DOI: 10.15611/2023.83.1.02

Chapter 2

Sustainable Performance Measurement under the New European Regulation for Corporate Sustainability Reporting: What Will Be the Impact of the European Sustainability Reporting Standards (Beyond New KPIs)?1

Josef Raumiiller

Technical University of Vienna e-mail: josef.baumueller@tuwien.ac.at ORCID: 0000-0001-8274-9338

Susanne Leitner-Hanetseder

University of Applied Sciences Upper Austria e-mail: susanne.leitner-hanetseder@fh-steyr.at ORCID: 0000-0003-1756-3996

Christoph Eisl

University of Applied Sciences Upper Austria e-mail: christoph.eisl@fh-steyr.at ORCID: 0000-0002-3668-5481

Quote as: Baumüller, J., Leitner-Hanetseder, S., & Eisl, Ch. (2023). Sustainable Performance Measurement under the New European Regulation for Corporate Sustainability Reporting: What Will Be the Impact of the European Sustainability Reporting Standards (Beyond New KPIs)? In J. Dyczkowska (Ed.), Sustainable Performance in Business Organisations and Institutions: Measurement, Reporting and Management (pp. 41–55). Wroclaw: Publishing House of Wroclaw University of Economics and Business.

¹ Funding: This chapter is an outcome of the FINCOM project which is financed by research subsidies granted by the government of Upper Austria (www.land-oberoesterreich.gv.at/12854.htm).

The transition towards a more sustainable economy has become a priority on a global level. Climate change mitigation and adaptation are in the focus of political institutions around the world; the Paris Agreement 2015 has become a central point of reference for these ambitions. In Europe, the European Commission (EC) followed up on these developments with its Action Plan on 'Financing Sustainable Growth' (2018) and two years later with its 'Green (New) Deal' (2019). With these high-aiming initiatives, the EC aimed at taking a lead role in the global ambitions with regard to sustainability and setting high standards, which also serve as orientation for other jurisdictions.

One aspect that is central to the EC's approach is the aim to promote sustainability via market mechanisms. Capital markets especially shall be transformed in order to better take account of sustainability issues in investing and finance decisions. This idea of 'Sustainable Finance' implies that companies which can prove their operations to be in line with defined definitions and standards for sustainable economic activities can get better access to capital and thus enjoy competitive advantages; on the other hand, companies that do not meet these standards might finally lose their access to (European) capital markets (Migiorelli, 2021). Recent regulations such as the EU Taxonomy Regulation or the Sustainable Finance Disclosure Regulation (SFDR) established the respective mechanisms for the financial sector. However, in order to be effective, these mechanisms have to build upon data from companies in the business sector which is accessible to the financial sector, in order to identify the extent to which companies are engaged in sustainable economic activities and to respond accordingly. This, in turn, shall lead to a change in behaviour, transforming their activities in line with EU political priorities.

For that reason, the regulation of corporate disclosures on sustainability matters has become an issue of high political priority over the past few years. Already with its Non-Financial Reporting Directive (NFRD) from 2014, the EC tried to establish a baseline for EU-wide harmonised reporting practices. However, strong political opposition from lobbies as well as a still-lacking momentum for the topic of sustainability, resulted in considerable compromises that had to be made, and that marred the effectiveness of the reporting requirements which had to be applied from the financial year 2017 onwards (Kinderman, 2020). Consequently, a lack of completeness, comparability and reliability of sustainability information that is reported by European companies was found to be one main obstacle for the entire Sustainable Finance agenda in the EU. Thus, the introduction of a new reporting Directive that addresses the shortcomings of the NFRD soon became an important project which was started shortly after the publication of the Green Deal and also a key element of the actions proposed by this legal initiative. As a result, the Corporate Sustainability Reporting Directive (CSRD) was finished in Mid-2022 and entered into force in January 2023; it replaces the reporting requirements of the NFRD for financial years starting on January 1, 2024 and by far exceeds the level of transparency on sustainability matters that its predecessor required from European companies. One important feature of the CSRD is the introduction of new reporting standards, European Sustainability Reporting Standards (ESRS), that give binding, extensive and concrete guidelines on how to translate the more abstract requirements of the CSRD into practice.

