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The effectiveness of laws for improving the quality of non-financial reporting

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Abstract

This study explores the impacts of the implementation of Directive 2014/95/EU (Non-Financial Reporting Directive (NFRD)) and the announced Directive 2022/2464/EU (Corporate Sustainability Reporting Directive (CSRD)) on the effectiveness for improving the quality of non-financial reporting across Dutch public companies that were subject to the Directive 2014/95/EU. By conducting a qualitative analysis, the annual reports from both 2017 and 2022 of 49 Dutch companies are analysed. The results show that the implementation of the NFRD did not achieve the goal of companies providing comparable data with regard to their non-financial disclosure. The broadness of the directive caused a widespread range of reported data and used manners to express the data. Furthermore, the results show a significant improvement in the number of companies reporting comparable data in the years following the implementation of the NFRD. This suggests that companies have actively anticipated the announced CSRD by collecting and reporting more comparable data regarding environmental matters and thus suggests that the implementation and announcement of new non-financial regulations have improved the quality of reporting.

1 Introduction

As of today, one of the biggest challenges for mankind is trying to save the environment. More than ever, people are focussed on goals that are – in principle – not only financially driven. Research on the effect of humankind on the environment has provided the insight that, to ensure the wellbeing of the planet, a significant reduction of human pollution is needed. Together with the environmental challenges, social challenges are also developing. Equal rights for every human being is the goal. These developments are also visible within businesses. The fact that companies at present are publishing non-financial reports in addition to financial reports, or integrated reports, shows the importance the social and environmental aspects have. This development is mainly driven by the Sustainable Development Goals (SDGs) implemented by the United Nations (UN) in 2015. These goals were supposed to be a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity (UN 2023). The question remains however how many people are able to adhere to the goals, as research shows that companies are still mainly driven by more financial aspects rather than non-financial aspects (see for example Hummel & Schlick 2016). To make sure people and companies adhere to these goals, several laws and guidelines have been implemented. As of January 2023, a new guideline has been implemented with the Corporate Sustainability Reporting Directive (CSRD). This directive modernises and strengthens the rules about social and environmental information that companies must disclose. With this directive, another guideline has been implemented in an attempt to achieve the SDGs.

During recent years, the number of corporate claims about environmental performance have increased rapidly. The same applies to the incidences of greenwashing, which is communication that misleads people into forming overly positive beliefs about an organization's environmental practices or products (Lyon & Montgomery, 2015). An example of a greenwashing case is the Volkswagen scandal (Jong & van der Linde, 2015). With the CSRD, a new set of rules has been implemented to follow up on earlier laws and guidelines to make sure the chance of scandals in the future decreases. Implementation of new rules by governments could be seen as the standard reaction after scandals. Even though there are many rules, scandals still happen. It raises the question how effective new laws are. This research aims to investigate the effectiveness of laws for improving the quality of non-financial reporting in Europe, and more specifically, the Netherlands. By analysing the effects of both national and international laws on the quality of reporting, this thesis aims to provide insights into the effectiveness of laws with regard to preventing future scandals and aims to establish whether non-financial reporting directives are the solution in achieving the SDGs. Because the new CSRD does not involve a directors' and auditors' liability law, this research specifically examines the effectiveness of directors' and auditors' liability laws for improving the quality of reporting. The goal of this research is to observe the effectiveness of laws and regulations, the NFRD and the CSRD in particular, for improving the quality of non-financial reporting. The research question formulated to achieve this goal is: ''Are non-financial reporting laws effective in enhancing the quality of non-financial disclosure?''

1.1 Motivation

The theoretical relevance of this research is that there has been a lack of research towards the effectiveness of laws regarding the quality of non-financial disclosure. In recent years, non-financial disclosure has become more and more important. Along with that, new regulations have been implemented to ensure companies become more responsible. It is relevant to study the effectiveness of these regulations regarding the quality of reporting to test whether these regulations are helping mankind to achieve the goals of 2030 and 2050 (UN 2023).

Because of the CSRD, more companies have to report about the impact of their activities on humans and the environment. The CSRD is the central point of the Green Deal of the European Union (EU) and has to ensure more transparency and a better quality of sustainability information (European Commission, n.d.). With the target year of 2030 approaching fast, it is of importance that the new guideline has the desired effect. What comes to attention is that, contrary to the regulations regarding financial reporting, the CSRD does not involve a rule of directors' and auditors' liability. This raises questions on whether the new guideline is able to achieve the desired effect.

Prior literature shows how reporting on non-financial data could also have financial benefits. This is for example shown in research by Dhaliwal et al. (2011), which suggested that reporting on sustainability data could for example lower the costs of equity capital. Although the development that more companies report on their sustainability performance is visible, the issue that the truthfulness and the exact data reported was not always taken into account remains (see for example Hummel & Schlick 2016). With the importance of non-financial disclosure on the rise, it seems logically that the interest of the public would change towards more open disclosure about non-financial data. This is however not the case. A study performed by Reimsbach et al. (2018) suggests that a quarter of professional analysts and fund managers, who serve as proxies for professional investors, did not take the non-financial report into account when they were looking for information about a company. Although this paper examines the investor side, it does provide an insight of how economically driven people tend to be. For companies this provides no incentive to invest in becoming sustainable performers. The question is thus whether the new CSRD actually improves the reporting quality in the desired way, while both companies and investors tend to give more attention to financial benefits.

2 Methodology

The research method used in this study is an empirical quantitative method by conducting a qualitative analysis on data from the sample companies' annual reports, which are published by these companies on their corporate websites. This research starts with an analysis of the relevant literature with regard to the effectiveness of laws and regulations and lawsuits for improving the quality of financial reporting. The outcomes of prior research show the general effectiveness of laws for improving the quality of reporting. Thereafter, an analysis is done about the Non-Financial Reporting Directive (NFRD) and the Corporate Sustainability Reporting Directive (CSRD). Based on this analysis in combination with the outcomes of the effectiveness of laws and regulations regarding financial reporting, hypotheses are formed about the effectiveness of the NFRD and CSRD for improving the quality of non-financial reporting. The effectiveness of the implementation of the NFRD is examined by analysing the 2017 annual reports of the sample of companies. The effectiveness of the upcoming implementation of the CSRD is examined by analysing the annual reports of 2022 of the same sample of companies. A broader description of the sample and research method is provided in paragraph 5.2.

3 Theoretical background on the effectiveness of laws and regulations

3.1 The effectiveness of laws for improving the quality of reporting

Given the current globalized capital market, it is essential for stakeholders to receive high quality and timely information about firms. To ensure high quality and timely information, it is of great importance to create a set of rules. As stated in the introduction of this research, creating a set of rules is the traditional reaction of governmental actors following the occurrence of scandals. The question is however: how effective are these laws and regulations?

Several studies have been performed about the effectiveness of laws and regulations for improving the quality of financial reporting. Some of these investigate the differences between countries with common law and civil law systems (Lindahl & Schadéwitz, 2008; Essec et al., 2015). This research is not focussed on the differences between law systems, but the beforementioned form of research could still help in understanding the effectiveness of certain laws and regulations. The basis of every law is found in the legal system that is used. In 2008, Lindahl and Schadéwitz (2008) studied these differences between the families of legal systems that might lead to different financial reporting practices. The outcome of their research is that the differences in accounting quality could be based on different factors. These factors could for example be ownership concentration and management power (Cools, 2004), differences in voting rules (Pagnano & Volpin, 2005), language and religion's effect on investor protection (Stulz & Williamson, 2003), factors like socialist political movements' effect on corporate governance (Roe, 2000) or coordinated vs. liberal market economies (i.e., stakeholder vs. shareholder models) (Pistor, 2005). The overall finding of this prior research was that little can be concluded in the literature about how, or even whether, law affects accounting quality. This is different in later research by Essec et al. (2015).

Essec et al. (2015) investigated the differences between the law systems within Canada. Canada is a country where both French Civil Law and Common Law coexist, which means that the previously mentioned factors play less of a role. The research is about the influence of the legal system on corporate financial reporting. They found that firms under French Civil Law exhibit higher financial reporting quality compared to firms under a Common Law system. The reason behind this is that French Civil Law inhibits greater liability risk faced by both auditors and corporate directors. According to Essec et al. (2015), liability laws help in enhancing financial reporting quality. Essec et al. (2015) thus suggest the effectiveness of the particular liability laws for improving the quality of reporting. These specific laws are further highlighted in the next paragraph.

While this research is geared at the effectiveness of laws and regulations for improving the quality of reporting in the EU (and mainly in the Netherlands), it is of importance to examine EU regulations' effectiveness for enhancing the quality of reporting. One of the examples of regulations is found in the International Financial Reporting Standards (IFRS). Within the European Union (EU) the IFRS Accounting Standards are mandatory for domestic public companies (IFRS). Several studies have suggested that IFRS adoption leads to lower earnings management and therefore results in higher financial reporting quality (Barth et al., 2008; Cai et al., 2008, 2014; Daske et al., 2008; Leventis et al., 2011; Houqe et al., 2012; Salewski et al., 2014). Others find that IFRS adoption has increased earnings management, which resulted in lower quality of reporting (Callao et al., 2007; Ahmed et al., 2013; Cristensen et al., 2015; Capkun et al., 2016). A study by Ilsever et al. (2013) suggests that prior studies do not support the view that higher accounting quality is associated with or stems from mandatory IFRS adoption. They conclude that, overall, empirical studies on accounting quality effects from mandatory IFRS adoption are still inconclusive (Daske et al., 2007). They do however state that it is possible that reporting incentives influence the process of adoption of accounting standards, which ultimately determines the accounting quality that leads to better outcomes. Soderstrom & Sun (2008) go even further by stating that since all EU countries will have consistent financial reporting rules, future improvements in accounting quality will be largely dependent on changes in a country's legal and political system and financial reporting incentives.

A positive effect of implementing IFRS was also seen when adoption is voluntary. A study by Bassemir & Novotny-Farkas (2018) shows that voluntarily implementing the standard causes the IFRS firms to disclose significantly more information in their financial reports and show a higher propensity to publish their financial reports voluntarily on the corporate website. That IFRS enhances reporting quality is also shown in a study by Ab Klish et al. (2022). The results reveal a reduction in earnings management for IFRS adopters in comparison to local standards adopters in the Middle Eastern and North African countries. The quality of reporting of IFRS companies also increased. This would mean that mandating these rules to private companies, will enhance reporting quality for these smaller companies too. Although this research was not about an EU country, it still shows the effectiveness of the standard.

Another example of an effective EU law is the 8th EU Company Law Directive (Bajra & Čadež 2018). This law enacted a mandatory audit committee in publicly listed companies in the EU and defined its tasks and responsibilities. The same group mandated to use the IFRS, had to implement an audit committee within their company. The researchers found that the existence of an audit committee itself was negatively related to the reporting quality, but that the monitoring effectiveness and competencies were positively associated with financial reporting quality. This means that the law was effective in enhancing the quality of reporting. It however also shows how companies are only enhancing their reporting quality when they are being monitored. The existence of the audit committee itself even had a negative effect on the reporting quality when they were not given the monitoring task. This is a sign of the unwillingness of companies to cope with the current rules. Only when they are being monitored, and thus have to follow the rules, the companies stay in line and enhance their reporting quality.

Prior literature thus shows there is no consistency with regard to research on the effectiveness of laws and regulations for improving the quality of reporting. The results with regard to the effectiveness of laws and regulations still seem inconclusive. This is also concluded by Bleibtreu & Stefani (2021). They studied the effect of new audit regulations on the audit quality. They found that the empirical evidence as to whether such regulations have the expected effects is mixed.

