

Whitepaper

# Introducing the LSEG ESG Scores

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# 25 years of sustainable finance innovation at LSEG

LSEG has a rich heritage of developing data, index, and analytics solutions for sustainable finance and investing. This stretches back 25 years to the creation of the FTSE4Good index series – one of the world’s longest-running sustainable index families and an instantly recognisable yardstick – and to the founding of Asset4 in 2003, subsequently acquired by LSEG in 2009.

Since then, sustainable finance and investing has experienced transformative growth – spreading around the globe and to every asset class. While definitions vary, the size of the market is now assessed in the trillions. LSEG data shows that the green bonds market alone now exceeds US\$3 trillion,<sup>1</sup> green equities have surpassed US\$5 trillion,<sup>2</sup> and over US\$3 trillion in assets are invested across sustainable mutual funds and ETFs.<sup>3</sup>

As sustainable finance and investing has expanded, it has also become increasingly regulated. This includes the establishment of flagship corporate

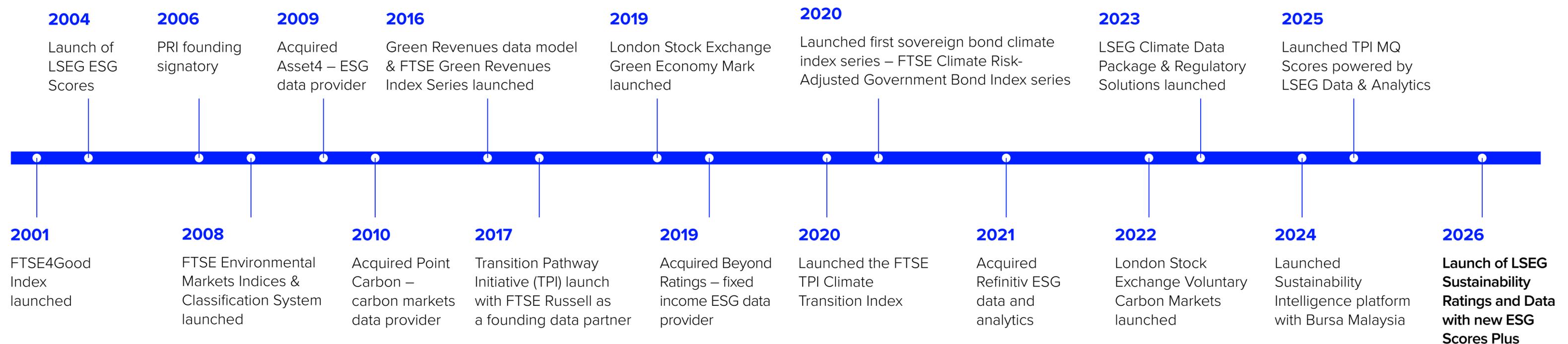
disclosure standards and green taxonomies, as well as rules for sustainability labelled funds and for providers of sustainable investment data, scores and ratings. The European Union has spearheaded many of these initiatives, but significant regulatory frameworks have also been established in the UK, Canada as well as in the Asia Pacific region, including Australia, Japan, China, and many ASEAN economies.

The growth in sustainable finance and investing has reshaped practices along the entire investment chain, with many asset managers and banks developing sophisticated sustainability-focused analytical and stewardship capabilities that can be an important differentiator to win business. Large companies are also now dedicating substantial resources and carefully adjusting policies and disclosures to earn and retain favourable sustainability assessments. Such efforts often also extend to managing their network of suppliers, pushing mid-sized and smaller firms to provide at least a minimum level of sustainability disclosures and data.

As sustainable finance and investing has matured and diversified, so has the data and analytical toolbox enabling it. Solutions have evolved from simple activity-based screening and top-line ESG scores or ratings (see Box 1) covering a few hundred companies, to a dizzying array of data and metrics designed to capture different aspects of sustainability performance and covering tens of thousands of assets and companies, from climate to product safety, and controversial conduct to corporate governance.

Against that backdrop, this report revisits a metric that has been central to the development of sustainable finance: ESG scores. It explains why and how – in a multi-year research effort – we have re-engineered ESG scores bottom-up to provide investors and other users with a new solution for today’s sustainable investment environment that places ever greater emphasis on robust and transparent methodologies and data-driven tooling.

**Figure 1. 25 years of sustainable finance innovation at LSEG**



<sup>1</sup> LSEG, 2025, [Green debt market passes \\$3 trillion milestone](#)

<sup>2</sup> LSEG, 2025, [LSEG Green Economy Report - Investing in the green economy 2025](#)

<sup>3</sup> LSEG, 2025, [Global Responsible Investments Fund Market Statistics for October–Lipper Analysis](#)

## Box 1. What are ESG scores and ratings?

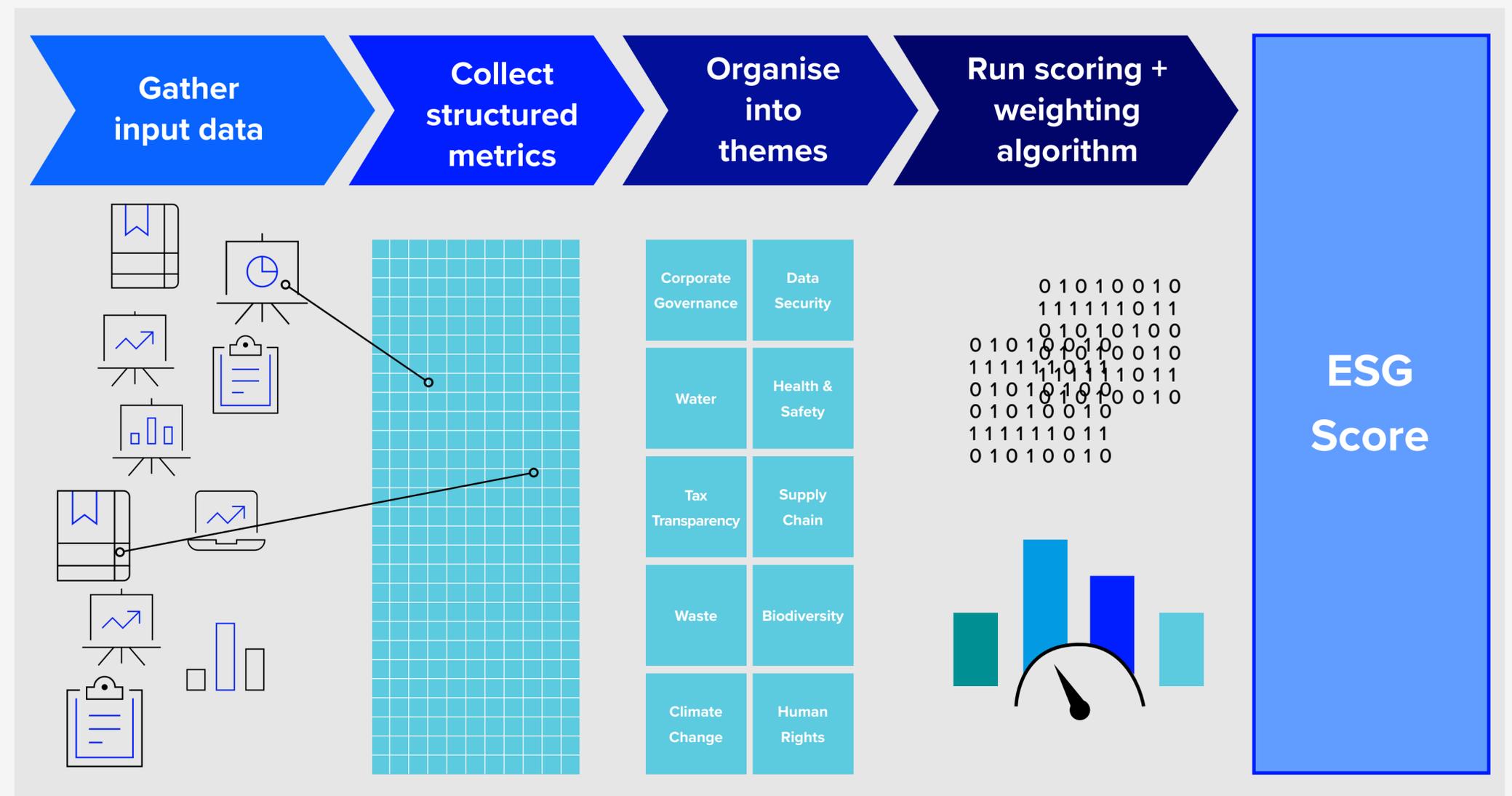
While some academic or regulatory definitions<sup>4</sup> of ESG ratings and scores encompass a broad spectrum of non-financial datasets used in sustainable investing, practitioner usage of the term tends to be narrower. Users typically refer to a specific set of data products that are branded as ESG scores or ratings and share a set of common key features:

- (1) **Holistic in scope:** ESG scores are deliberately designed to cover a broad range of ESG issues across diverse sectors as opposed to scores focused on specific issues, such as climate or transition scores, or sector benchmarks.
- (2) **Ultimately aggregated to a single overall score:** ESG scores are composite indicators based on a cascading aggregation of sub-scores. Such sub-scores typically include separate Environmental, Social, and Governance scores which in themselves are aggregated from issue or topic scores. These in turn are based on individual indicators or metrics.
- (3) **Primarily based on data disclosed by the assessed entity:** The bulk of input data used in the construction of ESG scores consists of quantitative and qualitative data publicly disclosed by corporates in sustainability reporting. In some cases, data providers turn to surveys or estimated data to fill disclosure gaps. Disclosure-based data is also often supplemented or adjusted through secondary data from other sources (such as media and NGO reports on controversies, thematic exposures, or data on regulatory fines etc.), which in some cases may also be sold as separate data or research products.

<sup>4</sup> [Regulation - EU - 2024/3005 - EN - EUR-Lex](#) defines ESG ratings as an all-encompassing term for both ESG scores and opinions, with the first one being a pre-established statistical or algorithmic system or model and the latter directly involving a rating analyst in the process.

<sup>5</sup> IOSCO delineates between ESG Ratings and Scores; IOSCO, 2021, [Environmental, Social and Governance \(ESG\) Ratings and Data Products Providers - Final Report](#): “ESG scores usually result from quantitative analysis whereas ESG ratings are produced using both quantitative models and qualitative analysis and are accompanied by analyst reports to explain the ratings. On that basis, ratings may therefore incorporate an element of analytical judgement or opinion.”

Figure 2. The ESG scoring process



**ESG ratings** are similar to ESG scores, however ratings adjust the results of quantitative models through qualitative analysis and analyst opinions and are typically accompanied by analyst reports to explain these ratings.<sup>5</sup> **ESG scores** are defined as being entirely rule-based without subjective decision-making in the calculation of individual assessments.

Widely used ESG scores are mostly maintained by major data providers that also maintain the underlying ESG datasets, involving the collection of millions of data points to assess tens of thousands of entities. In some cases, institutional investors or banks have developed their own, proprietary ESG scores, usually based on combining data procured from multiple different data providers with internal sources, rather than primary data collection.

# ESG Scores – Huh...yeah...what is it good for?

*ESG ratings can be a useful source of information for investment, risk monitoring, and stewardship activities; however, insufficient transparency about key design choices and methodologies currently limits their value.*

*Norges Bank Investment Management<sup>6</sup>*

ESG scores and ratings (see Box 1 for definitions) are among the oldest, best-known, and most widely used datasets in sustainable investing. Yet they are also the most contested and have at times attracted strong criticism – with detractors variously arguing that ESG scores enable corporate greenwashing or seek to impose a progressive, norms-based agenda.

Even supportive observers have persistently voiced concerns, with some highlighting ‘aggregate confusion’<sup>7</sup> on ESG scores and ratings, despite such users finding value in the underlying data. This has been fuelled by material divergence in scores across major providers;<sup>8</sup> the sources of which are often difficult to ascertain for users due to different data sources and opaque scoring methodologies, and accusations of potential conflicts of interest.<sup>9</sup>

Nonetheless, financial institutions continue to procure ESG scores and ratings, often from multiple providers, at significant cost – not only to mitigate the potential input data and methodological shortcomings of any single provider, but also to access the underlying data and combine these inputs into their own proprietary ESG scoring frameworks.

What then explains the apparent contradiction between unloved scores and ratings and ubiquitous usage by investors and the broader financial industry? Part of the answer is that they have become deeply embedded in institutional workflows, providing the data infrastructure required to report on commitments in investment mandates, to meet labelled fund criteria and to underpin stewardship activities.

Beyond this, investors ultimately continue to use ESG scores because – despite their inherent limitations – they offer differentiated, decision-useful insights that investors cannot readily obtain through other means. For investors the question is less whether to ditch them altogether, but how to leverage their strengths alongside other tools and how to mitigate their weaknesses most effectively. Specifically, they offer investors:

**1) An effective tool to identify & monitor extra-financial blind spots:** The strength of ESG scores lies in providing a simple, intuitive, if imprecise catchall datapoint across disparate sustainability issues that can become financially material. The scores systematically distil a vast range of unstructured, ambiguous, and incomplete data on non-financial performance, commitments, and targets, into scores that can be used for monitoring and decision-making. This enables investors to effectively and efficiently introduce a broad set of signals – from board independence and energy efficiency to labour relations – into the investment process, which on their own would rarely make the cut.

**2) A useful proxy for corporate culture & management quality:** Approaches to ESG issues can shed light on a company’s attitude to human capital and operational excellence, as well as its appetite for reputational and regulatory risk.<sup>10</sup> In other words, ESG scores provide a crude but useful proxy for key intangible assets – corporate culture and management quality – that are otherwise very hard to measure but critical to a company’s long-term performance.

**3) A versatile data tool supporting analysis at scale:** ESG scores are well-suited to increasingly data-driven investment processes, where global portfolios often span thousands of companies. Their sector-agnostic design sets them apart from many other sustainable investment datasets – with scores emphasising the most material issues in each sector to produce a balanced comparable score. This makes them a versatile tool for a range of use cases, from early-stage screening, ongoing monitoring, stewardship targeting, portfolio comparisons or index investing.

<sup>6</sup> Norges Bank Investment Management, 2024, [ESG ratings - Our View](#)

<sup>7</sup> Berg, Kolbel & Rigobon, 2022, [Aggregate Confusion: The Divergence of ESG Ratings](#)

<sup>8</sup> See Figure 9, pg. 48 – GPIF, 2024, [Sustainability Investment Report](#)

<sup>9</sup> See for example Figure 8 – Financial Conduct Authority, 2025, [Research Note: Understanding the UK ESG Ratings Market: Findings from Our Surveys](#)

<sup>10</sup> Goldman Sachs, 2018, [‘The Emerging ESG Toolkit: Promises and Pitfalls’](#)

# Can ESG scores beat the benchmark?

Although the use of ESG scores is rarely focused on alpha generation, the relationship between ESG, corporate financial performance, and investor returns has been extensively studied. This includes both the academic and professional literature – including in multiple meta-studies covering thousands of papers.<sup>11, 12, 13</sup> Despite these efforts, there is no broad consensus on whether ESG integration systematically improves or detracts from returns.