The main goal of this chapter is to discuss the impact of the CSRD on management control systems. Changing corporate decision-making processes has been an important goal of the EC ever since the publication of the NFRD. By directly referring to policies, actions, metrics and targets that are established in European companies, the CSRD now aims to introduce sustainability matters to the core elements of management control systems. However, this also comes at the cost of specific new questions that do arise with regard to those management control systems and their effectiveness. One aspect that will be in the focus of this chapter is the management approach that the ESRS require. Based on a thematic analysis of literature combined with the analysis of the new reporting framework, the relevant requirements for European companies are derived and discussed. Furthermore, the implication for companies with regards to further aspects of management control systems that are already established and now will have to develop further are discussed. Finally, the chapter provides recommendations on how this development can be mastered to turn out beneficial for companies as well as for the overarching objective - of sustainable development.

2.1. CSRD and ESRS – a New Framework for Reporting on Sustainable Performance

The most fundamental reporting concept on which the CSRD is based is the principle of double materiality: both the impact of a company's business activities on nature and society ('inside-out') as well as the risks and opportunities of sustainability factors on the company's financial performance and position ('outside-in') shall be captured. This concept aims at improving the awareness of a company's embeddedness in its environment, affecting both its stakeholders and the company itself. Compared to the previous reporting requirements set forth by the NFRD, the focus lies on an improved depiction of the inside-out perspective on business activities. From a preparer's perspective, this implies a considerable increase in the number of disclosures that are required, also resulting in additional costs, e.g. for data collection and reporting (Baumüller & Sopp, 2022).

Companies that fall under the scope of the CSRD have to identify sustainability matters that are material from such a double materiality perspective and report upon these in a predefined way. Relevant matters must cover environmental,

social, and governance matters; the CSRD contains a list of topics that have to be considered in the course of materiality analysis. For material sustainability matters, related strategies and governance mechanisms must be described, as well as relevant policies, actions, metrics and pursued targets (Directive 2013/34/EU, Art. 19a and 29a). Compared to the requirements of the NFRD, the focus on governance matters and the integration of sustainability matters in the performance management cycle are new elements that underline the ambition to tackle the issue of greenwashing and embed sustainability in the heart of corporate decision-making.

Further guidelines on how to implement these requirements are laid out by the new ESRS; the EFRAG is mandated by the CSRD to prepare technical advice in the way of such draft ESRS, which are submitted to the EU Commission and subsequently adopted (and possibly also modified) via delegated acts (Directive 2013/34/EU, Art. 49). The first set of such ESRS was submitted to the EC in November 2022.² It consists of 12 standards: (1) two cross-cutting standards on general requirements and general disclosures, (2) five topical standards on environmental matters, (3) four topical standards on social matters, and (4) one topical standard on governance matters. Whereas the cross-cutting standards establish the key principles and mechanisms for sustainability reporting in the EU, the topical standards detail concrete disclosures required on matters that are identified as being material.

In order to draw up their sustainability reports, companies have to perform the following steps (ESRS 1.29-39 and Appendix F):

- 1. Conduct a materiality analysis: ESRS 1 contains criteria based on which a company has to assess its impacts as well as the risks and opportunities it faces with regard to sustainability matters. In order to make this assessment, the company has to consider the perspectives of its affected stakeholders (with regard to impacts) as well as its users of financial information (with regard to risks and opportunities). The application requirements of ESRS 1 include a list of matters that must be analysed in any case; however, a company is not allowed to limit its analyses to these matters.
- 2. For every material matter: disclose the policies, actions and targets that are implemented with regard to this matter. ESRS 2 contains detailed requirements on the contents of these disclosures, which are complemented by further guidelines in the topical standards. Neither CSRD nor ESRS requires companies to establish such policies, actions or targets; however, if a company has not established them, it has to disclose this fact.

² This chapter is based on the first set of ESRS as they were submitted to the EC in November 2022 (EFRAG, 2022b). The final version of these standards (which will incorporate several changes to the version by EFRAG from November 2022) was not issued by the date the work on this chapter was finished.

3. Disclose material metrics: with regards to metrics, a company only has to disclose them if they are considered to be material information for the users of its sustainability report. ESRS 1 sets forth criteria for assessing this type of materiality, referring to the qualitative characteristic of the relevance of the reported information – and ultimately, the concept of decision usefulness of the information contained in sustainability reports. In order to maintain a reasonable cost–benefit relation, it is possible to use estimates when calculating metrics as long as their informational value is not impaired by this practical expedient.

