVA in Val d'Agri where the Company implemented all the remediation actions to reduce the environmental damage and to prevent any future accident through infrastructure upgrading.</p>
<i>Referenz 2 - 0,04% Abdeckung</i>
<p>As an example of said potential risks, operations at the Val d'Agri Oil Center (COVA) were shut down for a full quarter (from April 18, 2017 to July 18, 2017) became necessary following the detection of a small quantities of oil in the external area bordering the COVA. Notwithstanding the prompt and effective remedial measures taken by Eni, the shutdown of COVA negatively affected the Group results and cash flow in 2017.</p>
Dateien\\European companies\\Eni\\2018 ENI Annual-Report - § 1 Referenz kodiert [0,03% Abdeckung]
<i>Referenz 1 - 0,03% Abdeckung</i>
<p>Waste from production activities generated by Eni in 2018 increased compared to 2017, due in particular to the contribution of non-hazardous waste (88% of the total), while hazardous waste recorded a decrease. The increase is related to the E&P sectors (in particular, due to the ramp-up of the Zohr project in Egypt and the return to full operation of the Val d'Agri Oil Center, which was also affected by the increased production of aquifer water disposed of as waste) and R&M&C (following the general shutdown of the Taranto refinery and the disposals following flooding that occurred in 2017 at the Livorno refinery).</p>
Dateien\\European companies\\Equinor\\2017 Equinor (Statoil) Sustainability Report - § 1 Referenz kodiert [0,21% Abdeckung]

<i>Referenz 1 - 0,21% Abdeckung</i>
<p>Australia – Statoil is a co-sponsor for the Great Australian Bight (GAB) Research Program that has been established to bring together multi-disciplinary research teams to study the oceanography, ecology, geochemistry of the GAB and the socioeconomics of the region. During 2017, we started preparing the environmental plan to get authorization to drill an exploration well in the GAB where Statoil is the operator. There has not yet been any oil and gas production in the licence areas, so this is a frontier exploration setting. The proposed well is located 400 km from shore, in water depths of 2,200 m. As such we will be leveraging our 40 years of experience operating in the harsh offshore environment of Norway and our leadership position in deep-water operations.</p>
Dateien\\European companies\\Equinor\\2018 Equinor Sustainability Report - § 2 Referenzen kodiert [0,47% Abdeckung]
<i>Referenz 1 - 0,19% Abdeckung</i>
<p>The number of oil spills per year and the corresponding total volumes increased from 2017 to 2018. In both years, close to 90% of the total number were spills with volume less than a barrel. The largest spill, a 70m³ naphtha leak at the Mongstad refinery in Norway, accounts for about half of the total volume. The leak occurred during loading of naphtha from the refinery to a ship. The underlying causes were related to technical conditions, as well as understanding and implementation of work processes.</p>
<i>Referenz 2 - 0,28% Abdeckung</i>
<p>The Great Australian Bight, Australia –Equinor continued its extensive stakeholder outreach programme in preparation for exploration activities in the Great Australian Bight (see also the Respecting human rights chapter). During 2018 a formal consultation process started. Work continued to develop robust emergency response strategies in collaboration with all coastal states in southern Australia. A key request raised during stakeholder meetings was to allow local and regional representatives to review environment plans before submission to the National Offshore Petroleum Safety and Environmental Management Authority. Equinor has committed to publish the draft environmental plan for the first exploration well for public commenting.</p>
Dateien\\European companies\\Equinor\\2019 Equinor Sustainability Report - § 4 Referenzen kodiert [0,55% Abdeckung]
<i>Referenz 1 - 0,35% Abdeckung</i>

Equinor owns and operates the South Riding Point (SRP) terminal for storage and transshipment of oil, located on Grand Bahama Island. In September 2019, the country was impacted by Hurricane Dorian, resulting in the worst natural disaster in its history. In advance of the impact, Equinor shut down SRP operations and took measures to secure personnel and the facility. In line with normal procedure, our emergency preparedness organisation was also engaged. At the time the hurricane arrived, we had 54 personnel on Grand Bahama. All were confirmed safe and accounted for. However, the terminal sustained damage and an oil spill was confirmed at a volume of 55,000 barrels out of 1,870 million barrels stored. Most of the spilled volumes were within or near the terminal area. The free oil at and around the terminal has been collected. Clean-up continues in forest areas north-east of the terminal, closely monitored by environmental experts. There have been no confirmed observations of oil on sea water coming from the oil spill. Tests of groundwater from monitoring wells on site in November 2019 show no contamination from the oil spill. Groundwater sampling events will be completed on a quarterly basis throughout 2020.