Overall, laws and regulations do indeed seem to have an effect on the quality of reporting. Whether the expected and targeted effects are being achieved is however not answered clearly. Prior literature describes how different factors play a role in the effectiveness of certain laws. One of these factors is the legal system of a country. Within the EU, accounting regulations in general do not differ that much. With Brexit in 2020, even the differences in legal systems ended as English Common Law was no longer part of the EU law systems. The next paragraph describes the effectiveness of liability laws in particular.

3.2 The effectiveness of liability laws for improving the quality of reporting

One of the most important kinds of laws with regard to ensuring both auditors and corporate directors to comply with the rules and to align interest with the shareholders, are liability laws. Once directors and auditors are personally liable, they can no longer hide behind the fact that their actions are being seen as actions of their company (Paz-Ares, 2002). One of the functions of liability laws is to cut the transaction costs – agency costs – by aligning director incentives with shareholder interest (Paz-Arez, 2002). The other function is to protect third parties from misbehaving directors (Westenbroek, 2017). One of the factors that is required for this, is high quality reporting. Liability laws are effective in improving the quality of reporting. A study by Essec et al. (2015) for example shows that greater liability risk faced by auditors and corporate directors encourages firms to publish accounting data of better quality. This positive effect was also found in a research by Ivanova et al. (2022). Overall, a lower cash flow and earnings volatility and thus higher financial reporting quality was discovered when liability was increased. As this research was done using a regulatory change in Sweden, this research could be seen as representative for EU countries.

A study by Willekens & Simunic (2007) also shows the effectiveness of liability laws. They however also state how standards applying to directors and external auditors should be more precise. Precise standards in combination with sufficiently large penalties for both directors and auditors will enhance the quality of reporting and decrease the chances of fraud. This means that, with the thought of the mixed results on the effectiveness of laws and regulations from paragraph 3.1, the combination with personal liability for both directors and auditors could increase the effectiveness of achieving the desired goals when implementing new laws and regulations. In my opinion this could also be seen in line with the conclusions of the beforementioned paper of Bajra & Čadež (2018). They stated how the regulation they mentioned in their paper on its own, even had a negative effect on the quality of reporting. The consequences of being monitored were however positively associated with higher reporting quality. The conclusion could be that people are tempted to only follow rules once they are being monitored and possibly being punished when not adhering to these rules. This effectiveness is also seen in audit companies. Khurana & Raman (2004) investigated Big 4 auditors in the United States, Australia, Canada and the United

Kingdom. Their findings suggest that it is litigation exposure rather than brand name reputation protection that drives perceived audit quality. This means that audit companies are more afraid to get sued rather than willing to create a good name by producing high quality reports. This suggests that liability laws are effective in enhancing the quality of reporting.

As the previously mentioned studies show, personal liability laws have a positive effect on the quality of reporting for both directors and auditors. There is however a possibility to take out insurance to cover the cost of compensation claims made against your business' directors and key managers (officers) for alleged wrongful acts in the form of Directors' and officers' liability insurance (D&O insurance). This insurance will protect the directors for personal liability claims. Logically reasoning, this would lead to more risk taking, as directors are being covered for the damage that they will possibly cause. Since D&O insurance protects directors and officers against the risks of shareholder litigation, it is possible that, because of moral hazard, managers will be more willing to participate in opportunistic financial reporting such as earnings manipulation when they are covered by a generous D&O insurance policy (Choi, 2017). This is supported by a study done by Feng et al. (2017), which showed that D&O insurance will lead to a reduction in the quality of financial information. A study by Peng et al. (2022) shows however that a D&O insurance improves the quality of reporting because shareholders, to protect their interests, have a strong incentive to promote the audit committee, which includes accounting professionals who do not have a direct relationship with the firm and have an obligation to safeguard the interests of the firm as a whole, to choose high-quality audit services (Hu et al., 2020). Choi et al. (2017) even found out that D&O insurance purchase does not trigger earnings manipulation, but rather alleviates opportunistic reporting behaviour.

To obtain more relatable data, the effect of D&O insurance within the EU is examined. All beforementioned studies regarding D&O insurance show how the D&O insurance does not negate the positive effect of liability laws on the quality of reporting. These researches are however not performed in the EU. Lin et al (2019) researched a new German law that mandated personal deductibles for executives with regard to D&O insurances. Their results show how 'skin in the game' appears to lead to real effect on firm value. Not only did the personal liability decrease risk-taking and increase the quality of financial reporting, but it also increased firm value.

Overall, the conclusion is that personal liability is positively associated with the quality of financial reporting. This means that personal liability laws are an effective remedy in preventing cases of fraud and increase the quality of reporting. The existence of D&O insurance does not negate this effect and could even be (indirectly) responsible for an even further increase in reporting quality. There is however a downside to liability laws once they become too strict. The findings of Ivanova et al. (2022) suggest that the increase in personal liability deters certain individuals from serving on the board of a financial firm. They observed how incoming directors were younger and less experienced in line with the expectation that expert directors are more likely to be deterred by higher personal liability. The fear of personal liability might cause the best suited directors to not take the role that they would have taken without the stricter liability rules (Kroeze, 2006). Not having the best suited directors may have a negative effect on the quality of reporting.

3.3 The effect of lawsuits on the quality of reporting

When companies do not adhere to certain laws, it is possible for stakeholders to start a lawsuit. As paragraph 3.1 shows, the effectiveness of laws and regulations for improving the quality of reporting was mixed. Paragraph 3.2 showed how liability laws do however help in enhancing the quality of reporting. Overall, directors, once personally liable, adhere to the laws and regulations set. Furthermore, the fact that directors were being monitored, showed a positive effect on the quality of reporting. Concluding from this, lawsuits should be effective in enhancing the quality of reporting because directors and/or auditors are being monitored and they are aware of the existence of consequences in the form of a possible lawsuit.

Khurana & Raman (2004) showed how even the fear of a possible lawsuit enhanced the quality of reporting. Because auditors can effectively reduce the risk of being sued by preventing material misstatements of the audited financial statements, they would ensure better quality reporting (Palmrose & Scholz, 2004; Hennes et al., 2008; Bedard & Johnstone, 2004). This supports the claim of effectiveness of laws and regulations once there is a possible follow-up when not adhering.

Lawsuits also stimulate companies to report in a more conservative manner. This is seen in a study by Ettredge et al. (2016). This study found out that firms with greater degrees of conditional conservatism experienced more favourable consequences on all dimensions of litigation occurrence and outcomes. These dimensions are the market reactions to lawsuits, the duration of lawsuits, dismissals of lawsuits, and penalties approved by courts. For companies, this is an important driver to report conservatively – one of the principles of IFRS. The overall consensus is that litigation risks enhance the quality of reporting (Khurana et al., 2006; Ball, 2001; Basu, 1997; Holthausen & Watts, 2001).

As above mentioned papers state, lawsuits do not only have an effect afterwards, but also have a preventive effect. The direct effect of lawsuits is shown in a paper by Lennox & Li (2013). This study investigated whether an auditor’s experience of litigation in the recent past affects subsequent financial reporting quality. They found that misstatements occurred significantly less often after audit firms were sued. This effect was stronger with offices that were directly involved in the litigation. They conclude that litigation experiences are incrementally significant predictors of future financial reporting quality. This means that lawsuits with regard to financial reporting laws do have a positive effect on the quality of reporting.

Overall, lawsuits positively affect the quality of reporting. The threat of litigation is enough for directors and auditors to ensure better quality reporting. When the preventive effect is not enough, the lawsuit itself also positively affects the quality of reporting. Lawsuits and their threat make the implementation of laws and regulations more effective.

3.4 Summary of prior literature

This chapter provided an overview regarding the effectiveness of laws and regulations in enhancing the quality of financial reporting. Overall, the studies into the effectiveness of laws and regulations show mixed results. Studies into the effectiveness of implementing new laws and regulations with regard to financial reporting, are still inconclusive. Paragraph 3.2 however, showed that liability laws are effective in enhancing reporting quality. Once directors and auditors are personally liable, they will put more effort in enhancing reporting quality. The existence of D&O insurance does not negate this positive effect. Paragraph 3.3 showed the effectiveness of the threat of lawsuits and lawsuits itself. Lawsuits turned out to be an effective remedy in preventing companies from committing fraud. The overall conclusion is that laws and regulations itself show mixed results with regard to their effectiveness. Once new laws include monitoring-possibilities and/or the possibility for the directors and auditors to be personally jointly and severally liable, this increases the effectiveness of the laws and enhances the quality of reporting. The next chapter starts by analysing the NFRD and CSRD. After this, hypotheses are formed that are tested. This provides an answer to the effectiveness of non-financial reporting laws and regulations for improving the quality of non-financial reporting.

4 Non-financial laws and regulations

Previous chapter described the literature with regard to the effectiveness of laws and regulations regarding the quality of financial reporting. The overall conclusion is that the effectiveness of laws and regulations is rather inconclusive. This is different with regard to liability laws, which cause a significant improvement on the quality of reporting (Essec et al., 2015; Willekens & Simunic, 2007; Khurana & Raman, 2004). The next step is to test whether the same applies for laws and regulations with regard to non-financial disclosure. This will be tested in the following chapters. This chapter outlines the NFRD and the CSRD by analysing both directives. This knowledge is necessary to conduct further research to the effectiveness of these directives.

4.1 The Non-Financial Reporting Directive

Research by Haji et al. (2023) describes how the stated objectives and enforcements of CSR reporting regulations vary considerably across countries. Their study describes how, due to this, no significant changes in reporting quality are found with empirical research. Their conclusion was that worldwide, CSR reporting is still being seen as ceremonial rather than substantive. This research examines the effectiveness of non-financial reporting regulations for improving the quality of reporting within the EU. To create uniformity with regard to non-financial reporting within the EU, the Directive 2014/95/EU (NFRD) was implemented. The guideline was intended to enhance the relevance, consistency and comparability of non-financial information within the EU (consideration 21 of Directive 2014/95/EU). The guideline obliged large undertakings to prepare a non-financial statement containing information relating to at least environmental matters, social and employee-related matters, respect for human rights, anti-corruption and bribery matters. The statement should contain, as regards environmental matters, details of the current and foreseeable impacts of the undertaking's operations on the environment, and, as appropriate, on health and safety, the use of renewable and/or non-renewable energy, greenhouse gas emissions, water use and air pollution. As regards social and employee-related matters, the information provided in the statement may concern actions taken to ensure gender equality, implementation of fundamental conventions of the International Labour Organisation, working conditions, social dialogue, respect for the right of workers to be informed and consulted, respect for trade union rights, health and safety at work and the dialogue with local communities, and/or actions taken to ensure the protection and development of those communities. With regard to human rights, anti-corruption and bribery, the non-financial statement could include information about the prevention of human rights abuses and/or about instruments in place to fight corruption and bribery (Directive 2014/95/EU). According to the NFRD, the reporting about all the above matters should include a) a brief description of the undertaking's business model; b) a description of the policies pursued by the undertaking in relation to those matters, including due diligence processes implemented; c) the outcome of those policies; d) the principal risks related to those matters linked to the undertaking's operations including, where relevant and proportionate, its business relationships, products or services which are likely to cause adverse impacts in those areas, and how the undertaking manages those risks; e) non-financial key performance indicators (KPI's) relevant to the particular business (art. 19a of Directive 2014/95/EU). The guideline was implemented within the Netherlands by the introduction of the Decree on publication of non-financial information (BNFI). This regulation obliged public companies with over 500 employees, banks, insurance companies and companies of public interest to adhere to the new guideline (BNFI 2017).

