



UNIVERSITÀ DEGLI STUDI DI GENOVA

University of Genoa

Department of Economics (DIEC)
Master's Degree Programme in
Management for Energy and Environmental Transition (MEET)

Master's Degree Thesis (Tesi di Laurea Magistrale)

Peoplewashing or Progress?
Workforce Reality under ESRS S1 across the Largest European Companies

Supervisor (Relatore):

Prof. Costanza Di Fabio

Candidate (Candidato):

Ismail Yemmouni

Student ID (matricola): 5800094

Academic Year 2025 / 2026

Abstract

From the 2024 financial year, the largest companies operating in the European Union must report on their own workforce under European Sustainability Reporting Standard S1 (ESRS S1), the social standard introduced by the Corporate Sustainability Reporting Directive. ESRS S1 asks companies to disclose concrete information on employees, pay, health and safety, training, collective bargaining and human rights. A central question for users of these reports is whether such claims are supported by measurable evidence or whether they remain at the level of policy language. This thesis calls the second pattern peoplewashing, by analogy with greenwashing.

To study this question, the workforce reporting of 50 large companies from the STOXX Europe 600 is analysed for the 2024 reporting year. Each company is assessed on 13 thematic categories that follow the ESRS S1 disclosure requirements S1-5 to S1-17, and every company and theme combination is coded into one of four disclosure statuses: quantitative metrics disclosed, qualitative narrative only, exemption used, and not disclosed. From this coding two complementary indices are built. The People Reality Index (PRI) rewards reporting that is backed by numbers, while the Red-Flag Index (RFI) measures the size of the resulting disclosure gap and so flags exposure to peoplewashing risk; the two are mirror images and always sum to 100.

The study sets out the regulatory background, the construction of the two indices, and the research design, and provides a transparent and reproducible method for separating evidence-based workforce reporting from narrative alone. It thereby offers investors, auditors, standard setters and companies a structured way to locate where workforce disclosure is strong and where the risk of peoplewashing is highest.

Keywords: ESRS S1; CSRD; workforce disclosure; peoplewashing; sustainability reporting; human capital; STOXX Europe 600.

Table of Contents

Abstract.....	i
Introduction.....	1
1. Background and Literature Review.....	4
1.1 Before 2014: The Voluntary Era of Social and Workforce Reporting.....	4
1.2 The Non-Financial Reporting Directive Era: Mandatory but Fragmented (2014 to the CSRD).....	6
1.3 The Mandatory Era: The CSRD, the ESRS and ESRS S1.....	8
1.4 Peoplewashing: Concept and Evidence.....	11
2. Theoretical Framework and Research Design.....	15
2.1 Theoretical Framework.....	15
2.2 Expectations and Hypotheses.....	16
2.3 Sample and Data Sources.....	17
2.3.1 Sample Selection: 50 STOXX Europe 600 Companies.....	17
2.3.2 Data Sources: Annual Reports 2024 and ESRS Filings.....	21
2.3.3 Variable Mapping: 145 ESRS S1 Disclosure Elements.....	22
2.3.4 Thematic Categories (13 ESRS S1 Categories).....	22
2.4 Methodology.....	23
2.4.1 Coding Procedure and Reliability Checks.....	23
2.4.2 Disclosure Status Classification Framework.....	24
2.4.3 Index Construction: People Reality Index (PRI) and Red-Flag Index (RFI).....	24
3. Results.....	26
3.1 Disclosure Landscape Overview.....	26
3.2 Thematic Analysis by ESRS S1 Category.....	27
3.3 Benchmarking: Patterns by Sector.....	30

3.4 Benchmarking: Patterns by Country.....	31
3.5 Assurance and Verification Status.....	33
3.6 PRI and RFI Score Distribution.....	34
3.7 Financial Characteristics of the Sample.....	36
4. Discussion and Conclusions.....	40
4.1 Implications.....	41
4.2 Limitations and Future Research.....	41
References.....	43
Appendices.....	46
Appendix A. Sample Companies.....	46
Appendix B. ESRS S1 Disclosure Items Mapping.....	49
Appendix C. Coding Manual and Correction Log.....	49
Appendix D. Company-Level Scores.....	49
Appendix E. Full Sector and Country Breakdown.....	52
Appendix F. Financial Metrics (FY2024).....	53

Introduction

For many years, the way European companies reported on social and environmental matters was criticised for being vague and hard to compare. The Non-Financial Reporting Directive of 2014 (Directive 2014/95/EU) required large public-interest companies to publish non-financial information, but it left companies a great deal of freedom over what to report and how. As a result, much of the information was narrative, inconsistent between companies, and difficult for investors and other stakeholders to verify (La Torre et al., 2018; Stolowy & Paugam, 2018). The European Union responded with the Corporate Sustainability Reporting Directive (CSRD), Directive (EU) 2022/2464, which greatly expands the scope and detail of mandatory sustainability reporting and requires companies to follow a common set of standards. These two directives are the most recent stages of a longer process, from a voluntary era before 2014, through the uneven Non-Financial Reporting Directive era, to today's mandatory standards. This study traces all three periods, as Chapter 1 sets out.

The new mandatory standards are the European Sustainability Reporting Standards (ESRS), adopted by the European Commission as Commission Delegated Regulation (EU) 2023/2772. These standards cover environmental, social and governance topics. The social standard for a company's own staff is ESRS S1 Own Workforce. It applies from the 2024 financial year for the first wave of in-scope companies, which are the large undertakings that were already covered by the earlier directive. ESRS S1 is the first time that workforce disclosure has been required at this level of detail and on a common European basis.

The introduction of these new standards and their adoption by companies is particularly relevant because social information has long been the weakest part of corporate sustainability reporting. Environmental data, and carbon data in particular, have become relatively standardised, but information about workers has tended to remain at the level of policies and good intentions (Cho & Patten, 2007; Clarkson et al., 2008). The risk is that companies present an attractive picture of how they treat their people without backing it with measurable evidence. This thesis refers to that practice as peoplewashing. It is the workforce equivalent of greenwashing, a term the European Supervisory Authorities have defined as sustainability claims that do not clearly and fairly reflect the underlying reality (ESMA, 2024).

The aim of this thesis is to assess how far the workforce reporting of large European companies under ESRS S1 is supported by real data rather than narrative alone, and to identify where the risk of peoplewashing is concentrated. To do this, the thesis builds two indices from data hand-collected from the 2024 annual reports and sustainability statements of 50 companies in the STOXX Europe 600, and applies them across the sample.

The thesis pursues three questions. The first asks how strong the evidence base of ESRS S1 workforce reporting is among large European companies, as measured by a disclosure-quality index, the People Reality Index. The second asks on which ESRS S1 themes peoplewashing is concentrated, that is, where companies rely on narrative, exemptions or silence rather than on numbers. The third asks whether disclosure quality and peoplewashing exposure vary in a visible way by sector and by country.

This thesis makes three contributions. First, it provides a systematic reading of ESRS S1 reporting in the first year of mandatory application, using company reports rather than second-hand databases. Second, it offers a scoring method, the People Reality Index and the Red-Flag Index, that any reader can recompute from the published coding. Third, it gives a theme-by-theme map of where workforce reporting is strong and where it is weak, which is of direct use to investors, auditors, standard setters and the companies themselves.

The remainder of the thesis is organised as follows. Chapter 1 reviews the regulatory background and the relevant literature through three successive periods of European social and workforce reporting: the voluntary era before 2014, the Non-Financial Reporting Directive era from 2014 to the Corporate Sustainability Reporting Directive, and the mandatory era of the European Sustainability Reporting Standards. It then introduces the concept of peoplewashing and the evidence on social-reporting quality that motivates the study. Chapter 2 sets out the theoretical framework and the research design: it presents the theories of disclosure that underpin the analysis, derives the hypotheses, and then describes the sample, the data sources, the mapping of disclosure elements, the coding procedure and the construction of the two indices. Chapter 3 presents the results, moving from the overall disclosure landscape to a theme-by-theme analysis and then to patterns by sector and by country, before showing the full distribution of the index scores. Chapter 4 discusses the findings, draws conclusions, and

sets out the limitations of the study and directions for future research. A list of references and a set of appendices complete the thesis.

1. Background and Literature Review

This chapter sets the study in its regulatory and scholarly context. It follows European social and workforce reporting through three successive periods. The first is the voluntary era before 2014, when no law required companies to report on their workforce and disclosure was governed only by private frameworks and market pressure. The second is the era of the Non-Financial Reporting Directive, from 2014 to the Corporate Sustainability Reporting Directive, when reporting became mandatory in principle but remained fragmented in practice. The third is the current mandatory era of the European Sustainability Reporting Standards, in which ESRS S1 sets out, for the first time, a common and detailed set of workforce disclosures. The chapter then introduces the concept of peopleshooting and reviews the evidence on the quality of social reporting, which together motivate the empirical study.

1.1 Before 2014: The Voluntary Era of Social and Workforce Reporting

For most of the history of corporate reporting, information about a company's social and human-capital performance was published, if at all, on a purely voluntary basis. No European law required a company to tell the public how it treated its workforce. Whatever a firm chose to disclose about pay, safety, training, diversity or labour rights sat outside the audited financial statements and answered to no common rulebook. Understanding this voluntary era matters because it explains both why mandatory standards such as ESRS S1 were eventually thought necessary and why the social dimension entered the mandatory era less developed than the environmental one.

The most important development of the voluntary era was the emergence of private, non-state reporting frameworks that tried to bring order to a field the law had left open. The central actor was the Global Reporting Initiative (GRI), founded in Boston in 1997 by the non-profit organisation CERES together with the Tellus Institute, with the involvement of the United Nations Environment Programme, in the aftermath of public concern over corporate environmental conduct (Global Reporting Initiative, 2022). GRI published its first sustainability reporting guidelines in 2000 and revised them through successive generations, G2 in 2002, G3 in 2006 and G4 in 2013, before moving to a modular set of GRI Standards in 2016. Across these versions GRI became the most widely used sustainability reporting framework in the world, and it was the first to give companies a structured vocabulary for reporting social and workforce matters such as employment, labour and management relations, occupational health and safety, training, and diversity and equal opportunity.

GRI did not operate alone. It formed part of a wider ecosystem of voluntary instruments that grew up around corporate social responsibility (CSR). The United Nations Global Compact, launched in 2000, asked companies to commit to ten principles covering human rights, labour, the environment and anti-corruption, and to communicate annually on their progress. The OECD Guidelines for Multinational Enterprises set non-binding expectations for responsible business conduct, including on employment and industrial relations. ISO 26000, published in 2010, offered guidance on social responsibility, and the integrated reporting movement later sought to connect financial and non-financial value creation. None of these instruments carried the force of law. Together, however, they established a tradition in which large companies were expected, by their peers and by civil society, to account publicly for their social and environmental conduct.

Voluntary reporting grew quickly under this pressure. Successive editions of the KPMG Survey of Sustainability Reporting documented a steady rise in the share of large companies publishing sustainability or corporate-responsibility reports, reaching almost all of the world's largest firms by the early 2020s. By 2022, 96 per cent of the 250 largest companies in the world, and 79 per cent of the 100 largest companies in each of 58 surveyed jurisdictions, reported on sustainability (KPMG, 2022). The practice had become a normal feature of corporate communication well before any European law required it.

The question this raises is why companies reported at all when no rule obliged them to. The literature offers several complementary answers. Legitimacy theory holds that firms disclose social and environmental information in order to demonstrate that their conduct conforms to the norms and expectations of the society in which they operate, and so to secure their social licence to operate (Suchman, 1995; Deegan, 2002). On this view, reporting is a means of managing reputation and public perception. A second answer comes from the economics of disclosure: voluntary reporting can lower a firm's cost of capital by reducing the information asymmetry between managers and investors. Dhaliwal et al. (2011) show that firms initiating CSR disclosure with strong social performance subsequently enjoy a lower cost of equity capital and attract more institutional investors and analyst coverage, evidence that capital-market incentives, and not only reputational ones, drove voluntary reporting. Early longitudinal work by Gray, Kouhy and Lavers (1995) had already documented the steady expansion of voluntary social and environmental disclosure among large companies, and Cho and Patten (2007) confirmed that disclosure often served as a tool of legitimacy, with

environmentally weaker firms tending to disclose more. Reputation, investor pressure and legitimacy thus reinforced one another.

Within this voluntary tradition, the workforce dimension was real but uneven. Companies routinely described their people-related policies, values and initiatives, but they did so largely in narrative form and at their own discretion. They could choose which indicators to publish, how to define them, and which difficulties to leave out. Quantitative workforce metrics, where they appeared, were rarely defined consistently across firms, which made comparison difficult even between companies that used the same framework.

This voluntary patchwork created two structural problems that would later justify regulation. The first was a lack of comparability. Because firms selected their own frameworks, indicators and definitions, reports could not be placed side by side with any confidence, and what looked like disclosure often could not be verified (Michelon, Pilonato and Ricceri, 2015). The second was a lack of assurance and balance. Voluntary reports tended to emphasise favourable information and to omit unfavourable information. In a counter-account of 23 sustainability reports that had received the GRI's highest application levels of A or A+, Boiral (2013) found that 90 per cent of the significant negative events affecting those firms were not reported at all, contrary to the GRI's own principles of balance and completeness. Voluntary reporting could therefore present an attractive picture of a company's social and environmental conduct that the reader had no reliable way to test. It is precisely this combination of growing but selective, unverifiable and incomparable disclosure that the European Union set out to correct, first through the Non-Financial Reporting Directive and then, more decisively, through the CSRD and the ESRS.