There is one important exception, however: irrespective of the result of the materiality analysis, all the disclosure requirements set forth in ESRS E1 on climate change as well as the first nine disclosure requirements set forth in ESRS S1 on own workforce (if the company employs at least 250 employees). Also, all the cross-cutting disclosures on how a company identifies its impacts, risks and opportunities with regard to sustainability matters and how it implements these sustainability matters in its governance, strategy and business models set forth by ESRS 2 are required in any case. Finally, each company that falls under the CSRD has to disclose specific data points from each ESRS that are required by EU law (e.g., to meet the information needs of the financial sector as prescribed by the SFDR).

ESRS 1 discusses two fundamental concepts in the context of this process for determining the content of sustainability reports: the concept of stakeholders and the concept of sustainability due diligence. According to ESRS 1.62, [t]he outcome of the undertaking sustainability due diligence process [...] inform [sic!] the undertaking's assessment of its material impacts, risks and opportunities. This process is laid out by instruments such as the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises. These instruments foresee the need to engage with a company's stakeholders and to identify potential adverse impacts on them; furthermore, appropriate measures have to be undertaken and communicated in order to prevent, mitigate or remediate such adverse impacts. Although ESRS 1 stresses that ESRS do not impose any conduct requirements in relation to sustainability due diligence; nor do they extend or modify the role of governance bodies, the standard also makes clear that the entire structure of ESRS follows the logic of these instruments stated above - and that such a sustainability due diligence as described before is a prerequisite for conducting a sound materiality analysis. As a consequence, companies that fall under the scope of the CSRD are at least de facto nudged to implement such instruments for due diligence mechanisms – and at least arguably, in most cases, to invest considerable efforts in identifying and engaging with their stakeholders (Lanfermann, 2023).

2.2. Decision Usefulness of ESG Reporting: The Case for a New Management Approach?

Addressing the needs of multiple and heterogeneous stakeholders

As demonstrated, EFRAG adopts a comprehensive approach to sustainability-related disclosure information, catering to the requirements of stakeholders. Despite being frequently referenced, the CSRD does not offer a definition of the term 'stakeholders' (Baumüller & Scheid, 2023). However, ESRS 1.26 provides a definition stating that stakeholders are those who can affect or be affected by the undertaking. This obviously represents a very broad understanding of the term 'stakeholders' (Freeman, 1984), which is in line with established definitions by reporting frameworks such as the Global Reporting Initiative's (GRI) standards. Nevertheless, this interpretation of the term 'stakeholders' is expansive in scope that requires considerable efforts already with regard to the identification of relevant stakeholder groups (Baumüller & Scheid, 2023).

Therefore, it is inevitable to question whether the undertaking is capable of meeting the ESG expectations established by its stakeholders and providing relevant information (ESRS 1 Appendix C, QC 1). According to ESRS 1.36, information is relevant because of

(a) the significance of the information in relation to the matter it purports to depict or explain; (b) the capacity of such information to meet the users' decision-making needs (including the needs of primary users of general-purpose financial reporting described in paragraph 51); or (c) the need for transparency towards stakeholders.

ESRS 1.36, as well as ESRS 1.26 (b), implement two distinct groups of users, namely users of general-purpose financial reporting and other users such as Non-Governmental Organizations (NGOs). This reveals the potential for divergent information needs between two distinct groups: users who rely on sustainability reporting as part of financial reporting for decision-making purposes and stakeholders who are interested in the company's sustainability engagement. Therefore, sustainability reporting must consider not only information that is useful for the users of the financial statements.

In comparison to financial reporting, this is quite a unique approach. While financial reporting, as mandated by the Accounting Directive (2013/34/EU) and the International Accounting Standards (IFRS Conceptual Framework 1.4), primarily focuses on the needs of investors. In the context of sustainability reporting, it is essential to consider the interests and views of stakeholders. This goes even beyond users of sustainability reports, as affected stakeholders, as defined in ESRS 1.26 (a), have to be considered when conducting a materiality

analysis – thus predetermining the matters which are reported on. Based on the concept of double materiality and references for stakeholders, one could conclude that financial materiality is in line with the decision usefulness of users of general-purpose financial reporting information and impact materiality is closely related to the transparency needs for the European public (Baumüller & Scheid, 2023): which, in turn, just means decision usefulness for users of the sustainability-related disclosure information.