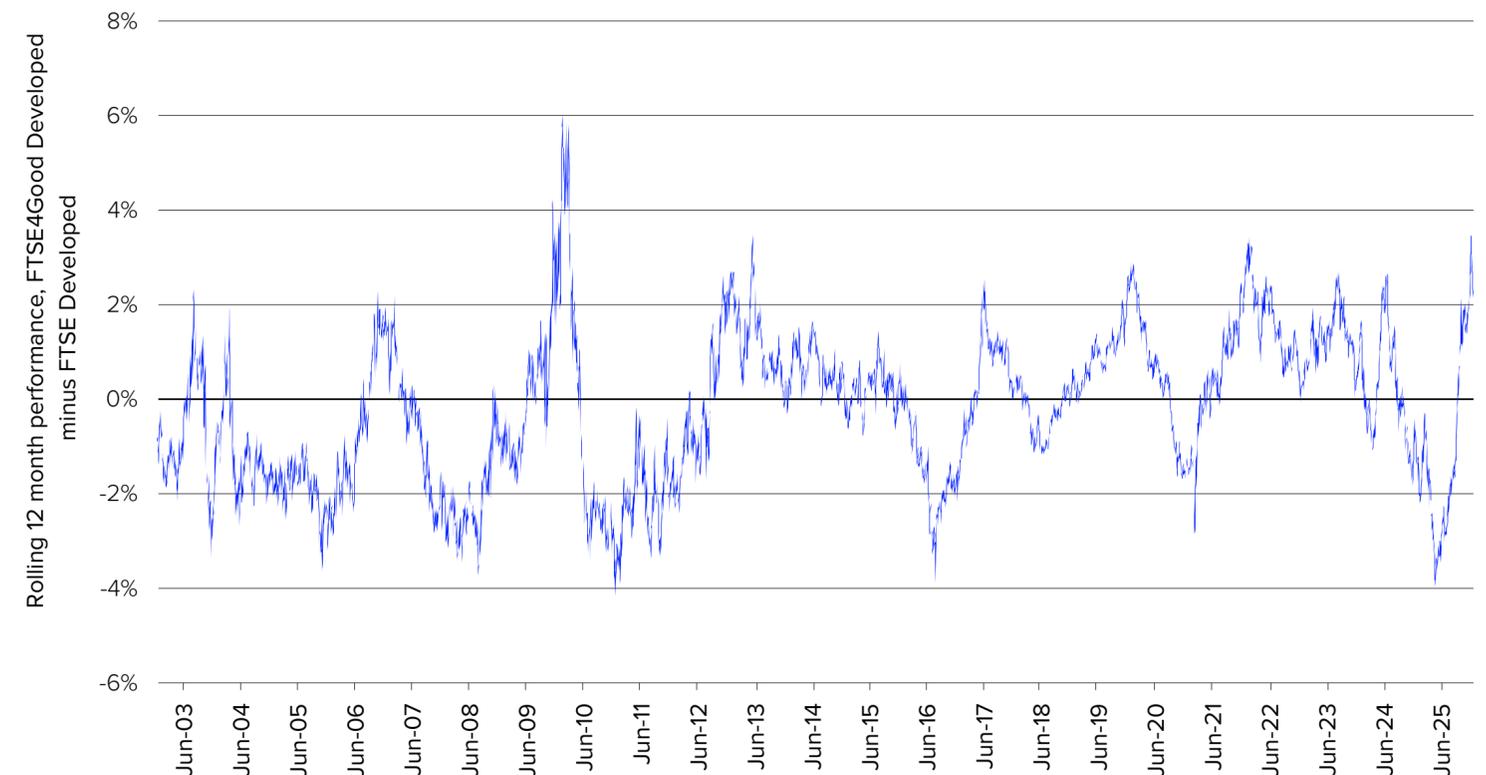
Proponents of ESG investing argue that the incorporation of such factors into investment strategies can boost financial returns. Key studies have shown that firms who manage material ESG issues outperform,<sup>14</sup> and that this outperformance is also exhibited in ESG scores or ratings that incorporate a materiality lens when key factors are controlled for.<sup>15</sup> Several meta-studies support this, with research from NYU Stern finding 58% of studies show a positive relationship between ESG and financial performance and 8% a negative relationship.<sup>16</sup>

Others counter that such results are often hard to replicate; and are sensitive to changes in the investment universe, time period, and analytical specification.<sup>17</sup> Further, papers have argued that outperformance is driven by correlations with other investment factors and that similar portfolio returns could be achieved by exposure to traditional financial factors.<sup>18, 19</sup>

While a definitive resolution to this debate remains unlikely, we believe ESG scores are best considered as an informative investment signal and risk management tool, rather than a source of persistent ‘free alpha’. Much like other data tools underpinning conventional fundamental analysis, ESG scores can add value when used as part of a broad, integrated investment process. In particular:

- Scores are relatively stable over time, with low or no correlation to most common equity factors (see Section *ESG Scores through a Factor Lens*).
- Long-running ESG-based index families – such as the 25-year FTSE4Good series – offer more reliable real-world evidence than simulated back tests.
- Although these indices deviate meaningfully from their parent benchmarks in terms of constituents and index weights, their cumulative long-term performance tends to track closely. Annualised returns for the past 10 years for example show 0.8% outperformance for the FTSE4Good All-World,<sup>20</sup> 1.06% outperformance for the Dow Jones Best-in-Class World Index,<sup>21</sup> and 0.08% underperformance for the MSCI World Selection Index<sup>22</sup> relative to their benchmarks.
- As shown in Figure 3, this relative performance is cyclical, mirroring the pattern seen in style factors: multi-year periods of outperformance are typically followed by extended downturns.

**Figure 3. Relative 12m rolling performance of the FTSE4Good Developed vs. the FTSE All-World Developed, 2001-2026**



Source: FTSE Russell index data, total return (USD) index values

<sup>14</sup> Khan, Serafeim & Yoon, 2016, [Corporate Sustainability: First Evidence on Materiality](#)

<sup>15</sup> Geise & Shah, 2025, [ESG Ratings in Global Equity Markets: A Long-Term Performance Review](#)

<sup>16</sup> Whelan et al., 2021, [ESG and Financial Performance](#)

<sup>17</sup> See for example OECD, 2020, [ESG Investing: Practices, Progress and Challenges \(EN\)](#), “What we find is a very different result, mainly due to different providers’ methodology, investment strategies, regions and time frames.”

<sup>18</sup> Ahn, Patatoukas & Skiadopoulos, 2024, [Material ESG Alpha: A Fundamentals-Based Perspective](#)

<sup>19</sup> Bruno, Esakia & Goltz, 2021, [“Honey I Shrunk the ESG Alpha”: Risk-Adjusting ESG Portfolio Returns](#)

<sup>20</sup> Data from FTSE Russell as at 25/02/2026. FTSE4Good All-World Index 14.32% annualised total return over 10 years vs. 13.52% for the FTSE All-World Index.

<sup>21</sup> Data from S&P Global.com, as at 25/02/2026. Dow Jones Best-in-Class World Index (formerly DJS World Index) 14.23% annualised total return over 10 years, vs. 13.17% for the S&P Global Broad-Market Index.

<sup>22</sup> Data from MSCI.com as at 25/02/2026. MSCI World Selection Index, formerly the MSCI ESG Leaders Index, 13.78% annualised total return over 10 years vs. 13.86% for the MSCI World Index.

<sup>11</sup> Atz et al., 2022, [Does Sustainability Generate Better Financial Performance? Review, Meta-analysis, and Propositions](#)

<sup>12</sup> Whelan et al., 2021, [ESG and Financial Performance](#)

<sup>13</sup> Friede, Busch & Bassen, 2015, [ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies](#)

# Introducing a new modular set of LSEG ESG Scores

Building on 25 years of experience, LSEG has undertaken a rigorous multi-year research process to redesign and unify its ESG scoring methodology. The newly launched LSEG ESG Theme Scores, LSEG ESG Scores and the LSEG ESG Scores Plus provide a set of robust, research-driven quantitative scores to integrate wide-ranging, non-financial information within investment processes. The scores' modular design allows them to be used at three key levels to cater to a wide variety of users and use cases.

## LSEG ESG Theme Scores



The LSEG ESG Theme Scores assess the policies, systems and processes by which a company manages Environmental, Social and Governance risks within its operations and its supply chain. Scores are on an ordinal 0-5 scale. Each Theme Score is carefully curated to provide a differentiated view of corporate performance at each level for portfolio analysis or construction.

## LSEG ESG Scores



The LSEG ESG Scores combine the Theme Scores to produce a consolidated view of corporate ESG management quality from 0-5, as well as Environmental, Social, and Governance pillar scores. Theme weights are driven by a transparent materiality matrix that draws on key standards and corporate data.

## LSEG ESG Scores Plus



The LSEG ESG Scores Plus model is based on the LSEG ESG Scores, to which complementary information is added that provides additional insight on different views of ESG performance. The Plus Scores add two dimensions: a risk-related view (considering sovereign ESG risk and ESG controversies) and an impact-related view (considering green revenues and ESG debt issuance).

# Constructing Theme Scores

Figure 4. The five key stages in constructing each of LSEG’s 12 ESG themes

## A. Select themes

LSEG’s themes were selected based on a peer-reviewed analysis of the ESG topics and issues covered both by major data providers and standard setters.<sup>23</sup> This found that though their labelling and structure often differ widely, ESG topic lists are ultimately relatively similar in content. LSEG themes were identified by further refining this list, focusing on those themes with the strongest data availability and cross-industry comparability.

## B. Select indicators

Each theme is assessed based on indicators chosen through a systematic review of the available data including alignment with reporting standards, quality of disclosure, and ability to provide distinct insight without duplicating other measures.<sup>24</sup> This approach prioritises quantitative measures and the most relevant qualitative metrics.<sup>25</sup>

## C. Assess performance

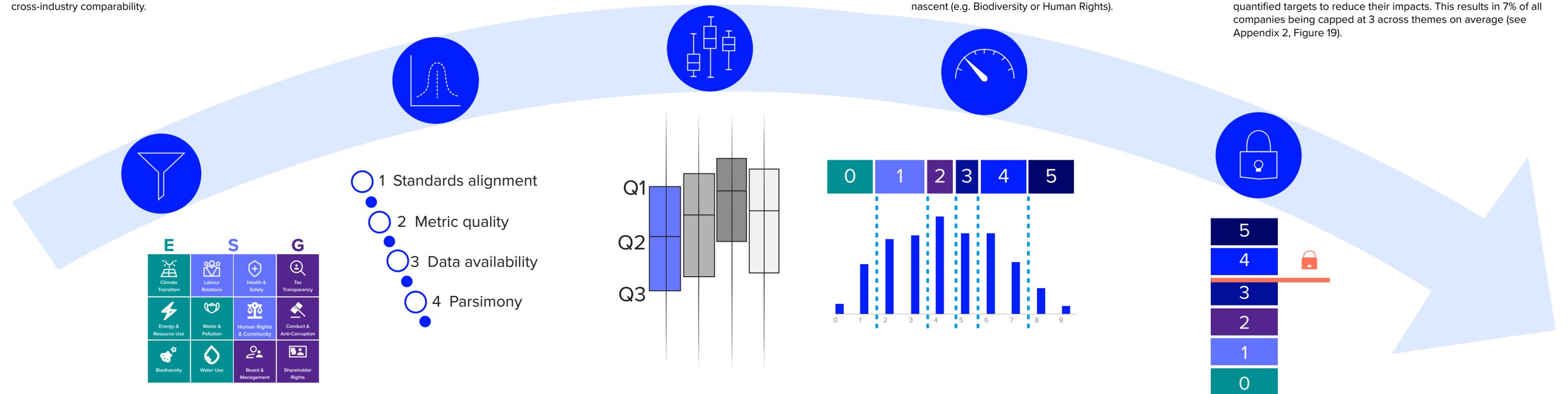
Where available, companies are also assessed on their performance against key quantitative indicators in ten of the twelve themes – either against sector peers or against global standards – ensuring that scores recognise those demonstrating leading practices.

## D. Normalise to scale

Theme scores are a systematic aggregation of between seven and 24 qualitative and quantitative indicators into an 0-5 ordinal scale. Variations in the maturity of ESG themes (see Figure 7) require careful calibration to produce usable distributions for each, such that companies must meet progressively more indicators to achieve higher score levels in mature themes (e.g. Climate Transition, Shareholder Rights, and Labour Relations) and fewer in those more nascent (e.g. Biodiversity or Human Rights).

## E. Add scoring caps

Each theme score also incorporates a capping metric that are indicative of advanced ESG practices to help to mitigate greenwashing risks. Companies cannot score above 3 without meeting these capping indicators, ensuring that top-tier scores reflect both substantive quantitative performance and adherence to widely recognised governance and strategy practices, rather than just extensive reporting. For example, a company cannot score above three on Health & Safety if fatalities have occurred in the past two years in its operations or the company doesn’t disclose fatalities. Similarly, in the case of Energy & Resources, companies can only reach scores above 3 if they have set quantified targets to reduce their impacts. This results in 7% of all companies being capped at 3 across themes on average (see Appendix 2, Figure 19).



<sup>23</sup> Dodsworth et al, 2023, [Financial, Double, or Dynamic? Theories of ESG Materiality and Practitioner Approaches](#)

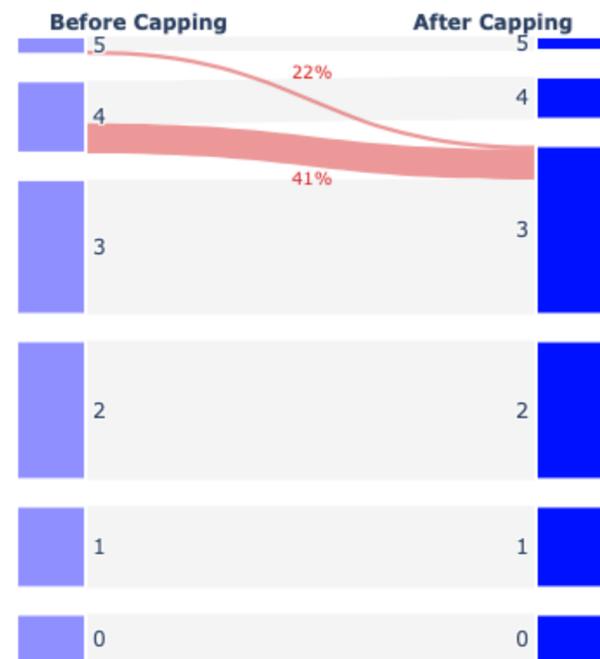
<sup>24</sup> Bourne, Dodsworth & Schlich, 2024, [Made to Measure: Indicator Construction and Measurement Scales in ESG Score Design](#)

<sup>25</sup> Metric prioritisation was guided by frameworks from the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), International Labour Organisation (ILO) Conventions, and the Corporate Human Rights Benchmark (CHRB), as well as reference to the International Sustainability Standards Board’s (ISSB) structure of International Financial Reporting Standard S1 (IFRS S1).

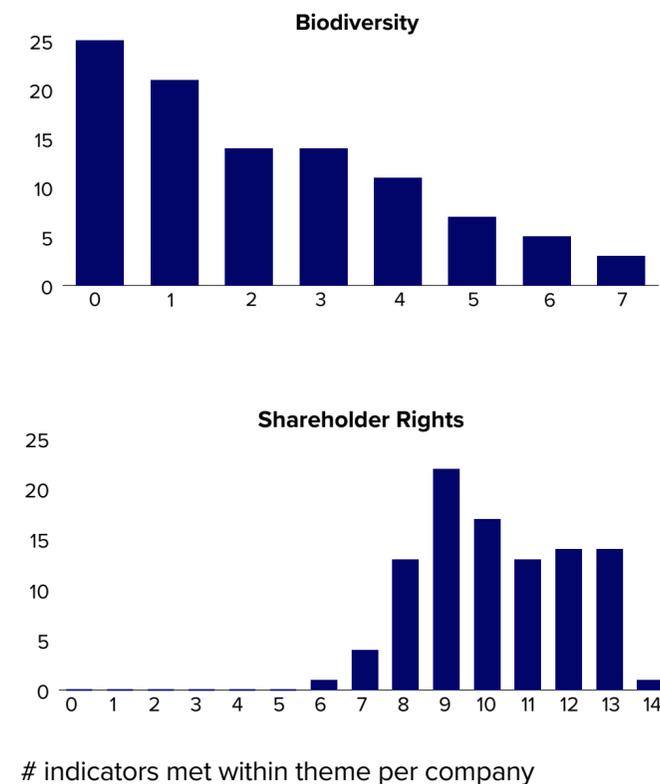
# Theme maturities and scoring caps

Comparing the resulting data on ESG themes shows significant divergence in disclosure practices and the distribution of corporate sustainability performance, requiring careful consideration when applying a scoring scale. Relatively mature themes such as Shareholder Rights or Climate have well-established definitions from reporting standards (e.g. Corporate Governance Codes or IFRS S2) and face heightened expectations from regulators and investors (such as the ICGN or IIGCC). In these areas, corporate practices and disclosures tend to be more developed, resulting in richer information with which to assess companies and bell-shaped distributions of theme scores (see Figure 6). By contrast, other more nascent themes such as Biodiversity where reporting standards (such as TNFD or the ESRS) are still developing, there is much more limited information available from companies, with theme scores skewed to the left, requiring careful calibration of scoring thresholds.

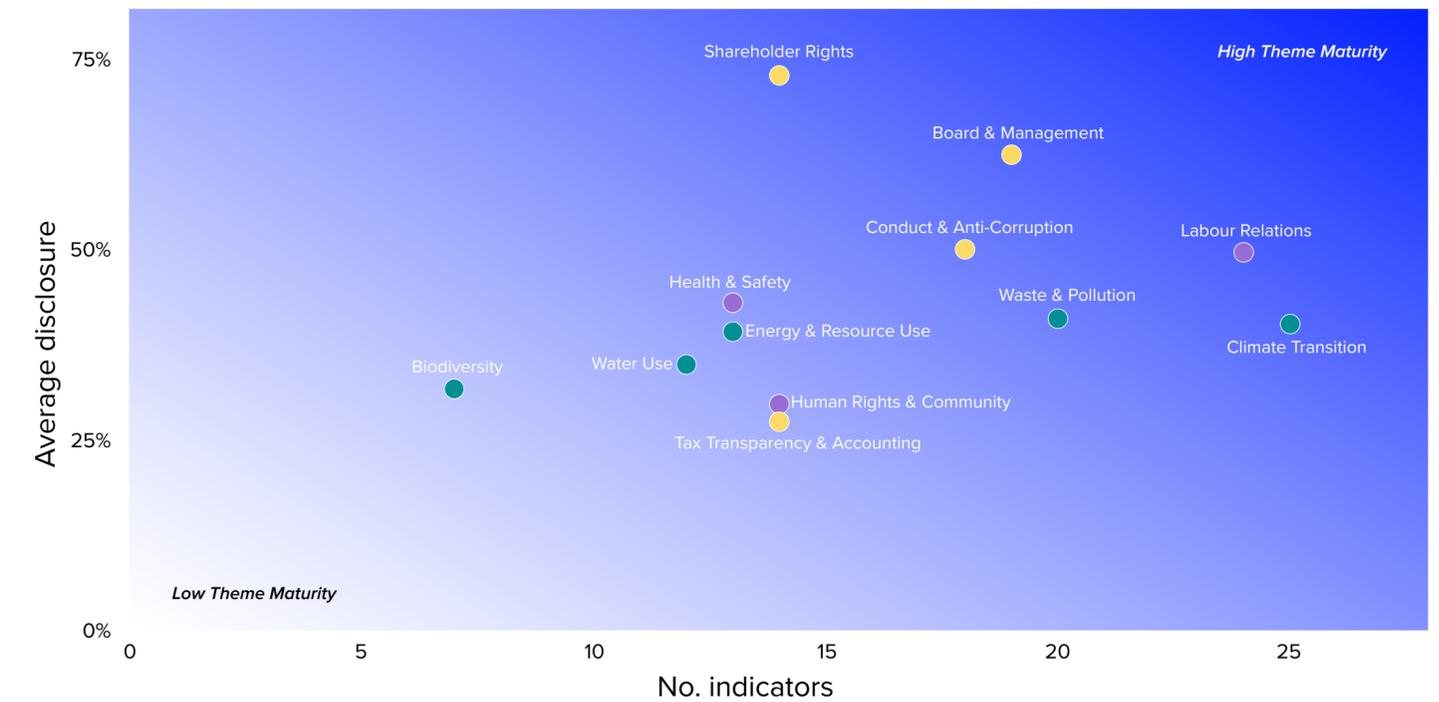
**Figure 5. Companies in Energy & Resource Use theme affected by the scoring cap (presence of Energy Efficiency Target)<sup>26</sup>**



**Figure 6: ESG themes exhibit diverging data maturity**



**Figure 7: Corporate disclosure patterns differ significantly between ESG themes**



Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index.

