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Article

Data Requests in Value Chains: The Effects of Corporate Sustainability Reporting on SMEs in The Netherlands

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Abstract

This study examines the effects of sustainability-related data requests—spurred by the EU Corporate Sustainability Reporting Directive (CSRD)—on small and medium-sized enterprises (SMEs) in the Netherlands. Using a representative survey of 431 SMEs and 48 qualitative interviews with SME representatives and business stakeholders, the research provides a comprehensive overview of their experiences in late 2024. A key finding is that most Dutch SMEs (72%) have not yet received sustainability data requests. However, SMEs embedded in international value chains report more frequent and complex data demands, particularly concerning environmental indicators like CO_2 emissions and material use. Ratings of perceived relevance reveal a disconnect between external data requests and SMEs' internal priorities, with many SMEs prioritizing health and safety over climate metrics. While some SMEs see data requests as opportunities for improved sustainability performance and market positioning, many also experience challenges, including limited resources, fragmented IT systems, and regulatory uncertainty. The implementation of CSRD highlights the urgency of supporting SMEs in building data management capacities and standardized processes. The study recommends clearer communication of data relevance, targeted support measures, and further research into cross-national and longitudinal dynamics to foster an effective sustainability transition across value chains.

Keywords: sustainability reporting; integrated reporting; CSRD; value chains; small and medium enterprises; sustainability data requests; The Netherlands

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1. Introduction

In recent decades, corporate sustainability reporting (CSR) has transitioned from a peripheral, initially voluntary practice into a central component of corporate governance and accountability. Globally, a growing number of companies disclose environmental, social, and governance (ESG) data, responding to investor demands, regulatory pressure, and broader societal expectations. The KPMG (2024) Survey of Sustainability Reporting [1] found that 96% of the world's 250 largest companies now report on sustainability or ESG matters. Furthermore, the uptake is not limited to high-profile multinationals: across many jurisdictions, voluntary frameworks (such as the Global Reporting Initiative [GRI]) and mandatory regulations have proliferated, encouraging disclosure across diverse sectors and regions. However, this global trend is uneven. Countries vary significantly in the extent and enforcement of sustainability disclosure, and small companies often lack the

capacity or incentives to engage in formal reporting [2]. Nonetheless, global supply-chain integration increasingly compels even smaller firms to align with reporting norms set by their upstream and downstream partners.

Nowhere is this institutionalization of CSR more evident than in Europe. The European Union (EU) has positioned itself as a regulatory frontrunner through its suite of sustainability-related regulations, including the Sustainable Finance Disclosure Regulation (SFDR), the EU Taxonomy for Sustainable Activities [3], and most significantly, the Corporate Sustainability Reporting Directive (CSRD). The CSRD came into force in January 2023 and marks a substantial revision and expansion of the earlier Non-Financial Reporting Directive (NFRD). The CSRD mandated nearly 50,000 companies—up from around 11,000 under the NFRD—to report on a wide array of ESG metrics using the new European Sustainability Reporting Standards (ESRS) [4]. The CSRD is implemented in phases between 2024 and 2028, beginning with large listed companies which started reporting over their 2024 results in 2025. Ongoing political debate includes an 'Omnibus' proposal, which discusses a two-year delay and possible simplification that could reduce the number of companies obliged to report by 80% [4]. However, large companies remaining in scope still have to reach out to their numerous suppliers and buyers to acquire the required data for CSRD reporting [5].

The need to collect data from value-chain partners is a corollary of the concept of "double materiality" introduced by the CSRD. It requires companies to assess not only how environmental and social factors affect their financial performance, but also how their activities impact broader societal and environmental systems. Double materiality is currently used by half of the world's largest companies [1]. Importantly, this approach entails that large companies do not only report on their direct operations but also the impacts and risks across their value chain. This indirectly affects small and medium-sized enterprises (SMEs), which often serve as suppliers or partners within complex value networks. As a result, large companies are now obligated to request and integrate sustainability-related data from their SME counterparts, creating a cascading effect that extends the directive's influence far beyond its immediate scope [6]. As large firms start to assess their sustainability impacts across the value chain, tools such as supplier codes of conduct, ESG questionnaires, and audit protocols have become more commonplace [7]. A growing trend is the development and use of data portals, aimed at increasing the efficiency and consistency of data exchange. Some large firms develop their own, proprietary systems whereas others rely on intermediaries offering third-party platforms [8].

While much attention has been paid to large corporations, much less is known about the downstream effects of the expansion of sustainability reporting. Under both the original CSRD and the Omnibus proposals, SMEs are generally not directly subject to mandatory reporting requirements. With the European Commission's support, the Voluntary SME (VSME) standard was launched in late 2024 that provides a simplified framework for SMEs to report on sustainability matters. It mirrors the ESRS yet is designed to be more accessible and manageable by introducing a limited set of sustainability dimensions and an "if applicable" concept to guide SMEs in determining which disclosures are relevant to their situation. It remains to be seen, however, whether the VSME actually simplifies the work of SMEs since business partners can in principle impose contractual demands for data that they consider material. As many SMEs are integrated in global and/or regional value chains, they face requests to disclose sustainability-related information to up- or downstream suppliers or buyers that have to adhere to the CSRD reporting requirements. This "trickle-down" effect of regulation and stakeholder pressure has important implications: while it may help align broader segments of the economy with sustainability goals, it may also place disproportionate burdens on resource-constrained SMEs [9,10]. It has been argued

that the financial burden of compliance is disproportionately higher for SMEs compared to large corporations. Ahern [11] and Steinbinder [12] note that the costs associated with sustainability reporting, including data collection, analysis, and third-party verification, can strain SME resources. Digitalization can promote sustainability practices amongst SMEs but also require further investments [13–15]. These financial pressures can be particularly challenging for smaller enterprises operating with limited budgets and competing priorities. Moreover, the risks of non-compliance extend beyond financial considerations. Allgeier and Feldmann [16] highlight that SMEs face potential consequences such as contract loss and unfavourable financing terms if they fail to meet the sustainability data requirements of their larger partners. These risks underscore the strategic importance of adapting to CSRD-related demands, even for SMEs not directly subject to the directive [17].

Despite growing policy and practitioner attention, we lack systematic evidence on how SMEs experience and respond to such indirect sustainability reporting demands—limiting our ability to assess both the effectiveness and unintended consequences of the CSRD. In particular, there are knowledge gaps concerning the extent to which SMEs currently receive requests for sustainability-related data from their larger clients or partners. In a similar vein, there is no systematic documentation on the types of data that are most commonly requested from them. Does this concern environmental (e.g., carbon emissions), social (e.g., labour practices), or governance-related (e.g., anti-corruption policies) data? Further, there is a lack of knowledge on how SMEs perceive and deal with these requests. They may consider them as useful mechanisms for business improvement and more sustainable business practices, as externally imposed formalities with limited relevance to their operations, or as a compliance burden. Since the CSRD is currently being implemented, the amount of data requests on SMEs can be expected to increase, and understanding these effects becomes ever more relevant.