The words used in the NFRD suggest a large degree of discretion. As it concerns environmental matters, the used word is ''should'', which contains an obligation to report about these factors. This obligation is however formulated as ''reporting about the current and foreseeable impacts of the undertaking's operations on the environment'' and provides no further description about the specific details that should be reported. This gives companies a large amount of freedom, which consequently gives them an incentive to only report about the factors that enhance their company value. This becomes even more clear with regard to the social and employee-related matters and the matters with regard to human rights, anti-corruption and bribery. For these matters the words ''may'' and ''could'' are being used, which suggests an even larger amount of freedom on what to report about. Also, consideration 17 of the NFRD shows that the guidelines provided for reporting are non-binding guidelines, which thus allows member states and companies to deviate from these guidelines. In 2019, the European Commission published the guideline called ‘Guidelines on reporting climate-related information’ (EU 2019), which provided recommendations on disclosures. As stated before, this guideline only included suggestions and was non-binding. This guideline provided suggestions on how to report on KPI’s and provided a mapping of the NFRD Requirements in combination with the Recommended Disclosures from the Task Force on Climate-related Financial Disclosures (TCFD), which was established by the Financial Stability Board (FSB). This mapping is shown in figure 1 and gives a perfect example of the freedom the NFRD provided with regard to non-financial reporting. Greenhouse gas emissions (GHG-emissions) is the only factor of which the outcome was mandatory to disclose. The other factors show a significant amount of self-interpretation. Overall, the NFRD shows a large amount of discretion, which possibly affected the ability of NFRD to achieve the goal of creating relevance, consistency and comparability.

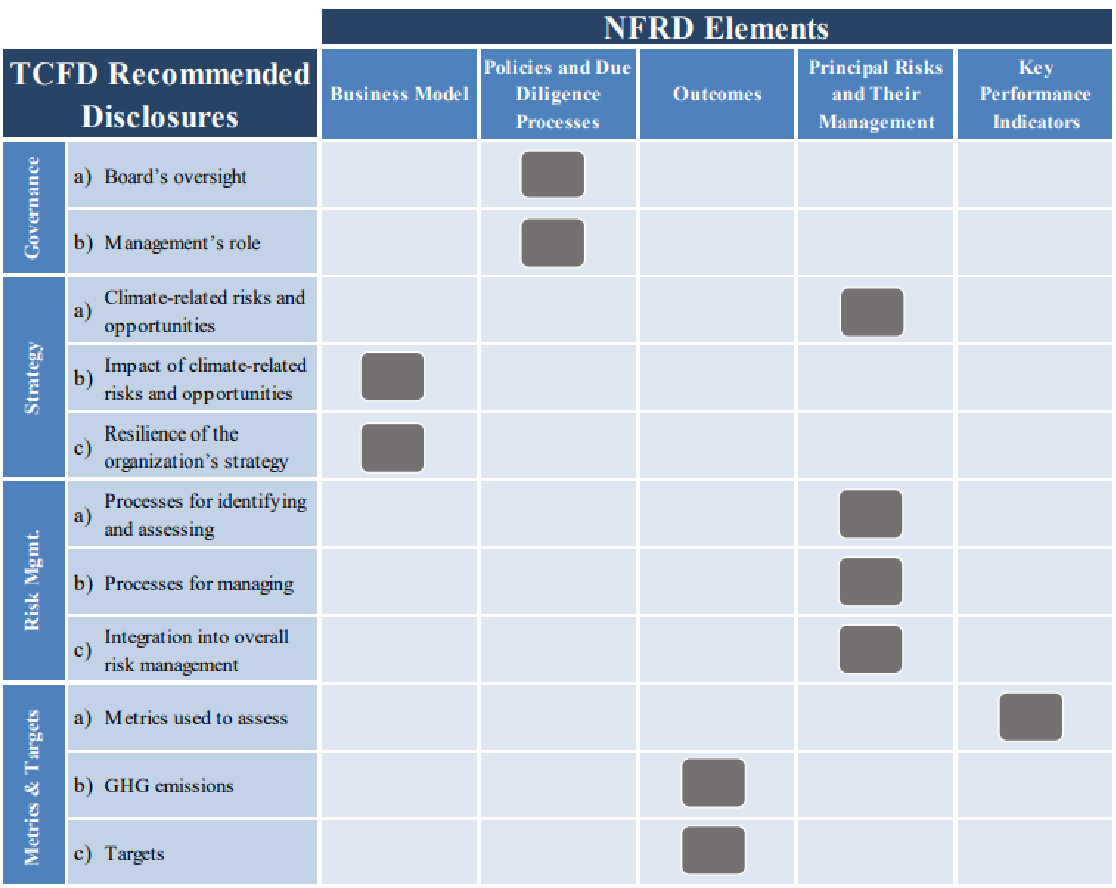


Figure 1, Mapping of NFRD Requirements and TCFD Recommended Disclosures (European Commission 2019).

4.2 The Corporate Sustainability Reporting Directive

In 2021, the EU Commission reviewed the NFRD in the ‘Commission report on the review clauses and its accompanying fitness check’ (European Commission 2021). Within this review, the Commission identified problems as to the effectiveness of the NFRD (consideration 13 of Directive (EU) 2022/2464 (CSRD)). According to consideration 13 of the CSRD, significant evidence existed that many undertakings did not disclose material information on all major sustainability-related topics, including climate-related information such as all greenhouse gas emissions, and factors that affect biodiversity. The report also identified the limited comparability and relatability of sustainability information as significant problems. Additionally, the review highlighted that many undertakings from which users need sustainability information, were not obliged to report such information as it only obliged the in paragraph 4.1 described undertakings. Following this, the Commission concluded ‘’there is a clear need for a robust and affordable reporting framework that is accompanied by effective auditing practices to ensure the reliability of data and avoid greenwashing and double counting’’ (Directive 2022/2464/EU). Even with the provided guidelines on non-financial reporting, the so-called ‘Guidelines on reporting climate-related information’ (European Commission 2019), the beforementioned goals were not achieved. This lack of material information about sustainability-related topics was accompanied with a growing demand for more information about sustainability matters, also for undertakings that were not subject to the NFRD (Directive 2022/2464/EU).

The answer to these problems came with the announcement of the new CSRD in December 2022 (Directive 2022/2464/EU). This new guideline is meant to help the European countries to achieve their goal to become completely climate neutral by 2050 (Directive 2021/199/EU). From reporting year 2024 on, the companies that were subject to the NFRD will be obliged to report their non-financial data according to the CSRD. After that year, the scope of the guideline will be extended by obliging small and medium-sized undertakings. The CSRD will eventually be mandatory for all large companies with over 250 employees, and/or 20 million euros total assets, and/or 40 million euros turnover, for all companies listed on EU regulated markets except listed micro-companies, for companies not established in the EU that are listed on EU regulated markets, and the EU subsidiaries of non-EU companies, and for listed small and medium-sized undertakings (Directive 2022/2464/EU).

Compared to the NFRD, the CSRD is a more detailed directive. It acknowledges the deficiencies of the NFRD and attempts to create the environment under which the climate-neutral economy must be achieved. According to consideration 47 of the CSRD, achieving a climate-neutral economy requires the alignment of greenhouse gas emissions accounting and offsetting standards. Users need reliable information regarding offsets that addresses concerns regarding possible double counting and overestimations, given the risks to the achievement of climate-related targets that double counting and overestimations can create (Directive 2022/2464/EU).

In contrast to the NFRD, the standards introduced with CSRD will be boundary. These standards specify the information undertakings have to report in accordance with the directive, both on general and industry specific factors. The directive obligates companies to go further than the NFRD. In addition to the NFRD regulations, strategy, opportunities, plans of the undertaking to ensure its business model and strategy to be compatible with the transition to a sustainable economy in line with the Paris Agreement, stakeholder inclusiveness and impact on company's sustainability matters and its value chain, have to be reported.[1] Furthermore the role of management has to be specified, and forward-looking and retrospective information, and qualitative and quantitative information in short, medium and long-term horizons must be reported. Also the four issues of NFRD (environment, social and employee, human rights, anti-corruption and bribery) are being replaced by Environmental, Social and Governance (ESG) factors.

The factors that companies need to report about with regard to environmental matters are: i) climate change mitigation, including as regards scope 1, scope 2 and, where relevant, scope 3 greenhouse gas emissions; ii) climate change adaptation; iii) water and marine resources; iv) resource use and the circular economy; v) pollution; vi) biodiversity and ecosystems. With regard to social and human rights factors the following factors have to be reported about: i) the equal treatment and opportunities for all, including gender equality and equal pay for work of equal

[1] Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.

value, training and skills development, the employment and inclusion of people with disabilities, measures against violence and harassment in the workplace, and diversity; ii) working conditions, including secure employment, working time, adequate wages, social dialogue, freedom of association, existence of works councils, collective bargaining, including the proportion of workers covered by collective agreements, the information, consultation and participation rights of workers, work-life balance, and health and safety; iii) respect for the human rights, fundamental freedoms, democratic principles and standards established in the International Bill of Human Rights and other core UN human rights conventions, including the UN convention on the Rights of Persons with Disabilities, the UN Declaration on the Rights of Indigenous Peoples, the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work and the fundamental conventions of the International Labour Organization, the European Convention for the protection of Human Rights and Fundamental Freedoms, the European Social Charter, and the Charter of Fundamental Rights of the European Union. With regard to the last category, CSRD has an obligation to report about i) the role of the undertaking’s administrative, management and supervisory bodies with regard to sustainability matters, and their composition, as well as their expertise and skills in relation to fulfilling that role or the access such bodies have to such expertise and skills ii) the main features of the undertakings internal control and risk management systems, in relation to the sustainability reporting and decision-making process; iii) business ethics and corporate culture, including anti-corruption and anti-bribery, the protection of whistleblowers and animal welfare; iv) activities and commitments of the undertaking related to exerting its political influence, including its lobbying activities; v) the management and quality of relationships with customers, suppliers and commodities affected by the activities of the undertaking, including payment practices, especially with regard to late payment to small and medium-sized undertakings. The CSRD even obliges undertakings to specifically think about the goals for both 2030 and 2050 and the individual contribution of the undertaking in achieving these collective goals (Directive 2022/2464/EU).

It is evident that the CSRD provides a more detailed description and obligation to which companies must adhere. The number of obligatory elements that have to be reported on is significantly higher and the standards that have been introduced with the directive are – contrary to those that were introduced with the NFRD – mandatory. The number of considerations with regard to the CSRD (84) compared to the number of considerations with regard to the NFRD (23) gives a clear view of the intention of the Commission to create impact on the goal of becoming climate-neutral. This becomes even more clear with the words used by the Commission in the CSRD as they differ significantly from the words used by the Commission in the NFRD. Where the NFRD contained words as ''should'', ''may'', and ''could'', the CSRD is more restrictive with words as ''shall''. This is a significant difference and might, in combination with the broader set of rules, cause the CSRD to be more effective than the NFRD. The CSRD is however not yet mandatory, which means there is no data to analyse the effectiveness yet. The announcement of new regulations with regard to non-financial reporting has however been done concretely in 2018 and has been reported in 2020.[2] The question is whether companies have actively anticipated these announcements of new regulations by providing more comparable data on non-financial matters. This is examined by analysing annual reports.

[2] OJ C 76, 9.3.2020, p. 23.

5 The effectiveness of NFRD and CSRD

This chapter examines the effectiveness of the NFRD (Directive 2014/95/EU) for improving the quality of non-financial reporting in the Netherlands by forming hypotheses and analysing annual reports of a sample of public companies from 2017. Subsequently, the effectiveness of the upcoming CSRD (Directive 2022/2464/EU) is examined by analysing annual reports from 2022 to test whether companies have anticipated this upcoming stricter guideline.