Taking into account the diverse spectrum of users seeking sustainability-related disclosure information for decision-making, of course, also the primary users of general-purpose financial reporting, namely existing and prospective investors, lenders, and other creditors such as asset managers, credit institutions, and insurance undertakings, might be amongst this group. But also other key constituencies, including the undertaking's business partners, trade unions and social partners, civil society and non-governmental organisations, governmental bodies, as well as analysts and scholars (ESRS 1.26), might be relevant. This underlines again the variety of different standpoints and interests, which might also be reflected in different information needs by these stakeholders. With regards to the question of reporting contents that are derived and value judgements that are based on those reporting contents, sustainability reporting hardly can be as objective to the extent financial reporting is in consequence. The idea of one 'true and fair view on ESGs' thus seems even more ambitious than the idea of a 'true and fair view' for financial reporting.

The need for stakeholder prioritization

When considering the needs of the users, it is important to acknowledge that as a result of the differing status of various users, certain groups of users may be better informed than others (Leitner-Hanetseder, 2011). Building on the works of Berndt (2005) and Leitner-Hanetseder (2011), it is evident that when multiple stakeholders are identified, their information interests are not necessarily homogeneous. Despite this, it can be assumed that a majority of agreements exist within the groups (Berndt, 2005; Leitner-Hanetseder, 2011). Nevertheless, the interests of the different addressees may differ from each other and may have independent information interests to be satisfied by sustainability reporting. This would result in an enormous amount of information if an attempt were made to take all information needs into account (Berndt, 2005; Leitner-Hanetseder, 2011). In addition, an expansion of the scope of information does not necessarily lead to a better basis for decision-making (Haynes & Kachelmeir, 1998) due to the cognitive capacity of users, which may lead to an information overload (Epstein, 2007).

Therefore, it would be necessary to consider, on the one hand, information limits for stakeholders and, on the other hand, to safeguard the providing entities.

One notable limitation of providing the information is that the collection, assessment and dissemination of information impose costs (Leitner-Hanetseder, 2011). According to the Conceptual Framework of the IFRS, however, it is not possible for general purpose financial reports to provide all the information that every user finds relevant (IFRS Foundation, 2018, par. 2.43). Compulsory, sustainability-related disclosure standards such as those of the ESRS can serve as a safeguard for providers and should be subject to cost-benefit considerations (Daske, Hail, Leuz, & Verdi, 2008; Hummel & Jobst, 2022). In order to ensure that the ESRS align with the policy objectives of the CSRD, a benefit analysis of the standards was conducted by EFRAG (2022). The analysis indicates that the expenses associated with reporting on sustainability aspects do not surpass the benefits (EFRAG, 2022a). Chapter 3 of this book provides an additional in-depth analysis of the potential costs and benefits of sustainability reporting.

Adopting a strategic approach that emphasises the needs of 'primary' users, akin to financial reporting, may represent a viable solution to curbing the challenges of information overload and the associated reporting costs (Baumüller & Leitner-Hanetseder, in print). However, it is important to note that there is a potential downside to this approach, as it may lead to an artificial convergence of addressees by establishing minimum requirements that are deemed essential for all stakeholder groups. This approach would seek to identify overlap in the information needs of diverse user groups rather than catering to the preferences of any one particular group. In situations where this overlap is low, only a limited proportion of the overall information needs would be considered for reporting purposes. Moreover, any voluntary disclosure of the information would lead to a reduction in the costs associated by the users to obtain the information, but at the same time, impose additional costs on the undertakings in terms of data collection, processing and reporting (Leitner-Hanetseder, 2011; and in more detail see chapter 1 of this book).

In addition, it can be difficult to identify the needs of stakeholders (Paul & Largay, 2005; and chapter 4 of this book). The ESRS seem to assign the role of identifying these needs to the processes of sustainability due diligence, however, without any further guidance. But looking at the ESRS in more detail, there are indications that at least some of the relevant information provided by the undertakings has to be determined individually from a management perspective. The undertaking shall disclose any metrics that it uses to evaluate performance and effectiveness, in relation to a material impact, risk or opportunity (ESRS 2.73). This resembles the management approach under IFRS, which is established for financial reporting purposes. What is more, also many requirements with regard to the conduct of materiality analyses show similar traits, e.g., with regard to the (internal) sustainability due diligence process that forms the basis for the identification of mandatory contents for (external) sustainability reporting.