1.2 The Non-Financial Reporting Directive Era: Mandatory but Fragmented (2014 to the CSRD)

The first European attempt to make non-financial reporting mandatory was the Non-Financial Reporting Directive (Directive 2014/95/EU), which amended the Accounting Directive (Directive 2013/34/EU). It required large public-interest entities with more than 500 employees, such as listed companies, banks and insurers, to disclose in their management report information on environmental matters, social and employee matters, respect for human rights, and anti-corruption and bribery matters. For each area companies had to describe their policies, the outcomes of those policies and the principal related risks, and they had to report a diversity policy for their administrative, management and supervisory bodies.

Two features of the directive shaped the reporting that followed. First, it operated on a comply-or-explain basis: where a company pursued no policy on one of the required matters, it could explain why rather than act. Second, and most importantly, it did not prescribe a single reporting standard or a fixed set of indicators. Companies were free to rely on national, European or international frameworks, or on a combination of them, and in practice many used GRI, the integrated-reporting framework, or their own in-house formats. The directive named no common metrics and required no external assurance of the reported information. The main stages of this regulatory evolution are shown in Figure 1.1.

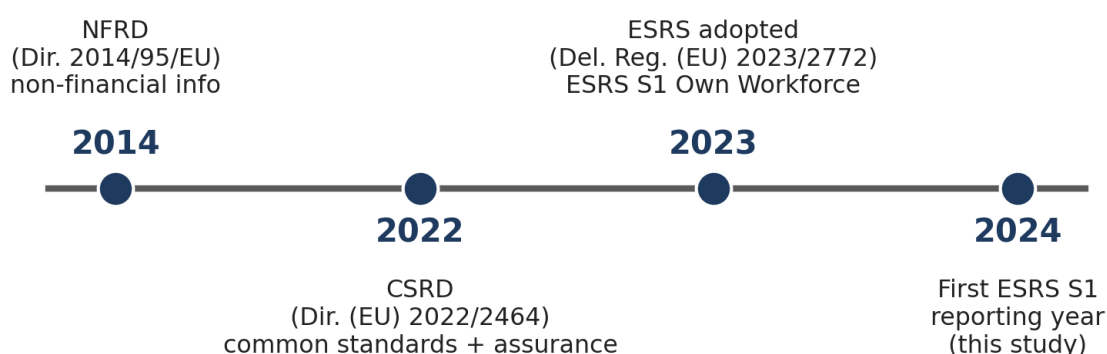


Figure 1.1. The evolution of European Union sustainability reporting regulation, from the Non-Financial Reporting Directive (2014) to the first mandatory year of ESRS S1 reporting (2024). Source: my own elaboration, based on Directive 2014/95/EU, Directive (EU) 2022/2464 and Commission Delegated Regulation (EU) 2023/2772.

Empirical studies of this period confirm both the growth and the limits of reporting under the directive. La Torre et al. (2018) show that, because the directive left wide discretion to member states and to companies over the format and content of reporting, its transposition produced uneven and only partly comparable practice across Europe, so that harmonisation remained incomplete. Stolicy and Paugam (2018) document that non-financial reporting expanded substantially over the preceding decade but stayed conceptually heterogeneous, without a shared definition of what such reporting should contain. The flexibility that had encouraged experimentation also produced reports that were difficult to compare across companies and over time, and whose reliability was hard to check.

Within non-financial reporting, the social dimension continued to lag behind the environmental one. Climate and emissions reporting matured over more than a decade, helped by widely used frameworks and by clear physical units such as tonnes of carbon dioxide. Workforce reporting had no equally settled tradition, and many social indicators were easier to describe in words than to capture in a single comparable number (Cho and Patten, 2007; Michelin, Pilonato and Ricceri, 2015). The permissive design of the directive did little to close this gap on the social side.

The weaknesses of the Non-Financial Reporting Directive, namely uneven transposition, framework-of-choice flexibility, the absence of common indicators and the lack of assurance, are precisely the problems that the next reform set out to fix. The CSRD and the double materiality principle that underpins the ESRS can therefore be read as a direct response to this fragmentation, moving from voluntary, framework-of-choice reporting toward prescribed, comparable and assured disclosure. The following section turns to that mandatory regime and to ESRS S1 in particular.

1.3 The Mandatory Era: The CSRD, the ESRS and ESRS S1

The European Union responded to the shortcomings of the Non-Financial Reporting Directive with the Corporate Sustainability Reporting Directive (CSRD), Directive (EU) 2022/2464, which greatly expands the scope, the detail and the reliability of mandatory sustainability reporting. The CSRD widens the set of companies in scope, requires reporting against a common set of mandatory standards, mandates assurance of the reported information, and requires that information to be published in a digital, machine-readable format within the management report. By replacing principle-based, framework-of-choice reporting with detailed common standards and assurance, the CSRD aims to make sustainability information more comparable, more reliable and more useful for decision making (Baumüller & Sopp, 2022).

The common standards are the European Sustainability Reporting Standards (ESRS), adopted by the European Commission through Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023, which supplements the Accounting Directive (Directive 2013/34/EU) as amended by the CSRD. The standards were developed by the European Financial Reporting Advisory Group (EFRAG), which acts as the Commission's technical adviser. The first set contains two cross-cutting standards, ESRS 1 (General requirements) and ESRS 2 (General

disclosures), together with ten topical standards covering the environment (E1 to E5), social matters (S1 to S4) and governance (G1).

A defining feature of the ESRS is the principle of double materiality, set out in ESRS 1. Companies must report both on how sustainability matters affect the company (financial materiality) and on how the company affects people and the environment (impact materiality). A topic must be reported when it is material from either perspective (Baumüller & Sopp, 2022). ESRS S1 Own Workforce is the standard that deals with a company's own employees and other workers in its workforce, such as agency and self-employed workers who are under its direction. It applies from the 2024 financial year for the first wave of in-scope companies, the large undertakings already covered by the earlier directive, and it is the first time that workforce disclosure has been required at this level of detail on a common European basis.

ESRS S1 is organised around 17 disclosure requirements, labelled S1-1 to S1-17, plus two requirements drawn from the general standard ESRS 2 that concern the interests of stakeholders and the way material impacts, risks and opportunities interact with strategy. The 17 requirements move from governance and process, through targets, to detailed workforce metrics, as summarised in Figure 1.2. Their official titles, as set out in Annex I of the Delegated Regulation, are listed in Table 1.1.

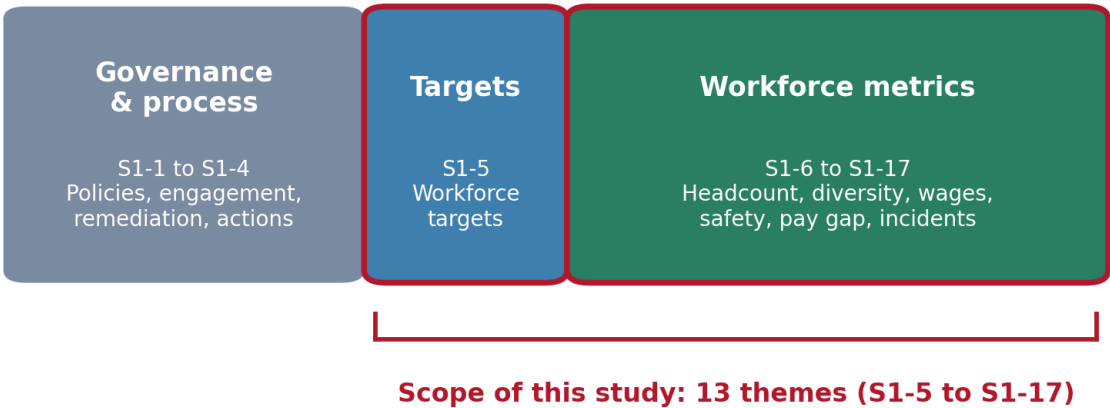


Figure 1.2. Structure of ESRS S1 and the scope of this study. Requirements S1-1 to S1-4 cover governance and process, S1-5 covers targets, and S1-6 to S1-17 are metric-based. The study analyses the 13 requirements S1-5 to S1-17. Source: my own elaboration, based on Commission Delegated Regulation (EU) 2023/2772, Annex I.

Ref.	Official title of the disclosure requirement
S1-1	Policies related to own workforce
S1-2	Processes for engaging with own workers and workers' representatives about impacts
S1-3	Processes to remediate negative impacts and channels for own workers to raise concerns
S1-4	Taking action on material impacts, and approaches to managing material risks and opportunities related to own workforce, and the effectiveness of those actions
S1-5	Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities
S1-6	Characteristics of the undertaking's employees
S1-7	Characteristics of non-employee workers in the undertaking's own workforce
S1-8	Collective bargaining coverage and social dialogue
S1-9	Diversity metrics
S1-10	Adequate wages
S1-11	Social protection
S1-12	Persons with disabilities
S1-13	Training and skills development metrics
S1-14	Health and safety metrics
S1-15	Work-life balance metrics
S1-16	Remuneration metrics (pay gap and total remuneration)
S1-17	Incidents, complaints and severe human rights impacts

Table 1.1. ESRS S1 disclosure requirements. Source: Commission Delegated Regulation (EU) 2023/2772, Annex I, ESRS S1 Own Workforce.

Requirements S1-1 to S1-4 are mainly about governance and management: the policies a company has, how it engages with workers and their representatives, how it lets workers raise concerns, and what action it takes. Requirement S1-5 covers the targets a company sets. Requirements S1-6 to S1-17 are the metric-based disclosures, where the standard expects

measurable information such as headcount by gender, the share of workers covered by collective agreements, the gender pay gap, training hours, and rates of work-related injuries. This study focuses on the 13 requirements from S1-5 to S1-17, because these are the requirements where the contrast between measurable evidence and narrative is sharpest and where peoplewashing risk is therefore easiest to detect. The reasoning behind this choice is explained in Chapter 2.

The relevance of workforce information has grown for investors and other stakeholders as much as for regulators. Human capital is a major source of value and risk for most companies, and questions of fair pay, safety, equal treatment and respect for labour rights carry reputational, legal and operational consequences. Reliable workforce data therefore matter not only for social accountability but also for financial analysis. This is the dual logic of double materiality that underlies the ESRS, and it makes the quality of ESRS S1 reporting, and not merely its presence, the decisive question for this thesis.

1.4 Peoplewashing: Concept and Evidence

The concept of peoplewashing used in this thesis is built by analogy with greenwashing. In their joint work, the European Supervisory Authorities describe greenwashing as a practice where sustainability-related statements, declarations, actions or communications do not clearly and fairly reflect the underlying sustainability profile of an entity, a product or a service, in a way that may mislead consumers, investors or other market participants (ESMA, 2024). The academic literature frames greenwashing as a gap between communication and substantive performance, often arising when firms face weak verification or selective scrutiny (Lyon & Maxwell, 2011; Delmas & Burbano, 2011; Marquis et al., 2016). The same logic can be applied to the social field. Peoplewashing is defined here as workforce-related reporting that appears positive but is not supported by measurable evidence, so that a reader cannot verify whether the company's treatment of its people matches its claims.

Peoplewashing is not the same as making a false statement. It is usually a question of degree and of the balance between words and numbers, echoing the distinction drawn in the literature between symbolic and substantive disclosure (Marquis & Qian, 2014). To make the concept operational, this thesis treats it as a spectrum of disclosure strength rather than a simple yes or no. Four positions on that spectrum are distinguished, as illustrated in Figure 1.3, and they form the basis of the coding scheme described in Chapter 2:

- Quantitative disclosure. The company reports a verifiable figure for the theme, such as the gender pay gap as a percentage or the number of recordable injuries. This is the strongest form of evidence and carries the lowest peoplewashing risk.
- Qualitative narrative only. The company describes a policy, a process or an intention but provides no figure. The statement may be entirely sincere, but it cannot be verified, so it carries a moderate risk.
- Exemption used. The company invokes a formal phase-in or transitional relief, or states that the theme is not material or not applicable, and therefore reports little or nothing. This is permitted by the standard, but from the reader's point of view it still leaves an evidence gap.
- Not disclosed. The company provides no information on the theme at all. This is the weakest position and carries the highest peoplewashing risk.

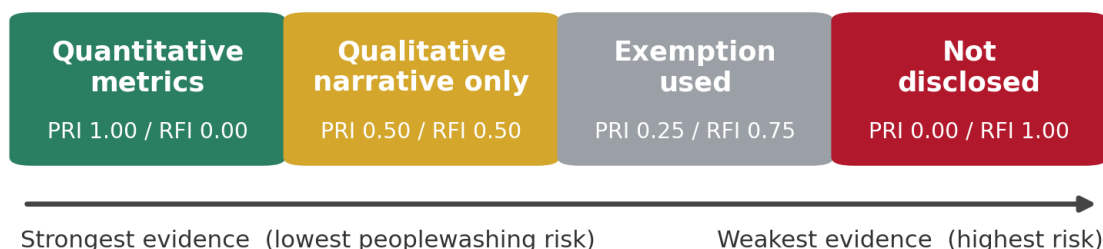


Figure 1.3. The peoplewashing disclosure spectrum. Each position is associated with a fixed pair of points used to build the People Reality Index (PRI) and the Red-Flag Index (RFI). Source: my own elaboration.