This article seeks to contribute to the growing literature on sustainability reporting and value-chain governance [18] through research concerning data requests to SMEs in the Netherlands. Its approximately 55,000 SMEs play a pivotal role in the national economy, both in terms of employment and economic contribution. The number of Dutch companies falling under the scope of CSRD was initially estimated to be between 3000 and 6000 [19]. Although the direct impact of the CSRD regulation is likely to be reduced by the "Omnibus" proposals, the demand for transparency and sustainability data remains an important topic in practice and research.

Based on a mixed methods design with survey and interview data, this article explores the following main research question: What are the effects of sustainability data requests from large companies on Dutch SMEs? We formulated five sub-questions to give further structure to the research:

1. To what extent do Dutch SMEs receive sustainability-related data requests from supply-chain partners?
2. What type of ESG data are requested from SMEs?
3. What is the perceived use and relevance of ESG data according to SMEs themselves?
4. To what extent are SMEs able to cope with requests for reliable sustainability data?
5. What do SMEs perceive as constraints and opportunities in relation to sustainability data?

This study is the first of its kind to systematically assess within a country and major economy to what extent SMEs are receiving sustainability-related data requests. It makes use of a large sample of SMEs, as repeatedly called for by literature reviews [9,20]. The findings of this article will help illuminate how far the diffusion of sustainability reporting practices has progressed beyond large firms, and what kinds of support or policy interventions might be warranted to ensure that SMEs are not unduly disadvantaged, or worse, excluded from the transition to sustainable business practices. This will hopefully also help

policymakers fine-tune and implement the CSRD in such a way that the burden for SMEs is reduced while the regulation's aspired transparency and sustainability objectives are achieved. This article is structured as follows. Section 2 describes the methods including case selection applied. In Section 3 we present survey and interview data, leading to a discussion with research hypotheses (Section 4) and conclusion (Section 5).

2. Materials and Methods

This study employed a mixed methods approach to comprehensively analyze the state of sustainability requests received by SMEs in the Netherlands as indirect effects of the CSRD. The research design combining survey and interviews allowed us to triangulate findings, ensuring both statistical representativeness and qualitative depth.

2.1. Survey Design and Sample

The Netherlands has approximately 1.2 million self-employed individuals, 258,000 micro-enterprises with 1 to 9 employees and 55,000 SMEs with 10 to 250 employees [21]. To study a representative sample, a survey was conducted in collaboration with a reputed Dutch market research agency (IPSOS) that maintains a panel comprising 2214 small and medium-sized enterprises (SMEs) with between 2 and 250 full-time equivalents (FTEs). The panel is actively maintained by IPSOS and ISO 20252-Annex A certified [22]. Self-employed individuals and sole proprietorships were excluded, as they face different reporting dynamics and are not directly comparable to SMEs with employees. Between 4 November and 17 December 2024, a digital anonymous questionnaire was distributed to this panel. A total of 431 respondents completed the survey, corresponding to a response rate of 19%. Although the IPSOS panel includes companies from all economic sectors, the number of panel members per sector was insufficient for representative sector-level analyses, which limits disaggregation of results.

The survey consisted of 15 closed and one open questions that were drafted in close consultation with multiple researchers and stakeholders including auditors and business representatives. The questions addressed knowledge gaps related to the research sub-questions such as the perceived relevance of sustainability data by SMEs, local data availability, and the receipt of requests from business partners. Relevant survey questions were aligned with the core ESG dimensions of the VSME, with five in the environmental, three in the social and one in the governance domain. All questions and answer options (in Dutch) are available under Supplementary Materials. As answering certain survey questions (for example, those regarding experiences with data requests) was not mandatory, the number of respondents per survey question varies. In voluntary comment fields, respondents were invited to describe their experiences in short statements. IBM SPSS Statistics 28 was used to summarize the quantitative survey responses and to perform significance tests concerning the relationships between variables (e.g., company size and ability to comply with data requests).

2.2. Semi-Structured Interviews

In addition, 48 semi-structured interviews were conducted with various stakeholders to gain deeper insights into their perspectives and experiences. To gain a cross-sectoral insights about the Dutch economy, four sectors (agriculture, industry, construction, and healthcare) were selected for interviews with companies and industry associations. Each of these sectors comprises approximately 30,000 micro, small, and medium-sized enterprises (excluding self-employed individuals) yet differs in terms of sustainability challenges. In the construction and agriculture sectors, for example, there is significant emphasis on environmental indicators and social issues (such as working conditions) which is less pronounced in the healthcare sector and among small industrial firms. Within each

sector, representatives from CSRD regulated companies, SMEs, and industry associations were interviewed to obtain an understanding about their experience with sustainability data reporting and requests. Interviews (30–60 min) were carried out in November and December 2024 on the basis of a topic guide (cf. Supplementary Materials), recorded, transcribed, and coded via thematic analysis in relation to the research sub-questions. All interviews were based on informed consent and anonymized for all companies. The results from these interviews and the narrative statements inserted by survey respondents are supplementary to the survey results and used to contextualize and illustrate the survey findings. Illustrative quotes are translated from Dutch into English and presented with participant codes in square brackets (e.g., [HLL5]). A table in the Supplementary Data compendium lists the respondent type corresponding to each code.

3. Results

3.1. Prevalence of ESG Data Requests Among Dutch SMEs

The survey represents an important initial step in understanding the extent to which SMEs receive data requests related to sustainability. Responses to the question "Do your supply-chain partners (buyers, customers, or suppliers) request information or data from your company regarding the sustainability of your products or services?" show that a clear majority of SMEs (72%) currently do not receive any sustainability-related data requests. However, as visualized in Figure 1, nearly one-quarter of SMEs (6% regularly and 18% occasionally) reported receiving requests to share sustainability data. Additionally, 5% indicated that they expect to receive such requests from their supply-chain partners in the near future.

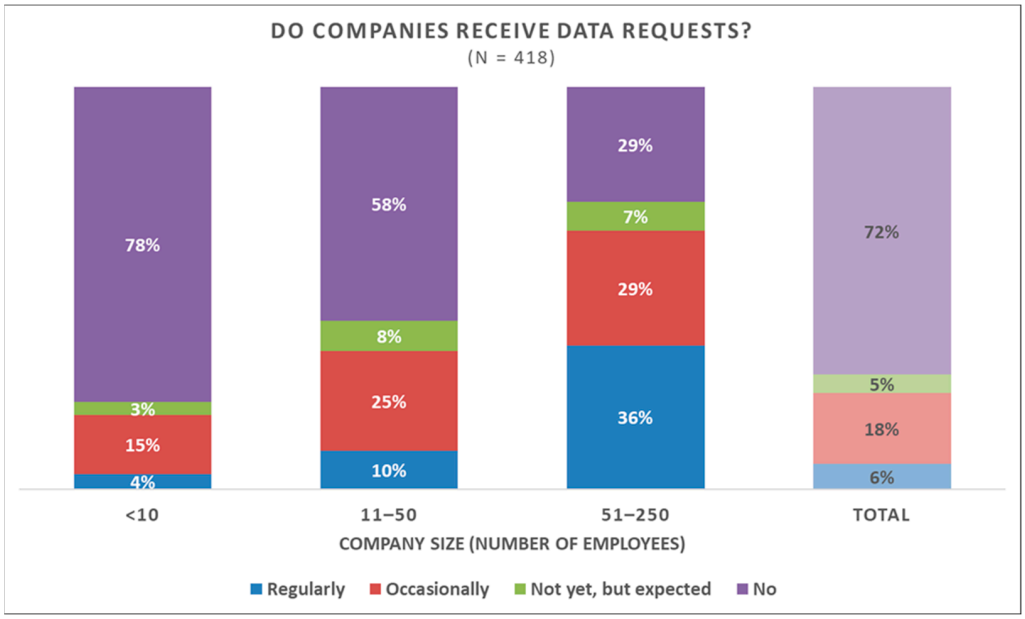

Figure 1. Receipt of sustainability data requests by Dutch SMEs.