5.1 Hypotheses

In general, the results of prior literature with regard to the effectiveness of laws and regulations in enhancing the quality of reporting seem to be inconclusive (Daske et al., 2007). Chapter 3 described how several factors influence the outcomes of regulations. Due to this, regulators are unable to know the effectiveness of newly implemented regulations in advance. This is however different with regard to liability laws. The implementation of liability laws is, in general, effective in enhancing the quality of reporting (Essec et al., 2015; Willekens & Simunic, 2007; Khurana & Raman, 2004). This quality even further improves when regulations are more precise (Willekens & Simunic, 2007). Previous literature also showed that regulations itself could even be negatively related to the quality of reporting, but that the monitoring effectiveness and competencies were positively associated with the quality of reporting (Bajra & Čadež 2018). Lawsuits also turned out to be an effective remedy in enhancing the quality of reporting (Khurana et al., 2006; Ball, 2001; Basu, 1997; Holthausen & Watts, 2001; Lennox & Li, 2013; Palmrose & Scholz, 2004; Hennes et al., 2008; Bedard & Johnstone, 2004; Khurana & Raman, 2004).

The conclusions from previous literature are a guideline for looking at the possible effectiveness of new regulations with regard to non-financial reporting. As, overall, research into the effectiveness of laws and regulations for enhancing the quality of financial reporting is rather inconclusive, this would be the same for the quality of non-financial reporting. The analysis of the NFRD did not give any significant hints that suggest the directive to be more effective. This is supported by the fact that paragraph 4.1 concluded that the NFRD was a broadly formulated directive, which gave companies plenty of room for self-interpretation. It did not provide companies with mandatory guidelines on what to report and in which manner. This means that the guideline was not precise, which, according to previous literature, would be negatively related to the quality of reporting. The directive did also not include any form of liability for either directors nor auditors. The guideline simply mandated companies to disclose four matters of non-financial reporting in any wanted form. Due to this, the results are expected to show that the goals of the NFRD are not being achieved. The broad description and the amount of self-interpretation is expected to cause a wide variety of reported data, which does not enhance comparability. The first hypothesis is:

H1: The implementation of NFRD did not cause all companies to produce comparable data with regard to the mandatory factors.

In contrast to the NFRD, the CSRD does provide companies with more precise regulations with regard to non-financial reporting. The CSRD is formulated stricter and comes with mandatory standards, which must be adhered to by companies. Following previous literature, this more precise regulation should enhance the quality of reporting. The CSRD does however also not include a form of directors' nor auditors' liability. This suggests that, in advance, the effectiveness of the CSRD is insecure, and will depend on different – yet unknown – factors. The directive was only published at the end of 2022 and is not yet mandatory. This means that the specifics of the directive were unknown before the start of reporting year 2022. The new regulations were however announced in 2018 already, which means that the companies could have already anticipated these new regulations to ensure a stable transition towards new reporting methods. The fact that the guideline is not implemented yet does however also mean that companies do not yet have to adhere to this guideline, which causes the possibility that companies did not change the amount and quality of reported data during the years following the implementation of NFRD. Previous literature on the quality of non-financial reporting however also suggests that high quality reporting could increase company value (Clarkson et al., 2013). It could for example decrease the cost of equity capital (Dhaliwal et al. 2011). The combination of above factors suggest that during the years following the implementation of NFRD, the amount of collected and reported comparable data has increased to ensure higher quality reporting. With the goal of the CSRD to help the European countries to achieve their goal to become completely climate neutral by 2050 (Directive 2021/199/EU), it is most important to test whether the regulation will be effective with regard to the disclosure of environmental data. The second hypothesis is:

H2: The amount of companies producing comparable numerical environmental data has increased during the years following the implementation of NFRD.

Both hypotheses are tested conducting a qualitative analysis on annual reports from both 2017 and 2022 of a sample of companies. These annual reports are published on the corporate websites of those companies. The research is done using ATLAS.ti.

5.2 Sample & research

As stated in paragraph 4.1, NFRD and the following national regulation within the Netherlands obliged public companies with over 500 employees, banks, insurance companies and companies of public interest to adhere to the regulations with regard to non-financial reporting. To test the effectiveness of the NFRD, a sample of 49 public companies that were subject to the directive in the Netherlands are examined. As the guideline became effective over reporting year 2017, annual reports from 2017 are analysed. In paragraph 4.1 it became clear that the NFRD provided undertakings with a large amount of freedom with regard to the factors that had to be reported about. The broad description of these factors limit this research in conducting quantitative research as the reported factors might differ in significant ways with regard to different KPI's, different measurement methods, different reporting methods, different reporting unities, etc. The directive did provide some mandatory factors that had to be described. These factors are: the environmental impact of an undertaking's operations, information with regard to health and safety, the amount of (renewable) energy consumed, greenhouse gas emissions, water use, air pollution, the use of materials (waste), the existence of a diversity policy, information about social and employee-related matters and information about human rights, anti-corruption and bribery. These last two factors were rather widely formulated and did not have specific requirements.

Therefore, these factors could only be registered as whether something has been written about it in the annual report or not.

The method used to examine the effectiveness of the NFRD is based on the assumption by Hummel & Schlick (2016), that high quality disclosure is complete disclosure of relevant and comparable numerical data that fulfil or exceed clearly defined quality requirements. This is supported by the fact that numerical (quantitative) data is assumed to be a better measure for the quality of reporting than non-quantitative disclosure (Aerts and Cornier, 2009; Aerts et al., 2008; Al-Tuwaijri et al., 2004; Wisemen, 1982). This means that information is only assumed to be of high quality, once the data is numerical, comparable and relevant. This means that in order to be of high quality, the data must be in line with the goals of NFRD to achieve relevance, consistency and comparability. This is not the case for the last matter. To ensure a clear view of the effectiveness of NFRD, the sample is examined on three obligatory disclosure matters: environmental, social & employee, and anti-corruption, bribery and human rights. With regard to the environmental matters, the factors energy use, greenhouse gas emissions, water use, air pollution, material use (waste) and health & safety are examined. With regard to social & employee-related matters, the annual reports are examined on the existence of a diversity policy, health & safety-related data of workers, existence and compliance with a Code of Conduct, the connection with local communities, and other employee related data. With regard to reporting on anti-corruption, bribery and human rights, it is only examined whether something is mentioned within the annual reports.

As stated before, the results only contain the number of companies that disclosed information in a numerical, comparable manner. The broad description of the NFRD allows companies to not produce numerical, and thus low quality data. According to Hummel & Schlick (2016), companies with poor sustainability performance use poor quality disclosure to disclose their sustainability information in an attempt to positively influence public perceptions. This data is thus not taken into account. This means that the results do not take the companies into account that did adhere to the obligations coming from the NFRD, but did not produce data of high quality.

The next question is whether undertakings have, after the implementation of the NFRD, anticipated on following laws and regulations with regard to reporting on environmental data.

One of the most important new regulations came with the implementation of the CSRD. To test whether undertakings have already anticipated this announced new regulation, annual reports from 2022 of the beforementioned sample of 49 companies are analysed. This analysis examines the number of reported factors and the specifics of those factors that are provided additionally to those that were already mandatory under the NFRD. Because the directive was only announced on the 16th of December 2022, the specific mandatory factors that have to be reported about starting from 2024 for the first companies, were not yet known before the start of 2022. This means that, before the start of the reporting year, it was not yet known which data would be mandatory to collect with the CSRD. The disclosed information that was added, was thus an anticipation on 'what might would have come', and not an active anticipation on 'what is known that would come'. Of course there are certain factors that were obvious, but the intensity and amount of new regulations was yet unknown. Because of this, the analysis of the 2022 annual reports does not examine the specific factors, but rather examines whether new key performance indicators (KPI's) have been added and whether the data has become more comparable due to the development following a bigger focus on non-financial reporting and the announced new regulations. The focus is on whether companies have actively anticipated by describing, collecting and reporting on more environmental data. This could for example be by reporting on more environmental KPI's. The analysis is based on a comparison between the reported factors in 2017 and the reported factors in 2022 with the same sample of public companies from the Netherlands.

5.3 Results NFRD

Different factors influenced the clarity of the results. Due to the vagueness of the NFRD, companies were able to express the mandatory information in different ways. Some companies presented their information within or around text. Others provided a clear table, which made it easier to find the reported data. To create more clarity in the results, only the most mentioned reported data is being examined.

Environmental matters

With regard to the environmental matters, the sample is examined on the factors energy use, greenhouse gas emissions, water use, (air) pollution, material use (waste) and health & safety. The disclosed data with regard to energy use is shown in figure 2.

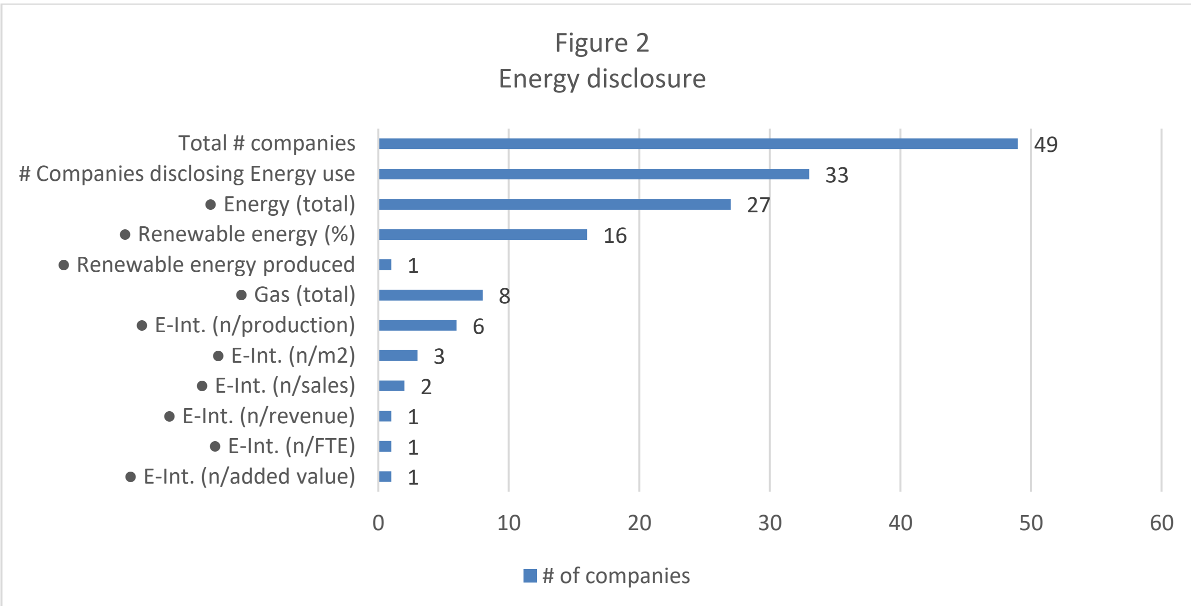


Figure 2 shows that of the sample of 49 companies, 33 companies reported comparable data with regard to their energy use (67,3%). Of those 33 companies, 27 reported on their total energy consumption. 16 companies reported on the percentage of renewable energy used, 1 company specifically on the amount of renewable energy produced and 8 companies reported on their energy-related gas use. With regard to the intensity of energy use (E-Int.), different measures were used. 2 companies reported their E-Int by deviding their energy use by their € sales, 1 company used the amount of energy per € revenue, 6 companies used the amount of energy per amount produced, 3 companies reported on their energy intensity per square meter of company buildings, 1 company reported on the energy intensity per Full Time Equivalent (FTE), and 1 company reported on the energy intensity per € added value. In total 6 different unities were used to express the energy intensity.