Reducing information overload and costs through a management approach

The implementation of a management perspective in external accounting is not a recent development. This shift towards a management approach in external financial accounting was already made with the adoption of IFRS 8 'Operating Segments'. By turning to this management approach, financial statement users are provided with the opportunity to assess the financial effects and nature of the various business activities and economic contexts in which an entity operates (IFRS 8.1; Franzen & Weißenberger, 2015). In the realm of sustainability disclosure, the management approach necessitates the utilisation of information obtained from internal management reporting systems for the purposes of external reporting.

Notwithstanding, the quantum of novel compulsory reporting stipulations emanating from the CSRD and the ESRS is disparaged as *a bureaucratic nightmare and regulatory overreach* (Sellhorn & Wagner, 2022, p. 31), which could engender an information overload for stakeholders and exorbitant costs for reporting entities (Sellhorn & Wagner, 2022). However, the ESG reporting requisites merely mandate what is already routine practice in most firms, setting targets, monitoring the primary risks and opportunities arising from foreseeable developments, and devising metrics to counteract any deviations. As a result of the sustainability reporting requirements, it is now *de facto* mandatory to implement processes to set targets and to identify and manage material risks and opportunities, including the integration of sustainability issues to facilitate external transparency to the stakeholders (ESRS 1.85; Sellhorn & Wagner, 2022).

To demonstrate that a company is actively considering sustainability aspects, incorporating a management approach into external reporting becomes a logical imperative. The research results concerning the impact of the management approach on segment reporting show that the level of information disclosure for reportable segments is somewhat inconclusive. Even if the majority of studies report a reduction in the amount of information provided (Blase, Müller, & Reinke, 2012; Crawford, Extance, Helliar, & Power, 2012; Franzen & Weißenberger, 2015; Meyer & Weiss, 2010; Nichols, Street, & Cereola, 2012), others indicate an increase in the disclosure information (Kang & Gray, 2013; Pisano & Landriani, 2012).

Criticism may arise regarding the preliminary nature of sustainability-related information that is solely based on management perspective, as such information tends to be customised to meet the specific requirements of the management team. In addition, this orientation towards management needs might lead to limited external comparability of the reported information. However, by its nature, incorporating sustainability considerations into a company's overall strategy and the subsequent development of key performance indicators may be unique to

each individual company. This lack of comparability is often exacerbated by the absence of relevant external data in a standardised format, further limiting the ability to make meaningful comparisons. Furthermore, the constantly evolving nature of business models adds to the difficulty of comparing sustainability metrics over time. As such, comparisons over time may prove challenging, and the decision usefulness of such comparisons may be limited due to inconsistencies in the metrics used. According to a study by Paul and Largay (2005) that deals with the question of how the management approach contributes to transparency, the study indicates that users seeking a clearer understanding of individual companies are ahead, as long as the reported data reflects management's actual decision-making framework (Paul & Largay, 2005, p. 309).

In cases where users are unable to extract the necessary information from sustainability reports due to the management approach, this may result in increased risks and higher capital costs (Paul & Largay, 2005). Therefore, the lack of relevant information limits the ability of users to make informed decisions regarding investments or risk assessments, leading to a higher level of uncertainty and increased capital costs of the undertaking. As a result, providing relevant sustainability-related disclosure is essential to meet the needs of users. The CSRD and ESRS respond to that by the current structure of their disclosure requirements which comprise sector-agnostic disclosures and a set of information that has to be reported on in any case. Despite creating tension between managers' interests and stakeholder needs, however, aligning external reporting with internal reporting through the management approach remains a way of enhancing transparency on the sustainability-related aspects of an undertaking without favouring a particular target group during the standards-setting process.

Ultimately, there is one limit to the extent to which disclosures might be required from companies: the disclosure of relevant but sensitive or confidential information can potentially harm the competitiveness of reporting companies, and therefore, it is imperative to strike a balance between providing sufficient information and protecting sensitive data. This highlights the importance of implementing reporting standards that ensure that material information is disclosed to the users while protecting the undertakings' competitive advantage (Leitner-Hanetseder, 2011; Moxter, 2000). According to ESRS 1.108, information on intellectual property, know-how, or results of innovation needs not to be disclosed if the information

(a) is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; (b) has commercial value because it is secret; and (c) has been subject to reasonable steps by the undertaking to keep it secret. (ESRS 1.108)

2.3. Implications for Management Reporting Systems

European companies and companies with subsidiaries in Europe will sooner or later have to implement the ESRS, although, at present, only large companies and listed companies are directly affected. Given the lack of immediate prospects for global standardisation of ESG disclosure standards, multinational corporations must anticipate implementing multiple ESG frameworks and standards. The efficacy of this implementation effort, however, hinges on the extent of collaboration among standard setters and whether their respective frameworks and standards allow a kind of building block system (Baumüller & Leitner-Hanetseder, in print).