A chi-square test of independence revealed a statistically significant association between company size and the likelihood of receiving or expecting sustainability-related data requests (χ^2 (df = 6, N = 418) = 41.417, $p < 0.001$). Among SMEs with 11 to 50 employees, 43% reported receiving or expecting to receive data requests. This proportion rises to 71% for firms with 51 to 250 employees, indicating that medium-sized enterprises are considerably more exposed to emerging reporting pressures than their smaller counterparts.

The finding that especially larger SMEs are already encountering, or anticipate encountering, sustainability data requests is consistent with the experiences shared by interviewed

stakeholders. Across all four sectors included in the interview study, both entrepreneurs and representatives of trade associations expressed the expectation that the number of data requests will increase in the coming years. They also anticipate a gradual transformation in the required accuracy of data. For example, a representative of a large health insurer explained that in the current early stage of CSRD implementation, they have primarily relied on estimates. However, this is expected to change:

> "This year, we mostly relied on existing knowledge and extrapolated from that. So, we haven't yet issued formal requests for data. But I expect that . . . we will start to formalize this process." [HL-L1].

In addition to large firms, banks and insurance companies are also requesting sustainability information from their SME clients, as reported by multiple SME interviewees. Interviews also revealed that SMEs are not only the recipients of data requests but also initiate them themselves. For instance, an SME respondent from the metal manufacturing sector [IN-S7] explained:

> "We actively collect data from our waste processors, for example, and analyze it to help us develop our own sustainability strategies."

3.2. Types of ESG Data Requested and Used by Dutch SMEs

As outlined in the introduction, it is conceivable that large companies issue sustainability data requests in a relatively unfocused or indiscriminate manner. Our qualitative findings confirm that such practices do occur. In the words of one SME respondent [SME32]:

> "Everyone seems to be collecting data indiscriminately. It appears as if this has become an end in itself."

Another SME from the construction sector [CO-S2] observed:

> "The data requests we receive from the supply chain are often extremely broad. I don't just blindly provide the data—I always initiate a conversation to understand why they need that data and what they intend to do with it. And often, when they ask for ten data points, it turns out they only actually need two."

Under the CSRD, companies are required to disclose detailed information on ESG factors. In the survey, SMEs were asked to indicate whether, over the past 12 months, they had received data requests from supply-chain partners concerning any of nine commonly reported ESG aspects. These nine dimensions are derived from the Voluntary Sustainability Reporting Standard for SMEs (VSME).

Figures 2 and 3 present the results for environmental aspects and social/governance aspects, respectively, based on responses from the subset of SMEs that reported receiving any data requests. Among this group, the most frequently requested topics were CO_2 emissions, greenhouse gases, and energy use (50%), followed closely by material use, including waste and circular business practices (45%). By contrast, data requests regarding other environmental dimensions were significantly less common. Only 11% of respondents reported requests related to pollution of air, water, or soil, 12% received inquiries concerning land use and local biodiversity, and 11% were asked about water consumption. The differences between the five categories of environmental data points are statistically significant (χ^2 (df = 4, N = 595) = 98.947, $p < 0.001$). Companies are far more likely to receive requests for CO_2 and use of materials compared to receiving data requests for the other three categories.

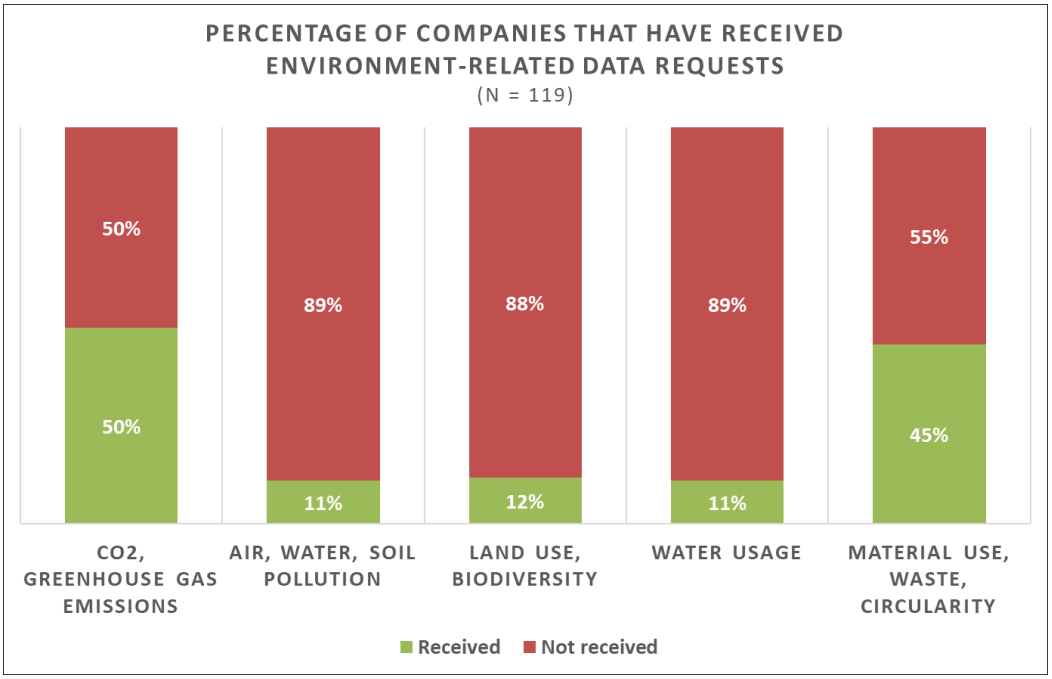

Figure 2. Percentage of Dutch SMEs receiving data requests for environmental indicators.