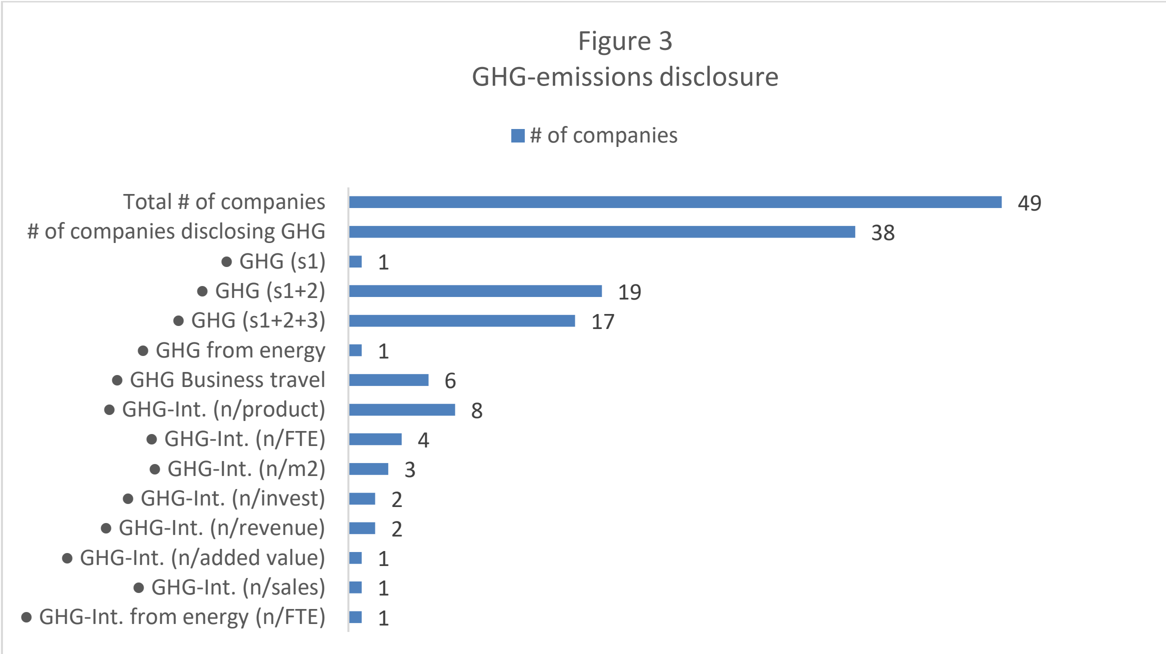
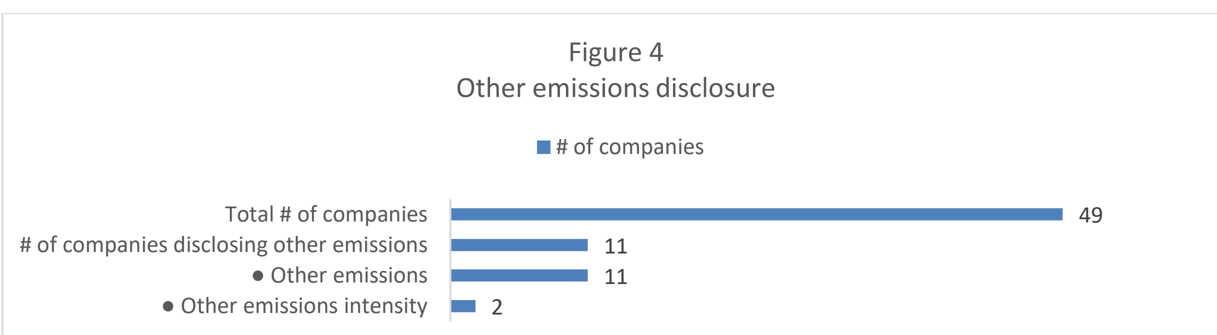


Figure 3 shows the results of the disclosure of greenhouse gas emissions. 38 out of 49 companies reported comparable data with regard to their GHG-emissions (77,6%). Out of these 38 companies, 1 company only reported on their scope 1 emissions, 19 companies reported on both their scope 1 and scope 2 emissions, and 17 of these companies reported their GHG-emissions on all three scopes. 1 of the companies only disclosed their GHG-emissions caused by energy use. 6 companies provided comparable data about their business travel emissions and 21 companies reported on their GHG-emissions intensity (GHG-Int), of which 1 company expressed the intensity in 2 different unities. The intensity was expressed in 8 different unities. The intensity was expressed in the amount of GHG-emissions per, respectively, € added value, FTE, € invested, square meter, amount produced, € revenue, € sales and the amount of GHG-emissions from energy per FTE. Next to the GHG-emissions disclosure, 11 companies also disclosed data with regard to other emissions. This is shown in figure 4.



Other emissions were disclosed by 11 out of 49 companies (22,4%). These 11 companies provided data about the amount of specific emissions done to the air, ground and water. From those 11 companies, 2 companies also disclosed information on the intensity of the other emissions. This is however not comparable due to the fact that there is a difference in the amount of chemical elements disclosed. In contrast to the GHG-emissions, the specifics of (air) pollution were not mentioned in the NFRD.

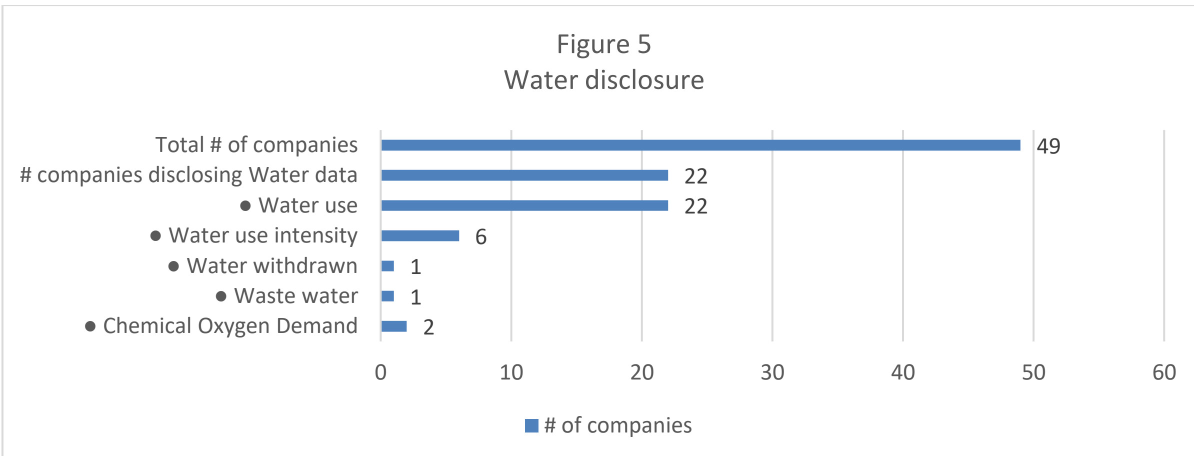
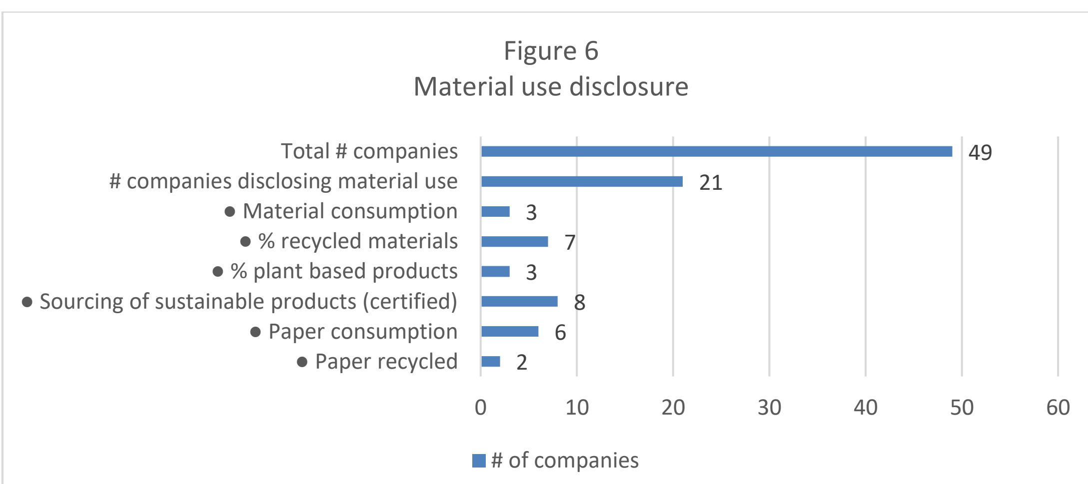
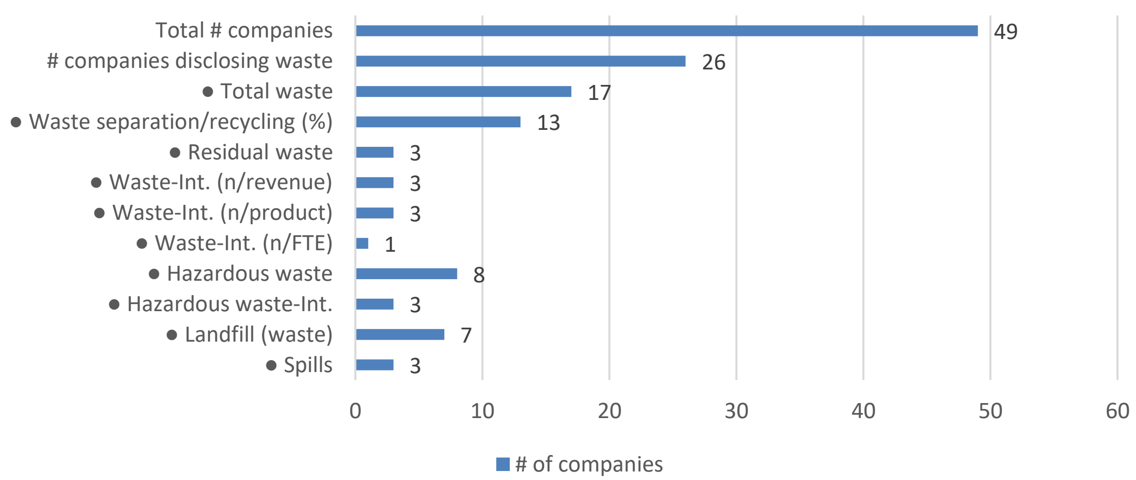


Figure 5 shows the disclosing behaviour with regard to water use of the companies. Out of the 49 companies, only 22 companies disclosed numerical data on their water use (44,9%). These 22 companies all reported their total water use. 6 of the companies reported on the intensity of their water use, 1 company reported on the total amount of water withdrawn and 1 company specifically reported the amount of wastewater only. 2 companies also described their water used for their Chemical Oxygen Demand.



With regard to material use, the results are shown in figure 6. In total, 21 out of 49 companies disclosed the use of materials (42,9%). 3 companies reported the specific use of certain materials, 7 companies reported on the percentage of recycled materials used, 3 companies specifically mentioned the percentage of plant based products used and 8 companies reported data on the amount of certified products used. 6 companies specifically described their paper consumption of which 2 companies also mentioned the amount of paper recycled. The results of waste disclosure are shown in figure 7. 26 out of 49 companies reported numerical data on their waste production (53,1%). Out of these 26 companies, 17 companies disclosed their total amount of waste. 13 companies provided information about the percentage of waste separation and recycling. 3 companies reported the amount of residual waste (total waste minus waste recycled), of which 2 companies did not disclose any more info regarding waste, and the other company used residual waste to, indirectly, express their percentage of separation.