The alignment of information needs of multiple stakeholders within CSRD and ESRS poses significant challenges in achieving the double materiality approach of the disclosed information. Even though it is becoming apparent that information from internal reporting is also to be reported in external reporting in the sense of a management approach, it is crucial to consider the stakeholder needs for both sets of reports. Additionally, the delineation of two stakeholder groups proposed in the CSRD and the ESRS, namely users of sustainability-related disclosure information and affected stakeholders, presents a practical challenge. Simply relying on internal assessments of stakeholder needs is insufficient. Active dialogue through the use of survey instruments such as questionnaires is necessary, albeit with concrete methods yet to be specified. More advanced forms of stakeholder involvement, such as the establishment of stakeholder advisory boards or diversification of management and supervisory boards, enable deeper integration of stakeholder concerns into management control systems and ultimately into corporate decision-making (Baumüller & Scheid, 2023). This is further stressed by the management approach on which the new reporting requirements are based, which makes this integration transparent to an extent that is unprecedented.

On a more technical level, as data and information are the basis for a management reporting system, the scope of ESG reporting necessitates a significant expansion of the current data landscape and management reporting processes, highlighting the need to engage existing expertise, such as IT and management accounting expertise (Leitner-Hanetseder, Sexl, & Neubauer, 2023). The automated data collecting (Gu, Jiang, Yu, & Dai, 2022), integrating of data from various sources as well as calculating and monitoring metrics, preparing internal and external reports (Leitner-Hanetseder et al., 2023; Saxena et al., 2022) will play a critical role in minimising the cost of ESG reporting and in providing assurance (Gu et al., 2022). Companies must, therefore, recognise that integrating ESG information into reporting represents a substantial undertaking and must not underestimate the resources required to achieve compliance (Leitner-Hanetseder et al., 2023).

Moreover, it should be noted that the external audit process is not only important for enhancing transparency and completeness of information on sustainability practices in general, but it also plays a crucial role in identifying aspects that do not align with the requirements of the CSRD or the ESRS. This further underscores the importance of external auditing in ensuring that sustainability information disclosed by organisations and their underlying processes are reliable and accurate. Once again, external auditors' independence can hinder managers' opportunistic incentives to provide overly positive reports on sustainability practices. In order to improve the scope and credibility of sustainability aspects, it is essential to strengthen both internal and external governance aspects (Al-Shaer, Albitar, & Hussainey, 2022).

Furthermore, undertakings should be prepared to report the ESG data in the standardised European Single Electronic Format (ESEF) (CSRD par. 55). This approach would enable all sustainability-related information to be easily managed and accessed in the long term through a centralised register, such as the European Single Access Point (Wunder, 2022). By adopting this approach, undertakings can ensure that their sustainability reports are more transparent, comparable, and accessible to stakeholders, which can ultimately contribute to better decision--making and improved organisational performance. The importance of using a standardised electronic format and a centralised European Single Point of Access for sustainability reporting is not only related to the enhanced accessibility and comparability of information but also to the future potential for data analysis by algorithms that can identify patterns and signals relevant to value or impact. This approach will be cost-effective and has the potential to prevent information overload for stakeholders (Sellhorn & Wagner, 2022) while also guarding against green- or bluewashing. Moving forward, the assessment of information overload and relevant information will need to be evaluated in a different way than in the past, given the potential for more advanced data analysis techniques. Overall, these developments have significant implications for sustainability reporting and stakeholder engagement in the future – and for the priorities based on which European companies are managed.

2.4. Conclusions

In conclusion, the methodology employed in this paper has provided valuable insights into the impact of the European Sustainability Reporting Standards (ESRS) under the Corporate Sustainability Reporting Directive (CSRD) on sustainable performance measurement and management control systems. Stakeholder engagement and a management approach are critical for successful implementation, ensuring transparency and decision usefulness. The expansion of data collection and IT infrastructure necessitates resource allocation and expertise. The combi-

nation of a thematic analysis of literature combined with the analysis of the new reporting framework has allowed for a comprehensive understanding of the requirements and implications of the CSRD and ESRS.