<sup>26</sup> For a full list of capping indicators by theme, see Appendix 2.

# Calculating the LSEG ESG Scores

While theme scores provide a focused and flexible way to track specific dimensions of sustainability performance, many investor applications require a more comprehensive, holistic assessment. This is delivered through the E, S, and G pillar scores, as well as the overall LSEG ESG Score, which aggregate performance across multiple themes into a single 0-5 assessment of corporate operational ESG risks.

A key feature of ESG scores is that they weight the impact of the performance in different sustainability themes based on their salience or ‘materiality’ for different types of businesses.<sup>27</sup> For example, workplace health & safety is especially material in labour-intensive industries where accidents can lead to operational downtime and regulatory penalties, while water and energy use can be material to resource heavy sectors where it directly affects efficiency and operating costs. By contrast, both themes are less relevant for other sectors – for example, insurance.

Appropriate ways of incorporating materiality into ESG score calculations have been widely debated,<sup>28</sup> yet materiality remains one of the least transparent aspects of ESG score design<sup>29</sup>. In practice, applying a materiality lens requires classifying companies into relevant peer groups (for example, telecommunications or health care) and determining how the weight of each theme or metric should vary across those groups. This aims to ensure that assessments reflect the issues most relevant to each sector, but it also introduces methodological choices that are a major driver of divergent assessment results across providers and can be opaque to understand.

The LSEG ESG Scores take a streamlined approach to materiality, emphasising transparency, stability and comparability of scores. To calculate pillars and ESG scores, we calculate weighted averages of theme scores, with the materiality of each theme for each company set as Critical (1), Material (0.75), Relevant, (0.25), and Not Relevant (0). These materiality weights are determined for each company through a four-step process outlined below (with additional details provided in Appendix 2):

- 1. Business activities are summarised into ‘materiality groups’:** Classifications such as ICB,<sup>30</sup> TRBC<sup>31</sup> or GICS<sup>32</sup> group companies based on revenue sources or the end markets they serve. This limits the utility of conventional classifications to determine materiality. Instead, we leverage granular TRBC data to aggregate business activities into ‘materiality groups’ based on similar types of sustainability risk exposure; for example grouping manufacturing-focused businesses from across the technology, industrials, and consumer goods sectors into one materiality group (Machinery & Equipment Manufacturing).<sup>33</sup>
- 2. Assigning a materiality level to each theme for each group (the LSEG Materiality Matrix):** Each materiality group is then assigned a level of materiality for each of the 12 ESG themes, resulting in the ‘Materiality Matrix’ in Figure 8. Materiality levels are assigned based on best available evidence, including performance on quantitative indicators and corporate disclosure rates for each materiality group and a survey of materiality designated by ESG reporting standards.

- 3. Using TRBC data to assign each company to a materiality group:** Companies are allocated to one, or in some cases, multiple materiality groups based on the activities identified within their segment level revenue data – those contributing 10% or more of a company’s total revenue. Where companies are involved in multiple business activities and therefore materiality groups, the highest materiality weight from any company segment is applied to the relevant themes and in the ESG score calculation.
- 4. Using the respective materiality weights to calculate the pillar scores and ESG scores:** Theme scores are combined into 0-5 pillar scores using a weighted average, where each theme’s contribution is determined by its materiality weight. The overall ESG Score is then calculated as a weighted average of the three E, S and G pillar Scores, with each pillar weighted according to its relative materiality (measured as the combined theme weights in that pillar, relative to the maximum possible contribution if they were all critically material). This helps to ensure a more equal distribution of weights across pillars with unequal underlying numbers of themes.

<sup>27</sup> NYU Stern, 2016, [Sustainability Materiality Matrices Explained](#)

<sup>28</sup> For a survey, see Dodsworth et al., 2023, [Financial, Double, or Dynamic? Theories of ESG Materiality and Practitioner Approaches](#)

<sup>29</sup> Corporates also use materiality matrices to determine the materiality of issues to their own operations. This typically drives decisions around sustainability-related reporting, target setting and business process change.

<sup>30</sup> [Industrial Classification System](#)

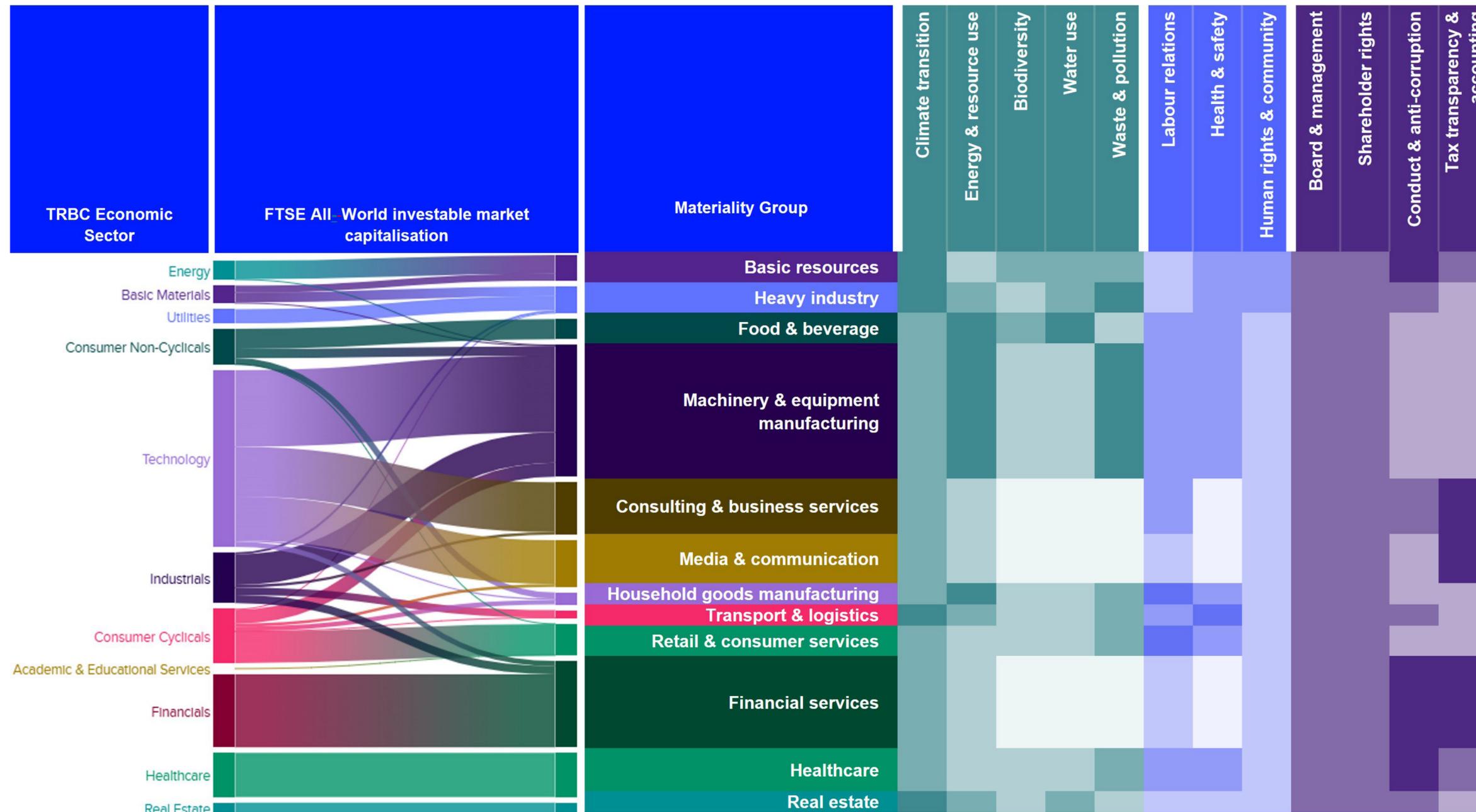
<sup>31</sup> [TRBC Classification System](#)

<sup>32</sup> [The Global Industry Classification Standard](#)

<sup>33</sup> For further detail see Appendix 3

# The LSEG Materiality Matrix

Figure 8. The LSEG ESG Materiality Matrix that assigns a materiality level to each ESG theme. Flow shows how TRBC Economic Sectors are mapped to LSEG ESG Materiality Groups



Source: FTSE All-World constituents and market capitalisation after investability weight from FTSE Russell at 23/06/2025. TRBC and materiality group data LSEG.

## Box 2. Financial, Double, or Dynamic?

During construction of the LSEG ESG Score, careful consideration was given to how the Score aligns with key reporting standards (see Table 3). Sustainability reporting standards and regulations often distinguish between financial materiality<sup>34</sup> (i.e. the impact of sustainability considerations on a company's financial performance) and double materiality<sup>35</sup> (i.e. also incorporating the company's positive or negative impacts on the environment or society). Research on materiality has also pointed to interdependencies between the two,<sup>36</sup> and dependencies on choice of time horizon (dynamic materiality).<sup>37</sup>

While regulations drive users to align with one of the main materiality approaches,<sup>38</sup> a detailed, peer-reviewed survey study of reporting standards and approaches by leading score providers demonstrated that, in practice, these approaches are often difficult to distinguish.<sup>39</sup>

In particular, scores aligning with either materiality approach show no systematic differences in the themes covered in their construction or indicators that are included. Further, there are no credible taxonomies that allow users to systematically distinguish which issues should be considered impact material but not financially material, and no consistent approach to determine the scale or threshold required for an issue to qualify as impact material.

Given that double materiality offers the broader conceptual scope – capturing both financial relevance and the organisation's wider impacts – where a distinction between perspectives is required, the LSEG ESG Scores can be appropriately interpreted within a double materiality framework.

<sup>34</sup> (ISSB) "Sustainability-related financial information is material if omitting, misstating or obscuring that information could reasonably be expected to influence decisions that the primary users of general purpose financial reporting make on the basis of that reporting, which provides information about a specific reporting entity."

<sup>35</sup> (EFRAG) "The standard-setter should adopt conceptual guidelines establishing that double materiality [...]"  
"Double materiality has two dimensions, namely: impact materiality and financial materiality [...] Impact materiality and financial materiality assessments are inter-related and the interdependencies between these two dimensions shall be considered. In general, the starting point is the assessment of impacts. A sustainability impact may be financially material from inception or become financially material when it becomes investor relevant, including due to its present or likely effects on cash-flows, development, performance and

position in the short-, medium- and long-term time horizons. Irrespective of their being financially material, impacts are captured by the impact materiality perspective."

<sup>36</sup> As defined by EFRAG, financial and impact materiality can be interdependent

<sup>37</sup> As identified by GRI, most - if not all - impacts are or will become financially material

<sup>38</sup> See for example REGULATION (EU) 2024/3005 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL: "Rating products should clearly disclose which dimension of the double materiality principle the rating addresses, namely, whether it is both the material financial risk to the rated item or the issuer of the rated item and the material impact of the rated item or the issuer of the rated item on the environment and society in general, or whether it addresses only one of those matters."

<sup>39</sup> Dodsworth et al., 2023, [Financial, Double, or Dynamic? Theories of ESG Materiality and Practitioner Approaches](#)



# Analysing the LSEG ESG Scores

The design of the LSEG ESG Score balances two objectives: supporting cross-universe comparability - so companies can be evaluated on the same basis across sectors and markets - and sufficient in-peer group dispersion - to keep score distributions decision-useful. Key features of the ESG Score<sup>40</sup> are outlined below; additional analysis is provided in Appendix 4.

**Centrally clustered with room for performance differentiation:** LSEG ESG Scores present a slightly non-normal left skewed distribution, with 59% of the distribution clustered between a score of 2.0 and 3.5 in 2024. The scores allow for performance differentiation at the margins. Weaker performances (scoring less than 1) account for 7% of companies, whilst a smaller group of strong performers (2%) attain scores greater than 4 and no companies greater than 4.6, allowing for future, market-wide improvement.

**Stable but shifting slowly upwards over time:** While the average performance of All-World companies on the ESG scores is gradually improving over time, the overall distribution remains relatively stable. Median scores increased from 2.3 to 2.6 between 2022 and 2024, with 12% fewer companies achieving scores lower than 2. The fastest improvements over this period were in China (0.5 increase in the median), Japan (0.4) and other APAC countries (0.3), whilst North America and LATAM exhibit slower changes in scores (both 0.1). These absolute scores are particularly useful to help track how the ESG practices of companies are evolving over time.<sup>41</sup>

**Facilitating cross-market comparisons:** Across sectors and regions, there are systematic differences in the shape of ESG score distributions, reflecting real variation in ESG practices (see Figure 10). We prioritise the calculation of absolute scores which expose this variation and enable cross-sector comparison by assessing each company against the same indicators within a theme, with differentiation at the pillar and overall score level arising through the materiality based selection and weighting of themes. Relative scores, which normalise scores typically by percentile ranking them against sector or regional peers can be useful in other contexts<sup>42</sup> – and are also available as part of the LSEG ESG Scoring suite.

**Capturing sectoral and regional trends:** Across sectors, score distributions remain sufficiently broad to provide usable differentiation, with median ESG scores clustered between 2.4 and 2.8 (Figure 10) in 2024. However, our data shows meaningful structural differences between sectors, particularly at the pillar or theme level: Carbon-intensive and extractive sectors (Energy, Utilities, Basic Materials) tend to record higher overall ESG scores (2.6+) and elevated E-pillar results (>2.9), reflecting stronger regulatory scrutiny, investor engagement, and established reporting practices. Governance scores show the opposite pattern, peaking in sectors with lower operational footprints, higher 'IP intensity' and higher regulatory requirements - such as Financials (2.6) – which typically has the lowest disclosure levels for the Environmental and Social pillars.<sup>43,44</sup>

There is similar performance differentiation by region (Figure 10). EMEA displays the highest median ESG score (3.1), reflecting consistently strong practices across many European markets. This is supported by country-level data (Appendix 4, Table 7) where several European countries (e.g. Italy, UK, Switzerland, the Netherlands) record median scores of 3.4-3.5.

Medians for North America (2.9), Japan (2.8) and LATAM (2.8) sit just below EMEA, with the latter showing a particularly tight overall distribution. APAC ex-Japan and ex-China has a median of 2.7 with a broad dispersion in scores, combining strong performers such as Thailand (3.3) and Taiwan (3.2) with lower-scoring countries such as India (2.5) and Indonesia (2.4). China (1.7) sits at the lower end of the distribution, driven in part by its lowest median score on the social pillar (1.4), but is seeing particularly rapid improvements.

<sup>40</sup> Analysis based on sample of 2620 large and mid-caps across the FTSE All-World index. Data for FY2024 unless stated otherwise.

<sup>41</sup> Benuzzi et al., 2025, "[Chasing ESG performance: How methodologies shape outcomes](#)"

<sup>42</sup> *Most ESG scoring systems are sector neutral, meaning that the normalization is done at the sector (or industry) level, not at the issuer universe level. ESG scores are then relative scores (with*

*respect to the sector/industry), not absolute scores.*" Roncalli, Thierry, 2022, [Handbook of Sustainable Finance](#).