The greenwashing literature offers three insights that carry over to the workforce setting. First, Lyon and Maxwell (2011) model greenwashing as the selective disclosure of favourable information while unfavourable information is withheld, and show that the threat of external scrutiny or audit disciplines this behaviour. Second, Delmas and Burbano (2011) characterise the typical greenwashing firm as a poor performer that nonetheless communicates positively, and trace the practice to external, organisational and individual drivers. Third, in a global study of 4,750 firms across 45 countries, Marquis, Toffel and Zhou (2016) find that firms exposed to greater civil-society scrutiny and to stronger global norms are less likely to disclose selectively. Applied to ESRS S1, these findings imply that peoplewashing should be most

visible precisely where verification is weakest and external scrutiny least developed, that is, on workforce themes that are new, sensitive or hard to measure.

The expectation that workforce reporting is especially exposed to this risk rests on a consistent finding in the disclosure literature: the social dimension of sustainability reporting has long been the weakest in measurable quality. Studies of CSR reporting quality find that much social disclosure is narrative, selective and only weakly linked to actual performance (Michelon, Pilonato and Ricceri, 2015), and that disclosure is often used to manage legitimacy rather than to convey verifiable outcomes (Cho and Patten, 2007). Boiral (2013) shows in detail how even award-winning sustainability reports can omit the large majority of a firm's negative events. Social topics are particularly vulnerable to this pattern because many of them, unlike carbon emissions, lack agreed units of measurement, and because some workforce data are commercially or legally sensitive.

A small but growing body of work has begun to document the social equivalent of greenwashing directly. The clearest evidence to date concerns diversity. In a large-sample study of United States listed companies, Baker et al. (2024) find that firms which discuss diversity, equity and inclusion in their disclosures far more than their actual workforce composition would justify, a practice the authors term diversity washing, nonetheless obtain higher scores from ESG rating agencies and attract more investment from ESG-focused funds, even though they are more likely to incur discrimination violations and to generate negative human-capital news. This is direct evidence that symbolic social disclosure can be rewarded by the market while diverging from substance, exactly the mechanism that the concept of peoplewashing describes. Commentators and practitioners increasingly use the broader term social washing for the same phenomenon across labour standards, human rights and community matters, although academic treatment of it remains at an early stage.

Two observations follow. First, the washing literature is heavily concentrated on the environmental side: greenwashing is theorised and measured in detail, whereas the social side has attracted far less systematic attention, and the specific notion of peoplewashing, washing concentrated on a company's own workforce, has almost no dedicated empirical treatment in the peer-reviewed literature. Second, what social-side evidence exists is largely confined to single issues, above all diversity, rather than to the full range of workforce themes that a standard such as ESRS S1 now makes reportable. This thesis addresses that gap. It takes the structure of ESRS S1 as a ready-made map of the workforce themes that companies are now

required to address, and it asks, theme by theme, whether first-year reporting is backed by verifiable evidence or stops at narrative. The thinness of the existing peoplewashing literature is therefore not a weakness of the study but its motivation: the analysis that follows is one of the first systematic attempts to measure peoplewashing risk across the whole of a mandatory workforce-reporting standard.

Finally, the approach taken here is deliberately conservative. It does not attempt to judge whether a company treats its workers well or badly. It only measures whether the company gives the reader enough verifiable information to form such a judgement. A high peoplewashing-risk score therefore signals an absence of evidence, not proof of bad practice.

2. Theoretical Framework and Research Design

This chapter sets out the theoretical framework that motivates the study, derives the hypotheses from that framework and from the prior evidence reviewed in Chapter 1, and then describes the research design used to test them: the sample, the data sources, the mapping of disclosure elements, the coding procedure and the construction of the two indices.

2.1 Theoretical Framework

Three established theories of corporate disclosure help to explain why workforce reporting may be broad in coverage yet thin in measurable content, and they motivate the design of the two indices used in this study.

Legitimacy theory holds that organisations seek to ensure that their activities are perceived as appropriate within the norms and values of the society in which they operate (Suchman, 1995). Social and environmental disclosure is, on this view, a tool for gaining, maintaining or repairing legitimacy rather than only a channel for transmitting information (Deegan, 2002; Cho & Patten, 2007). A practical implication is that firms have an incentive to describe socially desirable policies and intentions, because narrative alone can be enough to signal conformity with expectations. This predicts wide narrative coverage of workforce themes, which is precisely the pattern that peoplewashing describes.

Voluntary disclosure theory, by contrast, draws on information economics and argues that firms reveal information when its benefits, such as a lower cost of capital, exceed its costs, and that firms with genuinely strong performance have an incentive to disclose verifiable evidence in order to separate themselves from weaker peers (Verrecchia, 2001). Where this logic dominates, better performers should disclose more hard data. Empirical work shows that legitimacy and voluntary disclosure motives often operate together, and that distinguishing substantive disclosure from symbolic disclosure is central to judging reporting quality (Hummel & Schlick, 2016).

Signalling theory provides the link between the two. A disclosure is a credible signal only when it is costly to imitate; verifiable, auditable numbers are harder to fake than general statements of intent, so quantitative disclosure carries more signalling value than narrative (Connelly et al., 2011). Taken together, the three theories suggest that the decisive distinction for users is not whether a company speaks about a workforce theme, but whether it backs that talk with numbers.

Empirical research helps to adjudicate between these views. Cho and Patten (2007) find that firms with weaker environmental performance tend to disclose more, consistent with disclosure used as a legitimacy tool. Clarkson et al. (2008), using a measure of purely discretionary disclosure, find the opposite for verifiable content: better performers disclose more hard, difficult-to-imitate information, consistent with voluntary disclosure and signalling. Hummel and Schlick (2016) reconcile the two by shifting attention from the quantity of disclosure to its quality: superior performers choose high-quality, verifiable disclosure to signal their type, whereas poorer performers prefer low-quality, narrative disclosure that protects legitimacy without revealing performance. This distinction between high-quality and low-quality disclosure is the empirical foundation of the People Reality Index, which scores the strength of evidence rather than the volume of words, rewarding verifiable evidence over narrative and treating silence and exemptions as the weakest signals.

2.2 Expectations and Hypotheses

The hypotheses of this study follow from the theoretical framework just set out and from the prior evidence reviewed in Chapter 1. Two well-documented patterns shape the expectations. The first is that, before the CSRD, sustainability information disclosed under the Non-Financial Reporting Directive was widely regarded as insufficient, inconsistent and difficult to compare, which was a central reason for the reform (La Torre et al., 2018; Stolowy & Paugam, 2018). The second is that social disclosures have generally been more narrative and less quantified than environmental disclosures, partly because many social topics lack standard units of measurement and partly because some workforce data are sensitive (Cho & Patten, 2007; Michelon et al., 2015). On this basis, three hypotheses are stated, one for each research question.

H1 (overall depth). In the first mandatory year, coverage of ESRS S1 themes will be broad but uneven in measurable depth: most companies will mention most themes, but a substantial share of disclosures will remain narrative rather than quantitative. This follows from legitimacy theory, which predicts wide narrative coverage as a low-cost route to perceived conformity (Suchman, 1995; Deegan, 2002).

H2 (location of risk). Peoplewashing risk will not be spread evenly across themes. It will concentrate on themes that are newer, more sensitive or harder to quantify, such as non-employee workers, collective bargaining coverage and adequate or living wages, while themes already required by other rules, such as headcount, board diversity and the gender pay gap,

will show the highest share of quantitative disclosure. This follows from the cost-and-scrutiny logic of voluntary disclosure and selective disclosure (Verrecchia, 2001; Marquis et al., 2016).

H3 (structural variation). Differences in disclosure quality by sector and by country of headquarters will be present but modest, because in the first year of a common standard, reporting maturity is more an individual company characteristic than a structural sector or country characteristic. The empirical chapters test these three hypotheses directly against the 50-company sample.

2.3 Sample and Data Sources

2.3.1 Sample Selection: 50 STOXX Europe 600 Companies

The sample consists of 50 large companies drawn from the STOXX Europe 600 index. The STOXX Europe 600 is a broad benchmark of the European equity market, with a fixed number of 600 constituents covering large, mid and small capitalisation companies across 17 countries of developed Europe and a wide range of industries (STOXX, 2024). It is one of the most widely tracked European indices, which makes it a natural population from which to draw a sample of economically significant companies that are subject to, or closely aligned with, the first wave of CSRD reporting.

The 50 companies were selected to give variety across countries and sectors while keeping the sample small enough for a careful, manual reading of each report. Because the STOXX Europe 600 covers developed Europe rather than the European Union alone, the sample includes companies headquartered outside the European Union, for example in the United Kingdom and Switzerland. These companies are retained because they report against the same standard or align closely with it, and because they form part of the same European reporting and investment environment. By country of headquarters, the sample comprises 12 companies from the United Kingdom, 10 from Germany, 6 from Switzerland, 5 from France, 4 each from the Netherlands, Italy and Sweden, 2 from Spain, and 1 each from Finland, Denmark and Belgium. The full list of companies appears in Appendix A.

Before turning to the disclosure results, Table 2.1 summarises the financial profile of the sample.

	Total	Mean	Std. Dev.	Min	Median	Max
Total Assets	10,629.6	212.6	393.5	5.3	48.4	1,831.0

Equity	1,280.5	25.6	24.5	1.5	16.7	93.6
Total Liabilities	9,349.1	187.0	377.0	0.0	30.1	1,743.6
Revenues	1,539.4	42.8	49.8	2.2	22.3	222.3
Operating Costs	1,201.0	34.3	37.8	2.2	19.7	153.2
Net income	139.1	2.8	2.7	-3.0	1.7	10.4
Personnel costs	223.5	6.4	5.8	0.6	3.9	25.7
Personnel costs/Revenues	14.6	21.5	12.6	2.8	19.3	69.4
Personnel costs/Operating costs	18.2	25.8	14.7	3.9	23.5	77.7

Table 2.1. Descriptive statistics of the financial layer, full sample (FY2024). Monetary figures in EUR billion; the two ratios in per cent. Total assets, total equity, total liabilities and net income cover all 50 companies; revenues (36), operating costs (35) and personnel costs (35) cover the non-financial companies for which the figure was available, and the two ratios 35 and 34 companies respectively. For the ratio rows the Total column reports the aggregate ratio (total personnel costs divided by the total of the denominator). Source: my own elaboration from company consolidated financial statements.

Table 2.2 breaks the same statistics down by country of headquarters.

Table 2.2. Descriptive statistics of the financial layer by country of headquarters (FY2024). Monetary figures in EUR billion; ratios in per cent. The N. companies column gives the number of companies behind each statistic; the revenue, operating-cost, personnel-cost and ratio rows cover non-financial companies only, so they are blank for countries represented solely by a financial company. Source: my own elaboration from company consolidated financial statements.

	N. companies	Total	Mean	Std. Dev.	Min	Median	Max
Belgium	1						
Total Assets	1	5.3	5.3		5.3	5.3	5.3
Equity	1	5.3	5.3		5.3	5.3	5.3
Total Liabilities	1	0.0	0.0		0.0	0.0	0.0
Revenues	1	2.2	2.2		2.2	2.2	2.2
Operating Costs	1	2.2	2.2		2.2	2.2	2.2
Net income	1	0.8	0.8		0.8	0.8	0.8
Personnel costs	1	0.7	0.7		0.7	0.7	0.7
Personnel costs/Revenues	1	32.7	32.7		32.7	32.7	32.7
Personnel costs/Operating costs	1	32.4	32.4		32.4	32.4	32.4
Denmark	1						
Total Assets	1	31.7	31.7		31.7	31.7	31.7
Equity	1	15.4	15.4		15.4	15.4	15.4
Total Liabilities	1	16.4	16.4		16.4	16.4	16.4
Revenues	1	22.4	22.4		22.4	22.4	22.4
Operating Costs	1	20.2	20.2		20.2	20.2	20.2

Net income	1	1.4	1.4		1.4	1.4	1.4
Personnel costs	1	2.2	2.2		2.2	2.2	2.2
Personnel costs/Revenues	1	9.9	9.9		9.9	9.9	9.9
Personnel costs/Operating costs	1	10.9	10.9		10.9	10.9	10.9
Finland	1						
Total Assets	1	623.4	623.4		623.4	623.4	623.4
Equity	1	32.4	32.4		32.4	32.4	32.4
Total Liabilities	1	590.9	590.9		590.9	590.9	590.9
Revenues	0	-	-	-	-	-	-
Operating Costs	0	-	-	-	-	-	-
Net income	1	5.1	5.1		5.1	5.1	5.1
Personnel costs	0	-	-	-	-	-	-
Personnel costs/Revenues	0	-	-	-	-	-	-
Personnel costs/Operating costs	0	-	-	-	-	-	-
France	5						
Total Assets	5	337.5	67.5	70.5	16.1	44.5	189.5
Equity	5	102.6	20.5	13.5	7.5	16.2	41.5
Total Liabilities	5	234.9	47.0	57.6	8.5	28.3	148.1
Revenues	5	178.7	35.7	25.3	8.6	27.6	73.8
Operating Costs	5	157.1	31.4	21.7	7.0	25.6	63.5
Net income	5	10.8	2.2	1.3	0.9	1.7	4.1
Personnel costs	5	39.8	8.0	5.1	2.0	8.6	15.3
Personnel costs/Revenues	5	22.3	28.2	23.5	11.7	20.3	69.4
Personnel costs/Operating costs	5	25.4	32.1	26.2	13.6	23.0	77.7
Germany	10						
Total Assets	10	2,247.4	224.7	417.1	14.3	73.6	1,387.2
Equity	10	297.1	29.7	31.5	4.5	17.5	93.6
Total Liabilities	10	1,950.3	195.0	397.0	9.9	44.4	1,307.7
Revenues	8	458.1	57.3	46.0	9.8	49.9	145.6
Operating Costs	8	420.4	52.6	41.9	8.4	47.8	132.0
Net income	10	30.6	3.1	3.0	0.8	1.6	10.4
Personnel costs	8	80.7	10.1	8.0	2.4	8.1	25.7
Personnel costs/Revenues	8	17.6	20.6	9.0	8.2	20.8	30.8
Personnel costs/Operating costs	8	19.2	22.7	10.3	9.1	23.0	36.1
Italy	4						
Total Assets	4	902.7	225.7	224.5	9.5	177.3	538.6
Equity	4	171.7	42.9	33.7	3.5	43.0	82.1
Total Liabilities	4	731.0	182.7	222.8	6.0	108.4	508.3
Revenues	3	252.4	84.1	75.2	6.7	88.8	156.9
Operating Costs	3	241.5	80.5	74.2	4.8	83.6	153.2
Net income	4	14.0	3.5	1.7	1.5	3.5	5.5
Personnel costs	3	21.0	7.0	8.8	0.6	3.3	17.1