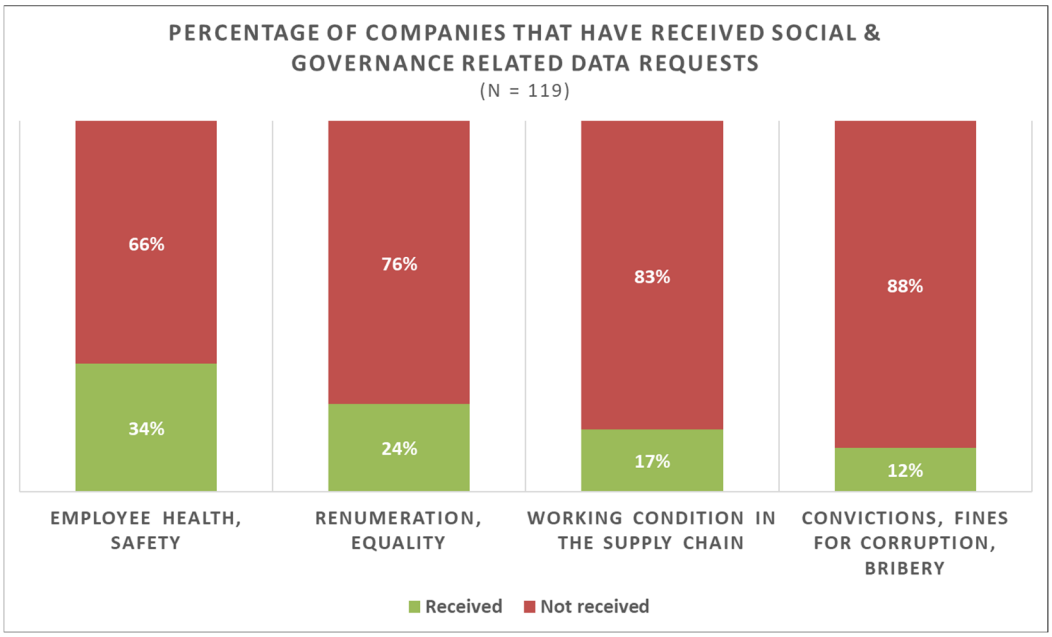

Figure 3. Percentage of Dutch SMEs receiving data requests for social and governance indicators.

Within the social and governance domains of ESG, the most frequently requested information concerns employee health and safety (34%). Far fewer requests relate to remuneration and gender equality (24%), working conditions in the supply chain beyond the company itself (17%), and convictions or fines for corruption (12%). The differences between the three categories of social data points and one pertaining to governance are also statistically significant (χ^2 (df = 4, N = 476) = 20.257, $p < 0.001$).

Interview data corroborate the survey findings, indicating that SMEs primarily receive data requests concerning environmental (E) aspects, particularly CO_2 emissions and energy consumption. Questions relating to social (S) aspects are often addressed by referring to existing certifications or by sharing plans for maintaining these certifications. Interviewees relate the emphasis on CO_2 emissions and material use to the growing prominence of

climate change and the circular economy in sustainability reporting. The interest in health and safety shown by requesting companies is attributed to existing occupational health and safety legislation and various certifications in this domain.

The interviews also suggest that the nature and focus of data requests vary by sector. For example, in the agricultural sector, requests tend to focus on land use, biodiversity, and animal welfare. In the chemical industry, by contrast, the focus is more on safety and chemical emissions. In the construction sector, key concerns include material use and Scope 3 emissions (i.e., indirect emissions occurring throughout the value chain). These sectoral differences are primarily driven by sector-specific sustainability challenges, distinct regulatory frameworks, operational characteristics, and the varying degrees of maturity or experience with sustainability reporting. While there is some overlap in core themes across sectors, the specific data points requested and the required level of detail often differ. In sectors such as construction, food production, and chemicals, environmental data are sometimes requested at the product level, which significantly increases the complexity of data collection. The administrative burden for SMEs further increases when different stakeholders ask for different data concerning the same product.

3.3. Perceived Relevance of ESG Data for SMEs Themselves

To gain insight into which ESG data points SMEs currently have available—regardless of CSRD obligations—and which aspects they consider most relevant, the survey included questions on the perceived importance of the same nine ESG dimensions. For each dimension, respondents were asked to indicate whether they consider it relevant to their own business and, if so, whether they actively collect data on it. The results, presented in Figures 4 and 5, show that SMEs primarily focus their internal attention on one social aspect: employee health and safety. More than half of the SMEs in the sample (52%) indicated that they consider this aspect relevant and that they actively collect data on it. As noted previously, this likely reflects compliance with national occupational health and safety legislation. Notably, only 21% of respondents reported that they consider CO_2 emissions—the most frequently requested ESG aspect externally (cf. Figure 2)—to be relevant and collect data on it. A similar pattern is observed for material use. This suggests a mismatch between external data requests and internal sustainability priorities among SMEs.

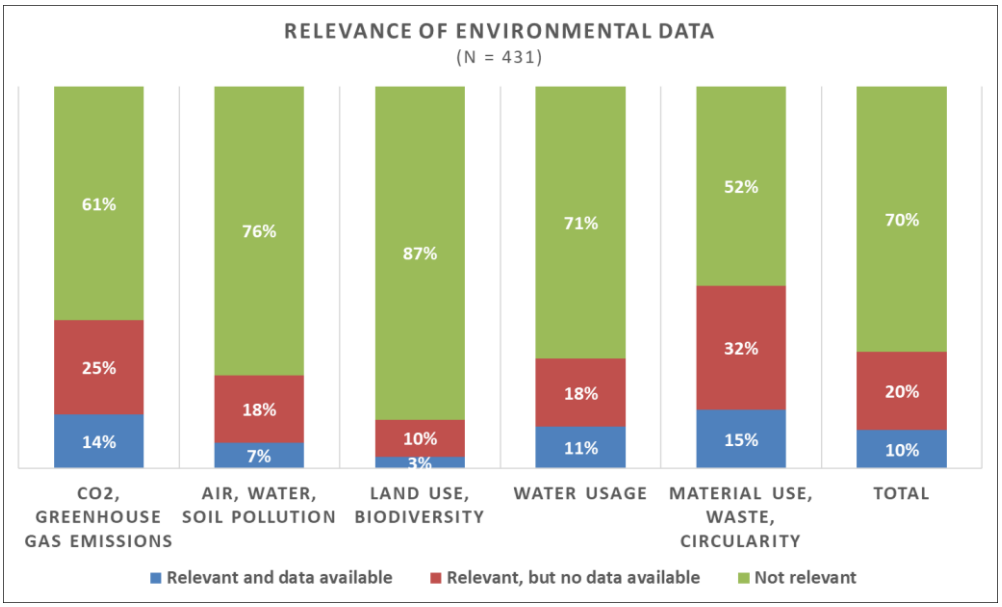

Figure 4. Perceived relevance of environmental indicators according to Dutch SMEs.