Referenz 2 - 0,07% Abdeckung

Last year we identified two conditions with major accident potential. A pressure vessel valve at the Hammerfest LNG plant in Norway had weaknesses that could have resulted in a situation of overpressure, a large hydrocarbon leakage and subsequent ignition.

Referenz 4 - 0,13% Abdeckung

As part of planning for the Stromlo-1 exploration drilling programme in the Great Australian Bight, a comprehensive Environmental Plan (EP) was finalised and submitted to the authorities in 2019. The EP, which took two years to develop, was accepted by the regulator in December 2019. The work included co-funding extensive baseline surveying of the deep-water environments and the met-ocean conditions of the Great Australian Bight.

Dateien\\European companies\\OMV\\2017 OMV Sustainability Report - § 1 Referenz kodiert [0,06% Abdeckung]

Referenz 1 - 0,06% Abdeckung

In December, a sudden gas release at the gas distribution station Baumgarten of Gas Connect Austria, a subsidiary in which OMV holds 51%, led to an explosion and consequent fire. One contractor employee died as a result of this incident.

Dateien\\European companies\\Shell\\2017 Shell Sustainability Report - § 4 Referenzen kodiert [0,48% Abdeckung]

Referenz 1 - 0,08% Abdeckung

I was deeply saddened by a road-tanker incident in Pakistan in 2017. In this tragedy, which was outside the scope of Shell's safety reporting, a vehicle operated by a contractor overturned, spilling fuel that subsequently ignited and caused more than 200 fatalities and injured a number of other people. Events such as these underscore the importance of the continued focus on health and safety standards by all contractors, suppliers and employees.

Referenz 2 - 0,18% Abdeckung

CLEAN-UP EFFORTS IN OGONILAND SPDC is working with the relevant stakeholders to implement the 2011 UN Environmental Programme (UNEP) report on Ogoniland. Over the last six years, SPDC has taken action on all the UNEP recommendations addressed specifically to it as operator of the joint venture and has completed the majority of these recommendations.

The UNEP report recommended the creation of an Ogoni Restoration Fund with \$1 billion capital, to be co-funded by the Nigerian government, the SPDC JV and other operators in the area. SPDC is supporting and contributing its share to the fund and on behalf of the SPDC JV made \$10 million available in 2017 to help set up the Hydrocarbon Pollution and Remediation Project (HYPREP), a government-led body to clean up contaminated sites. The body agreed to \$33 million in funding for areas such as emergency water supply, scoping of contaminated sites and alternative livelihood programmes.

Referenz 3 - 0,08% Abdeckung

Throughout 2017, SPDC representatives continued to actively support the clean-up process within the governance framework established in August 2016 by the Nigerian government. Some stakeholders have expressed concern about the pace of reaching decisions and taking action on the clean-up process. The Nigerian government and HYPREP strongly advocate setting up a transparent governance structure before starting actual clean-up.

Referenz 4 - 0,14% Abdeckung

Our performance indicators report on personal and process safety in line with industry standards. Outside our reporting scope and therefore not reflected in these indicators is a devastating road-tanker incident that occurred in Pakistan in June 2017. A tanker, operated by a contractor, was transporting fuel from the Shell Pakistan Limited oil terminal in Karachi to Vehari when it overturned in the central Punjab province resulting in a fuel spill. Following the accident, people from a nearby village approached the site to collect the fuel spilling from the tanker. Tragically, the fuel ignited and more than 200 people died and more were injured. Shell Pakistan Limited is implementing a long-term relief plan for those impacted.

**Dateien\\European companies\\Shell\\2018 Shell Sustainability Report - § 1 Referenz kodiert
[0,05% Abdeckung]**

Referenz 1 - 0,05% Abdeckung

CLEAN-UP EFFORTS IN OGONILAND SPDC is working with the relevant stakeholders to implement the 2011 UN Environmental Programme (UNEP) report on Ogoniland. Over the last seven years, SPDC has taken action on all, and completed most, of the UNEP recommendations addressed specifically to it as operator of the joint venture.