<sup>43</sup> Ehlers et al., 2022, "[Deconstructing ESG Scores: How to Invest with your own criteria](#)"

<sup>44</sup> Mandas et al., 2023. "[ESG in the financial industry: What matters for rating analysts?](#)"

# Scoring Distributions of the LSEG ESG Scores

Figure 9. Scoring distribution of the LSEG ESG Score

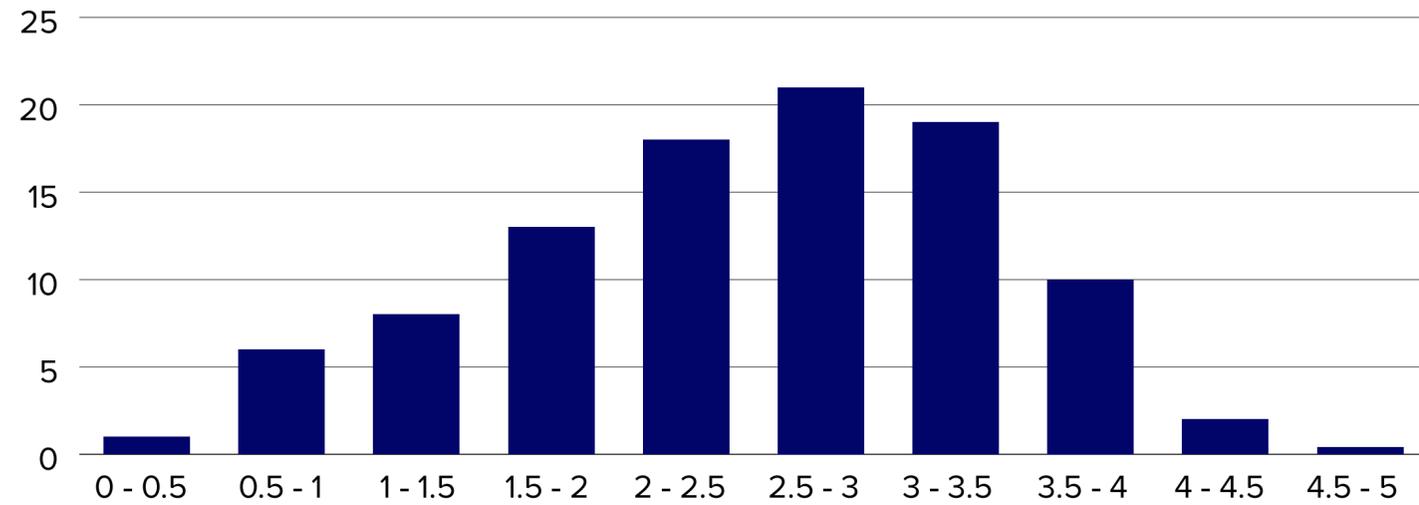


Figure 10.A. Score distributions for ESG Score and pillar Scores

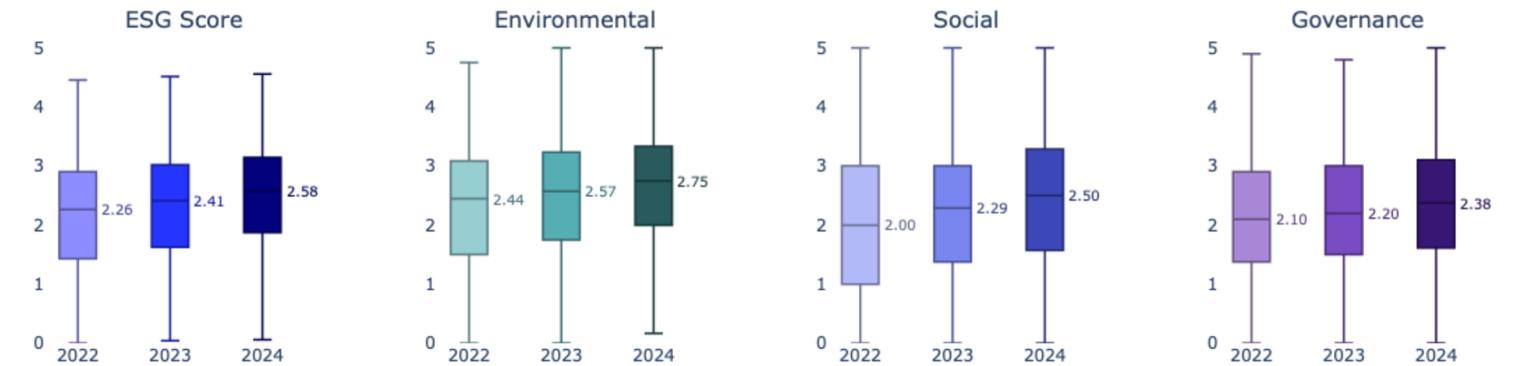


Figure 10.B. Score distributions by TRBC Economic Sector

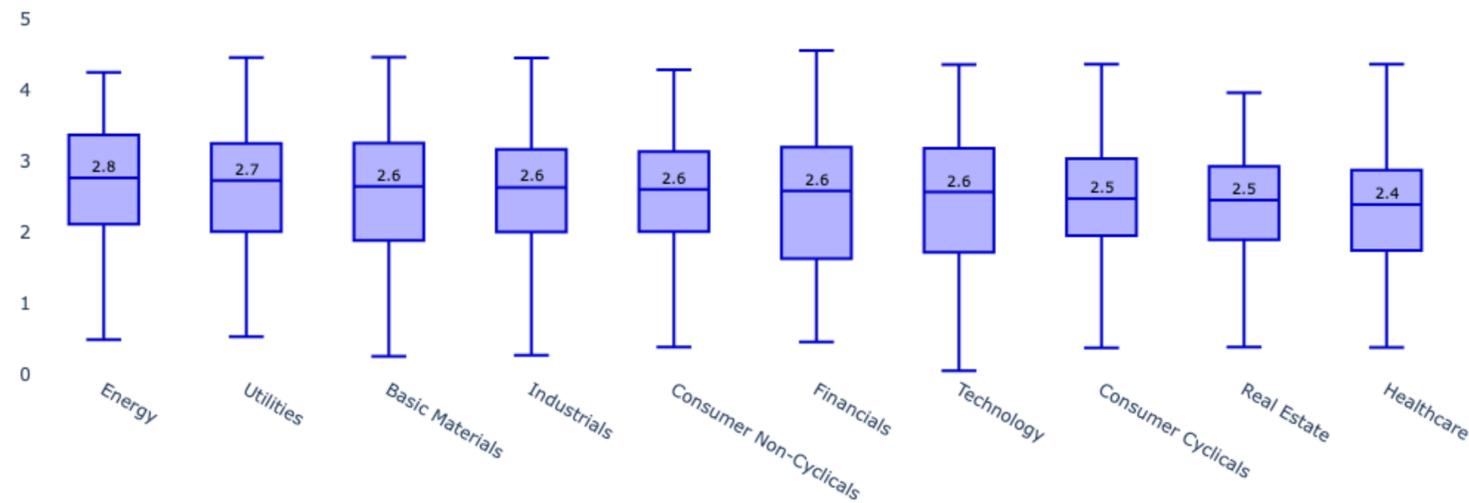
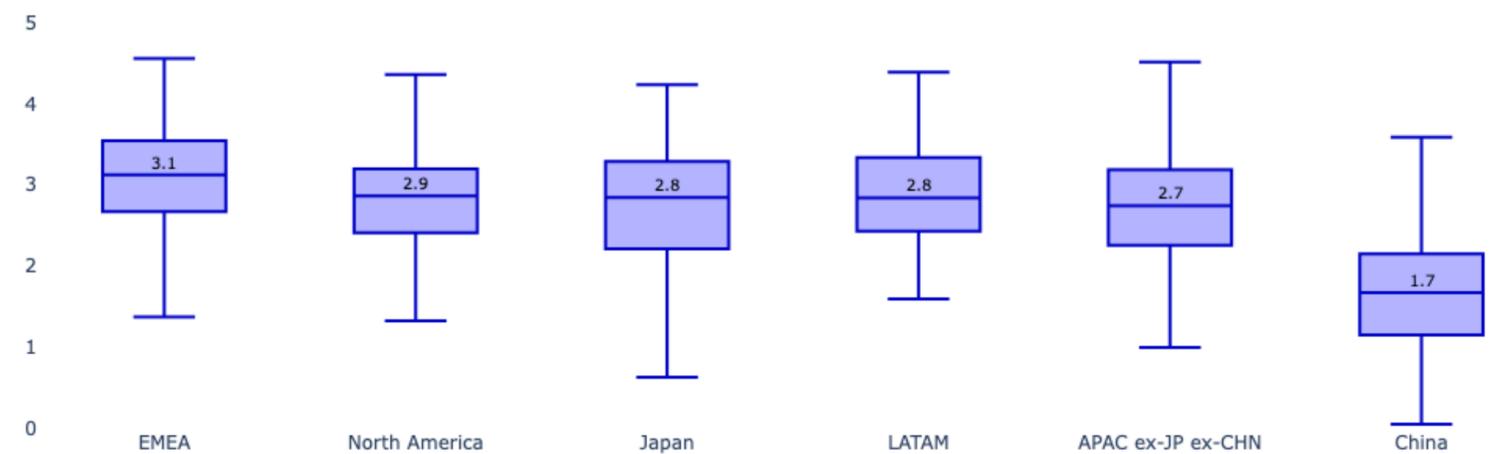


Figure 10.C. Score distributions by region



Source: LSEG. Distributions by count of companies, based on ESG data for FY2024 (unless stated otherwise) for 2620 large and mid-cap companies from the FTSE All-World Index.

# LSEG ESG Scores through a factor lens

Equity factors such as size, momentum, quality, volatility and value are widely used by investors to analyse risk and return across stocks. Whether ESG metrics are largely a combination of these established financial factors remains debated, though there is evidence suggesting that ESG scores captures performance-relevant information that is not fully explained by conventional factor models.<sup>45</sup>

Size is the factor most consistently associated with ESG<sup>46,47</sup> – with larger, more mature businesses believed to score higher due to increased resources, increased investor demand and reporting capability.<sup>48</sup> Other studies identify links

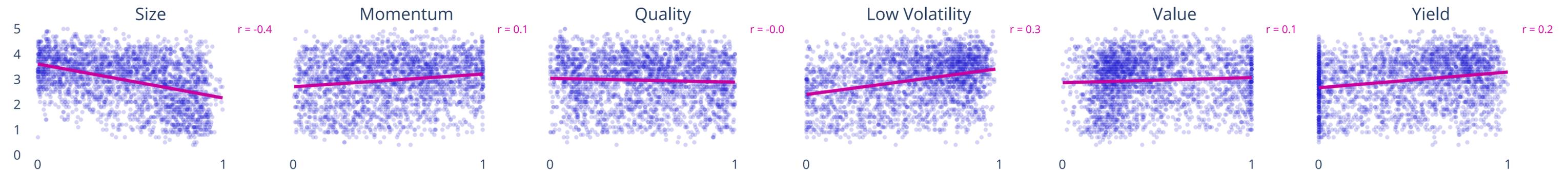
between ESG and quality, value, volatility, growth and momentum factors,<sup>49,50,51</sup> although findings are mixed, with several papers not finding significant relationships in either direction.<sup>52,53</sup>

In this context we examined how the new LSEG ESG Score interacts with the FTSE equity factors<sup>54</sup> (See Appendix 4). We find a moderate negative correlation with the size factor (-0.4), indicating that large-cap companies do tend to score higher, and low correlations with momentum, value and yield factors (0.1 – 0.2). The low volatility factor had the strongest positive correlation with ESG scores of 0.3,

suggesting that companies that score lower generally exhibit higher volatility – consistent with findings in the literature.<sup>55,56</sup>

These patterns hold broadly across developed and emerging markets, though on a sectoral basis we find some more meaningful differentiation (Appendix 4). Indeed, the relationships with the size and low volatility factors are particularly pronounced in Healthcare, Technology and Consumer Non-Cyclicals – with correlations of -0.4 to -0.6, and +0.4 to 0.5 respectively.

**Figure 11. Correlations of LSEG ESG Scores and FTSE Russell factor data**



Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World index. Factor data from FTSE Russell taken on the 23rd of December 2024.

<sup>45</sup> Bloomberg, 2025, "[Are ESG Scores relevant for portfolio returns?](#)"

<sup>46</sup> Kaiser, 2020, "[ESG Integration: Value, Growth and Momentum](#)"

<sup>47</sup> FTSE Russell, 2020, "[ESG scores and beyond \(Part 1\)](#)"

<sup>48</sup> Hörisch, Johnson & Schaltegger, 2015. "[Implementation of Sustainability Management and Company Size: A Knowledge-Based View](#)"

<sup>49</sup> Kurtz and DiBartolomeo, 2011, "[The Long-Term Performance of a Social Investment Universe](#)"

<sup>50</sup> Giese et al., 2021, "[The Drivers of ESG Returns](#)"

<sup>51</sup> Giese & Shah, 2025, "[ESG Ratings in Global Equity Markets: A Long-Term Performance Review](#)"

<sup>52</sup> Krishnan et al., 2024, "[Do Environmental, Social, and Governance \(ESG\) Factors Matter?](#)"

<sup>53</sup> de Ruijter, 2024, "[The Moderating Effect of Firm Size on the Relationship Between ESG Performance and Earnings Quality](#)"

<sup>54</sup> FTSE Russell, "[FTSE Russell Factor data](#)"

<sup>55</sup> Dunn, Fitzgibbons & Pomorski, 2017, "[Assessing Risk Through Environmental, Social and Governance Exposures](#)"

<sup>56</sup> Melas, 2016, "[Integrating ESG into Factor Portfolios](#)"

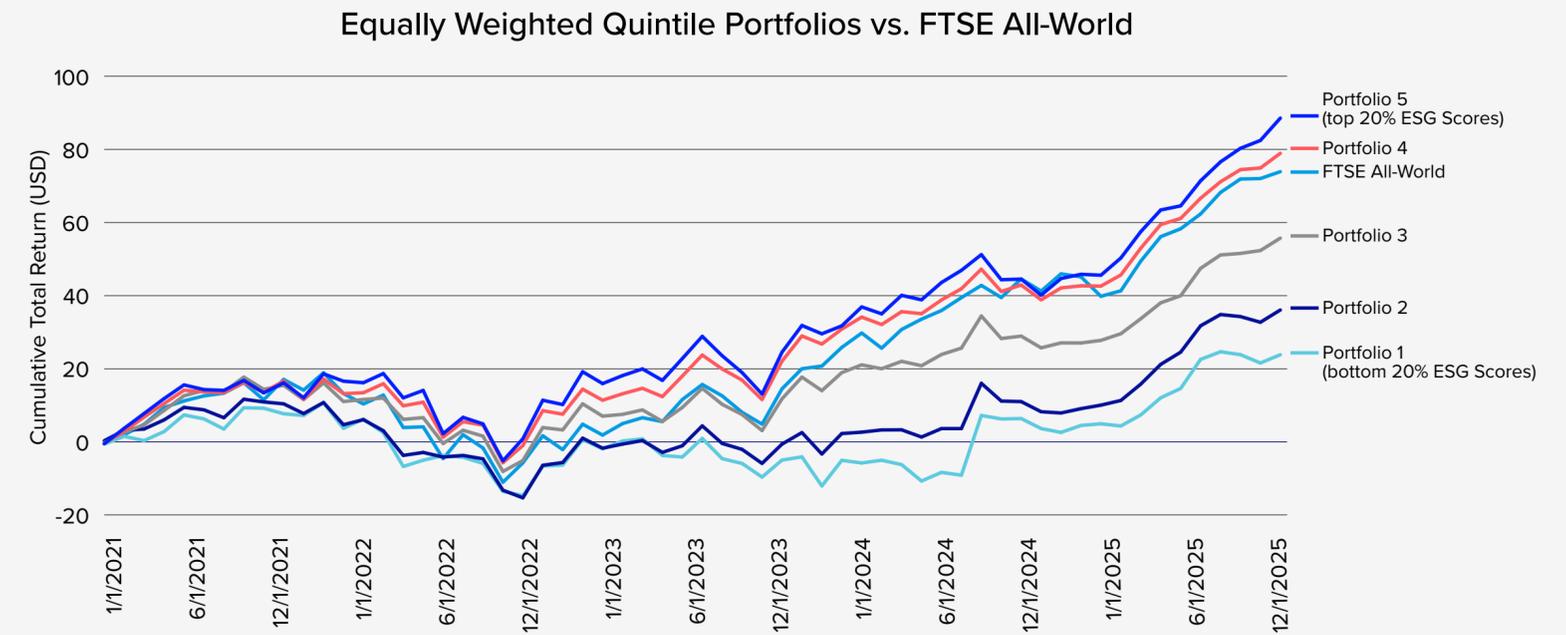
### Box 3. LSEG ESG Scores in a simulated portfolio

To analyse the performance of the new LSEG ESG Score, we examined FTSE All-World constituents between January 2020 and January 2026, dividing the universe into five portfolios with equal market cap based on their ESG Score, such that Portfolio 5 comprised companies with the top 20% of ESG Scores. This equally weighted approach aimed to remove the outsize effect of the largest stocks and focus on whether higher ESG Scores were correlating with better performing companies on average.

We simulated the performance of these quintile portfolios from 31/12/2020 to 31/12/2025 using an equally weighted approach, rebalancing annually, and applying the closest available ESG Score at each rebalance date.<sup>57</sup>

Over this five-year window, we found that portfolio performance was stratified in line with our ESG Score groupings and the effect more pronounced towards present day; with portfolios 5 and 4 (representing the top 20% and next 20% of ESG Scores) performing 15 and 5% better respectively than FTSE All-World, whilst the weaker scoring portfolios underperformed. The results are period-dependent and sensitive to the analysis window, which taken together with Figure 3 on FTSE4Good performance over time, demonstrates that ESG Scores can add value to an investment strategy.

**Figure 12. ESG Portfolio performance over 5 year window**



Source: FTSE All-World data from FTSE Russell. ESG Score data and financial data LSEG.

<sup>57</sup> The portfolios were constructed based on FTSE All-World constituents at the end of each year from 2020 to 2024. At each annual rebalance date the constituency of the portfolios was adjusted based on a re-ranking of ESG scores and the weights reset to the equal target. End of year portfolio dates were matched to scores of the same fiscal year, with earlier years back-casted.

# Why an LSEG ESG Score Plus?

Critics of ESG scores have long noted their over-reliance on data disclosed by corporates themselves – information that, by its nature, captures only what companies choose to report about their own operations.<sup>58</sup> This focus on self-reported, operational sustainability can leave several important dimensions of a company's sustainability footprint unaddressed: how a firm affects society through its products and services; whether its conduct aligns with its disclosures and how it is perceived by external stakeholders; whether the company is integrating its sustainability commitments into the terms of its capital raising through instruments like labelled bonds; and how its ESG profile is shaped by the countries in which it operates.

In response, providers of ESG scores have in many cases broadened the assessment lens by layering alternative data sources into ESG calculations, such as information on sentiment and corporate controversies, exposure to green or technological ‘megatrends’ and incidents of regulatory fines.

However, users face a trade-off here. Additional data sources can provide valuable supplementary insights but integrating them introduces extra layers of complexity into already multi layered methodologies.<sup>59</sup> This can make it harder for users to understand the drivers of scoring outcomes.