Personnel costs/Revenues	3	8.3	8.0	3.8	3.7	9.4	10.9
Personnel costs/Operating costs	3	8.7	9.4	4.8	3.9	11.2	13.1
Netherlands	4						
Total Assets	4	1,099.3	274.8	501.5	9.5	31.6	1,026.5
Equity	4	72.5	18.1	22.9	1.5	9.8	51.3
Total Liabilities	4	1,026.7	256.7	479.2	7.2	22.2	975.2
Revenues	2	95.3	47.6	59.0	5.9	47.6	89.4
Operating Costs	2	91.0	45.5	58.1	4.5	45.5	86.6
Net income	4	10.2	2.5	2.6	0.9	1.4	6.4
Personnel costs	2	15.2	7.6	7.7	2.2	7.6	13.1
Personnel costs/Revenues	2	16.0	25.5	15.4	14.6	25.5	36.4
Personnel costs/Operating costs	2	16.7	31.6	23.3	15.1	31.6	48.1
Spain	2						
Total Assets	2	784.2	392.1	537.8	11.8	392.1	772.4
Equity	2	65.1	32.5	38.8	5.1	32.5	60.0
Total Liabilities	2	719.1	359.6	499.0	6.7	359.6	712.4
Revenues	1	6.1	6.1		6.1	6.1	6.1
Operating Costs	1	4.7	4.7		4.7	4.7	4.7
Net income	2	11.3	5.7	6.2	1.3	5.7	10.1
Personnel costs	1	1.9	1.9		1.9	1.9	1.9
Personnel costs/Revenues	1	31.5	31.5		31.5	31.5	31.5
Personnel costs/Operating costs	1	40.9	40.9		40.9	40.9	40.9
Sweden	4						
Total Assets	4	183.2	45.8	32.2	18.2	40.9	83.1
Equity	4	108.0	27.0	29.9	9.3	13.6	71.5
Total Liabilities	4	75.1	18.8	17.6	8.3	10.9	45.1
Revenues	3	74.5	24.8	18.3	13.1	15.4	46.0
Operating Costs	3	63.2	21.1	16.5	11.0	12.1	40.2
Net income	4	17.6	4.4	3.5	1.4	3.5	9.3
Personnel costs	3	14.9	5.0	1.7	3.9	4.0	6.9
Personnel costs/Revenues	3	20.0	23.8	7.8	15.0	26.2	30.1
Personnel costs/Operating costs	3	23.5	28.8	10.1	17.2	33.4	35.9
Switzerland	6						
Total Assets	6	214.9	35.8	46.2	6.0	19.0	128.8
Equity	6	66.8	11.1	8.3	2.0	8.7	21.7
Total Liabilities	6	148.1	24.7	40.5	4.0	9.0	107.2
Revenues	4	36.8	9.2	2.4	7.0	8.7	12.5
Operating Costs	4	31.1	7.8	2.1	6.0	7.3	10.7
Net income	6	8.4	1.4	0.9	0.7	1.2	3.1
Personnel costs	3	6.4	2.1	0.5	1.6	2.3	2.5
Personnel costs/Revenues	3	23.4	24.9	9.6	18.2	20.6	35.9
Personnel costs/Operating costs	3	27.8	29.6	11.0	21.3	25.4	42.0

costs							
United Kingdom	12						
Total Assets	12	4,200.1	350.0	590.5	11.3	51.4	1,831.0
Equity	12	343.6	28.6	24.4	4.5	21.9	87.4
Total Liabilities	12	3,856.5	321.4	567.5	2.8	33.4	1,743.6
Revenues	8	412.9	51.6	73.1	6.8	21.7	222.3
Operating Costs	7	169.4	24.2	25.6	5.2	14.2	78.8
Net income	12	29.1	2.4	3.0	-3.0	1.7	7.6
Personnel costs	8	40.7	5.1	3.6	2.4	3.0	11.2
Personnel costs/Revenues	8	9.8	19.2	10.9	2.8	18.3	35.1
Personnel costs/Operating costs	7	20.4	26.3	12.0	12.5	24.0	46.1

2.3.2 Data Sources: Annual Reports 2024 and ESRS Filings

All data were collected from primary company documents for the 2024 financial year. For each company the analysis used the most complete public source of workforce information available, which was either the annual report, the integrated report, or a separate sustainability statement or sustainability report, depending on how the company chose to publish. Where a company published its sustainability statement separately from its annual report, that statement was used as the primary source for the ESRS S1 information. Using primary documents, rather than a commercial environmental, social and governance database, keeps the analysis close to what companies actually disclose and allows each statement to be read in its full context.

A complementary financial layer was compiled from the same primary sources. For each company the main income-statement and balance-sheet figures for the 2024 financial year, namely revenue, operating profit, profit for the year, total assets, total equity and personnel costs, were read directly from the consolidated financial statements and recorded with the page from which each figure was taken. Amounts in currencies other than the euro were converted at the European Central Bank reference rates of 31 December 2024. This layer supports the financial analysis in Section 3.7 and is reported in full in Appendix F.

2.3.3 Variable Mapping: 145 ESRS S1 Disclosure Elements

ESRS S1 does not consist only of 17 headline requirements. Each requirement is made up of more detailed data points, for example a breakdown of employees by gender and by region, or separate figures for different types of work-related injury. For this study the relevant disclosure content of ESRS S1 was mapped into 145 individual disclosure elements. These elements were then grouped into the 13 thematic categories described below, so that each company could be assessed at a level that is detailed enough to be meaningful but stable enough to compare across the whole sample. The full mapping is provided in Appendix B.

2.3.4 Thematic Categories (13 ESRS S1 Categories)

The analysis is organised around 13 thematic categories. Each theme corresponds to one of the ESRS S1 disclosure requirements from S1-5 to S1-17. The earlier requirements S1-1 to S1-4 are about policies and processes that, by their nature, are described in words, so they are less useful for separating measurable evidence from narrative. The 13 themes used in this study, and the requirement each one maps to, are shown in Table 2.3.

#	Theme	ESRS S1 reference
1	Workforce-related targets and commitments	S1-5
2	Employee numbers and composition	S1-6
3	Non-employee workers	S1-7
4	Worker representation and collective bargaining	S1-8
5	Diversity and inclusion	S1-9
6	Wages, adequate or living wage	S1-10
7	Social protection and employee benefits	S1-11
8	Inclusion of employees with disabilities	S1-12
9	Training and skills development	S1-13
10	Health and safety	S1-14
11	Work-life balance and flexible work	S1-15
12	Pay equity, pay gap and remuneration	S1-16

13	Incidents, grievances and human rights issues	S1-17

Table 2.3. The 13 thematic categories and their ESRS S1 references.

2.4 Methodology

The overall research design is summarised in Figure 2.1: 50 companies are read against 13 themes to produce 650 observations, each assigned one of four disclosure statuses, which are then aggregated into the two indices.

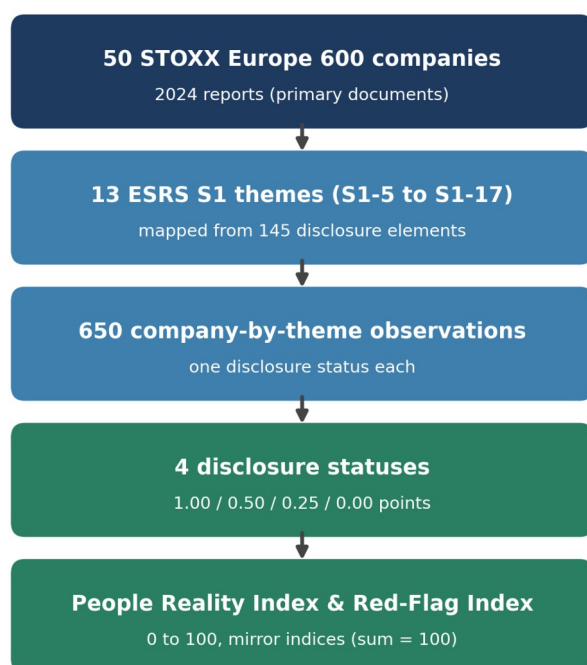


Figure 2.1. Research design, from sample to indices. Source: my own elaboration.

2.4.1 Coding Procedure and Reliability Checks

Each company was read against each of the 13 themes, producing a matrix of 50 companies by 13 themes, that is 650 company-by-theme cells. For every cell I recorded a short factual summary of what the company disclosed and assigned one disclosure status from the four-part scheme. The summary records the actual evidence found, for example a reported headcount figure or the exact percentage for a pay gap, so that the status assigned can be checked against the underlying disclosure.

To improve reliability, the dataset was cleaned and re-checked before analysis. Cells whose recorded status did not match their summary were corrected, for example rows marked as quantitative whose summary in fact stated that no data were available. As part of this review, 27 companies were re-read, either from their original annual report or from a separately obtained sustainability statement, and seven additional source documents were added to the report archive. The corrected dataset is the basis for all figures reported in Chapter 3. A record of the changes made during cleaning is kept in the correction log, and the coding rules are set out in the coding manual in Appendix C.

2.4.2 Disclosure Status Classification Framework

The four disclosure statuses are the core of the method. They translate the peoplewashing typology of Section 1.4 into a fixed coding rule that can be applied consistently. Each status is associated with a fixed pair of points, one for the People Reality Index and one for the Red-Flag Index, as shown in Table 2.4. The two points always add up to one, which is what allows the two indices to be exact mirror images of each other.

Disclosure status	PRI points	RFI points	Meaning
Quantitative metrics disclosed	1.00	0.00	Strong, measurable evidence
Qualitative narrative only	0.50	0.50	Policy or process described, no numbers
Phase-in or not material exemption	0.25	0.75	Formal exemption invoked
Not disclosed	0.00	1.00	No evidence found

Table 2.4. Disclosure status classification framework and point values.

2.4.3 Index Construction: People Reality Index (PRI) and Red-Flag Index (RFI)

Two indices are built from the theme-level scores. They are not independent measures; they are two readings of the same evidence. The People Reality Index (PRI) is a disclosure-quality score on a scale from 0 to 100. It rewards reporting that is backed by hard, verifiable evidence

and penalises reporting that stops at policy language or relies on exemptions. A high PRI means that the workforce narrative is supported by numbers. The Red-Flag Index (RFI) is a peoplewashing-risk score on the same scale. It rises when disclosure is missing, narrative-only, or hidden behind exemptions. A high RFI means an elevated risk of peoplewashing.

For each company, the points for the 13 themes are added up, divided by 13, and multiplied by 100. The two indices are calculated as follows:

$$\text{PRI} = (\text{sum of PRI points across the 13 themes} / 13) \times 100$$

$$\text{RFI} = (\text{sum of RFI points across the 13 themes} / 13) \times 100$$

Because the PRI and RFI points for each theme always sum to one, the two indices always sum to 100 for every company: $\text{PRI} + \text{RFI} = 100$. The RFI therefore adds no new information beyond the PRI, but it is reported alongside it because it expresses the same evidence from the risk point of view, which is useful when the focus is on detecting peoplewashing rather than rewarding good disclosure.

Two worked examples illustrate the calculation. Amadeus IT Group, the highest scorer in the sample, reports 9 themes quantitatively and the remaining 4 with narrative only. Its PRI points sum to $(9 \times 1.00) + (4 \times 0.50) = 11.00$, so its PRI is $(11.00 / 13) \times 100 = 84.6$ and its RFI is 15.4. Partners Group, the lowest scorer, reports 2 themes quantitatively, 5 with narrative only, and leaves 6 not disclosed. Its PRI points sum to $(2 \times 1.00) + (5 \times 0.50) = 4.50$, so its PRI is $(4.50 / 13) \times 100 = 34.6$ and its RFI is 65.4. These two cases mark the practical range of the indices in this sample.

3. Results

3.1 Disclosure Landscape Overview

This section gives the overall picture before moving to individual themes and companies. Across the 50 companies, the mean People Reality Index is 63.2 and the median is 65.4, on a scale from 0 to 100. The standard deviation is 10.8 points. The lowest score is 34.6 (Partners Group) and the highest is 84.6 (Amadeus IT Group). Half of the sample sits between 55.3 (the first quartile) and 71.2 (the third quartile). Because the Red-Flag Index is the complement of the PRI, its mean is 36.8 and its median is 34.6. The descriptive statistics are shown in Table 3.1.