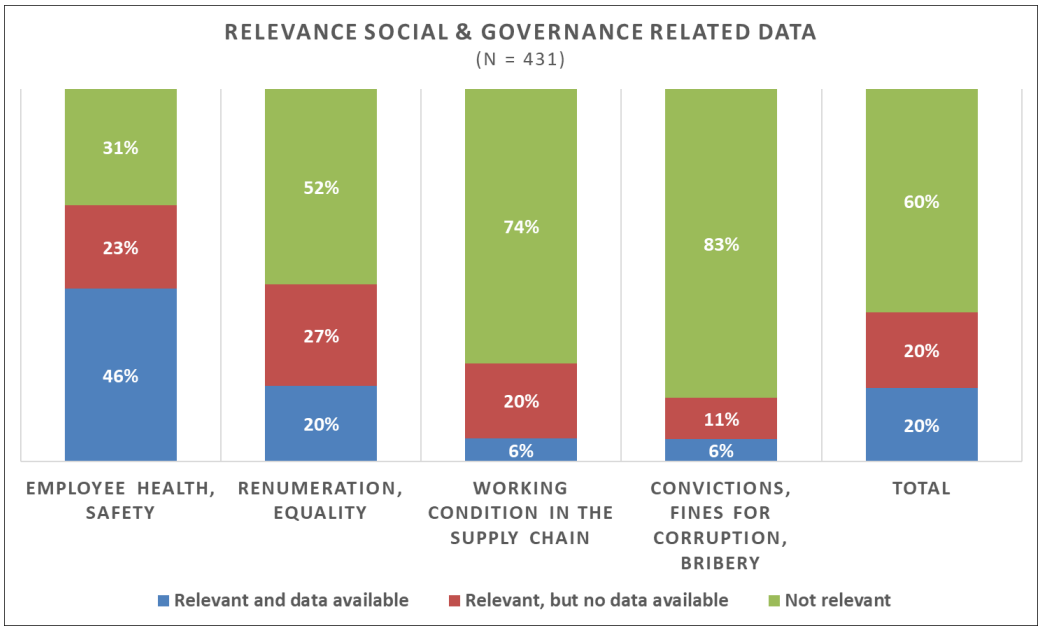

Figure 5. Perceived relevance of social and governance indicators according to Dutch SMEs.

Governance (G) data are rarely requested by supply-chain partners. This may partly be explained by the complexity and lack of standardization in measuring social and governance-related indicators. In the VSME, "convictions or fines" (as a proxy for corruption) is the only explicitly listed governance indicator. This topic is considered irrelevant by 83% of SMEs in the sample, most of which operate locally or within the EU and are not typically subject to scrutiny for such issues. The differences between the five categories of environmental data points are statistically significant (χ^2 (df = 8, N = 2155) = 151.603 $p < 0.001$), as are those between the four categories of social and governance indicators (χ^2 (df = 6, N = 1724) = 379.239, $p < 0.001$).

Interviewees were also asked to what extent they use sustainability-related data internally. Several SMEs indicated that they are in the early stages of expanding and professionalizing their data collection systems. As noted by a small agricultural SME [AG-S5]:

> "Some data on personnel is available, but not at the level that is really needed. For example, we don't keep track of how often someone is absent due to illness [. . .] but we simply have to start doing that in the future."

Some interviewed SMEs reported that they are beginning to develop new sustainability strategies based on the data they are now collecting. One medium-sized enterprise in the metal manufacturing sector [IN-S7] that requests data from its waste processors already anticipates the next steps:

> "We're going to develop a plan to reduce [our impact]. And that actually applies to several topics, including CO_2."

A number of SMEs also expressed interest in externally reporting their sustainability data, even if they are not formally required to do so under CSRD. According to another representative survey administered in 2024, over a quarter of Dutch SMEs are considering taking this step [23]. One interviewee from the agricultural sector [AG-S2] phrased it as follows:

> "With CSRD, the idea arose that, even though we don't have to report ourselves, we might start thinking about drafting standard responses for customers or suppliers who request information—or maybe even preparing some kind of report ourselves."

3.4. Capacity of Dutch SMEs to Cope with Data Requests

To assess how SMEs perceive their own capacity to respond to sustainability-related data requests from larger companies, the survey asked participants to rate their "delivery capacity" on a scale from 1 (low) to 5 (high), separately for environmental and social-governance data requests. As shown in Figure 6, SMEs report a moderate to high capacity, with an average rating of 3.5. Approximately 60% of respondents assessed their capacity as "good", whereas 14% rated it as "poor".

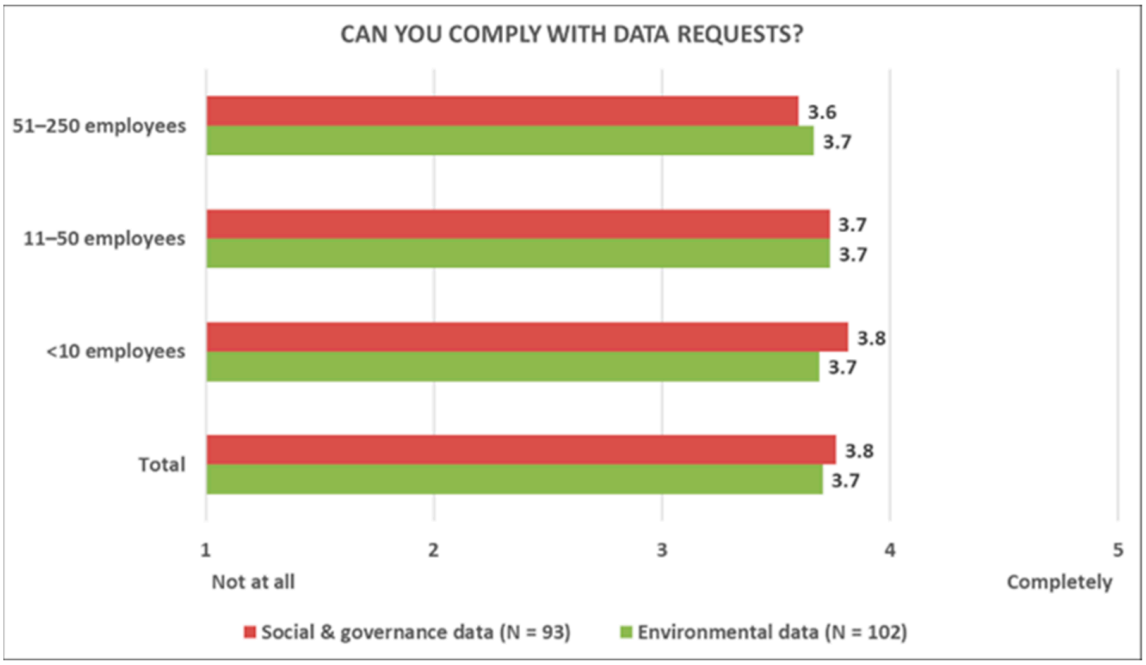

Figure 6. Capacity of Dutch SMEs to comply with requests for sustainability data.

Interestingly, larger SMEs (with more than 50 employees) rated their capacity as marginally lower than smaller SMEs (with fewer than 10 employees). A plausible explanation is that larger SMEs tend to receive more complex and detailed data requests, which may increase the perceived burden and reduce confidence in their ability to comply.

Representatives from interviewed large companies assume that they will part ways with some of their suppliers who are unable to meet sustainability data requirements. As stated by a representative from a large construction company [CO-L1]:

> "My expectation is that there will be parties who will no longer be able to work as subcontractors if they are unable to provide required data on this."