It can also shift the focus away from the subtle differences in how companies operate toward more obvious differences in what businesses they are in. For example, the sustainability profiles of an oil producer and an electric vehicle manufacturer are easy to distinguish. But it is often much harder to understand the differences in sustainability risk profiles between electric vehicle makers, from corporate governance, and materials sourcing to labour relations.

To address this challenge, and to offer optionality across different use cases we provide a two-layer, modular architecture. The core LSEG ESG Score is intentionally focused on measuring how a company manages its material ESG exposures and restricted to corporate disclosures, ensuring it remains transparent, comparable and grounded in corporate accountability.

The LSEG ESG Score Plus offers a complementary assessment on top of this, by integrating four additional LSEG curated datasets (shown in Table 1 and Appendix 5) to deliver a broader view of a company's sustainability footprint. This modular design preserves the interpretability of the base score while giving users a richer, multi-dimensional picture when they need it.

**Table 1. LSEG ESG Score Plus constituent datasets**

Risk	Sovereign ESG Risk	+/-	Reflects how a company's geographic footprint and country-level ESG risk exposures influence its overall risk profile, by combining country-of-risk weightings with Sovereign Sustainability Risk Monitor scores.
	ESG Controversies	-	Captures material adverse news events relevant to possible global norms violations (e.g. UN Global Compact) across 23 controversy categories, covering environmental, social and governance incidents, from anti-competition to worker conditions.
Impact	Green Revenues	+	Identifies the share of company revenue aligned with the Green Revenues Classification System, products and services that reduce GHG emissions or deliver broader environmental benefits.
	ESG Debt Issuance	+	Measures the proportion of a company's debt issuance aligned to green or ESG-labelled instruments — including Green Bonds, Sustainability Bonds and Sustainability-Linked Bonds — as a share of total debt outstanding

<sup>58</sup> Kathan et al., 2025, [“What you see is not what you get: ESG scores and greenwashing risk”](#)

<sup>59</sup> Boffo & Patalano, 2020, [“ESG Investing: Practices, Progress and Challenges.”](#)

# Design features of the ESG Score Plus

The Plus Score is built around a distinction between two types of supplementary information not captured by the base ESG Score:

- **External risk information:** adverse signals from the external world that may indicate ESG risks not yet visible in, or contradicted by, a company's own disclosures.
- **Impact information:** positive signals about the role a company plays in the transition to a more sustainable economy through its products, services and financing choices.

The Plus Score does not replace the core LSEG ESG Score: it adjusts it. Each of the four component datasets is converted to a normalised score, weighted, and summed into a net adjustment term. This adjustment is then added to (or

subtracted from) the underlying ESG Score, with the final result capped to the same 0-5 scale as the base score. Figure 13 below shows the adjustment effect of the Plus Score compared to the base LSEG ESG Score with further details on the calculations in Appendix 5.

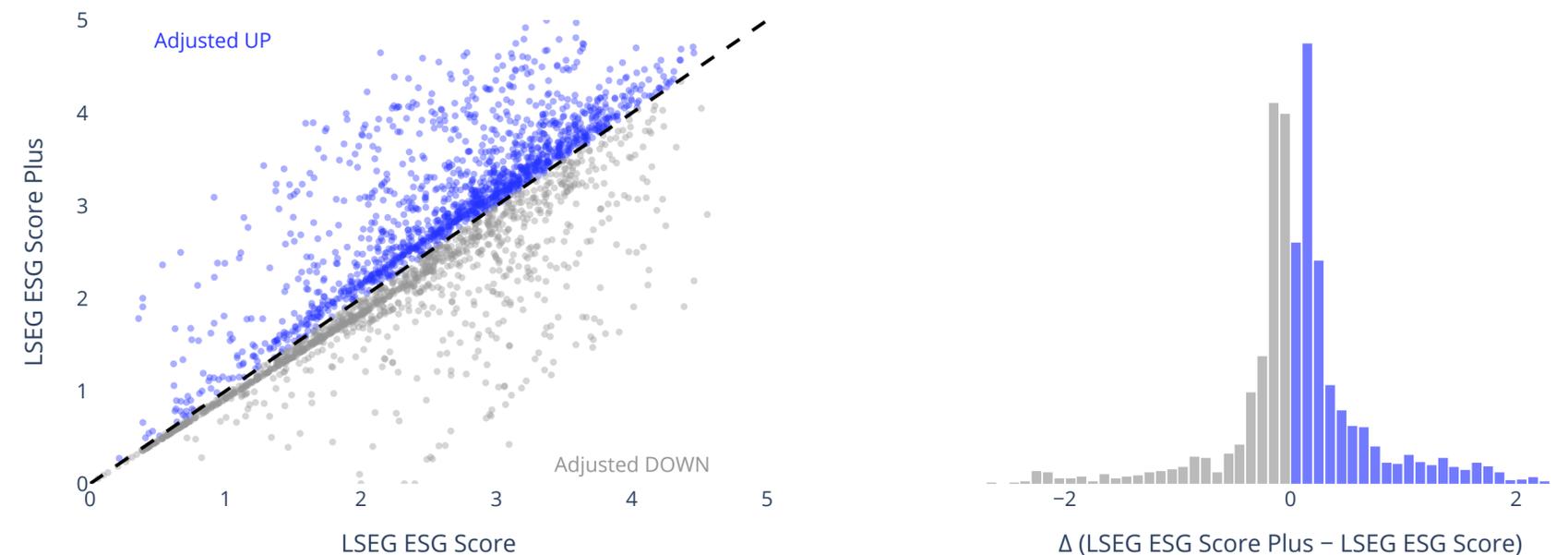
The adjustment direction varies by dataset. Controversies always reduce the score. Sovereign Risk can move the score in either direction, depending on whether a company's weighted country exposure implies above- or below-median sovereign ESG risk. Green Revenues and ESG Issuance always contribute positively.

Controversies and Green Revenues carry higher weights in the model than Green Issuance and Sovereign Risk, reflecting their closer link to a company's day-to-day

operations and business model and the ESG profile of its debt instruments or the sovereign risk of its operating geography. The maximum possible net adjustment in any direction is bounded at  $\pm 2.5$  points out of 5 — a ceiling chosen to ensure the Plus Score meaningfully reflects the additional data without overwhelming the operational signal captured in the base LSEG ESG Score.

A key design challenge is preserving meaningful score differentiation at the extremes of the base score distribution. To address this, the model applies a scaling function that reduces the magnitude of the adjustment for companies that are already high-scoring and receiving a positive adjustment, or already low-scoring and receiving a negative one. This prevents information loss at the tails of the distribution while still allowing the Plus datasets to have a meaningful effect across the full range of scores.

**Figure 13. LSEG ESG Score vs. LSEG ESG Score Plus**



Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index.

## Box 4. Three variations of the LSEG ESG Score Plus for different investor needs

Recognising that investors vary in whether they are primarily risk-oriented or impact-oriented, the Plus Score is available in three versions, each drawing on a different subset of the four datasets. User research confirmed this split, with some users preferring a focus on risk datasets and others the impact-based ones depending on their investment mandate. See Table 2.

**Table 2. LSEG ESG Score Plus – score versions by dataset composition**

Score Version	Datasets Included	Investor Focus
ESG Score Plus – <b>Risk</b>	ESG Controversies + Sovereign ESG Risk	Identifies downside ESG risks not visible in corporate disclosures
ESG Score Plus – <b>Impact</b>	Green Revenues + Green Bonds (only)	Assesses positive contributions to environmental outcomes via products and capital allocation
ESG Score Plus – <b>Complete</b>	<p><b>All four datasets</b></p> <p><i>n.b. Green Bonds replaced with full ESG Issuance (including Sustainability Bonds, Sustainability-Linked Bonds etc.)</i></p>	Provides a broader company-centric view spanning both risk and impact dimensions

One notable difference between the Impact and Complete versions concerns the treatment of debt issuance. In the Impact version, only Green Bonds - where proceeds are explicitly earmarked for environmental and/or climate benefits - are included. In the Complete version, this is replaced by a broader labelled ESG Issuance measure that also covers Sustainability Bonds, Sustainability-Linked Bonds and similar instruments. This reflects the broader scope, which aims to capture the full range of ESG-aligned capital allocation decisions rather than restricting to the strictest environmental category.

All three versions of the Plus Score - Risk, Impact, and Complete - are built with the same underlying adjustment methodology. They differ only in which component datasets contribute to the net adjustment, and in combination of the specific weights assigned to each. The weights were chosen through an empirical process that balanced quantitative optimisation (minimising biases introduced by the new datasets, such as developed-versus-emerging and large-versus-small) with qualitative subject matter expert input on the relative importance of each dataset. The final weights reflect the principle that datasets more closely connected to company's core operating model should carry greater influence than those acting as background indicators.



# Appendix 1: Comparison with heritage Refinitiv and FTSE Russell ESG Scores

The new LSEG ESG Score is designed as the successor to the widely used Refinitiv ESG Score<sup>60</sup> and an alternative to the FTSE Russell ESG scores,<sup>61</sup> building on key strengths from both while introducing material methodological updates and enhancements. Built on an enhanced, integrated dataset it maintains, for example, FTSE Russell’s strong human rights and climate indicators and Refinitiv’s longstanding, extensive coverage of corporate governance and shareholder metrics.

The new LSEG ESG Scores remain closely aligned with both heritage scores, with 0.82 correlation with FTSE Russell and 0.78 with Refinitiv Scores (the correlation of FTSE Russell and Refinitiv ESG Scores is 0.69).<sup>62</sup> For context, the pairwise correlations of Sustainalytics, S&P Global, Moody’s ESG, Refinitiv, KLD and MSCI ESG ratings were each found to be 0.54 on average.<sup>63</sup> Both heritage scores display moderate negative skew, with scores tending towards the higher levels for the sample FTSE All-World large and mid-cap universe. In contrast, the new LSEG ESG Score produces a more centred median, at 2.6 in 2024.<sup>64</sup> The factor correlations are also broadly consistent across approaches. All three scores exhibit a moderate negative correlation with size (-0.4), and both heritage scores show low positive correlations with the other factors – most strongly with low volatility. These patterns are mirrored in the new LSEG Score.

The LSEG theme list builds on the work from FTSE Russell and Refinitiv topic sets, combining the strengths of each while introducing new or redesigned topics.

<sup>60</sup> LSEG, 2024, Refinitiv ESG Scores – methodology document under [Environmental, Social and Governance scores from LSEG](#)

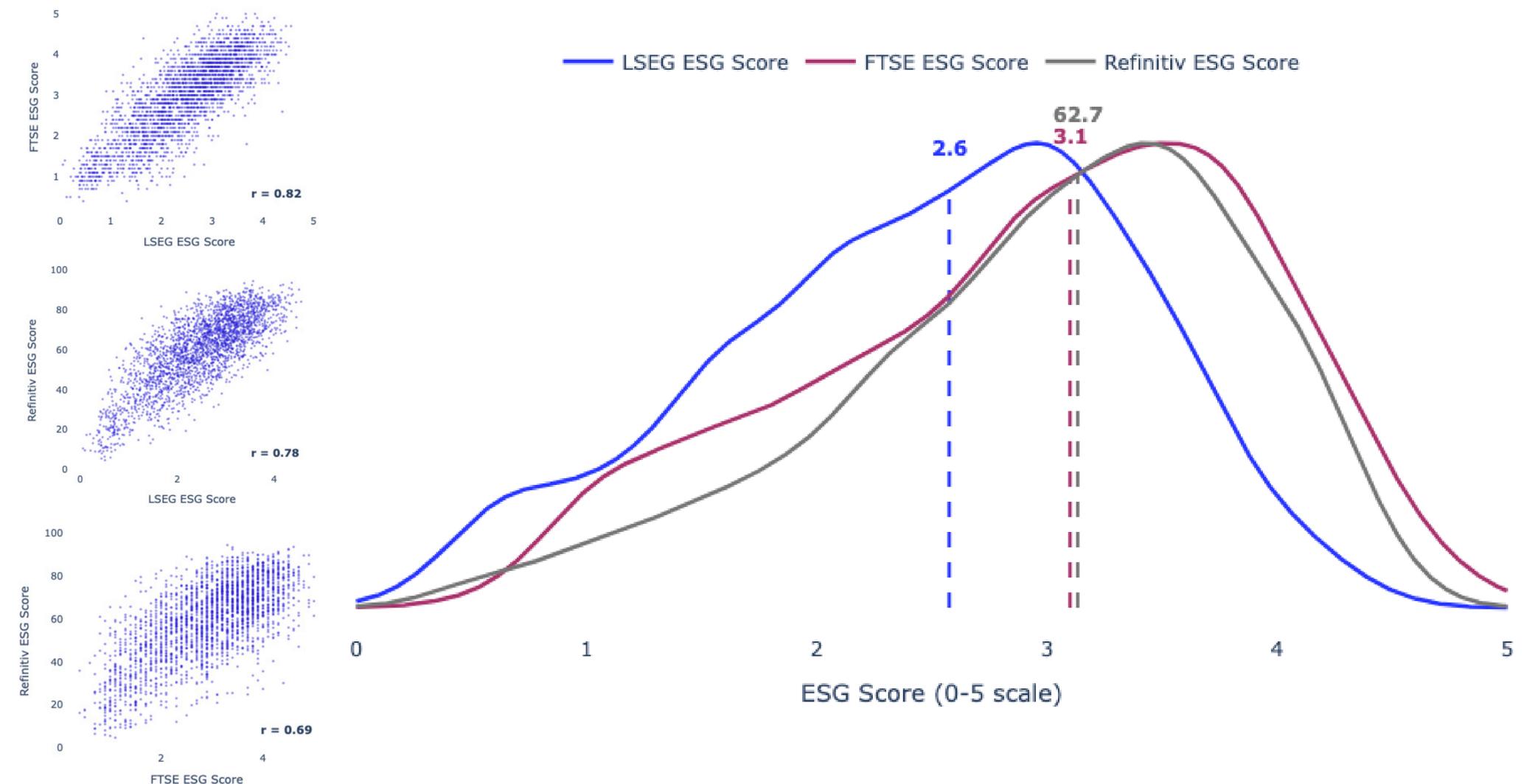
<sup>61</sup> LSEG, 2025, [FTSE ESG Score Methodology](#). In line with applicable benchmark regulations, eventual adoption of LSEG ESG scores in FTSE Russell benchmarks and index products (such as FTSE4GOOD index series, FTSE Blossom index series or others) is contingent on required client notification, index testing, market consultation, controls and approvals as set out in [FTSE Russell Policy for Benchmark Methodology Changes: Ground Rules](#).

<sup>62</sup> Pearson correlation coefficients.

<sup>63</sup> Berg, Kolbel & Rigobon, 2022, [Aggregate Confusion: The Divergence of ESG Ratings’](#)

<sup>64</sup> FTSE Russell’s governance pillar is a key driver of this skew, which exhibits a high median (3.9 in 2024) and tight clustering (IQR 3 - 4.4), with over 75% of FTSE Index companies (97% by weight) scoring 4 or 5 in the Corporate Governance theme. The Refinitiv distribution is partly driven by its normalisation of indicator scores across the full coverage universe which includes low scoring small caps.

**Figure 14. Comparisons of the LSEG ESG Score, FTSE ESG Score and Refinitiv ESG Score**



Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index as at June 2023. R = Pearson correlation coefficients. RHS graph shows probability density functions by count of companies with score medians labelled. Refinitiv ESG Scores are divided by 20 to change to 0-5 scale.

## Comparing ESG themes

Figure 15. Comparison of LSEG ESG Themes to the topics in the FTSE Russell ESG Rating and Refinitiv ESG Scores



# Appendix 2. Constructing LSEG ESG Theme Scores

## A) Theme selection

There is no broadly accepted convention on how ESG themes should be named or grouped, or which themes should be included in ESG score calculations for what type of companies. However, a detailed, peer-reviewed survey of the themes included by standard setters as well as leading providers of ESG scores demonstrates that – while naming conventions and structuring of ESG themes are heterogeneous – there is a high degree of conceptual overlap in these frameworks.<sup>65</sup>

Starting with the consolidated topic list from this research, we refined the list of ESG topics further based on data availability and standardisation within current ESG disclosures from corporates. For example, we exclude product and marketing practices which are commonly considered material for the ESG performance of companies – and under diverging labels are included in standards such as ESRS, SASB or GRI<sup>66</sup> – as comparable corporate disclosures are typically limited, with little standardised metrics made available to systematically compare performance across a broad, cross-sector coverage. Table 3 illustrates how topics considered by broad disclosure standards relate to each theme.