However, it is important to acknowledge the limitations of the methodology used. The reliance on existing literature may introduce bias or limitations inherent in the reviewed sources. Additionally, the analysis of the new reporting framework is based on available information and may not capture the full extent of the practical challenges and implications that companies may face in implementing the CSRD and ESRS.

Lastly, this chapter is based on the version of the ESRS that were submitted to the EC in November 2022. The final version of these standards will differ in several details; nevertheless, the main findings of this chapter and the conclusions drawn are expected to remain valid also for this final version.

Despite, these limitations, the methodology employed has provided a strong foundation for understanding the potential effects of the CSRD and ESRS on sustainable performance measurement and management control systems. Future research could expand upon this work by conducting empirical studies (see for example chapters 9, 11, 12 and 13 of this book) to validate and supplement the findings, as well as considering the specific challenges and experiences of companies in implementing the new reporting standards.

References

- Al-Shaer, H., Albitar, K., & Hussainey, K. (2022). Creating sustainability reports that matter: An investigation of factors behind the narratives. *Journal of Applied Accounting Research*, *23*(3), 738–763. DOI:10.1108/JAAR-05-2021-0136
- Baumüller, J. & Leitner-Hanetseder, S. (in print). Accounting for a Green Economy Sustainable Finance and the harmonisation of sustainability reporting. In O. M. Lehner, T. Harrer, H. Silvola, & O. Weber (Eds.), *Routledge handbook of green finance*. London: Routledge.
- Baumüller, J. & Scheid, O. (2023). Stakeholder-Einbeziehung Eine (neue) Herausforderung im Rahmen der (zukünftigen) Nachhaltigkeitsberichterstattung. *Steuern und Bilanzen*, *25*(8), 325–330.
- Baumüller, J. & Sopp, K. (2022). Double materiality and the shift from non-financial to European sustainability reporting: Review, outlook and implications. *Journal of Applied Accounting Research*, 23(1), 8–28. DOI:10.1108/JAAR-04-2021-0114
- Berndt, T. (2005). Wahrheits- und Fairnesskonzeptionen in der Rechnungslegung. Stuttgart: Schäffer-Poeschel.
- Blase, S., Müller, S., & Reinke, J. (2012). Empirische Analyse der Anwendung von IFRS 8: Paradigmenwechsel in der Segmentberichterstattung? *Praxis der Internationalen Rechnungslegung, 8*(3), 69–76.
- Crawford, L., Extance, H., Helliar, C., & Power, D. (2012). *Operating segments: The usefulness of IFRS 8*. Edinburgh: The Institute of Chartered Accountants of Scotland.
- Daske, H., Hail, L., Leuz, C., & Verdi, R. (2008). Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of Accounting Research*, 46(5), 1085–1142. DOI:10.1111/j.1475-679X.2008.00306.x

- Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC. Text with EEA relevance (OJ L 182/19).
- Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups. Text with EEA relevance (OJ L 330/1).
- Directive 2022/2464/EU of the European Parliament and of the Council of14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting. Text with EEA relevance (OJ L 322/15).
- EFRAG. (2022a). EFRAG's Cost-benefit analysis of the First Set of draft ESRS prepared by CEPS and Milieu, November 2022. Retrieved from https://www.efrag.org/Assets/Download?assetUrl=%2Fsites% 2Fwebpublishing%2FSiteAssets%2F05%2520EFRAGs%2520Cover%2520Letter%2520on%252 0the%2520Cost-benefit%2520analysis.pdf
- EFRAG. (2022b). First Set of draft ESRS. Retrieved from https://www.efrag.org/lab6
- Epstein, B. J. (2007). Information overload can threaten sound decision-making. *CPA Journal*, 77(3), 6–10.
- European Commission. (2018). Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions: Action Plan: Financing Sustainable Growth. Brussels, 8.3.2018, COM(2018) 97 final.
- European Commission. (2019). Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: The European Green Deal. Brussels, 11.12.2019, COM(2019) 640 final
- Franzen, N. & Weißenberger, B. E. (2015). The adoption of IFRS 8 no headway made? Evidence from segment reporting practices in Germany. *Journal of Applied Accounting Research*, *16*(1), 88–113. DOI:10.1108/JAAR-05-2013-0037
- Freeman, E. (1984). Strategic management: a stakeholder approach. Boston: Pitman.
- Gu, Y., Jiang, L., Yu, W., & Dai, J. (2022). *Towards blockchain-enabled ESG reporting and assurance: From the perspective of P2P energy trading*. Retrieved from https://ssrn.com/abstract=4121798
- Haynes, C. M. & Kachelmeier, S. J. (1998). The effects of accounting contexts on accounting decisions: A synthesis of cognitive and economic perspectives. *Journal of Accounting Literature*, *17*(2), 97–136.
- Hummel, K. & Jobst, D. (2022). *The current state of corporate sustainability reporting regulation in the European Union* (December 1, 2022). DOI:10.2139/ssrn.3978478
- IFRS Foundation. (2018). Conceptual framework for financial reporting. Retrieved from https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards/english/2021/issued/part-a/conceptual-framework-for-financial-reporting.pdf
- IFRS Foundation. (2021). *IFRS 8: Operating segments*. Retrieved from https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards/english/2023/issued/part-a/ifrs-8-operating-segments. pdf.
- Kang, H. & Gray, S. J. (2013). Segment reporting practices in Australia: has IFRS 8 made a difference? Australian Accounting Review, 23(3), 232–243. https://doi.org/10.1111/j.1835-2561.2012.00173.x
- Kinderman, D. (2020). The challenges of upward regulatory harmonisation: The case of sustainability reporting in the European Union. *Regulation & Governance*, *14*(4), 674–697. https://doi.org/10.1111/rego.12240