The interviews revealed that large companies employ a variety of methods to collect sustainability-related information from within their value chains. Some (e.g., supermarkets) build their own data portals whereas others make use of third-party platforms. The administrative burden associated with sustainability data requests is partly determined by whether precise measurements are required or whether estimates are considered sufficient. In some cases, SMEs are able to supply dynamic data relatively easily—particularly for directly measurable indicators such as water consumption. These data are often readily available through existing measurement tools or invoices. However, when such data are not directly accessible or unavailable at the requested granular level, both large and small companies tend to rely on estimates and modelled data. This includes the use of standard averages, external emission factors, and European reference values to fill data gaps. While this approach provides a pragmatic solution for complying with sustainability reporting obligations, respondents anticipate variation in the accuracy and consistency of the reported

figures. One interviewee from a large health insurance company [HL-L1] provided the following example:

> "We have an external report with emission factors per healthcare sector, and we multiply those by data from our internal administration—healthcare costs. That's basically just an Excel calculation that yields the total amount of CO_2 emissions. [. . .] We're trying to minimize the burden on healthcare providers. We also ask ourselves whether it truly adds value to request data from each provider individually, or whether it would be better to obtain aggregated data."

A large, CSRD-obligated food producer [AG-L3] described the use of estimates as a transitional step, with the intention of moving towards more accurate measurement of CO_2 emissions over time:

> "Scope 1 and 2 mainly concern our own operations, and for that we currently use estimates. [. . .] We've included all purchased products in a database from Denmark: The Big Climate Database. [. . .] that provides insights into CO_2 emissions per kilogram for a wide range of products. At present, that's sufficient from a CSRD perspective. [. . .] As the supply chain matures, we will report more externally based on actual data."

Importantly, not all sustainability-related data requests can be attributed to the CSRD. Both SME and large-firm respondents noted that many data requests predate the directive. These originate from a variety of sources, including prior regulatory initiatives, client-driven requirements, and the use of ISO certifications or eco-label schemes. Some interviewees also mentioned that they are preparing to respond to anticipated data needs related to other legal frameworks, such as the Corporate Sustainability Due Diligence Directive (CSDDD), even though it has not yet been transposed into Dutch law. However, the interviews confirm that CSRD has substantially increased data requests, reflecting its broader scope and stricter requirements compared to earlier frameworks like the Non-Financial Reporting Directive.

3.5. Constraints and Opportunities Perceived by Dutch SMEs

To what extent do entrepreneurs perceive positive effects from collecting sustainability data? To explore this, respondents were asked to evaluate four potential benefits on a scale from 1 ("unimportant") to 5 ("important"). Figure 7 presents the average scores of SMEs from the representative panel who have and have not received data requests. The results indicate that SMEs without data requests tend to rate these opportunities lower on average than SMEs with prior experience in responding to data requests. In both groups, gaining better insight into their own sustainability performance is considered the greatest benefit, with an average score of 2.9 for SMEs without experience and 3.7 for those who have received data requests. An independent samples Mann–Whitney U-test showed a statistically significant association between the receipt of data request for each of the four categories (competition: $p < 0.001$; access to finance: $p < 0.018$; efficiency $p < 0.001$; sustainability insights: $p < 0.001$).

Interview results corroborate the survey findings. Several interviewees expressed that demonstrating sustainability performance can offer SMEs a competitive advantage. By positioning themselves as sustainable partners, they can differentiate from competitors and attract clients who value sustainability. As one SME from the construction sector [CO-S2] put it:

> "That's why we're so happy with the CSRD—because now it becomes very tangible what we are actually doing."

A similar sentiment was shared by an SME producing cables [IN-S5]:

"If you're ahead of the curve and it improves your competitive position, then it's actually beneficial."

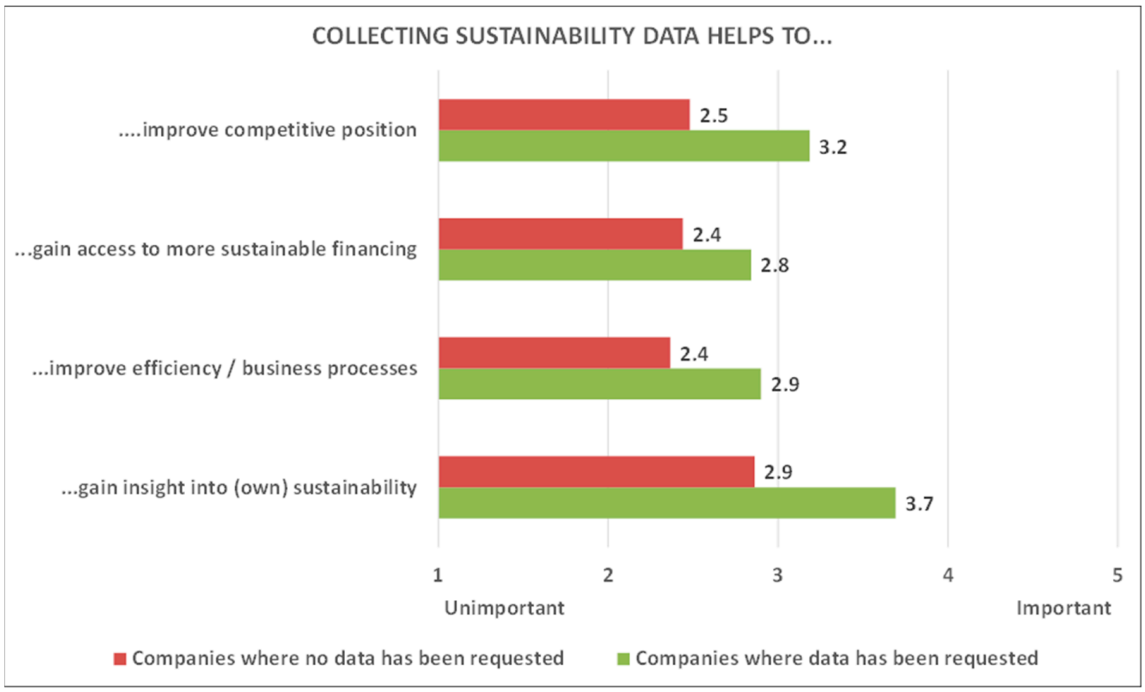

Figure 7. Opportunities associated with sustainability data requests according to Dutch SMEs.

Concerning the possibility of improved access to finance, interviewees also expressed the experience that by collecting relevant sustainability data, SMEs may gain improved access to financing opportunities (including loans with more favourable interest rates) and subsidies. An interviewed producer of sensor technology [IN-S6R1] emphasized the shift currently underway:

"You can clearly see that investors now expect a sustainability report from you."

Another theme emerging from the interviews is that the sharing of sustainability data within the value chain promotes transparency and strengthens collaboration with clients and supply-chain partners. This can lead to better relationships and long-term partnerships, further improving SMEs' positions. Internally, data collection can foster cross-departmental collaboration and contribute to more efficient processes and cost savings.

To investigate the challenges and barriers that SMEs experience or anticipate, respondents were asked to assess four potential problems on a scale from 1 ("unimportant") to 5 ("important"). As shown in Figure 8, SMEs who have experience with data requests report marginally more challenges than those without such experience. According to an independent samples Mann–Whitney U-test, the manifest differences between the groups are not statistically significant in the four categories (confidentially loss: $p < 0.087$; internal resistance: $p < 0.298$; administrative burden $p < 0.551$; lack of knowledge: $p < 0.811$). In both groups, the greatest challenges in collecting sustainability data are related to administrative burdens and a lack of knowledge and expertise needed to gather the required data. In contrast, overcoming internal resistance and the risk of disclosing confidential business information are perceived as relatively less important by the respondents.