Figure 7
Waste disclosure

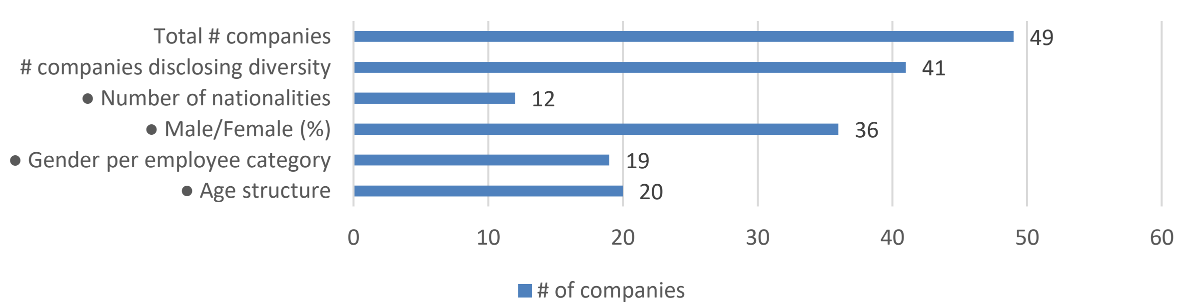


The data with regard to health & safety is not specified in the NFRD. The data produced on this factor mostly involved reporting on safety issues with regard to the product. This data was however mostly provided along with health & safety data with regard to the social & employee-related matters. These are thus being explained together.

Social & employee

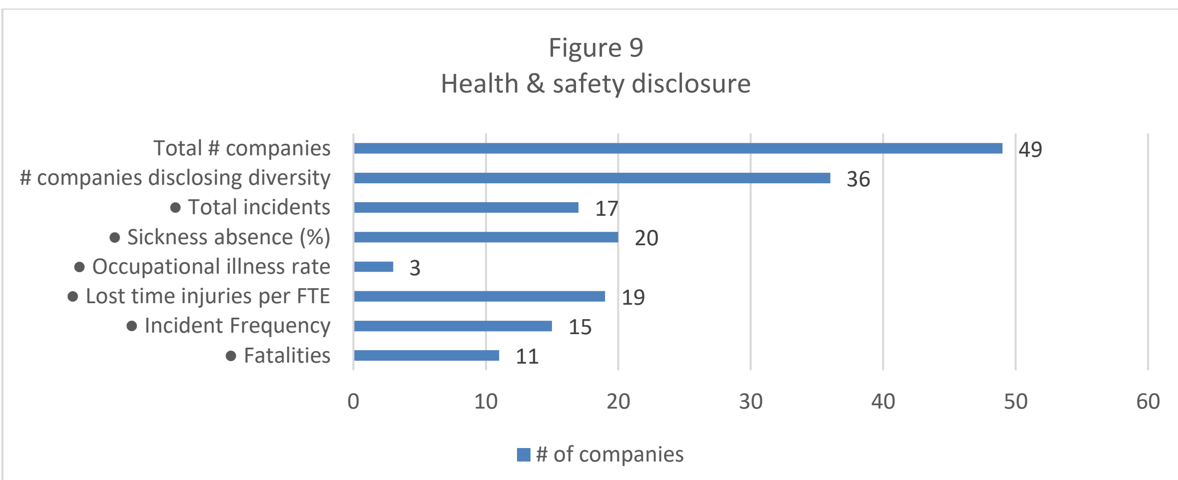
As stated before, there were no specific mandatory factors mentioned within the NFRD regarding social & employee-related matters. The guideline did however provide some examples. These examples concerned gender equality, implementation of fundamental conventions of the Internal Labour Organisation, working conditions, social dialogue, respect for the rights of workers to be informed and consulted, respect for trade union rights, health and safety at work and the dialogue and actions taken with regard to local communities (Directive 2014/95/EU). The fact that no specific disclosure became mandatory caused a variety of data reported. To ensure the comparability, it is necessary to publish numerical data. Contrary to the environmental disclosure, this is not always possible. The results show the factors that were reported the most. The most mentioned data included data about diversity, health & safety, and other employee-related information like information about contracts, employee training, the amount of workers under a Collective Bargaining Agreement (CBA). There also was a significant amount of companies providing information with regard to some sort of a Code of Conduct (CoC). The actions with regard to local communities and charities was also mentioned several times. To create clarity these factors are split up in several groups. The first group contains the results of diversity-related data. These results are shown in figure 8.

Figure 8
Diversity disclosure



As figure 8 shows, 41 of 49 companies reported on their diversity policy in a numerical, comparable manner (83,7%). Of those companies, 12 reported on the number of nationalities within their organization, 36 reported numerical data about the percentage of female employees, 19 companies reported on the gender within the different employee categories and 20 companies reported about the age structure. Other information provided, included information about the amount of disabled workers, information about a female executive potential pool, employee educational level, age per employee category and average age. This was however only mentioned two times or less, which is why this is excluded in the figure. There also were three companies that provided information about the number of nationalities (1) and about the gender per employee category (2) within the text. This is excluded in the figure too as it is easily missed information when searching for non-financial data. This means that this data was possibly provided in more reports, but not found there. It is nonetheless worth mentioning as it makes it clear that in some cases, the information is provided, however not in an easily findable and comparable manner.

With regard to health & safety-related factors, the results also show a variety of data reported. Some companies show data about the safety accidents with regard to the product in amounts and percentages, the amount of disabilities due to work related incidents, and the injuries per body part affected. Also these factors were only mentioned two times or less. The factors mentioned three times or more are shown in figure 9.



The figure shows that 36 out of 29 companies reported numerical, comparable data about health & safety-related matters (73,5%). Out of these companies, 17 reported the total number of incidents. Also the frequency of incidents was mentioned by 15 companies. The lost time injuries per FTE, was the most mentioned manner to express the injuries. This factor was reported by 19 companies. With regard to sickness, 20 companies reported the percentage of sick days and 3 companies reported the occupational illness rate. The number of fatalities was mentioned by 11 companies.

There also were several other employee-related factors. The most mentioned factors are the number of employees (26), information regarding employee training (24), the employee turnover rate (18), the percentage of fulltime and parttime contracts, the percentage of permanent and temporary contracts (10), employee engagement (8), the amount of employees under a CBA (8), and information about performance and career development reviews (3). Less than 2 times mentioned factors or factors that were not provided in an easily comparable manner, were for example employee compensation, diversity of new hires, and information with regard to employee compensation.

The last factors regarding social & employee-related matters were the actions with regard to local communities and charities and information about the existence of a CoC. In total, 14 out of 49 companies reported numerical data about their actions for local communities and charities (28,6%). 21 out of 49 companies reported in some way about CoC related factors (42,9%). These factors involved the compliance of suppliers with the companies' CoC (12), the suppliers with a specific sustainability CoC (7), the amount or percentage of employees with CoC related training, the amount of violations of the CoC and information with regard to whistleblowers (4).

Overall, it is seen that a large variety of factors reported with regard to social & employee-related matters exists. Although the results show several generally accepted factors, which are reported by a larger number of companies, it is still clear that the broad description of the NFRD with regard to these matters allows companies to pick the disclosed factors by themselves.

Anti-corruption, bribery & human rights

The last category of mandatory information provided the most broadly formulated description. This category did not provide any mandatory factors. It was however mandatory to provide information in some way. Due to this broad description, the results show these matters are mostly mentioned textual. This means that no significant amount of numerical data is available to examine. It is however possible to quantify this information due to the fact that it was only mandatory to mention these matters. This part of the research thus only tested whether anti-corruption, bribery and human rights were mentioned in the annual reports. Overall 47 out of 49 companies mentioned these matters (95,9%), which means that, in general, this part of the mandatory matters is adhered to.

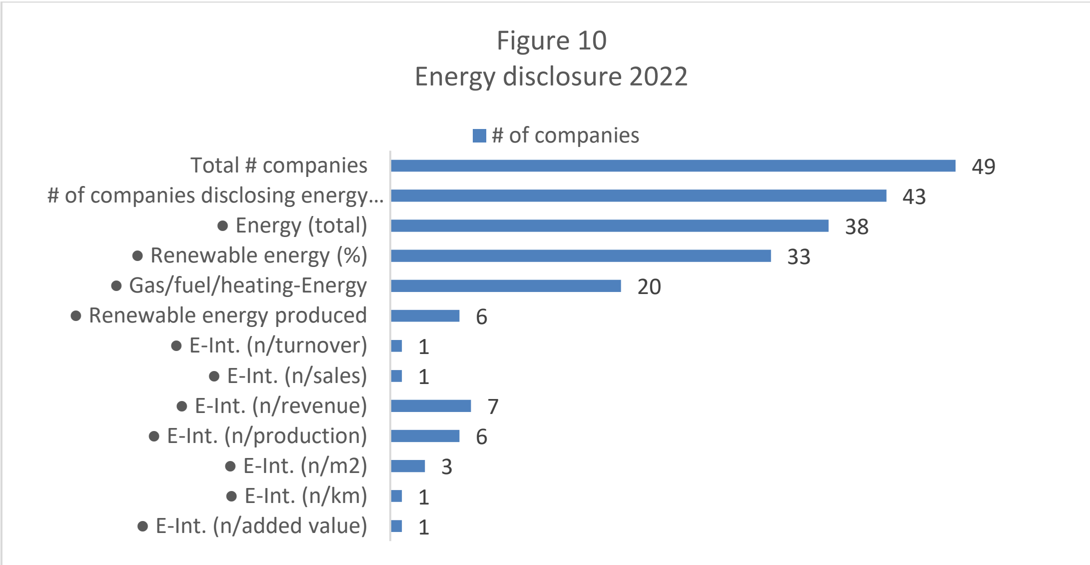
Other points

The results provide several insights into the reporting behaviour of companies after the implementation of the NFRD. While analysing the 2017 annual reports, several other things came to attention. One of these factors is the clarity of the provided information. Only 14 out of 49 companies provided their stakeholders with a clear table containing all mandatory information in a numerical way, which enabled their stakeholders to get all necessary information within one look. 8 companies 'hid' their data within, around or between text, which made it unable to get all information within one look and possibly even caused reported data to be missed. Also 5 companies spread their data over a large number of pages, which makes stakeholders unable to get all necessary information within a small amount of time. Another 5 companies reported no numerical data at all, while some of them did adhere to the NFRD fully. Some of the companies (4) provided data that was only compared to their own performance, instead of in absolute numbers, which made the data incomparable. This was possibly an attempt of a tactic found by Hummel & Schlick (2016), to change public opinion. The comparison with their own data might suggest a significant improvement in sustainability performance, but might not mean a superior performance compared to competitors.

Other results worth mentioning are the fact that 2 companies specifically announced reporting more data starting from 2018, the fact that 1 company even provided a separate limited assurance sustainability report, and the fact that 2 companies provided no sustainability-related data at all.

5.4 Results CSRD

As paragraph 4.2 stated, the CSRD is more precise and will come along with several mandatory standards that have to be adhered to. To ensure a stable transition, companies are expected to have already anticipated this new regulation. Following this expectation, the results should point out that more companies produced comparable numerical environmental data. The results with regard to energy disclosure are shown in figure 10.