Statistic	PRI	RFI
Mean	63.19	36.81
Median	65.38	34.62
Standard deviation	10.80	10.80
Minimum	34.62	15.38
First quartile (Q1)	55.29	28.85
Third quartile (Q3)	71.15	44.71
Maximum	84.62	65.38
Interquartile range	15.86	15.86

Table 3.1. Distribution of PRI and RFI scores across the 50-company sample. The standard deviation is reported as the sample standard deviation.

At the level of individual disclosures, the 650 company-by-theme observations divide into the four statuses as shown in Figure 3.1. Just over a third of all observations (37.5 per cent) are quantitative, while almost half (48.9 per cent) are narrative only. Exemptions account for 4.8 per cent and outright non-disclosure for 8.8 per cent. The single most common outcome is therefore a theme that is discussed in words but not supported by a number.

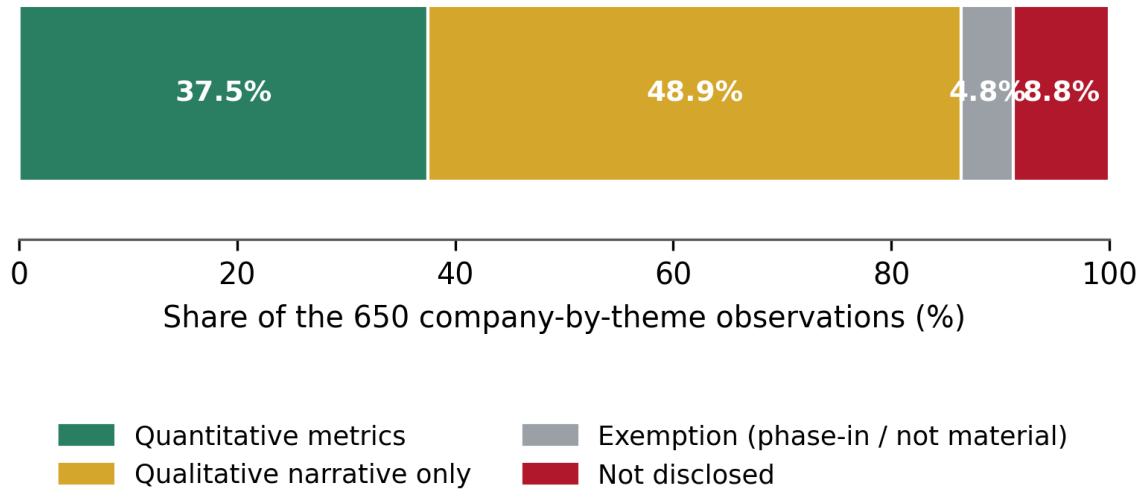


Figure 3.1. Distribution of the four disclosure statuses across all 650 company-by-theme observations. Source: my own elaboration, from the corrected dataset.

Three sample-level coverage statistics help to interpret these numbers. First, every company in the sample reports at least one theme quantitatively; no company relies entirely on narrative. Second, 19 of the 50 companies, or 38 per cent, cover all 13 themes with at least a narrative disclosure, leaving no theme blank and using no exemption. Third, on average each company reports 4.9 of the 13 themes quantitatively, 6.4 with narrative only, 0.6 under an exemption, and leaves 1.1 themes undisclosed. The broad pattern is therefore one of wide coverage but limited quantification: most companies touch most themes, but words outweigh numbers. This is consistent with H1.

3.2 Thematic Analysis by ESRS S1 Category

The heart of the analysis is the distribution of disclosure status across the 13 themes. Figure 3.2 ranks the themes by their mean theme-level PRI, and Figure 3.3 shows the full composition of disclosure status for each theme. Table 3.2 gives the underlying percentages. Reading across these three exhibits reveals where reporting is strong and where peoplewashing risk is concentrated.

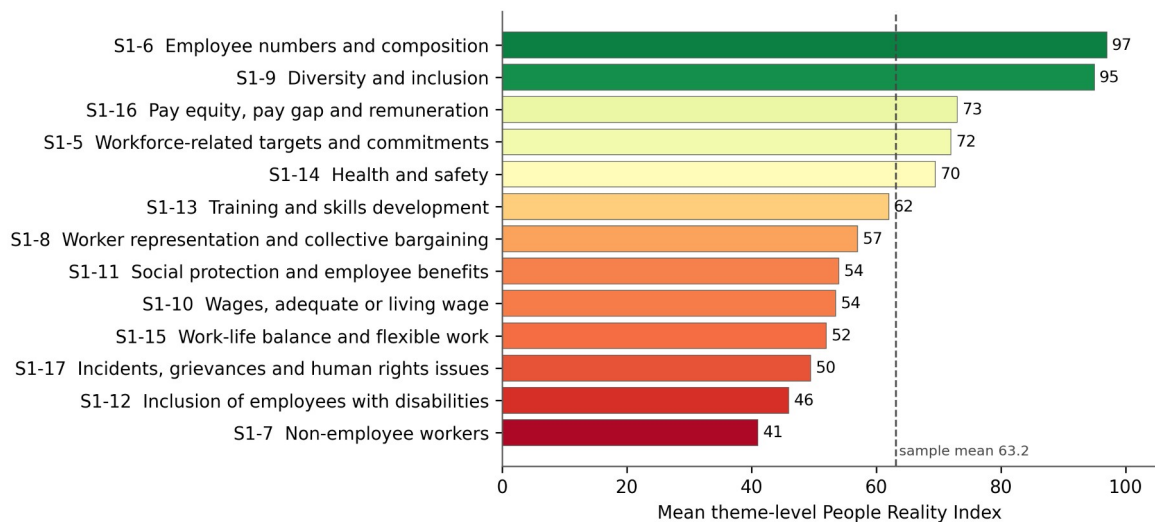


Figure 3.2. Mean theme-level People Reality Index for the 13 ESRS S1 themes, ranked from strongest to weakest. The dashed line marks the overall sample mean (63.2). Source: my own elaboration.

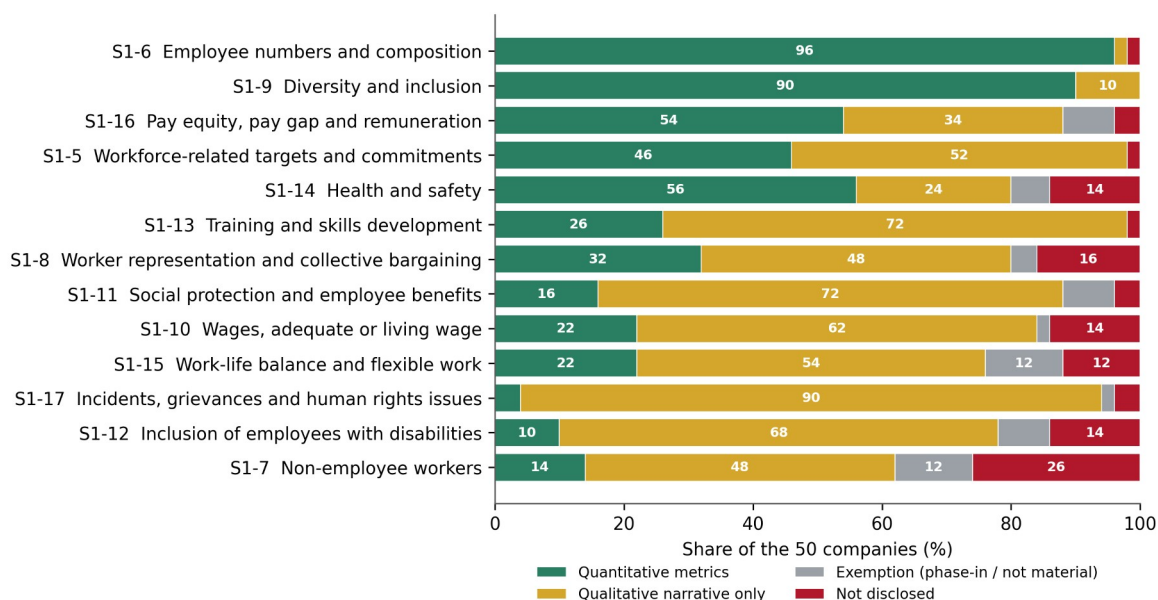


Figure 3.3. Composition of disclosure status by theme, as a share of the 50 companies, ordered from the strongest theme (top) to the weakest (bottom). Source: my own elaboration.

Theme	Quant.	Qual.	Exempt	Not disc.
1. Workforce targets and commitments	46%	52%	0%	2%
2. Employee numbers and composition	96%	2%	0%	2%

3. Non-employee workers	14%	48%	12%	26%
4. Worker representation / collective bargaining	32%	48%	4%	16%
5. Diversity and inclusion	90%	10%	0%	0%
6. Wages / adequate or living wage	22%	62%	2%	14%
7. Social protection and benefits	16%	72%	8%	4%
8. Inclusion of employees with disabilities	10%	68%	8%	14%
9. Training and development	26%	72%	0%	2%
10. Health and safety	56%	24%	6%	14%
11. Work-life balance / flexible work	22%	54%	12%	12%
12. Pay equity / pay gap / remuneration	54%	34%	8%	4%
13. Incidents, grievances and human rights	4%	90%	2%	4%

Table 3.2. Disclosure status by theme, as a percentage of the 50 companies. Exempt combines phase-in or transitional relief and not material or not applicable.

Three groups of themes stand out. The first group is reported strongly, with numbers. Employee numbers and composition is quantified by 96 per cent of companies, diversity and inclusion by 90 per cent, health and safety by 56 per cent, and pay equity and remuneration by 54 per cent. These are the themes that are either long established in reporting practice or already required by other rules, such as headcount in financial statements, board diversity requirements, and, in several countries, mandatory gender pay gap reporting.

The second group is reported mainly through narrative. Incidents, grievances and human rights issues are described in words by 90 per cent of companies but quantified by only 4 per cent. Social protection and benefits, training and development, and inclusion of employees with disabilities are likewise dominated by qualitative narrative, each with around 68 to 72 per cent

of companies describing policies without supporting numbers. Here companies clearly have something to say, but they rarely attach measurable indicators to it.

The third group is where peoplewashing risk concentrates, because non-disclosure and exemptions are highest. Non-employee workers is not disclosed by 26 per cent of companies and quantified by only 14 per cent. Worker representation and collective bargaining is not disclosed by 16 per cent. Wages and adequate or living wage is not disclosed by 14 per cent and quantified by only 22 per cent. Work-life balance combines a 12 per cent non-disclosure rate with a 12 per cent exemption rate. These four themes, non-employee workers, collective bargaining, wages, and work-life balance, are where the evidence base is thinnest. This pattern supports H2.

A further point concerns exemptions. On no single theme do phase-in or not material exemptions exceed about 12 to 15 per cent of companies, and on most themes they are well below that. This means that the weak scores in the third group are driven mainly by genuine silence, where companies simply do not report, rather than by formally deferred disclosure under a transitional rule. The gaps are real, not merely postponed.

3.3 Benchmarking: Patterns by Sector

To see whether disclosure quality varies by industry, the 50 companies were grouped into seven broad sector groups based on their business activity. Table 3.3 reports the number of companies and the mean and median PRI for each group, and Figure 3.4 shows the mean PRI by sector against the sample mean. Because some groups are small, these figures should be read as indicative rather than as precise sector estimates.

Sector group	n	Mean PRI	Median PRI
Consumer Goods & Retail	4	67.8	69.2
Energy, Utilities & Resources	6	66.3	66.3
Mobility & Defence	6	65.1	67.3
Industrials & Materials	10	63.7	61.5
Healthcare & Pharmaceuticals	5	62.3	65.4
Financials & Insurance	14	61.4	63.5

Technology & Information Services	5	58.5	53.8
--	---	------	------

Table 3.3. Mean and median PRI by sector group. Sector groups were formed by aggregating the detailed business classifications of the sample companies.

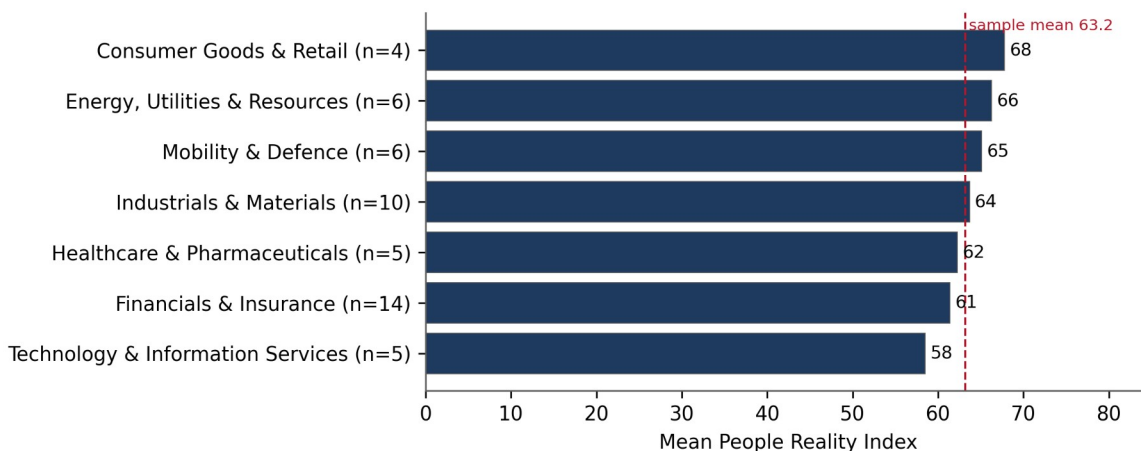


Figure 3.4. Mean People Reality Index by sector group. The dashed line marks the sample mean (63.2). Group sizes (n) are shown in the labels. Source: my own elaboration.