The supplementary interviews largely confirm the survey findings while adding depth and nuance. Analysis of the interviews reveals five clusters of challenges that SMEs face: limited resources and capacity, lack of knowledge and expertise, complex and delayed regulatory implementation in the Netherlands, technical issues concerning IT systems and tools, and the lack of standardization in data collection processes.

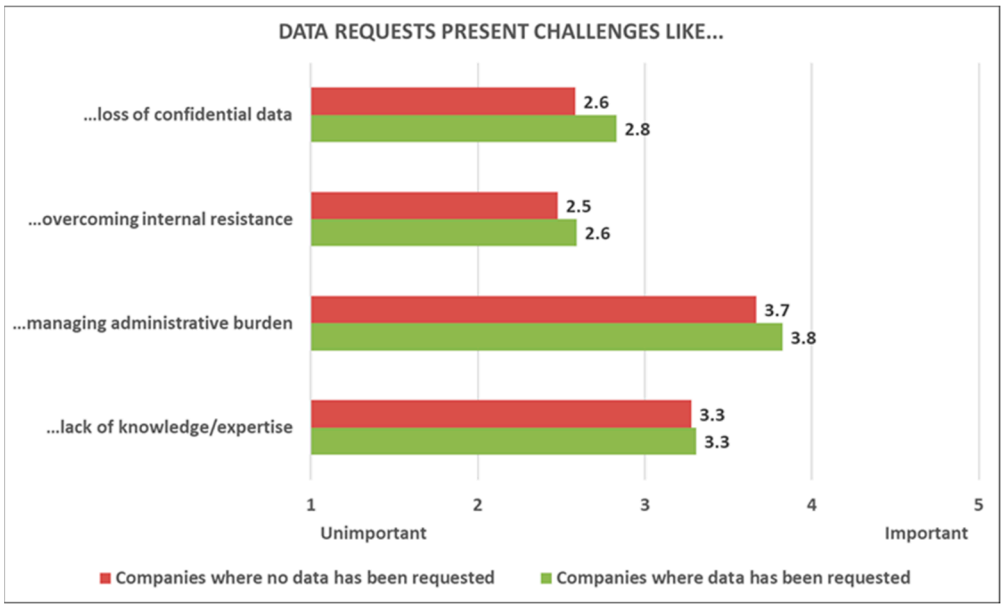

Figure 8. Challenges associated with sustainability data requests according to Dutch SMEs.

1. **Limited Resources and Capacity**

Many SMEs struggle with limited financial and human resources to collect and report sustainability information. Costs related to system implementation, software licences, certification, and hiring external experts are perceived as high and represent a significant burden—particularly for smaller enterprises. Without sufficient capacity, fulfilling data requests from supply-chain partners or meeting CSRD requirements becomes difficult. Furthermore, the fast implementation timeline of new reporting requirements is seen as an additional hurdle. As a survey respondent [SME-55] explained, "We receive requests from various partners to fill in sustainability assessments across platforms like Integrity Next or Ecovadis. We also have to take out subscriptions. This costs a lot of time, money, and energy. SMEs are lagging behind larger companies in this regard."

2. **Lack of Knowledge and Expertise**

A number of SMEs lack the necessary knowledge and (specialized) expertise in sustainability reporting. Many do not know where to begin, while others struggle with the terminology and technical aspects of sustainability data. This limits their ability to effectively collect and report the required information. Some SMEs also fear that data disclosure could compromise trade secrets or harm their competitive position. The legitimacy of this concern was illustrated by a large food producer [AG-L1], "Requesting emission data for animal feed mixes also makes it easier to reverse-engineer the recipe. [. . .] Generally, feed suppliers can provide information at a high level about the origin of the feed, but there's a bit of company secret involved. They produce animal feed according to specific needs—protein, fat, carbohydrates—and that's their expertise."

3. **Complex Regulatory Implementation and Delayed National Legislation**

For some SMEs, the complex interpretation of regulations and reporting requirements creates confusion about what data is needed, how it should be collected, and how to respond to varying demands from different partners in the supply chain. Additionally, there is limited understanding of how to align existing data and reporting practices with CSRD requirements. Some SMEs adopt a wait-and-see approach, citing the lack of transposition of CSRD into Dutch law and emerging doubts at the European level about the scope and timeline of the directive. While companies are being asked—sometimes compelled—by

their supply chains to deliver data, some SMEs do not feel legally obliged due to the current legislative uncertainty. The stance of Dutch and EU politics is seen as encouraging this hesitancy.

4. **Technical Challenges: IT Systems and Tools**

Not all SMEs have access to adequate IT infrastructure or systems for efficient data collection and management. Fragmented or incompatible IT systems hinder the ability to collect and report reliable and consistent sustainability data. Moreover, it is difficult for SMEs to assess whether investing in a specific system or tool is worthwhile. As an industry representative from the health sector observed [HL-IR2-R1], "Every time, one or two years later, slightly different information is requested, which makes comparisons impossible. This happens all the time."

5. **Lack of Sector-specific Standardization**

The absence of standardized processes, templates, and indicators at the sector level leads to inefficiencies, confusion, and poor comparability. The variation in data requests from different supply-chain partners—without uniform guidelines—adds to the burden. The development and adoption of sector-specific standards has generally not kept pace with the growing need for consistency. In the words of a survey respondent [SME-67], "The main problem lies in the way data must be reported. There's no fixed format, and it's difficult to analyze. Especially when companies outsource processes, there's often double reporting in the supply chain." Positive exceptions were seen in the Dutch health sector, where insurance companies are at an advanced stage of coordination and standardization.

4. Discussion

Although SMEs are not directly subject to CSRD reporting obligations, our findings show that the directive's effects are diffusing indirectly through value-chain requests. These effects are neither uniform nor linear: while many SMEs have not yet received data requests, larger SMEs and those operating in international or regulated supply chains are experiencing increasing pressure to provide sustainability data. This demonstrates that regulatory innovation at the level of large firms cascades into value chains and reshapes the reporting landscape for SMEs.

The content of data requests shows a strong emphasis on environmental indicators, particularly CO_2 emissions, energy use, and materials, while social and governance metrics are less frequently requested. This reflects both the early implementation focus of the CSRD and the relative maturity of environmental accounting tools, but risks narrowing the scope of sustainability. Moreover, there is a disconnect between external demands and internal priorities: while external partners mainly request data on CO_2 emissions, SMEs themselves tend to focus more on health, safety, and compliance with national legislation. This disconnect could undermine motivations to engage with sustainability reporting and sustainability more broadly.

While most SMEs report moderate or high capacity to deliver data, qualitative insights reveal a more nuanced picture. Many SMEs rely on proxies, estimation tools, and sector databases (e.g., The Big Climate Database), which may suffice for now but raise questions about data reliability as reporting matures and verification demands increase. This reliance also shows how regulatory change creates new dependencies on external tools, databases, and service providers. Data privacy concerns constitute an additional obstacle (cf. [6]). Especially for SMEs involved in multiple value chains, the complexity of data requirements can be overwhelming—particularly when processes lack standardization or contextual explanation.