The results show a significantly higher number of companies disclosing comparable numerical data with regard to their energy consumption in 2022. Out of 49 companies, 43 companies disclosed their energy consumption (87,8%). This is, compared to 2017 (67,3%), a significantly higher amount. Out of these 43 companies, 38 companies reported their total energy consumption (77,6%), 33 companies reported the percentage of renewable energy (67,3%), 20 companies reported on their energy consumption caused by either gas, fuel or heating facilities (40,8%) and 6 companies disclosed on the amount of renewable energy produced (and consumed in some occasions) (12,2%). Also, 18 companies reported on their energy intensity in any form (36,7%). The most used forms are the amount of energy per € revenue (7) and the amount of energy per amount of product (6). 2 companies reported their energy intensity in two different unities.

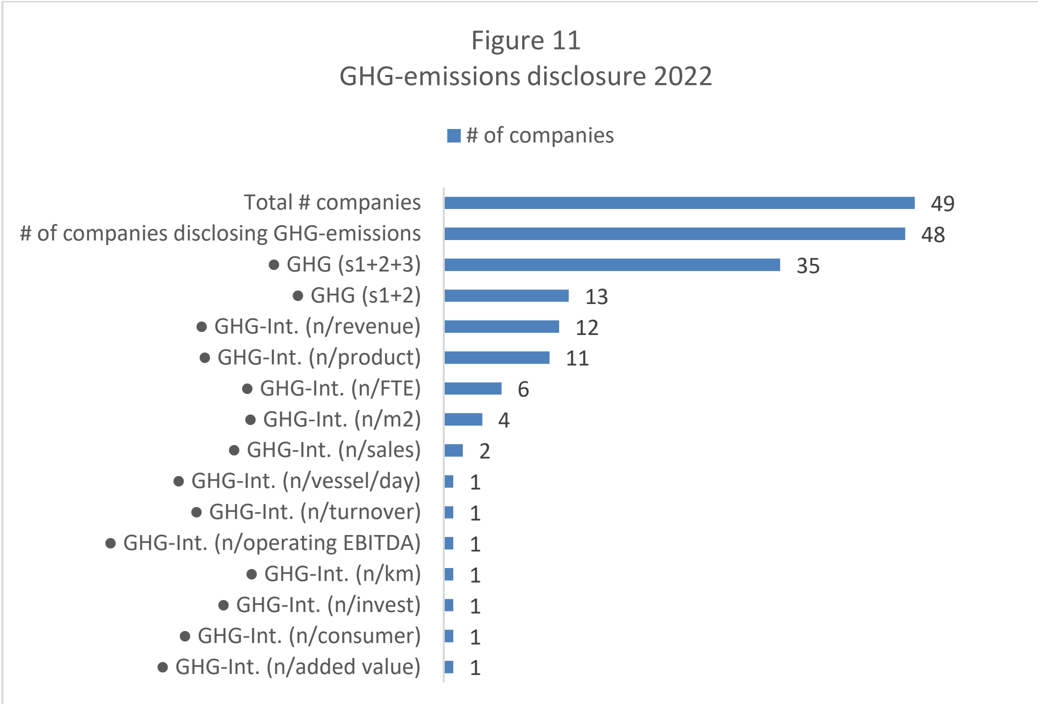
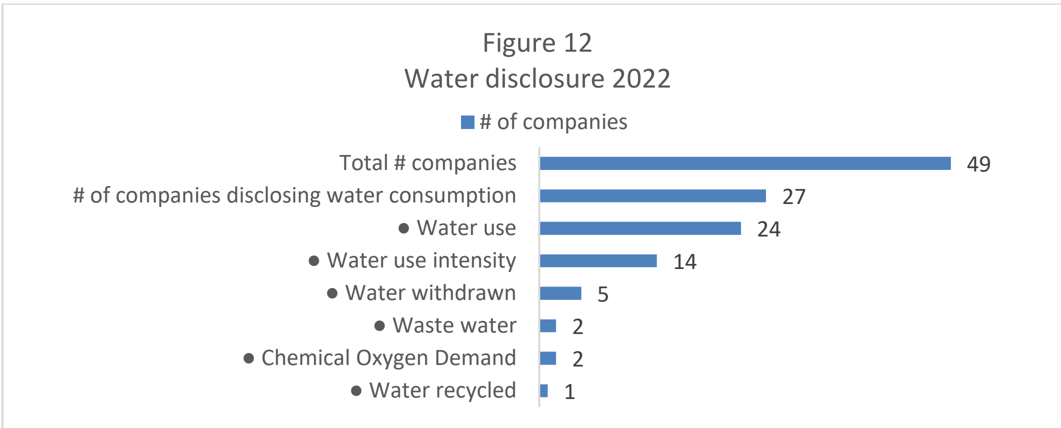


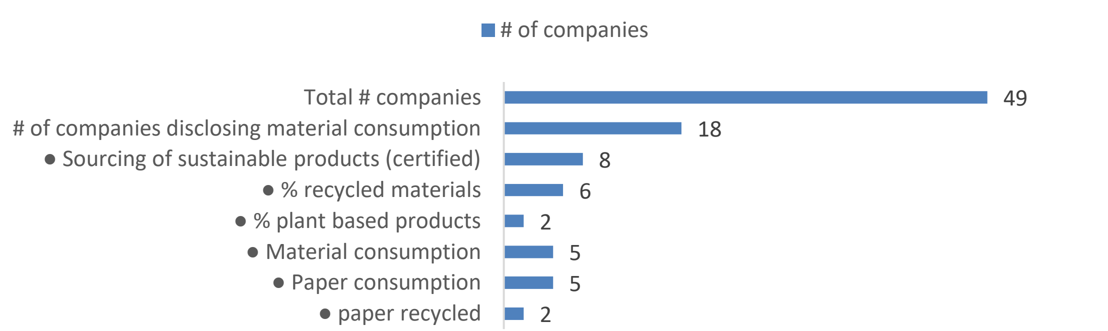
Figure 11 shows the number of companies producing comparable numerical data with regard to their GHG-emissions. In 2022, 48 out of 49 companies reported on their GHG-emissions (98,0%). Only 1 company did not provide any numerical data with regard to their GHG-emissions. Their annual report did however state that the particular company will start collecting and providing data from 2023, which means that, from 2023 on, all sample companies will provide high quality data with regard to their GHG-emissions. This is a significant change compared to 2017 when only 77,6% of the sample companies produced high quality data with regard to their GHG-emissions. Another significant change is seen with regard to the scope of reporting. In 2017 only 17 companies reported on scope 1, 2 and 3 (34,7%). In 2022 35 companies provided information about their GHG-emissions with regard to all three scopes (71,4%). The other 13 companies only disclosed information about their scope 1 and 2 GHG-emissions. The amount of companies disclosing the amount of GHG-emissions caused by business travel is not mentioned as several companies provided this information as scope 3 emissions along with other factors. With regard to the intensity of GHG-emissions, 38 out of 49 companies disclosed data (77,6%). This was however done in 12 different unities, of which the amount of GHG-emissions per € revenue (12) and the amount of GHG-emissions per amount of product (11) were the most used unities. Some companies provided this information in different unities. With regard to other emissions, 13 out of 49 companies disclosed data (26,5%). This means that, compared to 2017, 2 more companies provided data on other emissions. This is, however, although it shows a higher amount of companies, less relevant as it is rather sector-specific whether other emissions are produced and thus have to be reported.



With regard to water consumption, the results are shown in figure 12. Out of 49 companies, 27 companies reported their water consumption (55,1%). This means that, compared to 2017, 5 more companies disclosed comparable data on their water consumption. 24 companies disclosed the total amount of water used (49,0%), of which 5 companies specifically mentioned their water use as water withdrawn, and 14 companies disclosed their water use intensity (28,6%). The other mentioned factors are the amount of wastewater, chemical oxygen demand and amount of water recycled.

Figure 13 shows the results with regard to the waste-disclosing behaviour of the sample-companies. Overall, 34 out of 49 companies provided information with regard to their produced waste (69,4%). This means that, compared to 2017, 8 more companies started disclosing comparable data with regard to their waste production (+ 16,3%). 27 of those companies disclosed information with regard to their total waste production, 22 companies provided information with regard to the recycling and separation of waste, 11 companies disclosed their waste to landfill and 4 companies described the amount of waste/product spilled. 8 companies provided information about the intensity of their waste production by disclosing the amount of waste per product, € revenue, or € sales. Also, 6 companies provided information about their use of packing materials, of which 3 companies disclosed their total packing material used, 4 disclosed the amount of packing material that is recyclable and 1 company disclosed information about the packing material intensity per product. The figure with regard to the use of materials shows a different result. On several occasions companies disclosed their material use by reporting on the leftovers in the form of waste. Due to this, the exact use of materials was not disclosed. This might suggest that the disclosure on materials (waste) has turned more towards reporting on the leftovers instead of reporting on the input. The results with regard to the use of materials are shown in figure 14.

figure 14
Material use disclosure 2022



18 companies reported their use of materials (36,7%), which is less than the 21 companies disclosing on the use of materials in 2017. Out of these companies, 8 companies reported on the percentage of sustainable materials used (16,3%), 6 companies disclosed the amount of recycled materials used (12,2%), and the total consumption of materials and the consumption of paper

was only disclosed by 5 companies (10,2%). Other factors that were reported were the amount of paper recycled and the percentage of plant based products used.

Overall, the results show a significant change in the amount of companies reporting comparable data with regard to environmental factors. This change is not only seen in numbers, but also in the presentation of the data. With regard to the 2017 annual reports, only 14 companies provided a clear table that contained all necessary data. The 2022 results show that this amount has doubled over the years. Over reporting year 2022, 28 companies provided a clear table containing almost all provided data (57,1%). Out of these 28 companies, 5 companies did not specify all their disclosed data in this table. These companies provided more information in the annual report, but did not disclose that information on, for example, the key performance indicators-page. Also, 10 companies disclosed their information in a clear manner within the range of several pages, but not in one clear table. Although these companies did provide a clear view of the data, it was not possible to get all necessary information within one look. Furthermore, only 2 companies provided their information in a more widespread, but findable manner and 8 companies provided their data within, around, or in between texts. There was only 1 company left that provided no numerical data with regard to environmental factors at all. Most of the companies disclosed their data in an integrated annual report (44), but 5 companies provided a separate sustainability report that contained all non-financial data.

Paragraph 4.2 stated that the CSRD was not yet mandatory in the year 2022. In spite of this, the results do show that, due to the announcement in December 2022, several companies have already mentioned the guideline in their 2022 annual report. 19 companies only mentioned the CSRD, of which some described their intention to change their way of reporting. 7 companies declared to have already partly aligned their way of reporting with the CSRD and 6 companies had already fully adapted to the new guideline. Also, 1 of the sample companies did not mention the CSRD, but did seem to have adjusted their way of reporting in a way that is consistent with the guideline by using the ESG principles and reporting on the necessary factors.

Another factor that came to attention is the fact that several companies only provided environmental data from 2021, as 2022 data was not yet available. With the CSRD becoming mandatory in 2024, there is a possibility that those companies do not yet adhere fully to the directive as it is possible that those companies might not yet be able to collect the necessary data in 2023 due to a lack of preparation. For the companies that are not able to disclose data on the most recent year due to issues in collecting and analysing this data, it will be important to start collecting data as soon as possible.

The analysis furthermore showed that several sample companies still compared data to their last year performance. This does not provide comparable data to investors and has thus not been included in the results.