**Table 3. How topics covered by key standards relate to the LSEG ESG themes**

Theme	Standards Board	Standard
Climate Transition	SASB	GHG Emissions, ISSB S2
	GRI	Emissions 2016
	ESRS	Climate Change
	WEF	Climate Change
Energy & Resource Use	SASB	Energy Management, Materials Sourcing & Efficiency, Supply Chain Management
	GRI	Energy 2016, Materials 2016, Supplier Environmental Assessment 2016
	ESRS	Resource Use and Circular Economy
	WEF	Resource Availability
	Other	Taskforce on Nature-related Financial Disclosures, UN Global Compact, OECD Guidelines for Multinational Enterprises on Responsible Business Conduct
Biodiversity	GRI	Biodiversity 2016
	ESRS	Biodiversity and ecosystems
	WEF	Nature loss
	Other	Taskforce on Nature-related Financial Disclosures, UN Global Compact, OECD Guidelines for Multinational Enterprises on Responsible Business Conduct
Water Use	SASB	Water & wastewater management
	GRI	Water and effluents 2018
	ESRS	Water and marine resource
	WEF	Fresh water availability
	Other	Taskforce on Nature-related Financial Disclosures, UN Global Compact, OECD Guidelines for Multinational Enterprises on Responsible Business Conduct
Waste & Pollution	SASB	Air Quality, Ecological Impacts, Waste & Hazardous Materials Management, Product Design & Lifecycle Management
	GRI	Waste 2020, Effluents and Waste 2016
	ESRS	Pollution
	WEF	Air pollution, Solid waste, Water pollution
	Other	Taskforce on Nature-related Financial Disclosures, ISO 14000, UN Global Compact, OECD Guidelines for Multinational Enterprises on Responsible Business Conduct

<sup>65</sup> Dodsworth et al., 2023, [Financial, Double, or Dynamic? Theories of ESG Materiality and Practitioner Approaches](#)

<sup>66</sup> Product and marketing considerations are considered under ESRS (Consumers and End-Users), GRI (Customer Health & Safety 2016, Marketing and Labelling 2016), SASB (Access & Affordability, Customer Welfare, Product Quality & Safety, Selling Practices & Product Labelling)

Theme	Standards Board	Standard
Health & Safety	SASB	Employee Health & Safety, Supply Chain Management
	GRI	Occupational Health & Safety 2018, Supplier Social Assessment 2016, Procurement Practices 2016
	ESRS	Own Workforce, Workers in the Value Chain
	WEF	Health & Wellbeing
	Other	OHSAS 18001
Human Rights & Community	SASB	Human Rights & Community Relations, Supply Chain Management
	GRI	Local Communities 2016, Market Presence 2016, Rights of Indigenous Peoples 2016, Security Practices 2016, Indirect Economic Impacts 2016
	ESRS	Affected Communities, Workers in the value chain
	WEF	Community and Social Vitality
	Other	UN Guiding Principles on Business and Human Rights, Corporate Human Rights Benchmark, Universal Declaration of Human Rights, UN Global Compact, OECD Guidelines for Multinational Enterprises on Responsible Business Conduct
Labour Relations	SASB	Employee Engagement, Diversity & Inclusion, Labour Practices, Critical Incident Risk Management, Supply Chain Management
	GRI	Diversity & Equal Opportunity 2016, Child Labour 2016, Employment 2016, Forced or Compulsory Labour 2016, Freedom of Association and Collective Bargaining 2016, Labour/Management Relations 2016, Non-discrimination 2016, Training and Education 2016,
	ESRS	Own Workforce, Workers in the Value Chain
	WEF	Dignity & Equality, Skills for the Future, Stakeholder Engagement, Employee and Wealth Generation
	Other	ILO Core Labour Standards, UN Global Compact, OECD Guidelines for Multinational Enterprises on Responsible Business Conduct
Board & Management	WEF	Governing Purpose, Quality of Governing Body
Shareholder Rights	Other	ICGN Global Governance Principles
	WEF	Stakeholder Engagement
Conduct & Anti-corruption	Other	ICGN Global Governance Principles
	SASB	Business Ethics, Competitive Behaviour, Management of the Legal & Regulatory Environment, Customer Privacy, Data Security, Systemic Risk Management, Business Model Resilience, Critical Incident Risk Management
	GRI	Anti-competitive Behaviour 2016, Anti-corruption 2016, Public Policy 2016, Customer Privacy 2016
	ESRS	Business conduct
	WEF	Ethical Behaviour, Risk and opportunity oversight
Tax Transparency & Accounting	Other	UN Global Compact, OECD Guidelines for Multinational Enterprises on Responsible Business Conduct
	GRI	Tax 2019
	Other	OECD Guidelines for Multinational Enterprises on Responsible Business Conduct



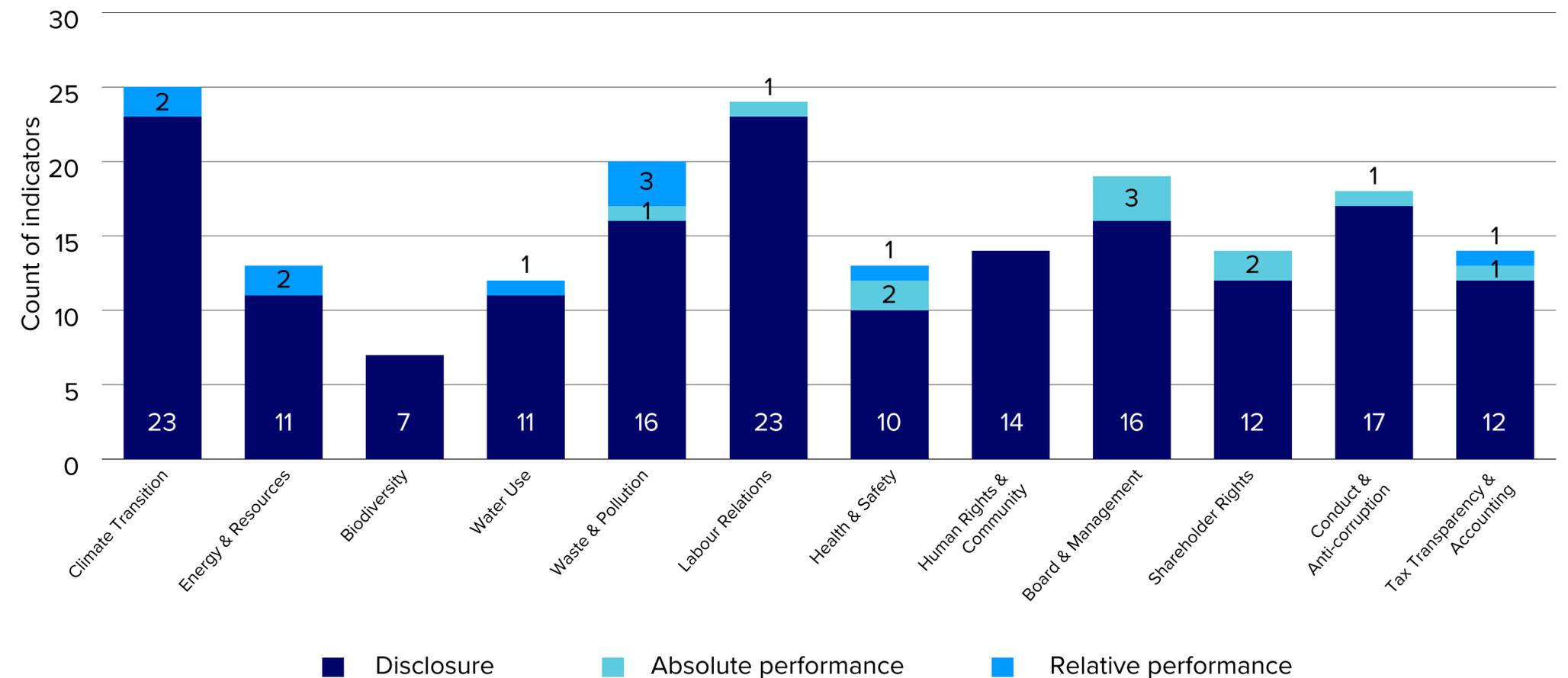
## B) Indicator selection

For each theme we conducted a detailed survey of available data, surveying both the types of disclosures, disclosure rates and alignment with key standards.<sup>67</sup> We then selected metrics for each theme based on:

- Alignment with standards (prioritising metrics codified in key sustainability standards and sector frameworks)
- Data availability (excluding metrics with very low disclosure levels)
- Avoiding duplication (ensuring indicators are complementary and do not measure heavily overlapping information)

This results in the selection of 193 indicators with between 7 to 25 per theme depending on the maturity and comprehensiveness of disclosures – with Climate Transition having the most and Biodiversity the fewest.

Figure 16: Indicators per theme



<sup>67</sup> Bourne, Dodsworth & Schlich, 2024, [Made to Measure: Indicator Construction and Measurement Scales in ESG Score Design](#)

### C) Assess performance

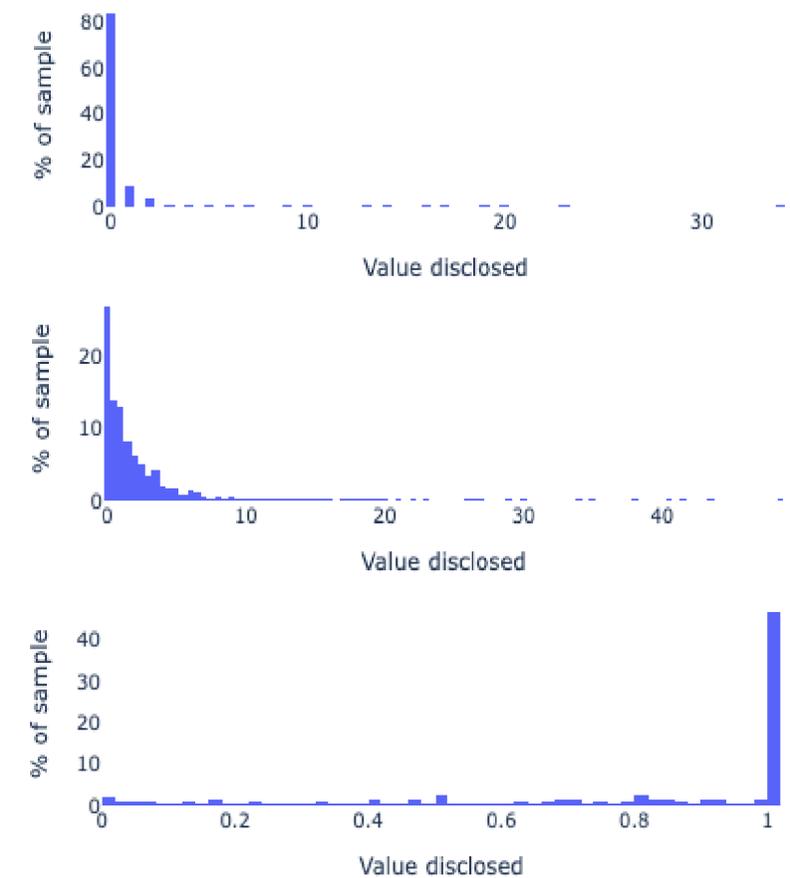
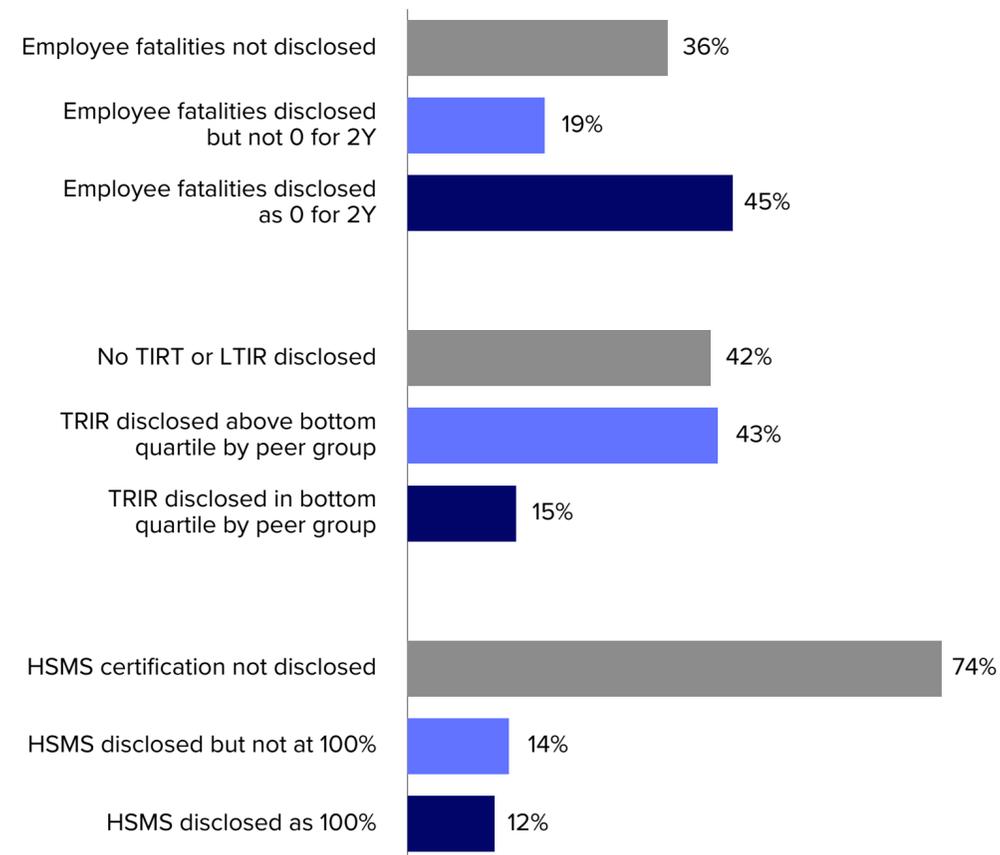
Where quantitative metrics are available, we seek to leverage this data to support performance benchmarking across a large number of companies and diverse sectors. Depending on the nature of the metric, we introduce either relative or absolute performance benchmarks – this process is illustrated for the Health & Safety theme, in Figure 17.

Health & Safety includes three performance indicators that assess Employee Fatalities, Injury Rates – Total Injury Rate Total (TIRT) and Lost-Time Injury Rate (LTIR) – and Health & Safety Management System (HSMS) certification rates. Each is supported by a critical mass of disclosure: 64%, 58% and 26% respectively for the underlying quantitative datapoints.

Figure 17 shows data for Employee Fatalities and HSMS certification are heavily clustered: 84% of fatality disclosures are exactly 0, and 47% of HSMS disclosures indicate full (100%) certification. This lack of a continuous distribution and reporting patterns align with corporates targeting “zero harm” and universal HSMS coverage. For both these metrics, the model rewards disclosure, and assesses performance against an **absolute** threshold: Companies which measure and disclose data are rewarded, and those who report zero fatalities and 100% HSMS disclosure respectively are further rewarded.

By contrast, Injury Rates vary materially across companies, with an interquartile range of roughly 0.2 to 3.0. Because the distribution shows differentiation and varies across sectors and business models, we use a **relative** benchmark and in addition to disclosure, further reward performance the bottom quartile within each materiality group.<sup>68</sup>

**Figure 17. Health & Safety theme performance indicators**



Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index.

<sup>68</sup> To ensure the comparison values stay consistent for all companies in a disclosing year, the thresholds are set using disclosures from a sample 2 years prior. Hence ‘approximately’ 25%.

## D) Normalise to scale

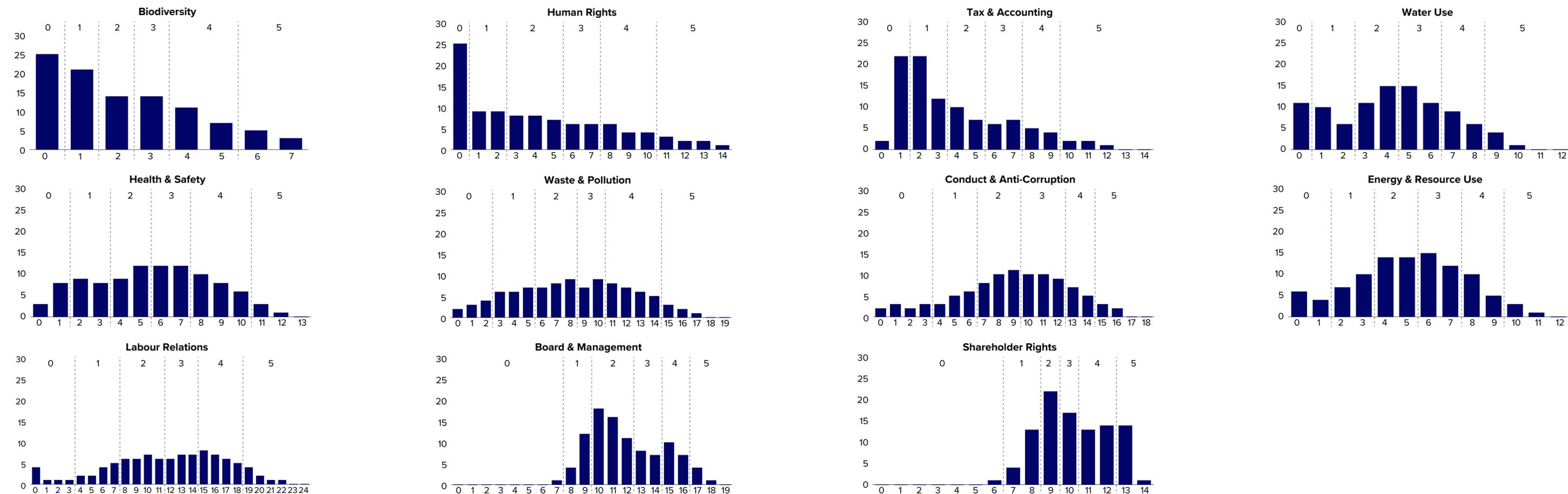
Each theme is scored on a 0-5 absolute and ordinal integer scale to avoid false precision and over-interpreting small differences in data quality or disclosure. This allows for clear, meaningful differentiation between companies and themes, while maintaining comparability and avoiding the illusion of granularity where it isn't supported by the data.

ESG Themes exhibit widely diverging levels of maturity and as such scoring thresholds must be carefully calibrated to deliver a suitable scoring distribution that differentiates between leading, middling and lagging performance on a topic and allows for comparisons across themes.

Figure 18 shows how themes with a long-standing presence in reporting standards such as Board & Management tending to show stronger performance, with a

broad set of relatively standardised metrics available, and companies more likely to meet a high proportion of indicators. In contrast, themes like Human Rights,<sup>69</sup> which have only recently gained broad focus, often show lower scores, with many companies meeting few or none of the indicators. With differing maturities across topics, the underlying thresholds were calibrated to such that each score could produce usable differentiation when used in isolation.