Interestingly, SMEs with prior experience in data collection tend to report more positive views, framing sustainability data as an opportunity to enhance internal performance, gain reputational value, and strengthen supply-chain relations. This points to a learning curve where initial compliance burdens may evolve into strategic gains. Yet this optimism is tempered by persistent challenges: lack of in-house expertise, resource constraints, fragmented IT systems, and limited guidance tailored to SME realities. These barriers are particularly pronounced for smaller SMEs and those outside digitally advanced sectors. Our findings point to diverging outcomes: some SMEs are able to leverage reporting for advantage, while others risk exclusion.

Although the CSRD is the primary driver of recent changes, it is not the only one. In some interviews, references were also made to other regulatory and market developments, such as the forthcoming CSDDD and voluntary schemes demanded by financial institutions and multinational clients. These overlapping pressures illustrate how sustainability reporting requirements are shaped by a broader constellation of legal frameworks, market forces, and reputational expectations. Even though the CSDDD has not yet been transposed into national law, some large firms are already preparing to meet its obligations—further accelerating the institutionalization of upstream data collection.

The CSRD is beginning to reshape governance relationships within value chains, drawing SMEs into new reporting obligation, at this moment often without clear guidance or reciprocal dialogue. These findings suggest the need for more relational, transparent approaches to data collection.

From a policy perspective, the recent introduction of the VSME is promising, but likely insufficient on its own. Broader uptake will require integration with sector-specific needs, awareness campaigns, and practical implementation support. Targeted assistance—for example, in carbon-intensive or export-oriented sectors—can help prevent exclusion of suppliers who struggle to comply.

This study is limited to the Netherlands, and institutional and sectoral conditions may differ elsewhere, so the results are not directly generalizable to other countries without comparative research. Although the survey sample is representative of Dutch SMEs, some sector-specific analyses were not possible due to limited subgroup sizes. Further, the study captures a moment in time during the early stages of CSRD implementation; future developments may alter the prevalence, content, and perceived effects of data requests. Finally, qualitative interviews, while offering depth, may be subject to selection bias and self-reporting effects. These limitations underscore the need for complementary cross-national, sectoral, and longitudinal studies. In terms of further research, cross-national comparisons are needed to reveal how sectoral and institutional contexts shape the design, uptake, and effects of sustainability-related data requests. Second, longitudinal research is required to track how data collection practices develop over time, including both burdens (e.g., administrative workload) and potential benefits (e.g., performance improvements, strategic positioning, circular economy). We require more impact assessments (c.f. [24]) to understand what evolving regulations (including the CSRD, changes coming forth under the Omnibus proposals, and uptake of the VSME). Third, evaluative studies could investigate which types of public–private arrangements such as subsidies, advisory programmes, digital platforms, or industry-specific standards best support SMEs in managing reporting requirements without losing competitiveness.

Based on our exploratory findings, we have identified 10 hypotheses for future research to deepen the understanding of how the CSRD and related sustainability reporting requirements affect SMEs. Table 1 presents these hypotheses in five clusters ranging from SME characteristics to the evolving regulatory context.

Table 1. Hypotheses for further research.

Cluster		Hypothesis
SME characteristics and value-chain position	H1:	Larger SMEs (measured by employee count or turnover) are more likely to receive sustainability data requests than smaller SMEs.
	H2:	SMEs integrated into international or highly regulated value chains (e.g., agriculture, chemicals, construction) receive more frequent and complex data requests than domestically oriented SMEs.
Content of data requests	H3:	Environmental indicators (e.g., CO_2, material use) are requested more frequently than social or governance indicators while there are systematic differences by sector (e.g., safety in healthcare and construction).
	H4:	There is a persistent mismatch between the ESG data requested by large companies and those SMEs consider internally relevant.
SME capacity and support structures	H5:	SMEs with access to sector-level data platforms or standardized reporting templates report greater capacity to comply with sustainability data requests.
	H6:	Receipt of government or industry-level financial/technical support is positively associated with SMEs' ability to comply with data request.
SME competitiveness and performance	H7:	SMEs that actively collect and use sustainability data perceive greater competitive advantages (e.g., market access, client retention) compared to SMEs that do not.
	H8:	SMEs that disclose sustainability data to external stakeholders experience improved access to finance, compared to non-reporting peers.
Regulatory context	H9:	Regulatory uncertainty (e.g., delayed national transposition of CSRD) reduces SMEs' willingness to invest in sustainability data collection.
	H10:	The introduction of simplified frameworks (e.g., VSME) will reduce perceived administrative burden but only if combined with sector-specific guidance.

Investigating and testing these hypotheses will allow researchers and policymakers to better understand and help design reporting standards in a way that they will effectively support sustainable business practices among SMEs.

5. Conclusions

This study examined how sustainability-related data requests affect SMEs in the Netherlands. A key finding is that most Dutch SMEs (72%) have not yet received sustainability-related data requests, suggesting that the reach of CSRD is still emerging. However, among larger SMEs embedded in international or regulated value chains, requests are already more common. Among SMEs with 51 to 250 employees, 65% reported receiving data requests and 7% expect these in the near future. The structural reporting obligations for large companies, as established under the CSRD, underscore the urgency of building SME readiness and capacities.

CSRD implementation is catalyzing a transformation in how sustainability data are collected and exchanged across value chains. While this shift presents real opportunities for institutional learning and performance improvement, it also risks marginalizing SMEs that lack the resources to keep up. If sustainability transitions are to be both effective and equitable, greater attention must be paid to how regulatory ambitions are operationalized and to whom is asked to carry the weight.

This paper contributes to the literature on sustainability reporting and value-chain governance in three ways. First, it provides systematic, representative evidence of how regulatory requirements diffuse indirectly through supply chains to SMEs. Second, it highlights the disconnect between external reporting demands and SMEs' internal sustainability

priorities, underscoring the importance of aligning reporting frameworks with business realities. Third, it shows that reporting requirements not only create burdens but can also stimulate organizational learning and strategic repositioning—suggesting a dual path of capability building versus exclusion.

For policymakers and practitioners, the findings underline the need for clearer communication of data relevance, sector-specific guidance, and support measures that reduce administrative burden. Effective sustainability governance will depend not only on technical compliance but also on building trust and purpose-driven communication across value chains.

As one respondent aptly summarized:

> "Request relevant data rather than an enormous pile of useless information. Explain why it's needed instead of hiding behind the phrase 'Europe requires it.' If an SME understands the purpose and how the data will be used, they'll be more willing to cooperate." [SME-89]

This practitioner's plea encapsulates a central lesson of this study: Sustainability reporting obligations must evolve from one-sided compliance tools into instruments of mutual learning and collaboration if they are to support an effective and inclusive sustainability transition.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/su17178029/s1, Questionnaire in Dutch used for survey amongst SME, Respondent codes for quotations from SME and interviewed stakeholders, Topic guide in Dutch for interviews with SME.

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Abbreviation

The following abbreviation is used in this manuscript:

CSRD	Corporate Sustainability Reporting Directive

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