5.5 Results overall

Prior literature about the effectiveness of laws and regulations with regard to financial disclosure turned out to be rather inconclusive. In combination with the non-precise regulations that came with the NFRD, the hypothesis was formed that the implementation of the NFRD did not cause all companies to produce comparable data with regard to the mandatory factors. The mandatory matters coming from the NFRD were environmental matters, social & employee-related matters, matters with regard to anti-corruption, bribery and human rights-matters. With regard to the environmental matters, several mandatory factors were introduced. The factors that were examined on comparability in this study were the disclosure with regard to energy consumption, GHG-emissions, other emissions, water consumption, material consumption and waste production. Overall, the disclosure with regard to GHG-emissions was reported the most in a comparable manner. 77,6% of the sample-companies provided their stakeholders with comparable numerical data. The data with regard to energy disclosure was less comparable, but in total 67,3% of the sample-companies did provide comparable numerical data. With regard to the disclosure on other emissions, water consumption, material consumption and waste production, the results show that, respectively, 22,4%; 44,9%; 42,9% and 53,1% disclosed in a comparable numerical manner. The results furthermore show a large variety in which the data was disclosed. This is mainly found in the unities with regard to the intensity. The intensity of the mandatory factors was in several cases expressed in different unities. Examples of used unities are the intensity per FTE, the intensity per product and the intensity per € revenue. This is possibly caused by sector specific factors. A company in a sector that mostly depends on their employees, is more likely to produce data on the intensity per FTE, than a company that is less employee dependent.

This is different with regard to the results of the social & employee-related matters. The NFRD did not involve any mandatory factors with regard to these matters, but only provided companies with several suggestions on what data to report. Due to this, no standards could be set, which means that a large variety of data was provided by the companies. There were however two factors that were, in general, reported in a comparable manner. These factors were disclosure on diversity and disclosure on health & safety issues. 83,7% of the sample-companies provided comparable data on the diversity policy that was used within the company and 73,5% of the sample companies disclosed comparable data with regard to health & safety-related matters.

The part of NFRD that provided the most space for self-interpretation were the matters with regard to anti-corruption, bribery and human rights. There were no mandatory factors that had to be reported and no suggestions were provided with regard to the method of reporting. Due to this, this study was limited in quantifying the data with regard to these matters. The focus with this part was mainly on whether these matters were mentioned in the annual reports or not. 95,5% of the sample-companies mentioned these matters, which was mostly done by stating that the company is aware of several guidelines and regulations and will handle with care with regard to these issues.

Overall, the NFRD caused a wide variety of non-financial data to be reported. The lack of mandatory guidelines and the vagueness of the regulation caused that, overall, the goal of the availability of comparable data was not achieved. A large percentage of the companies was, mainly with regard to the mandatory factors, not able to provide their stakeholders with comparable numerical data. The results suggest that companies were either not able to report comparable data, not aware of what they should exactly report on or were consciously not reporting comparable data due to a bad non-financial performance. On several occasions, companies mentioned the mandatory factors, but did not provide any numerical data. The biggest indicator for this is the fact that several companies mentioned the fact that they are doing their best to, for example, reduce their GHG-emissions. This suggests that the NFRD was, as mentioned in the considerations of the CSRD, indeed not able to cause all companies to produce comparable data with regard to the mandatory factors (H1).

With regard to the second hypothesis, the results were shown in paragraph 5.4. The focus with regard to this directive was on the comparability improvement with regard to the data on environmental matters. As a guideline, the same factors were used as in the analysis of the 2017 annual reports. The results show a significant improvement in the amount of companies producing comparable numerical data with regard to these factors. In 2022, 87,8% of the sample-companies disclosed comparable data with regard to their energy consumption. This is an improvement of 20,5%. With regard to the disclosure of comparable data with regard to GHG-emissions, it becomes even more clear. 98% of the companies disclosed their data in a comparable manner. Only 1 company did not provide their stakeholders with numerical data, combined with an announcement to start collecting and reporting on these factors from reporting year 2023. Compared to 2017, this is an improvement of 20,4%. Another important observation with regard to this data is that the amount of companies that expanded their scope by reporting on all three scopes with regard to GHG-emissions has significantly increased from 34,7% to 71,4%. This more than doubling of the amount is more evidence for the improvement of the quality of reporting.

The data with regard to other emissions did not show a significant improvement. This could be because of sector specific factors. It is not likely that, for example, a bank produces other polluting substances than the gasses that are included in the GHG-emissions data. With regard to the disclosure on water consumption and waste production, the results show improvements of respectively 10,2% and 16,3%. This is also a significant improvement in the number of companies reporting comparable data on these mandatory factors. This is rather different with regard to the use of materials. In 2022, 36,7% of the companies disclosed comparable data with regard to their material consumption, which was 42,9% in 2017. There were however some companies that involved the materials in their data with regard to their waste production. This means that these companies switched to reporting on the output rather than disclosing the input of materials. This could suggest that the understanding of the mandatory factor ‘materials’, which did also include waste according to the NFRD, has in the years following the implementation of NFRD switched to a more output-related (waste) factor than an input-related factor (materials). This does however require more research.

Overall, the results with regard to the 2022 annual reports show a significant increase in the number of companies reporting comparable numerical data with regard to environmental matters (H2). This suggests that companies have positively developed the quality of their reported data during the years following the implementation of NFRD and suggests that companies have already anticipated the newly announced regulations with regard to the CSRD. Although, overall, this positive result is observed, the results also show that not all companies are ready yet for the new directive. This is however, due to the fact that the directive will only become effective for the sample of companies from reporting year 2024, not an objective indicator as there is enough time left to adjust their way of collecting and reporting on their environmental data. A more subjective observation was that the data was presented in a clearer view in the 2022 annual reports. This observation is supported by the fact that the number of companies that provided their stakeholders with one clear table containing (almost) all data increased from 14 to 28 companies. Furthermore, the analysis of the environmental data with regard to the 2022 annual reports took significantly less time than the analysis of the environmental data with regard to the 2017 annual reports. This more stakeholder-serving manner of providing data also suggests an increase in the comparability of the data. After all, the widespread range of the provided information within the 2017 reports increased the chances of missed data for this analysis. This conclusion is in line with the findings of Breijer & Orij (2022) that the implementation of the NFRD over the years led to an increase in the use of investor-oriented NFR frameworks.

6 Conclusion

This study investigated the impact of both the Non-Financial Reporting Directive (Directive 2014/95/EU) and the upcoming Corporate Sustainability Reporting Directive (Directive 2022/2464/EU) on the comparability of non-financial information across a sample of 49 Dutch public companies that were subject to the NFRD. The goal of the research was to test the effectiveness of laws and regulations for improving the quality of non-financial reporting. The research question formulated to achieve this goal was: ''Are non-financial reporting laws effective in enhancing the quality of non-financial disclosure?'' To answer this question, the study first investigated the effectiveness of laws and regulations for improving the quality of financial reporting by analysing the available literature with regard to this subject. This provided the insight that the effectiveness of laws and regulations with regard to the quality of financial disclosure is, with the exception of liability laws, rather inconclusive. Previous literature also suggests that more precise regulations show a positive relation with regard to the quality of reporting. With these insights, this research continued by analysing both the NFRD and the CSRD. The NFRD is a rather broadly formulated directive that leaves companies with a wide discretion on what to report and in which way. As the results show, this led to a widespread range of sorts of reported data and used unities to express this data. It also led to the fact that not all companies adhered to the regulation in such a way that the goals of the NFRD were achieved. This research put the focus on the comparability aspect, and the results suggest that, overall, this goal was not achieved with the implementation of the NFRD.

The research continued by examining whether companies have actively anticipated the announced CSRD by expanding their scopes and providing their stakeholders with more comparable numerical data that will become mandatory starting from reporting year 2024. The results suggest that companies have indeed actively anticipated the new directive, as a significant improvement in the number of companies reporting comparable data is observed. Although this significant increase in the number of companies has been observed, it still remains unclear whether the CSRD will be the solution to achieve the goal of the directive of becoming completely climate neutral by 2050 (Directive 2021/199/EU). It is however clear that the comparability of data has increased due to both the increase in the amount of disclosed data and the improvement in clarity of the presentation of the data.

Overall, the results show that the effectiveness of non-financial reporting laws for improving the quality of non-financial disclosure is, just as the effectiveness of reporting laws regarding financial reporting (Daske et al., 2007), rather inconclusive. Although the NFRD did not have the desired effect, it is clear that the effectiveness of the directive in combination with the announced CSRD, has improved significantly during the years following the implementation of the directive. This could have been caused by the fact that the CSRD is more precise and provides companies with a clear task that should be carried out. This would be in line with the findings of Willekens & Simunic (2007) and supports the suggestion of Hummel & Schlick (2016), that there is a need for a precise and binding regulatory framework of the contents of sustainability reports due to the fact that poor sustainability performers use low-quality sustainability disclosure to attempt to positively influence public perception. The increase in comparability that caused the improvement of the effectiveness is also a confirmation of the findings of Breijer & Orij (2022) that, due to the implementation of non-financial reporting frameworks, theoretically, the comparability increases. Future research should examine this effectiveness of the implementation of CSRD further, by examining the annual reports after CSRD has become mandatory.

6.1 Suggestion

The overall comparability of disclosed non-financial data has significantly increased during the years following the implementation of the NFRD and the announcement and publishing of the CSRD. It is however still unclear whether the CSRD will be the solution to the observed shortcomings that derived from the NFRD. Literature with regard to the effectiveness of laws and regulations regarding the quality of reporting is rather inconclusive and depends on several factors. This is different with regard to liability laws and regulations. These regulations, overall, are an effective remedy in enhancing the quality of reporting. Although it is clear that liability laws have this positive effect, there is no form of liability included in the CSRD. With regard to financial disclosure, there are several laws that make directors and auditors liable for misstatements within their financial statements. Dutch law, for example, includes a law which makes directors jointly and severally liable for the consequential damage done to third parties for giving a misleading representation of the situation of a company (article 2:249 BW Dutch Law). Deliberately misstated information with regard to non-financial data should have the same consequences, with a possibility for directors to prove that the misstatement and the consequential damage were not caused by an action or omission of the individual director. The possibility of such a law is subject to future research.

6.2 Limitations

The results of this study must be considered in light of some limitations. First, other factors also play a role. Over the past years, both the environmental and the social issues of today have become more important in public debate and are part of the most important political issues. With the rising social media attention for these subjects, the pressure of the public has also grown significantly. The effectiveness of the NFRD and the upcoming CSRD, was possibly less because of the amount of attention the subject has today. Because of this, the outcome could overemphasize the effectiveness of both the NFRD and the CSRD itself, because the effect of the public pressure has not been taken into account. This factor could be subject to future research.

Second, the NFRD guideline did not provide member states with obligatory guidelines on how to report about non-financial data. This caused significant differences within the disclosed data. Some companies provided their data within text, while others showed clear graphics, which allowed investors to get a clear view within the blink of an eye. Some companies provided diagrams which gave a clear view of the data, but were spread over the report and not shown in a central table. Due to this, there is a possibility of missed data within the analysis. The goal of comparability does however imply an obligation to disclose data in a clear, well-organized way, which was, with missed data, not achieved. This is the same with regard to information that was not provided in the clear table which was provided by more companies in their 2022 annual report. As some information was not provided within, for example, the KPI table, it is possible that extra data was missed due to the fact that it was spread over the entire annual report.

Last, due to the major differences that were observed in the reported information, it was not possible to collect all data in a fully objective manner. The qualitative analysis conducted over 98 annual reports leaves room for interpretation. During the research, there was a constant development of the standards as the standards were formed by analysing all 49 companies. The structure of reporting did sometimes show similarities, which trained me in finding the right data. The effect of the above factors has been reduced by analysing every annual report a minimum of three times. The quotations in ATLAS.ti were looked over again during the analysis. Even though these checks were conducted, a possibility of missed data and a lack of fully objective processing of this data remains. The goal of this research was however to observe the effectiveness of the non-financial regulations in achieving their goals and to observe whether these regulations caused and will in the future continue to cause companies to produce data of higher quality, which was, according to me, achieved.

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