The differences between sector groups are modest. All seven group means fall within a band of roughly 58 to 68 points, which is narrower than the spread between individual companies. Consumer goods and retail sits at the top, while technology and information services sits at the bottom and also shows the widest gap between its mean and median, reflecting a small group with uneven scores. Financials and insurance, the largest group with 14 companies, scores close to the sample average. The overall message is that disclosure quality is not strongly determined by sector: good and weak reporters are found across most industries. This is consistent with the structural part of H3.

3.4 Benchmarking: Patterns by Country

Disclosure quality was also compared by country of headquarters. Table 3.4 reports the number of companies and the mean and median PRI for each country in the sample, and Figure 3.5 shows the mean PRI by country against the sample mean. Several countries are represented by only one or two companies, so their figures should be treated with caution and read as descriptive of the sample rather than of the country as a whole.

Country	n	Mean PRI	Median PRI
---------	---	----------	------------

Spain	2	75.0	75.0
Italy	4	71.2	70.2
France	5	70.4	75.0
Germany	10	64.4	63.5
United Kingdom	12	62.5	65.4
Netherlands	4	61.1	60.6
Switzerland	6	60.9	61.5
Finland	1	55.8	55.8
Sweden	4	55.3	52.9
Belgium	1	46.2	46.2
Denmark	1	46.2	46.2

Table 3.4. Mean and median PRI by country of headquarters.

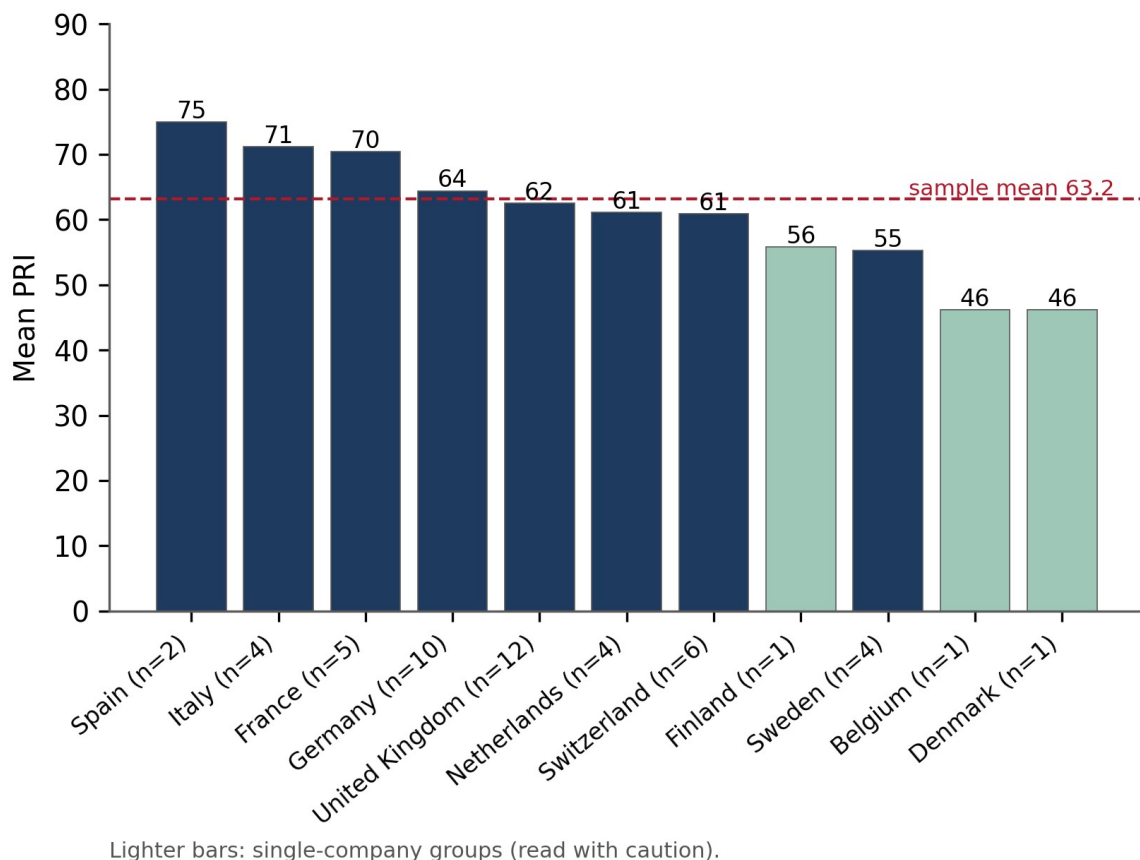


Figure 3.5. Mean People Reality Index by country of headquarters. Lighter bars mark single-company groups, which should be read with caution. The dashed line marks the sample mean (63.2). Source: my own elaboration.

Among the better-represented countries, companies headquartered in Italy and France show the highest average PRI, both above 70, while companies from Germany, the United Kingdom, the Netherlands and Switzerland cluster close to the sample mean of 63. Swedish companies in the sample score somewhat lower on average. The two Spanish companies have the highest mean of all, but with only two firms this result is fragile. As with sectors, the country differences are real but moderate, and the variation within most countries is larger than the variation between their averages. Country of headquarters alone does not explain how well a company reports, which again supports H3.

3.5 Assurance and Verification Status

Under the CSRD, sustainability information must be subject to assurance, beginning with a limited assurance requirement, which is a lower level of assurance than the reasonable assurance applied to financial statements. Assurance is intended to raise the reliability of

reported information and is therefore directly relevant to peoplewashing risk: independently checked figures are harder to overstate (Simnett et al., 2009).

In the present dataset, the coding captured the content and strength of each workforce disclosure but did not record a separate, verified assurance outcome for each company and theme. To avoid presenting unverified figures, this study does not report company-level assurance statistics. The systematic coding of assurance scope and assurance providers across the sample is identified as a clear extension of this work and is noted again in the discussion of limitations and future research.

3.6 PRI and RFI Score Distribution

The full distribution of scores confirms the picture of a stratified but not polarised sample, as Figure 3.6 shows. Scores are concentrated in the middle of the range, with the bulk of companies between the first quartile of 55.3 and the third quartile of 71.2, and with thinner tails at the top and bottom. The interquartile range of 15.9 points shows clear separation between stronger and weaker reporters without a split into two distinct camps. Table 3.5 lists the five highest and five lowest scoring companies, with the count of themes in each disclosure status. The complete company-level scores are provided in Appendix D.

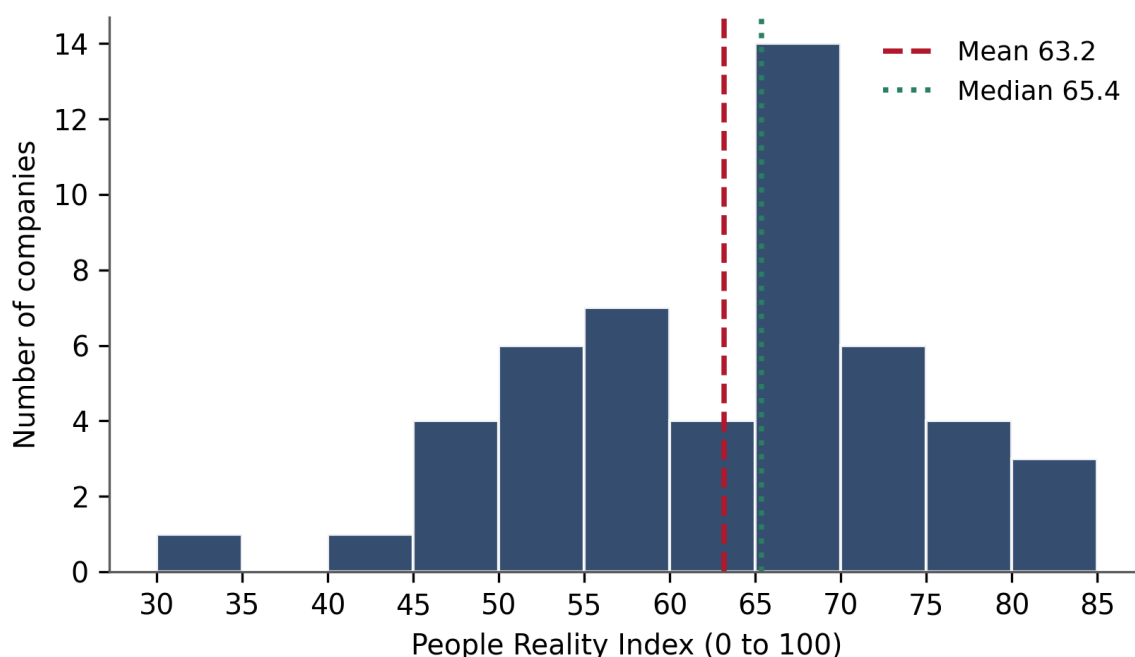


Figure 3.6. Distribution of the People Reality Index across the 50 companies, with the sample mean (63.2) and median (65.4) marked. Source: my own elaboration.

Top five companies by PRI

Company	PRI	RFI	Quant.	Qual.	Exempt	Not disc.
Amadeus IT Group	84.62	15.38	9	4	0	0
Legrand	80.77	19.23	8	5	0	0
Saint-Gobain	80.77	19.23	8	5	0	0
Alcon	76.92	23.08	7	6	0	0
Assicurazioni Generali	76.92	23.08	8	4	0	1

Bottom five companies by PRI

Company	PRI	RFI	Quant.	Qual.	Exempt	Not disc.
Partners Group	34.62	65.38	2	5	0	6
Investor AB	42.31	57.69	2	7	0	4
Argenx	46.15	53.85	3	6	0	4
Capgemini	46.15	53.85	5	2	0	6
DSV	46.15	53.85	3	5	2	3

Table 3.5. Highest and lowest scoring companies by PRI.

The contrast between the two ends of the table is instructive. The top reporters cover every theme and support most of them with numbers; none of them leaves a theme undisclosed. The weakest reporters, by contrast, leave several themes blank: Partners Group and Capgemini each leave 6 of 13 themes undisclosed. The difference between a high and a low score in this sample is therefore driven less by the quality of any single disclosure and more by how many themes a company is willing to address at all.

3.7 Financial Characteristics of the Sample

This section adds a financial layer to the disclosure analysis, in order to ask whether the quality of workforce reporting is related to a company's financial profile. For each company, key figures for the 2024 financial year were read directly from the consolidated financial statements: revenue, operating profit, profit for the year, total assets, total equity and personnel (staff) costs. Figures reported in currencies other than the euro were converted at the European Central Bank reference rates of 31 December 2024. Total operating costs are defined uniformly as revenue minus operating profit, and the labour-cost share as personnel cost divided by total operating costs. The figures were collected by hand from primary statements: total assets, total equity and profit for the year were obtained for all 50 companies, and the labour-cost share, which applies only to non-financial companies, for 34 of them. Each figure is reported with its source page in Appendix F.

Table 3.6 summarises the sample by country of headquarters, in euro. In balance-sheet terms the sample is dominated by large financial institutions: the United Kingdom and Germany account for the greatest asset totals, reflecting Barclays, Lloyds, NatWest, Deutsche Bank and others, while a single bank explains most of the Finnish and Dutch totals (Nordea and ING). Aggregate profit for the year is far more evenly distributed across countries than total assets, which underlines that balance-sheet size, driven by banking, is not a good guide to a company's economic weight in the wider sample.

Country	Total assets (EUR bn)	Total equity (EUR bn)	Profit for the year (EUR bn)
Belgium	5.3	5.3	0.8
Denmark	31.7	15.4	1.4
Finland	623.4	32.4	5.1
France	337.5	102.6	10.8
Germany	2,247.4	297.1	30.6
Italy	902.7	171.7	14.0
Netherlands	1,099.3	72.5	10.2
Spain	784.2	65.1	11.3

Sweden	183.2	108.0	17.6
Switzerland	214.9	66.8	8.4
United Kingdom	4,200.1	343.6	29.1

Table 3.6. Sample financial size by country of headquarters, for companies with available 2024 data, converted to euro at European Central Bank reference rates of 31 December 2024. Source: my own elaboration from company consolidated financial statements.

Table 3.7 reports the labour-cost share for the 34 non-financial companies for which it could be computed, alongside each company's People Reality Index. The share spans a very wide range, from 3.9 per cent at the oil and gas group Eni to 77.7 per cent at the IT-services group Capgemini, with a mean of 25.8 per cent and a median of 23.5 per cent. The ordering is intuitive: it is highest for people-intensive services such as Capgemini, Experian and Amadeus, and lowest for capital- or input-intensive businesses such as Eni, DSV in logistics and Stellantis in vehicle manufacturing, where materials and energy dominate the cost base.