**Dateien\\European companies\\Shell\\2019 Shell Sustainability Report - § 2 Referenzen kodiert
[0,02% Abdeckung]**

Referenz 1 - 0,01% Abdeckung

CLEAN-UP EFFORTS IN OGONILAND

Referenz 2 - 0,02% Abdeckung

A single spill at the Bonga field offshore Nigeria amounted to 4.8 thousand tonnes in 2011.
Dateien\\European companies\\Total\\2019 Total Reports - § 1 Referenz kodiert [0,02% Abdeckung]
<i>Referenz 1 - 0,02% Abdeckung</i>
two major industrial accidents occurred in 2019, both in France: one at the Île-de-France Pipeline (PLIF) and the other at the Normandy Refinery. In February 2019, a leakage of 900 m ³ of hydrocarbons occurred on the PLIF, at Autouillet in the Yvelines department of France. This spill resulted in soil pollution over approximately 4 hectares as well as in pollution of water courses. The remediation operations undertaken are described in point 5.5.2 of this chapter. In December 2019, a major fire occurred in the distillation unit in the Normandy refinery (France). The fire was brought under control using the refinery's own internal resources. It caused important damage but no injuries. These two events gave rise to an analysis in order to draw feedbacks. The other Tier 1 and 2 events had more minor consequences (injuries with lost time, small-scale fire or pollution or with no impact).
Dateien\\Russian companies\\Gazprom\\2017 Gazprom Sustainability Report - § 1 Referenz kodiert [0,04% Abdeckung]
<i>Referenz 1 - 0,04% Abdeckung</i>
The Moscow Oil Refinery continues to operate a street screen displaying environmental monitoring indicators. Data on the condition of the atmospheric air in the plant's area of impact have been shown on a special street Eco-Informer since October 2015. As for the Omsk Oil Refinery, information on the condition of the atmospheric air in its area of impact has been released on the enterprise's official portal since August 2016.
Dateien\\Russian companies\\Gazprom\\2018 Gazprom Sustainability Report - § 2 Referenzen kodiert [0,09% Abdeckung]
<i>Referenz 1 - 0,05% Abdeckung</i>
In 2018, the Gazprom Group compensated the damage inflicted to the natural environment for the total of RUB 188.64 million, including the damage inflicted during the previous reporting periods for the total of RUB 177.14 million. The damages assessed due to accidents in 2018 amounted to RUB 1.74 million. Most of the compensation was accounted for by damage inflicted as a result of incidents at the Gazprom Neft Group's pipelines in 2017 and minor (by the territory affected) land contamination in the YaNAA.
<i>Referenz 2 - 0,05% Abdeckung</i>

In 2018, the total amount of oil and petroleum product spills resulting from 917 pipeline ruptures equalled 70 tons. The majority of oil and petroleum product spills is accounted for by the Gazprom Neft Group — 69 tons were spilled as a result of 884 pipeline ruptures. At Gazprom Neft, pipeline ruptures were registered at the line sections of infield pipelines. In most cases, the ruptures were caused by internal corrosion (94%) being the result of corrosive substances transmission at oil and gas fields.

**Dateien\\Russian companies\\Lukoil\\2017 LUKOIL Sustainability Report - § 1 Referenz
kodiert [0,09% Abdeckung]**

Referenz 1 - 0,09% Abdeckung

On 10 April 2017, during geophysical work to determine the location of a bottom hole (during a well workover) at the LUKOIL-Komi A. Alabushin field, there was a discharge of petroleum products and a subsequent fire at the well. An investigation determined that an uncontrollable blowout had occurred as a result of using non-standard equipment during well-logging survey work. This was compounded by the unprofessional actions on the part of a contractor's staff when the first indications of gas, oil, and water inflows arose.

**Dateien\\Russian companies\\Lukoil\\2018 LUKOIL Sustainability Report - § 2 Referenzen
kodiert [0,15% Abdeckung]**

Referenz 1 - 0,05% Abdeckung

On October 5, 2017, an accident occurred at LLC LUKOIL-Nizhegorodnefteorgsintez: during the installation of a fire extinguishing system at tank R-1549 in the commodity production area, leading to a fire emergency. According to the results of the investigation into the accident (which was completed in 2018), the cause was deemed to be the inadequate organization of hazardous work by operating, contracting, and subcontracting companies.

Referenz 2 - 0,10% Abdeckung

In 2018, a water conduit failure occurred in the Kondinskie Lakes Natural Park (Khanty-Mansi Autonomous District – Yugra) for the first time in almost 20 years of work at the Talnikovoe field. LLC West Siberia employees promptly responded to the accident. At the time of preparing this Report, the consequences of the failure of the water conduit had been completely eliminated: pollution was localized, produced water was pumped out, polluted soil was removed, and water conduit sections were replaced. The polluted area was fully cleaned up. The soil was taken to a special industrial waste landfill. Together with the SPNR "Kondinskie Lakes," additional inspections of pipelines and water crossings were performed, and a Report on measures undertaken (Statement of Measures Performed) was drawn up.