**Figure 18. Counts of indicators met per company for the ESG themes. Dotted lines show the thresholds for where count of indicators met translates to each of the scores 0-5**



Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index.

One outlier to our Theme Scoring approach is climate; one of the most mature topics in the ESG sphere. In this area there is a sufficient high-quality data to move beyond to significantly move beyond measuring the volume of data available to a staircase system. Using the TPI MQ framework, companies are rewarded for progress towards strong management quality: awareness, measurement, target setting, management systems and transition plans. The absence of this critical mass of data and structured approach to issue management in other topics, means this is the only area where such assessment structure is possible.

<sup>69</sup> Bourne, 2023, [Tackling the ESG data gap for Corporate Human Rights | LSEG](#)

## E) Add scoring caps

Each theme<sup>70</sup> incorporates a capping indicator similar to what is being used for example in 'staircase' methodologies like the Transition Pathway Initiative's Management Quality scores. Companies cannot be assessed to score above 3 unless the requirement of the capping metrics is fulfilled. This helps to guard against greenwashing by ensuring that companies gaining higher scores meet key aspects of good corporate practice for a given theme.

When ESG scores are calculated they generally use some form of weighted average to arrive at a consolidated score, which can allow companies to substitute poor performance in one indicator by good performance in another. The score capping approach balances this by identifying indicators for each theme that represent leading practice and elevating their impact in the model.

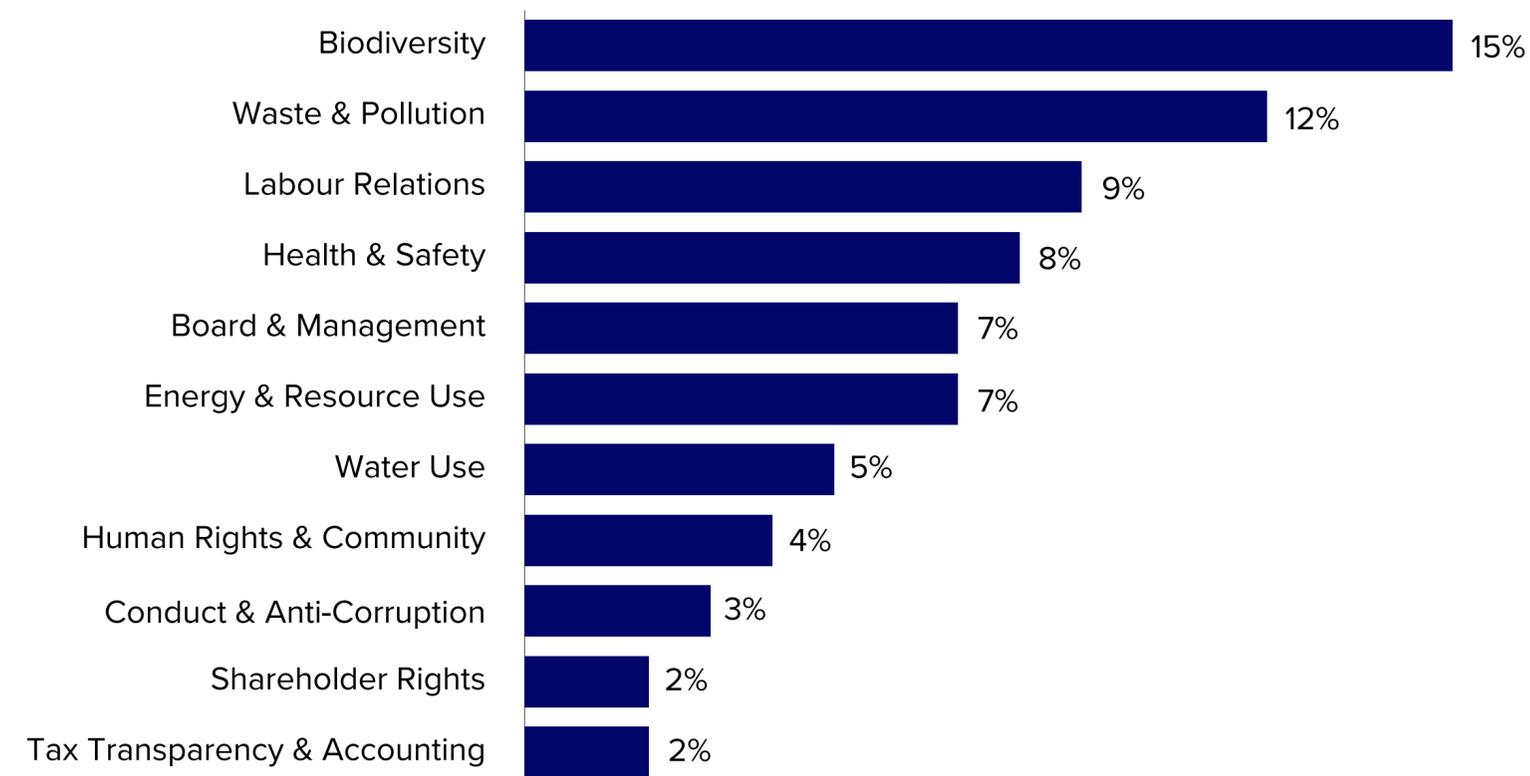
We select capping indicators that are regularly highlighted across standards and reflect a more advanced aspect of ESG management such as target-setting or conducting comprehensive risk assessment,<sup>71</sup> without which a company may appear engaged but fall short of taking advanced meaningful action.

This approach results in approximately 28% of companies that would have scored a 4 or 5 (or 7% of companies in the total coverage), being held at a score of 3 per theme on average. Figure 19 illustrates the proportion of companies capped for each of the capping indicators.

**Table 4. Capping logic for each ESG Theme**

Theme	Capping indicator required to score above a 3	Description
<b>Biodiversity</b>	Biodiversity Targets	Quantified, time-bound biodiversity targets
<b>Board &amp; Management</b>	Chairperson Independent	Presence of an independent chairperson
<b>Energy &amp; Resource Use</b>	Energy Efficiency Target	Quantified, time-bound reduction targets on energy efficiency
<b>Human Rights &amp; Community</b>	Has conducted a human right impact assessment	Evidence of ongoing assessment of company's human rights impacts
<b>Health &amp; Safety</b>	Zero Employee Fatalities for two consecutive years	Disclosure of zero employee fatalities for two consecutive years
<b>Labour Relations</b>	Trade Union Representation	Disclosure of the percentage of employees represented by independent trade union organisations
<b>Conduct &amp; Anti-Corruption</b>	Corruption Risk Assessment	Evidence that company conducts a corruption risk assessment for its operations
<b>Shareholders</b>	Policy Equal Voting Right	Policy to apply a one-share one-vote principle, maintaining equal rights for every common share
<b>Tax Transparency &amp; Accounting</b>	Taxes Align to Revenues	Commitment to align tax payments with revenue-generating activity
<b>Waste &amp; Pollution</b>	Targets Waste or Targets Pollution	Quantified, time-bound targets to reduce or avoid waste, or pollution to air or water
<b>Water Use</b>	Water Use Targets	Quantified, time-bound targets to reduce water consumption or withdrawal

**Figure 19. Share of companies affected by theme capping**



Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index.

<sup>70</sup> The Climate Change Theme does not have a single score capping metric. The Climate Change Theme leverages the TPI MQ scoring methodology which adopts a staircase approach, whereby a company can only advance to a higher score once it has met all metrics at its current level. For more information, see the Climate Change Theme scoring detail section.

<sup>71</sup> Metrics & Targets, and Risk Management are two of the four pillars of the IFRS S1 standard. For more mature themes, targets are key to show how a company is measuring progress towards its strategic goals, whilst for less mature themes a transparent risk assessment demonstrates that the entity is identifying and monitoring key risks.

# Appendix 3. Determining materiality weights

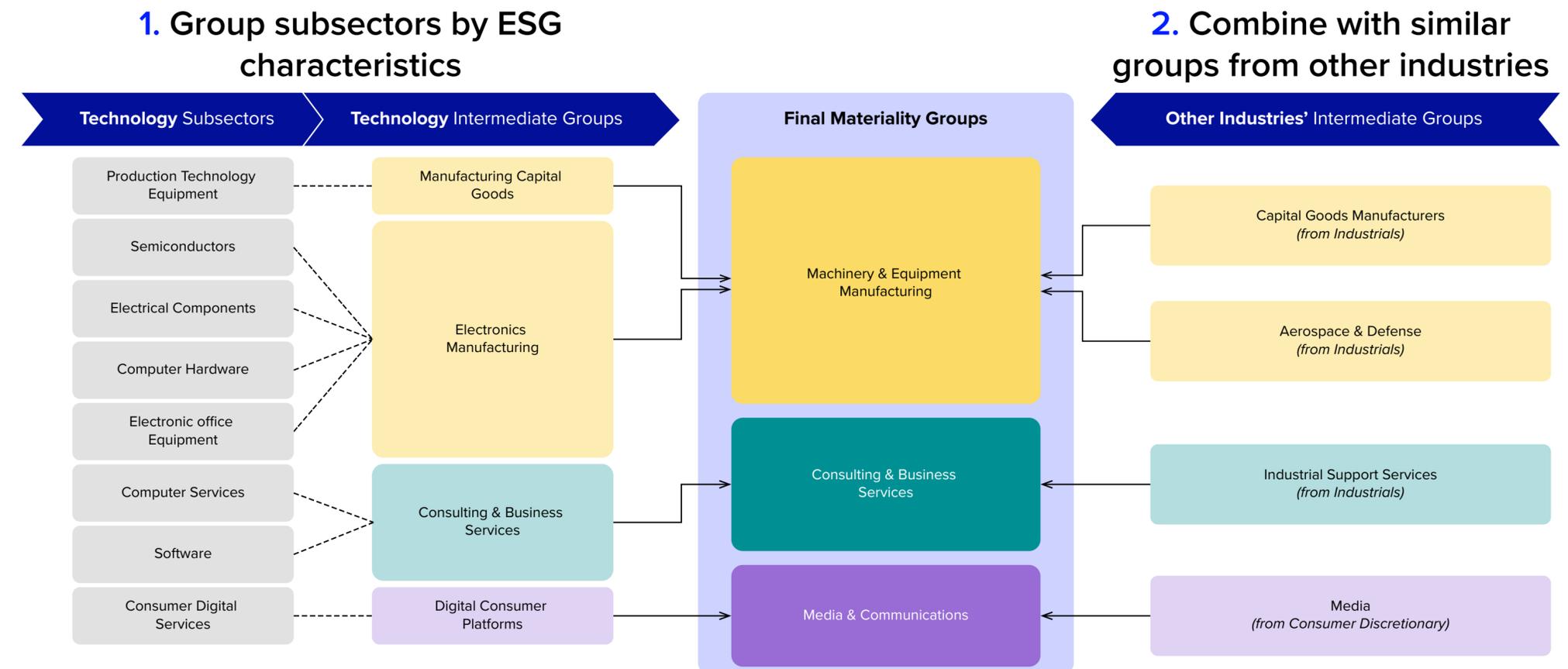
## A) Construction of materiality groups

To enable more meaningful peer-group comparisons and more accurate materiality assessments, we leverage the most granular level of LSEG’s proprietary industry and business activity classifications – ICB subsector level and TRBC industry group – to combine activities into 12 broad ‘materiality groups’. These comprise business activities that share broadly similar ESG risk characteristics, rather than market exposure as in conventional industrial classifications.

Figure 20 illustrates how we construct these groupings; classifying subsectors into similar intermediate groups and then combining with similar groups from other industries. For the technology sector, this required the separation of manufacturers, technology service providers, and media companies – each facing distinct ESG risk profiles.

These intermediate groupings from the technology industry were then combined with segments from other sectors with similar ESG profiles. As an example, technology companies that offer digital consumer platforms were combined with media companies (conventionally classed as Consumer Discretionary) to form the materiality group Media & Communications; together their service-focused business face similar types of ESG risks, particularly a high dependency on human capital.

Figure 20. How ICB assignments are reorganised in LSEG Materiality Groups – using the Technology industry as an example



**Table 5. Materiality group descriptions and associated TRBC Industry Group**

Materiality Group	Description	TRBC Industry Groups Included
Basic Resources	Companies engaged in the extraction of raw materials from the ground. Sitting at the beginning of global supply chains - producing energy or raw materials. Generally away from population centres.	Forest & Wood Products, Coal, Integrated Oil & Gas, Oil & Gas Exploration and Production, Oil & Gas Refining and Marketing, Oil & Gas Drilling, Oil Related Services and Equipment, Oil & Gas Transportation Services, Uranium, Non-Gold Precious Metals & Minerals, Iron & Steel, Aluminium, Specialty Mining & Metals, Gold, Mining Support Services & Equipment, Diversified Mining
Heavy Industry	Companies utilising raw materials provided by Basis Resources companies, transforming or refining these through industrial processes into inputs to manufacturing, including energy.	Renewable Fuels, Commodity Chemicals, Agricultural Chemicals, Specialty Chemicals, Diversified Chemicals, Construction & Engineering, Homebuilding, Paper Products, Textiles & Leather Goods, Electric Utilities, Independent Power Producers, Natural Gas Utilities, Water & Related Utilities, Multiline Utilities, Construction Materials
Machinery & Equipment Manufacturing	Companies transforming refined inputs into finished goods for use in retail or business applications.	Aerospace & Defence, Renewable Energy Equipment & Services, Industrial Machinery & Equipment, Heavy Electrical Equipment, Diversified Industrial Goods Wholesale, Electrical Components & Equipment, Environmental Services & Equipment, Construction Supplies & Fixtures, Consumer Goods Conglomerates, Semiconductors, Semiconductor Equipment & Testing, Communications & Networking, Electronic Equipment & Parts, Office Equipment, Computer Hardware, Phones & Handheld Devices, Heavy Machinery & Vehicles, Shipbuilding, Auto & Truck Manufacturers, Auto, Truck & Motorcycle Parts, Tires & Rubber Products, Non-Paper Containers & Packaging, Paper Packaging, Commercial Printing Services
Households Goods Manufacturing	Companies manufacturing goods for use in a household context.	Appliances, Tools & Housewares, Household Electronics, Integrated Hardware & Software, Household Products, Personal Products, Apparel & Accessories, Footwear, Home Furnishings, Toys & Children's Products, Recreational Products
Transport & Logistics	Companies engaged in transport or warehousing of goods.	Business Support Supplies, Courier, Postal, Air Freight & Land-based Logistics, Marine Freight & Logistics, Ground Freight & Logistics, Airlines, Passenger Transportation, Ground & Sea, Airport Operators & Services, Marine Port Services, Highways & Rail Tracks
Food & Beverage	Companies within the food supply chain, including production and retail.	Brewers, Distillers & Wineries, Non-Alcoholic Beverages, Fishing & Farming, Food Processing, Tobacco, Food Retail & Distribution
Healthcare	Companies that provide healthcare or manufacture specific products for healthcare purposes.	Advanced Medical Equipment & Technology, Medical Equipment, Supplies & Distribution, Pharmaceuticals, Biotechnology & Medical Research, Healthcare Facilities & Services, Managed Healthcare
Consumer Services & Retail	Companies retail or offering a tangible service.	Auto Vehicles, Parts & Service Retailers, Personal Services, Religious Organizations, Civic & Social Organizations, Environmental Organizations, Charity Organizations, Miscellaneous Educational Service Providers, Schools, Colleges & Universities, Professional & Business Education, Hotels, Motels & Cruise Lines, Restaurants & Bars, Casinos & Gaming, Leisure & Recreation, Department Stores, Discount Stores, Home Improvement Products & Services Retailers, Home Furnishings Retailers, Apparel & Accessories Retailers, Computer & Electronics Retailers, Miscellaneous Specialty Retailers, Drug Retailers
Consulting & Business Services	Companies providing IP or people-based services to corporates.	Employment Services, Business Support Services, IT Services & Consulting, Professional Organizations, Government & Government Finance, Legal & Safety Public Services, Government Administration Activities, National Security & International Affairs, Software
Media & Communications	Companies providing media, educational or digital services.	Integrated Telecommunications Services, Wireless Telecommunications Services, Online Services, Advertising & Marketing, Broadcasting, Consumer Publishing; Entertainment Production,
Financial Services	Companies offering banking, diversified financial services or insurance.	Banks, Consumer Lending, Corporate Financial Services, Investment Banking & Brokerage Services, Professional Information Services, Investment Management & Fund Operators, Diversified Investment Services, Financial & Commodity Market Operators & Service Providers, UK Investment Trusts, Mutual Funds, Closed End Funds, Exchange-Traded Funds, Pension Funds, Insurance Funds, Financial Technology (Fintech), Crowd Collaboration, Blockchain & Cryptocurrency , Miscellaneous Fintech Infrastructure, Multiline Insurance & Brokers, Property & Casualty Insurance, Life & Health Insurance, Reinsurance, Investment Holding Companies
Real Estate	Companies where the primary business line involves owning and renting land or property.	Real Estate Rental, Development & Operations, Real Estate Services, Diversified REITs, Commercial REITs, Residential REITs, Specialized REITs

## B) Assigning materiality weights for each theme to each materiality grouping

There is no consensus on the appropriate method to assign materiality weights to different topics or indicators and their determination is often among the most complex and opaque aspect in the construction of ESG scores. To maintain transparency and replicability of scores, we chose a straightforward approach that assigns one of four materiality weights to each theme for each materiality group (resulting in the Materiality Matrix shown in Figure 8). The elements described below were supported by subject matter expertise to determine the assigned materiality level.