Company	Country	Labour-cost share	PRI
Capgemini	France	77.7%	46.2
Wolters Kluwer	Netherlands	48.1%	53.8
Experian	United Kingdom	46.1%	53.8
Lonza	Switzerland	42.0%	57.7
Amadeus IT Group	Spain	40.9%	84.6
Infineon Technologies	Germany	36.1%	53.8
BAE Systems	United Kingdom	36.1%	57.7
Assa Abloy	Sweden	35.9%	48.1
Atlas Copco	Sweden	33.4%	73.1
Deutsche Post DHL	Germany	33.2%	76.9

Argenx	Belgium	32.4%	46.2
Ashtead Group	United Kingdom	30.3%	53.8
Siemens Energy	Germany	29.9%	61.5
Legrand	France	29.2%	80.8
Rheinmetall	Germany	28.2%	65.4
Givaudan	Switzerland	25.4%	57.7
Haleon	United Kingdom	24.0%	65.4
Saint-Gobain	France	23.0%	80.8
Sika	Switzerland	21.3%	65.4
Reckitt Benckiser	United Kingdom	20.8%	65.4
BASF	Germany	17.8%	53.8
Volvo Group	Sweden	17.2%	57.7
Danone	France	17.0%	69.2
Ahold Delhaize	Netherlands	15.1%	61.5
Anglo American	United Kingdom	14.6%	69.2
Adidas	Germany	14.2%	71.2
Engie	France	13.6%	75.0
Mercedes-Benz Group	Germany	13.1%	69.2
Ferrari	Italy	13.1%	71.2
Tesco	United Kingdom	12.5%	69.2
Stellantis	Italy	11.2%	69.2
DSV	Denmark	10.9%	46.2

E.ON	Germany	9.1%	59.6
Eni	Italy	3.9%	67.3

Table 3.7. Labour-cost share (personnel cost divided by total operating costs) and People Reality Index for the 34 non-financial companies with complete 2024 financial data. Source: my own elaboration.

The central question is whether this financial characteristic explains disclosure quality. It does not. Across the 34 companies the correlation between the labour-cost share and the People Reality Index is weak and negative, with a coefficient of about minus 0.34. With 34 companies this association is only borderline significant and remains descriptive rather than confirmatory; its small magnitude, which leaves roughly nine tenths of the variation in disclosure quality unexplained, is what matters here. If anything there is a faint tendency for the most labour-intensive firms to disclose slightly less, not more, but the relationship is far too weak to support any conclusion. The clearest illustration is at the extremes: Capgemini, the most labour-intensive company in the group, has one of the lowest People Reality Indices in the whole sample, while Amadeus, also highly labour-intensive, has the highest. Companies for which the workforce is the single largest cost, and which therefore have the most at stake in how they report on their people, do not provide more verifiable workforce information than companies for which labour is a minor share of costs. This reinforces the finding of Sections 3.3 and 3.4 that disclosure quality in the first mandatory year is mainly an individual company characteristic rather than a product of sector economics, and it is consistent with the modest structural variation anticipated in H3. It also sharpens the peoplewashing picture: the evidence gap is not confined to firms where the workforce is financially marginal, but appears right across the cost spectrum.

4. Discussion and Conclusions

This thesis set out to measure how far the workforce reporting of large European companies under ESRS S1 is supported by real data, and to locate where the risk of peoplewashing is greatest. The evidence from 50 STOXX Europe 600 companies, in the first year of mandatory ESRS S1 application, points to a clear answer: coverage is broad, but measurable depth is uneven.

On the first research question, the level of disclosure quality, the mean People Reality Index of 63.2 indicates that the average company supports rather more than half of its workforce themes with verifiable evidence. Importantly, every company reported at least some quantitative information, and more than a third covered all 13 themes with at least a narrative. The standard has therefore succeeded in making companies address the full range of workforce topics. At the same time, words still outweigh numbers: the average company quantifies fewer than 5 of the 13 themes and describes more than 6 in narrative only. This pattern, broad coverage with limited quantification, is exactly what legitimacy theory predicts, since narrative is a low-cost way of signalling conformity with social expectations (Suchman, 1995; Cho & Patten, 2007). It also fits the reconciliation proposed by Hummel and Schlick (2016): where measurable evidence is costly or performance is uncertain, companies fall back on low-quality narrative that protects legitimacy without revealing outcomes. H1 is supported.

On the second research question, the location of peoplewashing risk, the thematic analysis gives a sharp and consistent picture. Risk is not spread evenly but concentrates on four themes: non-employee workers, worker representation and collective bargaining, adequate or living wages, and work-life balance. These are the themes with the highest rates of non-disclosure and exemption. By contrast, themes that are long established or required by other law, such as headcount, diversity and pay equity, are well quantified. This selective pattern matches the prediction of voluntary and selective disclosure theory, under which firms quantify where it is cheap, expected or externally required, and stay narrative where data are sensitive or scrutiny is weaker (Verrecchia, 2001; Marquis et al., 2016). A further theme, incidents and human rights, is almost universally discussed but almost never quantified, which makes it a particular candidate for narrative without evidence, in the sense of symbolic rather than substantive disclosure (Marquis & Qian, 2014). The finding that exemptions are used sparingly is significant: the weak spots reflect genuine silence rather than formally postponed disclosure. H2 is supported.

On the third research question, variation by sector and by country, the differences are real but moderate. Sector group means fall within a relatively narrow band, and country means, while higher for Italy and France and lower for Sweden among the better-represented countries, vary less between countries than within them. Neither sector nor country of headquarters strongly predicts how well a company reports. This suggests that disclosure quality is, at this early stage, more a matter of individual company choice and reporting maturity than of structural industry or national factors, in line with H3.

Taken together, the results support a cautious reading of progress. ESRS S1 has clearly widened the scope of workforce reporting in its first mandatory year, and the absence of any company relying purely on narrative is an encouraging sign. But the persistence of narrative-only reporting on sensitive themes, and the concentration of outright silence on a small set of topics, show that the move from describing policies to disclosing verifiable outcomes is far from complete. Peoplewashing risk, understood as an absence of evidence rather than proof of bad practice, remains real and predictable in its location.

4.1 Implications

For investors and other users of reports, the findings indicate where to apply the most scrutiny: the four high-risk themes, where claims are least likely to be backed by numbers. For standard setters and auditors, the concentration of narrative-only reporting on themes such as incidents, social protection and training suggests where additional guidance or assurance attention would most improve comparability; the assurance literature shows that independent verification is associated with more credible reporting (Simnett et al., 2009). For companies, the PRI offers a simple, transparent benchmark of their own evidence base against peers, and points to the specific themes where adding even a single verifiable indicator would raise the quality of their reporting.

4.2 Limitations and Future Research

Several limitations should be kept in mind. First, the sample of 50 companies, while varied, is small relative to the full population of in-scope companies, and several countries and some sector groups are represented by only one or two firms, so the sector and country comparisons are indicative rather than definitive. Second, the coding rests on the judgement of a single coder, the author; although the dataset was cleaned and partially re-read, formal inter-coder reliability testing was not performed and would strengthen confidence in the results. Third, the indices measure the strength of evidence, not the underlying quality of working conditions, so

a high score reflects good disclosure, not necessarily good practice. Fourth, the present dataset does not include a verified, company-level record of assurance scope, which is why no assurance statistics are reported. Fifth, the complementary financial layer in Section 3.7 was compiled by hand from primary statements, so complete figures were available for almost the whole sample (total assets, equity and profit for all 50 companies), and the labour-cost share, which applies only to non-financial companies, could be computed for thirty-four non-financial companies; the financial findings are therefore descriptive rather than statistically tested.

These limitations point directly to useful extensions. The sample could be enlarged to the full first wave of CSRD reporters, allowing statistically robust comparisons by sector and country. A second coder could be added to measure reliability. Assurance scope and providers could be coded systematically to test whether assured disclosures score higher. Finally, repeating the analysis in later reporting years would show whether companies move, over time, from narrative toward verifiable numbers, which is the central promise of the CSRD reform. The financial layer could also be completed for the whole sample and extended into a formal test of whether disclosure quality is associated with size, profitability or labour intensity.

References

- Baker, A. C., Larcker, D. F., McClure, C. G., Saraph, D., & Watts, E. M. (2024). Diversity washing. *Journal of Accounting Research*, 62(5), 1661-1709.
- 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.
- Boiral, O. (2013). Sustainability reports as simulacra? A counter-account of A and A+ GRI reports. *Accounting, Auditing & Accountability Journal*, 26(7), 1036-1071.
- Cho, C. H., & Patten, D. M. (2007). The role of environmental disclosures as tools of legitimacy: A research note. *Accounting, Organizations and Society*, 32(7-8), 639-647.
- Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Accounting, Organizations and Society*, 33(4-5), 303-327.
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39-67.
- Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures - a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282-311.
- Delmas, M. A., & Burbano, V. C. (2011). The drivers of greenwashing. *California Management Review*, 54(1), 64-87.
- Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review*, 86(1), 59-100.
- European Central Bank (ECB). (2024). *Euro foreign exchange reference rates, 31 December 2024*. Frankfurt: European Central Bank.
- European Commission. (2023). Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards. Official Journal of the European Union, L (published 22 December 2023). Annex I, ESRS S1 Own Workforce.

- European Financial Reporting Advisory Group (EFRAG). (2023). *ESRS SI Own Workforce (European Sustainability Reporting Standards, Set 1)*. Brussels: EFRAG.
- European Parliament and Council of the European Union. (2013). Directive 2013/34/EU of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings (Accounting Directive). Official Journal of the European Union, L 182.
- European Parliament and Council of the European Union. (2014). Directive 2014/95/EU of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups (Non-Financial Reporting Directive). Official Journal of the European Union, L 330.
- European Parliament and Council of the European Union. (2022). Directive (EU) 2022/2464 of 14 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 (Corporate Sustainability Reporting Directive). Official Journal of the European Union, L 322.
- European Securities and Markets Authority (ESMA), on behalf of the Joint Committee of the European Supervisory Authorities. (2024). *Final Report on Greenwashing (ESMA36-287652198-2699)*, 4 June 2024. Paris: ESMA.
- Global Reporting Initiative (GRI). (2022). *The GRI Standards and 25 years of sustainability reporting*. Amsterdam: Global Reporting Initiative.
- Gray, R., Kouhy, R., & Lavers, S. (1995). Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing & Accountability Journal*, 8(2), 47-77.
- Hummel, K., & Schlick, C. (2016). The relationship between sustainability performance and sustainability disclosure - Reconciling voluntary disclosure theory and legitimacy theory. *Journal of Accounting and Public Policy*, 35(5), 455-476.
- International Organization for Standardization (ISO). (2010). *ISO 26000:2010 Guidance on social responsibility*. Geneva: ISO.
- KPMG. (2022). *Big shifts, small steps: Survey of Sustainability Reporting 2022*. Amstelveen: KPMG International.

- La Torre, M., Sabelfeld, S., Blomkvist, M., Tarquinio, L., & Dumay, J. (2018). Harmonising non-financial reporting regulation in Europe: Practical forces and projections for future research. *Meditari Accountancy Research*, 26(4), 598-621.
- Lyon, T. P., & Maxwell, J. W. (2011). Greenwash: Corporate environmental disclosure under threat of audit. *Journal of Economics & Management Strategy*, 20(1), 3-41.
- Marquis, C., & Qian, C. (2014). Corporate social responsibility reporting in China: Symbol or substance? *Organization Science*, 25(1), 127-148.
- Marquis, C., Toffel, M. W., & Zhou, Y. (2016). Scrutiny, norms, and selective disclosure: A global study of greenwashing. *Organization Science*, 27(2), 483-504.
- Michelon, G., Pilonato, S., & Ricceri, F. (2015). CSR reporting practices and the quality of disclosure: An empirical analysis. *Critical Perspectives on Accounting*, 33, 59-78.
- Organisation for Economic Co-operation and Development (OECD). (2011). *OECD Guidelines for Multinational Enterprises*. Paris: OECD Publishing.
- Simnett, R., Vanstraelen, A., & Chua, W. F. (2009). Assurance on sustainability reports: An international comparison. *The Accounting Review*, 84(3), 937-967.
- Stolowy, H., & Paugam, L. (2018). The expansion of non-financial reporting: an exploratory study. *Accounting and Business Research*, 48(5), 525-548.
- STOXX Ltd. (2024). *STOXX Europe 600 Index: Factsheet and Index Methodology*. Zurich: STOXX Ltd.
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571-610.
- United Nations Global Compact. (2000). *The Ten Principles of the United Nations Global Compact*. New York: United Nations.
- Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32(1-3), 97-180.
- Yemmouni, I. (2026). ESRS S1 workforce disclosure dataset: 50 STOXX Europe 600 companies, 2024 reports (corrected dataset). Primary data compiled by the author from company annual reports, integrated reports and sustainability statements for the 2024 financial year.

Appendices

Appendix A. Sample Companies

The 50 sample companies, with their country of headquarters and sector group. Source: STOXX Europe 600 constituent data and the dataset I compiled.