**Dateien\\Russian companies\\Rosneft\\2018 Rosneft Sustainability Report - § 3 Referenzen
kodiert [0,13% Abdeckung]**

Referenz 1 - 0,05% Abdeckung

Within the Oil Refining and Petrochemicals business, a set of programs is being implemented to ensure the equipment's functioning and to prevent emergencies resulting in an adverse environmental impact. The programs specify the replacement of pipeline sections with an expired time limit or that are worn due to corrosion; the upgrading of pipeline equipment to mitigate the risks of leakage and wear-corrosion, as well as the improvement of operational performance.

Referenz 2 - 0,05% Abdeckung

The programs are planned to be implemented by 2023. Over 4,900 process pipelines and 14,600 pipeline sections are planned for replacement, and about 300 upgrading activities are scheduled. Total expenditures on the programs' implementation will exceed RUB 30 bln. In 2018, investments in pipeline replacement amounted to over RUB 400 mln. Under the above-mentioned programs, 177 pieces of the most critical pipelines were replaced, 319 dead legs

Referenz 3 - 0,02% Abdeckung

of process pipelines were eliminated, and over 2 thousand elements of pipelines were replaced in order to ensure that the material used was appropriate for the operating conditions.

Dateien\\Russian companies\\Surgutneftegas\\2017 Surgutneftegas Environmental Report - § 4 Referenzen kodiert [1,37% Abdeckung]

Referenz 1 - 0,48% Abdeckung

the main reason for loss of integrity of field pipelines is their corrosive wear due to aggressiveness of transported liquids. among other risk factors – the pumping mode of well production, temperature and the condition of pipeline metal. the most accurate data on the status of field pipelines in the operating conditions can be acquired through aggressiveness monitoring of transported fluids, pipeline pigging, thickness gauging.

corrosion monitoring of the company's field pipelines is performed at 728 points of control. this method is a tool for managing the efficiency of anti-corrosion measures taken that allows the company among other things to track and adjust inhibition rate in time.

Based on the pipelines condition data

the company organized their routine repairs and overhaul. in 2017, 579.9 kilometers of pipelines underwent overhauls.

Referenz 2 - 0,38% Abdeckung

Biological monitoring in numto nature park continued in the reporting year, as well as monitoring of bioresources in the republic of sakha (yakutia) where the company operates. Bird protection devices were installed on power lines in numto nature park in 2017. the devices were installed at power grid facilities in the southern part of the nature park where in the course of ornithological studies the habitats of peregrine falcon, rare species of birds that needs special protection had been discovered earlier. the work was done under the agreement on cooperation concluded between oJsc "surgutneftegas" and all-russia public organization "russian bird conservation union".

Referenz 3 - 0,19% Abdeckung

<p>cooperation with the Budgetary institution of KhMao-yugra numto nature park continued in 2017; under the agreement, funds were transferred for the arrangement of an ecological trail, visitor center in numto national village, and monitoring in the nature park. grand total of financing under the agreement exceeded ruB 13 million.</p>
<p><i>Referenz 4 - 0,33% Abdeckung</i></p>
<p>in order to organize joint work to minimize the negative impact of the company's business activities on the hydrology of wetlands within numto nature park and in uvatsky District of tyumenskaya oblast, in 2017, oJsc "surgutneftegas" concluded an agreement on cooperation with federal state Budgetary institution – state Hydrological institute. the institute analyzed the net of marsh water drip lines in the area where the company production facilities are located in numto nature park and developed the plan of actions to prevent potential disturbances in hydrological regime of the territory.</p>
<p>Dateien\\Russian companies\\Surgutneftegas\\2018 Surgutneftegas Environmental Report - § 7 Referenzen kodiert [1,78% Abdeckung]</p>
<p><i>Referenz 1 - 0,04% Abdeckung</i></p>
<p>The annual costs of the Company for environmental protection are made up of</p>
<p><i>Referenz 2 - 0,27% Abdeckung</i></p>
<p>a number of different expenses, including those of repairing and replacing pipelines, protecting oilfield equipment and facilities from corrosion, preventing equipment failures and oil contamination, and elimination of their consequences, air protection, industrial wastewater utilization, waste management, land reclamation, environmental monitoring and R&D activities. In the reporting year, the costs reached RUB 17.4 billion. In 2019, the costs are planned to be increased by RUB 0.5 billion.</p>
<p><i>Referenz 3 - 0,15% Abdeckung</i></p>
<p>Construction of environmental facilities Pipeline accident prevention Industrial wastes and wastewater utilization and decontamination Prevention and elimination of oil contamination consequences, reconstruction of production facilities Sludge pits reclamation</p>
<p><i>Referenz 4 - 0,29% Abdeckung</i></p>
<p>For the period from 2012 to 2018, Based on the received data, an annual the Company performed diagnostics of 2,516 kilometers (82%) of its field pipelines. Corrosion monitoring of pumped fluids in pipelines is performed at 686 points of control. This method is an effective tool to control the efficiency and the process of corrosion protection. overhaul program is planned as well as other measures to increase the operational reliability of field pipelines, which allowed the Company to repair 616 kilometers of pipelines in the reporting year.</p>