- Lanfermann, G. (2023). Corporate Governance und Nachhaltigkeitsberichterstattung. In Y. Zwick & K. Jeromin (Eds.), Mit Sustainable Finance die Transformation dynamisieren: Wie Finanzwirtschaft nachhaltiges Wirtschaften ermöglicht (pp. 225–234). Wiesbaden: Springer.
- Leitner-Hanetseder, S. (2011). Entscheidungsnützlichkeit der Kapitalkonsolidierungsmethoden im Kon-zernabschluss nicht kapitalmarktorientierter österreichischer Konzernunternehmen unter Berücksichtigung der konzerntheoretischen Ausrichtung und größenabhängiger Differenzierungsmöglichkeiten: eine empirische Analyse aus Sicht der "primären" Adressaten. Frankfurt am Main.
- Leitner-Hanetseder, S., Sexl, S., & Neubauer, C. (2023). The state of ESG & sustainability reporting, challenges tools and outlook. Retrieved from www.barc.de
- Meyer, C. & Weiss, S. (2010). IFRS 8 operating segments, eine Untersuchung der erstmaligen Anwendung in der Schweiz. *Der Schweizer Treuhänder*, 84(12), 848–855.
- Migiorelli, M. (2021). What do we mean by sustainable finance? Assessing existing frameworks and policy risks. *Sustainability*, *13*(2), 975. DOI:10.3390/su13020975
- Moxter, A. (2000). Rechnungslegungsmythen. Betriebs-Berater, (42), 2143–2149.
- Nichols, N. B., Street, D. L., & Cereola, S. J. (2012). An analysis of the impact of adopting IFRS 8 on the segment disclosures of European blue chip companies. *Journal of International Accounting, Auditing & Taxation, 21*(2), 79–105. DOI:10.1016/j.intaccaudtax.2012.07.001
- Paul, J. W. & Largay III, J. A. (2005). Does the 'management approach' contribute to segment reporting transparency? *Business Horizons*, 48(4), 303–310. DOI:10.1016/j.bushor.2004.10.017
- Pisano, S. & Landriani, L. (2012). The determinants of segment disclosure: An empirical analysis on Italian listed companies. *Financial Reporting*, 1(1), 113–132.
- Regulation 2019/2088/EU of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector. Text with EEA relevance (OJ L 317/1).
- Regulation 2020/852/EU of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088. Text with EEA relevance (OJ L 198/13).
- Saxena, A., Singh, R., Gehlot, A., Akram, S. V., Twala, B., Singh, A., & Priyadarshi, N. (2022). Technologies empowered Environmental, Social, and Governance (ESG): An Industry 4.0 Landscape. *Sustainability*, *15*(1), 309. DOI:10.3390/su15010309
- Sellhorn, T. & Wagner, V. (2022). *The forces that shape mandatory ESG reporting* (TRR 266 Accounting for Transparency Working Paper Series No. 96). Retrieved from https://ssrn.com/abstract= 4179479 or http://dx.doi.org/10.2139/ssrn.4179479
- Wunder, T. (2022). Strategieanbindung der CSRD: Von ESG-Compliance zu Wettbewerbsvorteilen. *Rethinking Finance*, *6*(1), 57–65.