#	Company	Country	Sector group
1	3i Group	United Kingdom	Financials & Insurance
2	Adidas	Germany	Consumer Goods & Retail
3	Adyen	Netherlands	Financials & Insurance
4	Ahold Delhaize	Netherlands	Consumer Goods & Retail
5	Alcon	Switzerland	Healthcare & Pharmaceuticals
6	Amadeus IT Group	Spain	Technology & Information Services
7	Anglo American	United Kingdom	Energy, Utilities & Resources
8	Argenx	Belgium	Healthcare & Pharmaceuticals
9	Ashtead Group	United Kingdom	Industrials & Materials
10	Assa Abloy	Sweden	Industrials & Materials
11	Assicurazioni Generali	Italy	Financials & Insurance
12	Atlas Copco	Sweden	Industrials & Materials
13	BAE Systems	United Kingdom	Mobility & Defence
14	Banco Bilbao Vizcaya Argentaria	Spain	Financials & Insurance
15	Barclays	United	Financials & Insurance

#	Company	Country	Sector group
		Kingdom	
16	BASF	Germany	Industrials & Materials
17	Capgemini	France	Technology & Information Services
18	Danone	France	Consumer Goods & Retail
19	Deutsche Bank	Germany	Financials & Insurance
20	Deutsche Börse	Germany	Financials & Insurance
21	Deutsche Post DHL	Germany	Industrials & Materials
22	DSV	Denmark	Industrials & Materials
23	E.ON	Germany	Energy, Utilities & Resources
24	Engie	France	Energy, Utilities & Resources
25	Eni	Italy	Energy, Utilities & Resources
26	Experian	United Kingdom	Technology & Information Services
27	Ferrari	Italy	Mobility & Defence
28	Givaudan	Switzerland	Industrials & Materials
29	Glencore	United Kingdom	Energy, Utilities & Resources
30	Haleon	United Kingdom	Healthcare & Pharmaceuticals
31	Infineon Technologies	Germany	Technology & Information Services
32	ING Group	Netherlands	Financials & Insurance
33	Investor AB	Sweden	Financials & Insurance

#	Company	Country	Sector group
34	Legrand	France	Industrials & Materials
35	Lloyds Banking Group	United Kingdom	Financials & Insurance
36	Lonza	Switzerland	Healthcare & Pharmaceuticals
37	Mercedes-Benz Group	Germany	Mobility & Defence
38	NatWest Group	United Kingdom	Financials & Insurance
39	Nordea Bank	Finland	Financials & Insurance
40	Partners Group	Switzerland	Financials & Insurance
41	Reckitt Benckiser	United Kingdom	Healthcare & Pharmaceuticals
42	Rheinmetall	Germany	Mobility & Defence
43	Saint-Gobain	France	Industrials & Materials
44	Siemens Energy	Germany	Energy, Utilities & Resources
45	Sika	Switzerland	Industrials & Materials
46	Stellantis	Italy	Mobility & Defence
47	Swiss Re	Switzerland	Financials & Insurance
48	Tesco	United Kingdom	Consumer Goods & Retail
49	Volvo Group	Sweden	Mobility & Defence
50	Wolters Kluwer	Netherlands	Technology & Information Services

Appendix B. ESRS S1 Disclosure Items Mapping

The 145 disclosure elements of ESRS S1 (S1-1 to S1-17) grouped into the 13 thematic categories used in this study. The detailed mapping is maintained by me in the project workbook and is available on request.

Appendix C. Coding Manual and Correction Log

Definitions of the four disclosure statuses, decision rules for assigning a status to each company-by-theme cell, and the log of changes made during data cleaning (see Section 2.4.1). Maintained by me in the project workbook and available on request.

Appendix D. Company-Level Scores

People Reality Index (PRI) and Red-Flag Index (RFI) for all 50 companies, with the count of themes in each disclosure status, ordered from the highest to the lowest PRI. Source: my own elaboration, from the corrected dataset.

#	Company	PRI	RFI	Quant.	Qual.	Exempt	Not disc.
1	Amadeus IT Group	84.6	15.4	9	4	0	0
2	Legrand	80.8	19.2	8	5	0	0
3	Saint-Gobain	80.8	19.2	8	5	0	0
4	Alcon	76.9	23.1	7	6	0	0
5	Assicurazioni Generali	76.9	23.1	8	4	0	1
6	Deutsche Post DHL	76.9	23.1	7	6	0	0
7	Engie	75.0	25.0	7	5	1	0
8	3i Group	73.1	26.9	7	5	0	1
9	Atlas Copco	73.1	26.9	6	7	0	0
10	Swiss Re	73.1	26.9	6	7	0	0
11	Adidas	71.2	28.8	7	3	3	0
12	Deutsche Bank	71.2	28.8	6	6	1	0

#	Company	PRI	RFI	Quant.	Qual.	Exempt	Not disc.
13	Ferrari	71.2	28.8	6	6	1	0
14	Adyen	69.2	30.8	7	4	0	2
15	Anglo American	69.2	30.8	6	6	0	1
16	Danone	69.2	30.8	6	6	0	1
17	Mercedes-Benz Group	69.2	30.8	5	8	0	0
18	Stellantis	69.2	30.8	5	8	0	0
19	Tesco	69.2	30.8	5	8	0	0
20	Eni	67.3	32.7	6	4	3	0
21	Banco Bilbao Vizcaya Argentaria	65.4	34.6	5	6	2	0
22	Glencore	65.4	34.6	4	9	0	0
23	Haleon	65.4	34.6	5	7	0	1
24	NatWest Group	65.4	34.6	4	9	0	0
25	Reckitt Benckiser	65.4	34.6	4	9	0	0
26	Rheinmetall	65.4	34.6	4	9	0	0
27	Sika	65.4	34.6	4	9	0	0
28	Ahold Delhaize	61.5	38.5	3	10	0	0
29	Deutsche Börse	61.5	38.5	4	8	0	1
30	Lloyds Banking Group	61.5	38.5	3	10	0	0
31	Siemens Energy	61.5	38.5	3	10	0	0
32	E.ON	59.6	40.4	5	5	1	2
33	ING Group	59.6	40.4	4	6	3	0

#	Company	PRI	RFI	Quant.	Qual.	Exempt	Not disc.
34	BAE Systems	57.7	42.3	5	5	0	3
35	Givaudan	57.7	42.3	3	9	0	1
36	Lonza	57.7	42.3	5	5	0	3
37	Volvo Group	57.7	42.3	2	11	0	0
38	Nordea Bank	55.8	44.2	3	8	1	1
39	Ashtead Group	53.8	46.2	4	6	0	3
40	BASF	53.8	46.2	3	7	2	1
41	Experian	53.8	46.2	4	6	0	3
42	Infineon Technologies	53.8	46.2	5	0	8	0
43	Wolters Kluwer	53.8	46.2	2	9	2	0
44	Barclays	50.0	50.0	5	3	0	5
45	Assa Abloy	48.1	51.9	4	4	1	4
46	Argenx	46.2	53.8	3	6	0	4
47	Capgemini	46.2	53.8	5	2	0	6
48	DSV	46.2	53.8	3	5	2	3
49	Investor AB	42.3	57.7	2	7	0	4
50	Partners Group	34.6	65.4	2	5	0	6

Appendix E. Full Sector and Country Breakdown

Distribution of the People Reality Index by sector group and by country of headquarters, with the number of companies (n), the mean, the median, and the range. Source: my own elaboration.

Sector groups

Sector group	n	Mean	Median	Min	Max
Consumer Goods & Retail	4	67.8	69.2	61.5	71.2
Energy, Utilities & Resources	6	66.3	66.3	59.6	75.0
Mobility & Defence	6	65.1	67.3	57.7	71.2
Industrials & Materials	10	63.7	61.5	46.2	80.8
Healthcare & Pharmaceuticals	5	62.3	65.4	46.2	76.9
Financials & Insurance	14	61.4	63.5	34.6	76.9
Technology & Information Services	5	58.5	53.8	46.2	84.6

Countries of headquarters

Country	n	Mean	Median	Min	Max
Spain	2	75.0	75.0	65.4	84.6
Italy	4	71.2	70.2	67.3	76.9
France	5	70.4	75.0	46.2	80.8
Germany	10	64.4	63.5	53.8	76.9
United Kingdom	12	62.5	65.4	50.0	73.1
Netherlands	4	61.1	60.6	53.8	69.2
Switzerland	6	60.9	61.5	34.6	76.9
Finland	1	55.8	55.8	55.8	55.8

Sweden	4	55.3	52.9	42.3	73.1
Belgium	1	46.2	46.2	46.2	46.2
Denmark	1	46.2	46.2	46.2	46.2

Appendix F. Financial Metrics (FY2024)

Key financial figures for the 2024 financial year, read directly from each company's consolidated financial statements, in the company's reporting currency and in millions. Total costs are revenue minus operating profit; the labour-cost share (personnel cost divided by total costs) is shown for non-financial companies only. A dash means the figure was not recorded. The complete dataset, including euro conversions at the European Central Bank rates of 31 December 2024 and the page reference for every figure, is maintained in the workbook Financial_Metrics_Yemmouni.xlsx. Source: my own elaboration from company consolidated financial statements.

Company	Ccy	Revenue	Op. profit	Net profit	Total assets	Total equity	Personnel	Labour share
3i Group	GBP	-	-	3,836	22,452	20,170	-	-
Adidas	EUR	23,683	1,337	824	20,655	5,867	3,184	14.2%
Adyen	EUR	-	-	925	11,425	4,232	-	-
Ahold Delhaize	EUR	89,356	2,784	1,764	51,842	15,454	13,089	15.1%
Alcon	USD	9,836	1,413	1,018	30,347	21,553	-	-
Amadeus IT Group	EUR	6,142	1,414	1,253	11,784	5,064	1,935	40.9%
Anglo American	USD	27,354	5,012	-3,068	64,866	28,533	3,259	14.6%
Argenx	USD	2,252	-22	833	5,503	5,498	736	32.4%
Ashtead	USD	10,792	2,654	1,598	21,651	7,085	2,463	30.3%

Company	Ccy	Revenue	Op. profit	Net profit	Total assets	Total equity	Personnel	Labour share
Group								
Assa Abloy	SEK	150,162	24,275	15,621	223,605	107,080	45,184	35.9%
Assicurazioni Generali	EUR	-	-	4,167	538,647	30,389	-	-
Atlas Copco	SEK	176,771	38,166	29,794	208,538	113,760	46,261	33.4%
BAE Systems	GBP	28,335	2,685	2,150	38,142	11,777	9,252	36.1%
BASF	EUR	65,260	2,033	1,298	80,415	35,599	11,241	17.8%
Banco Bilbao Vizcaya Argentaria	EUR	-	-	10,054	772,402	60,000	-	-
Barclays	GBP	26,788	-	6,307	1,518,200	72,481	-	-
Capgemini	EUR	22,096	2,356	1,677	25,660	11,797	15,341	77.7%
DSV	DKK	167,106	16,096	10,175	236,545	114,503	16,491	10.9%
Danone	EUR	27,619	2,042	881	44,486	16,176	4,337	17.0%
Deutsche Bank	EUR	-	-	3,500	1,387,177	79,432	-	-
Deutsche Börse	EUR	-	-	1,948	222,112	10,770	-	-
Deutsche	EUR	84,316	6,773	3,569	66,830	22,888	25,725	33.2%

Company	Ccy	Revenue	Op. profit	Net profit	Total assets	Total equity	Personnel	Labour share
Post DHL								
E.ON	EUR	80,119	8,332	5,562	111,361	17,841	6,534	9.1%
Engie	EUR	73,812	10,341	4,106	189,544	41,458	8,623	13.6%
Eni	EUR	88,797	5,238	2,764	146,939	55,648	3,262	3.9%
Experian	USD	7,097	1,694	1,203	11,712	4,669	2,493	46.1%
Ferrari	EUR	6,677	1,888	1,526	9,497	3,543	626	13.1%
Givaudan	CHF	7,412	1,394	1,090	12,099	4,578	1,526	25.4%
Glencore	USD	230,944	-	-1,634	130,460	35,660	6,429	-
Haleon	GBP	11,233	2,206	1,442	34,310	16,220	2,170	24.0%
ING Group	EUR	22,615	-	6,392	1,026,500	51,309	-	-
Infineon Technologies	EUR	14,955	2,190	1,301	28,639	17,219	4,612	36.1%
Investor AB	SEK	-	-	106,074	952,090	819,752	-	-
Legrand	EUR	8,649	1,643	1,169	16,075	7,548	2,049	29.2%
Lloyds Banking Group	GBP	17,117	-	4,477	906,697	45,888	-	-
Lonza	CHF	6,574	964	637	19,733	9,388	2,359	42.0%
Mercedes-Benz Group	EUR	145,594	13,599	10,409	265,010	93,630	17,301	13.1%

Company	Ccy	Revenue	Op. profit	Net profit	Total assets	Total equity	Personnel	Labour share
NatWest Group	GBP	14,703	-	4,811	708,000	39,378	-	-
Nordea Bank	EUR	-	-	5,059	623,355	32,436	-	-
Partners Group	CHF	-	-	1,128	5,683	1,916	-	-
Reckitt Benckiser	GBP	14,169	2,425	1,428	25,298	6,720	2,446	20.8%
Rheinmetall	EUR	9,751	1,345	808	14,344	4,465	2,373	28.2%
Saint-Gobain	EUR	46,571	5,304	2,934	61,718	25,648	9,471	23.0%
Siemens Energy	EUR	34,465	2,125	1,335	50,874	9,364	9,680	29.9%
Sika	CHF	11,763	1,714	1,248	15,977	7,047	2,144	21.3%
Stellantis	EUR	156,878	3,687	5,520	207,607	82,115	17,100	11.2%
Swiss Re	USD	-	-	3,200	133,861	22,539	-	-
Tesco	GBP	68,187	2,821	1,192	47,039	11,665	8,161	12.5%
Volvo Group	SEK	526,816	66,611	50,389	714,564	197,361	79,177	17.2%
Wolters Kluwer	EUR	5,916	1,441	1,079	9,498	1,545	2,151	48.1%