Referenz 5 - 0,24% Abdeckung

In 2018, there were two oil spill incidents at the Company's fields (one due to a criminal tie-in, the second due to internal corrosion of the pipeline), and a total land area of 1.21 hectares was reclaimed. Additionally, in 2018, previously reclaimed lands with the area of 1.26 hectares were excluded from the register of territories and water bodies of Khanty-Mansiysky Autonomous Okrug – Yugra contaminated by oil, oil products and produced water.

Referenz 6 - 0,49% Abdeckung

The Company performs biological monitoring in Numto nature park within the biodiversity conservation program in Khanty-Mansiysky Autonomous Okrug – Yugra. Researches have been done continuously for 7 years already by scientists with the richest experience in the region from Lomonosov Moscow State University, V. V. Dokuchaev Soil Science Institute, Yugansky State Nature Reserve. As at the previous stages of biological monitoring, no threat to habit areas of rare plant and animal species and biodiversity in the territory of Numto nature park as a whole was identified in 2018. In the Republic of Sakha (Yakutia), scientists from the Institute for Biological Problems and Cryolithozone of Siberian Branch of RAS continued the field observations within monitoring of bioresources and cryolithozone. In the reporting year, activities were performed in the territory of the YuzhnoTalakansky license block.

Referenz 7 - 0,30% Abdeckung

In the territory of Numto nature park the Company implements measures to minimize environmental risks when placing production facilities in the wetland ecosystems, to mitigate a negative impact of business activities on the hydrology of wetlands and implements preventive measures to avoid death of birds at electric power supply network facilities. It is done within agreements on cooperation with the Institute of Forest Science of RAS, the State Hydrological Institute and the All-Russia public organization "Russian bird conservation union".

**Dateien\\Russian companies\\Surgutneftegas\\2019 Surgutneftegas Environmental Report - § 5
Referenzen kodiert [1,17% Abdeckung]**

Referenz 1 - 0,22% Abdeckung

The key aspects of the environmental activity of "Surgutneftegas" PJSC include measures related to repair and replacement of pipelines, protection of oilfield equipment and facilities from corrosion, prevention of equipment failures and oil contamination, and elimination of their consequences, air protection, industrial wastewater utilization, safe waste management, land reclamation, environmental monitoring and R&D activities.

Referenz 2 - 0,22% Abdeckung

develop programs for pipeline maintenance and overhaul, inhibitor protection, cleaning of pipelines inner surface.

The Company has been implementing the program for pipe pigging of oil pipelines and oil and gas pipelines using modern equipment over the last 11 years. More than 80% of the operated pipelines are checked using the transformation-electromagnetics technique, many sections are diagnosed twice. On the basis of the diagnostics we

<i>Referenz 3 - 0,03% Abdeckung</i>
IN 2019, WE REPAIRED 686.5 KILOMETERS OF PIPELINES
<i>Referenz 4 - 0,44% Abdeckung</i>
<p>With the assistance of scientific organizations having a great research experience in the region, the Company performs biological monitoring in Numto nature park within the biodiversity conservation program in Khanty-Mansiysky Autonomous Okrug – Yugra. In Numto nature park the Company implements measures to minimize environmental risks when placing production facilities in the wetland ecosystems, to mitigate a negative impact of business activities on the hydrology of wetlands and implements preventive measures to avoid birds hazard. The Company provides regular monitoring of hydrological regimes of wetlands together with performance assessment of culverts. The results of research in the reporting year confirm the efficiency of environmental protection measures and the absence of negative impact on the sensitive ecosystem of Numto nature park.</p>
<i>Referenz 5 - 0,26% Abdeckung</i>
<p>With the help of specialists from Lomonosov Moscow State University, V.V.Dokuchaev Soil Science Institute of the Russian Academy of Agricultural Sciences and Yugansky Nature Reserve, the Company has been performing biological monitoring at its license blocks in Numto nature park for the eighth year running. In 2019, the Company again confirmed the absence of hazard not only to the habitat of flora and fauna species but also to ecosystems in general in the areas of its operations at specially protected natural reservations.</p>