**Table 6. Materiality levels and description of how they were assigned for each theme**

Materiality level	Weight	Financial materiality	Corporate disclosures	Key quantitative metrics <sup>72</sup>	Standards alignment
Critical	1.0	Material to the financial performance of all companies in the materiality group	Extensive disclosures, including KPIs and detailed qualitative data	Quantitative indicators (e.g., energy intensity, injury rates) at comparatively high levels compared to other materiality groups	Consistently identified as material across standards
Material	0.75	Not among the top 1-2 most material themes, but still highly relevant to business model	Regularly disclosed, often including meaningful quantitative metrics	Metrics have elevated levels compared to other materiality groups	Commonly identified as material across standards
Relevant	0.25	Partial evidence of link to business model or financial performance	Some disclosures, generally qualitative or simple quantitative, and often inconsistent across companies	Moderate or mixed levels of exposure for key quant metrics	Mentioned in some standards, but typically at a generalised level across sectors, or inconsistently classified as material
Not Relevant	0	Limited to no connection to a company's business model or financial outcomes	Minimal or highly inconsistent disclosures across companies in the materiality group	Minimal or negligible levels of key quant metrics for companies in the materiality group	Rarely referenced or addressed specifically for these sectors in standards

<sup>72</sup> where available for Theme

To assign materiality weights we used a three-step process which is illustrated below for the Health & Safety theme:

**1. Identify themes that are not relevant to specific materiality groups**

Service firms such as **Media & Communications**, **Financial Services** and **Consulting & Business Services** are characterised by limited physical inputs and outputs, office-based work and asset value concentrated in intellectual property or human capital. They consistently show the lowest injury rates and are assessed as not relevant.

**2. Differentiate between relevant and material themes**

**Real Estate** displays the next-lowest injury rates, with a long tail of very small values, and are therefore captured as relevant – feeding into their assessment at a lower weight. Note that companies engaged in real-estate development, where physical-site risks are more significant, are captured within the Heavy Industry materiality group instead.

**For all remaining groups**, Health & Safety is assessed as material, as their activities involve meaningful physical operations and exhibit progressively higher injury rates.

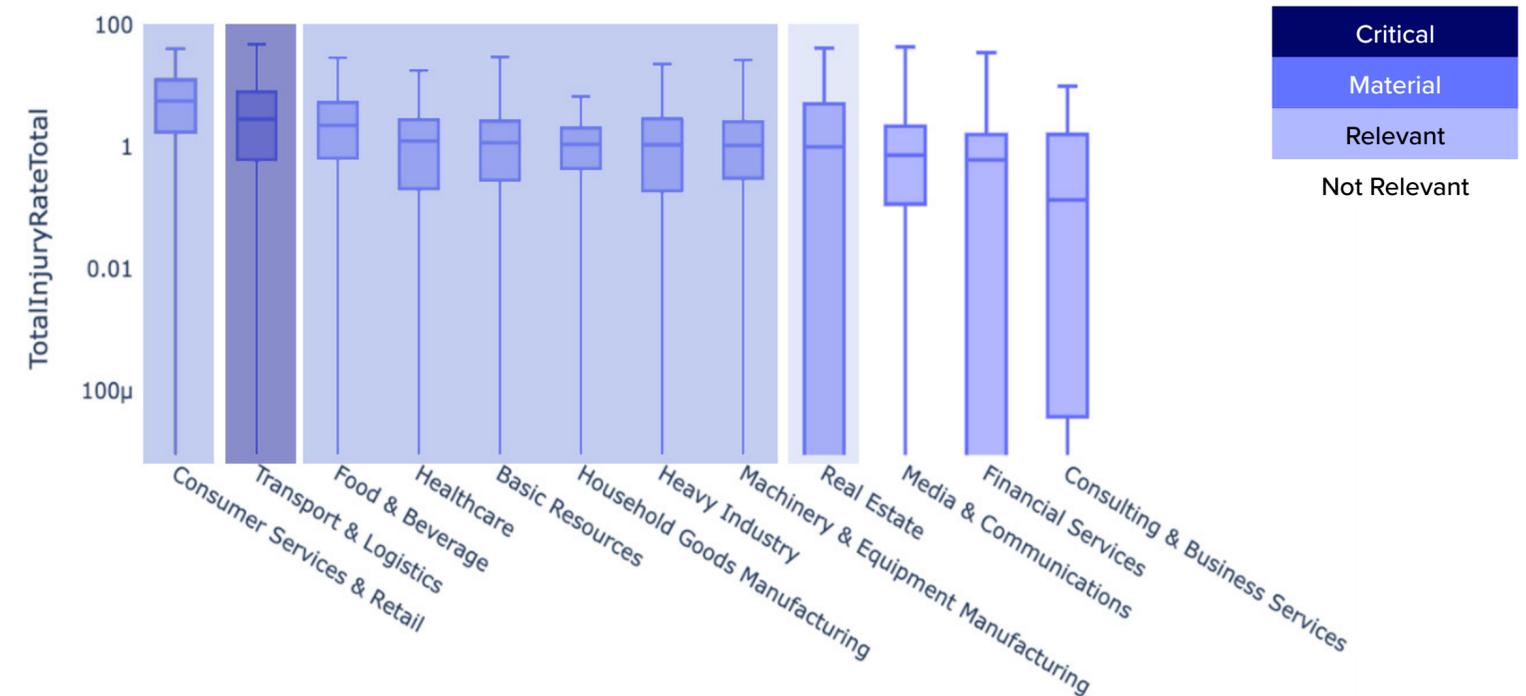
**3. Determine the most critical themes for each materiality group and layer all the steps together**

**Transport & Logistics** stands out for its particularly high injury rates and the focus of decent work and health & safety in global standards. Worker safety - especially in the road-transport segment - is a key focus area, with the ILO stating commercial vehicles are involved in up to 22% of all crashes.<sup>73</sup>

**Retail & Consumer Services** was not elevated to critical despite its high injury rate – this was because Labour Relations was selected as critical in that sector to reflect the importance of strong relationships with human capital in that sector.

**Figure 21: Recorded injuries per million hours worked for FTSE All-World companies and Health & Safety Materiality Matrix**

Materiality Group	Basic Resources	Heavy Industry	Machinery & Equipment Manufacturing	Household Goods Manufacturing	Food & Beverage	Transport & Logistics	Healthcare	Retail & Consumer Services	Consulting & Business Services	Media & Communications	Financial Services	Real Estate
	Material						Critical	Material	Relevant			Not Relevant



Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index.

<sup>73</sup> ILO, 2020, “Guidelines on the promotion of decent work and road safety in the transport sector”

### C) Assigning companies to materiality groupings

Companies are assigned to different materiality groupings based on their industry classifications, taking into account TRBC codes assigned both at the organisational level as well as to reported revenue segments, where segment revenues exceed 10%. While a companies' business activities are classified in

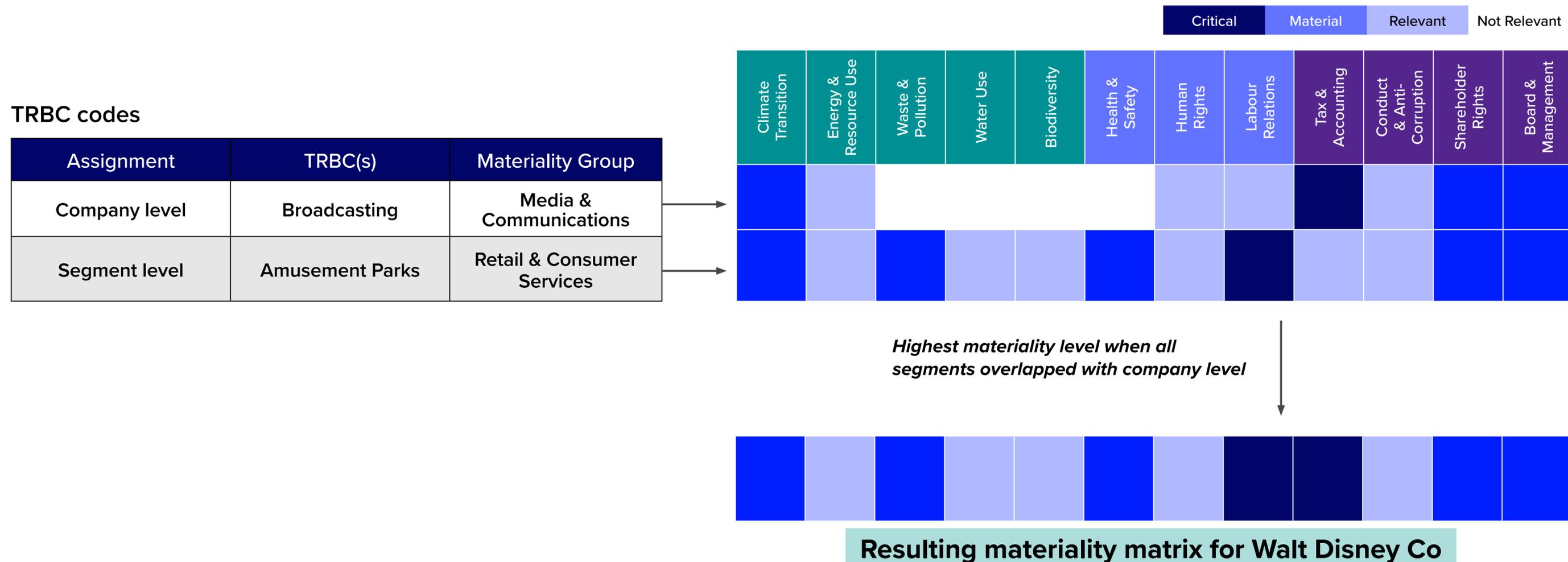
a dozen or more TRBC codes these often fall in the same materiality group. Indeed, 54% of companies<sup>74</sup> are assigned to only a single TRBC. Where a company has substantial business exposure to multiple materiality groups, we assign the highest materiality weight from any of the applicable materiality groups to each theme.

Figure 22 illustrates this for Walt Disney as an example:

- The TRBC scheme classifies Walt Disney in Broadcasting (TRBC 5330202010) which is included in the Media & Communications materiality group.

- However, segment level TRBC data shows that the company also derives more than 10% of its revenue from Amusement Parks (TRBC 5330104015) – which, due to its very different ESG risk profile, is classified as part of the Retail & Consumer Services materiality group.
- The materiality weights ultimately used in the calculation of Walt Disney's is using the highest materiality weight across both applicable materiality groups.

Figure 22. Example of derivation of materiality weights for Walt Disney Co



<sup>74</sup> Based on sample of 2620 large and mid-cap companies from FTSE All-World, TRBC data for 2024

# Appendix 4. LSEG ESG Scores: Additional data and analysis

**Table 7. Median score values by country and country classification**

Country Classification	Country	ESG Score	Environmental Pillar	Social Pillar	Governance Pillar
Developed	ITA	3.5	3.4	3.5	3.4
Developed	UK	3.5	3.3	3.0	4.0
Developed	SWIT	3.5	3.5	3.0	3.6
Developed	NETH	3.4	3.6	3.3	3.6
Advanced Emerging	THAI	3.3	3.4	3.7	2.7
Developed	GER	3.3	3.2	3.4	3.0
Advanced Emerging	TWN	3.2	3.4	3.6	2.7
Developed	FRA	3.2	3.5	3.3	2.9
Advanced Emerging	TUR	3.1	3.8	3.4	2.4
Advanced Emerging	SAF	3.0	2.8	2.9	3.1
Developed	CAN	3.0	2.8	3.0	3.4
Developed	AU	2.9	2.6	2.8	3.3
Developed	SWED	2.9	3.0	3.0	2.5
Developed	JA	2.9	3.0	2.9	2.7
Developed	USA	2.8	2.8	2.4	3.2
Advanced Emerging	BRAZ	2.8	3.1	3.3	2.3
Advanced Emerging	MAL	2.8	2.8	3.0	2.7
Developed	SI	2.7	2.9	2.4	2.4
Developed	HK	2.6	3.0	2.8	1.9
Secondary Emerging	IND	2.5	2.8	2.9	1.9
Secondary Emerging	INDO	2.4	2.8	2.5	1.9
Secondary Emerging	CHN	1.7	2.1	1.4	1.5

Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World index. Minimum country sample size = 20.

**Table 8.A. Median score values by TRBC Economic Sector**

Economic Sector	ESG Score	Environmental Pillar	Social Pillar	Governance Pillar
Energy	2.8	2.9	2.7	2.5
Utilities	2.7	2.9	2.7	2.4
Basic Materials	2.6	3.0	2.6	2.2
Industrials	2.6	2.8	2.7	2.4
Consumer Non-Cyclicals	2.6	2.8	2.7	2.1
Financials	2.6	2.8	2.0	2.6
Technology	2.6	2.8	2.5	2.4
Consumer Cyclical	2.5	2.6	2.4	2.4
Real Estate	2.5	2.4	2.3	2.3
Healthcare	2.4	2.4	2.4	2.3

**Table 8.B. Median score values by ICB Industry**

ICB industry	ESG Score	Environmental Pillar	Social Pillar	Governance Pillar
Energy	2.8	3.0	2.7	2.5
Utilities	2.7	2.9	2.7	2.4
Telecommunications	2.7	3.0	2.9	2.4
Basic Materials	2.6	3.0	2.7	2.2
Industrials	2.6	2.8	2.6	2.4
Consumer Staples	2.6	2.8	2.7	2.1
Financials	2.6	2.8	2.0	2.6
Technology	2.6	2.8	2.5	2.3
Real Estate	2.5	2.4	2.3	2.4
Consumer Discretionary	2.4	2.5	2.3	2.3
Healthcare	2.4	2.4	2.4	2.3

Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index as at June 2023. Minimum sector sample size = 20.

**Table 9. Correlations of LSEG ESG Scores and E, S and G Pillar Scores versus FTSE Factor data**

	ESG Score	E Pillar Score	S Pillar Score	G Pillar Score
<b>Size</b>	-0.4	-0.3	-0.3	-0.5
<b>Momentum</b>	0.1	0.1	0.1	0.1
<b>Quality</b>	0	0	0	0
<b>Low Volatility</b>	0.3	0.2	0.2	0.3
<b>Value</b>	0.1	0.2	0.1	0
<b>Yield</b>	0.2	0.2	0.2	0.1

Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index.

**Table 10. Correlations of LSEG ESG Scores versus FTSE Factor data by TRBC Economic Sector**

	Industrials	Technology	Financials	Consumer Cyclicals	Basic Materials	Healthcare	Consumer Non-Cyclicals	Utilities	Real Estate	Energy
<b>Size</b>	-0.5	-0.4	-0.3	-0.4	-0.5	-0.6	-0.4	-0.5	-0.5	-0.4
<b>Momentum</b>	0.2	0.2	0.1	0.0	-0.0	0.3	0.3	-0.1	0.0	-0.1
<b>Quality</b>	-0.0	0.0	-0.1	-0.1	0.1	0.1	-0.0	-0.1	-0.0	-0.1
<b>Low Volatility</b>	0.2	0.4	0.1	0.2	0.3	0.4	0.5	0.2	0.1	0.1
<b>Value</b>	0.0	0.3	0.0	0.2	0.0	0.0	0.1	-0.1	-0.2	0.0
<b>Yield</b>	0.1	0.3	0.3	0.1	0.2	0.1	0.2	0.1	0.3	-0.0

Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index.

**Table 11. Correlations of LSEG ESG Scores versus FTSE Russell Factor data by Country Classification**

	Developed	Advanced Emerging	Secondary Emerging
<b>Size</b>	-0.3	-0.2	-0.4
<b>Momentum</b>	0.0	-0.0	0.1
<b>Quality</b>	-0.1	-0.2	0.2
<b>Low Volatility</b>	0.1	0.0	0.1
<b>Value</b>	0.1	0.2	0.1
<b>Yield</b>	0.2	0.1	0.0

Source: LSEG. Based on ESG data for FY2024 for 2620 large and mid-cap companies from the FTSE All-World Index.

**Table 12. FTSE Russell factor details**

Factor	Metric	S-Score 0	S-Score 1
<b>Size</b>	Natural log of full market cap in USD	Large-cap	Small-cap
<b>Momentum</b>	Cumulative 11-month return (i.e. ex most recent month)	Weak/negative momentum	Strong positive momentum
<b>Quality</b>	A composite of profitability (combining ROA, change in asset turnover and accruals) and leverage (ratio of operating cash flow to total debt)	Low quality traits	High quality traits
<b>Low Volatility</b>	5-year standard deviation of weekly local total returns multiplied by -1	High volatility	Low volatility
<b>Value</b>	Composite of cash flow yield, earnings yield, country relative sales to price	Expensive valuation	Cheap valuation
<b>Yield</b>	Natural log of 12-month trailing dividend yield	Low dividend yield	High dividend yield

# Appendix 5. LSEG ESG Plus Score

The following section provides an overview of the LSEG ESG Plus Score's constituent datasets and calculation methodology. Further detail is available in the dedicated methodology document.<sup>75</sup>

## LSEG ESG Plus Score datasets

### Sovereign ESG Risk Score

The Sovereign ESG Risk Score factors in additional ESG risks from a company's operations based on its geographical distribution on a sovereign state level – using LSEG's Sustainable Sovereign Risk Methodology<sup>76</sup> (SSRM). It produces a 0-5 score where higher scores indicate a low-risk company from a sovereign ESG exposure lens. LSEG's StarMine Countries of Risk<sup>77</sup> model is used to map companies fractional exposure to the SSRM data via revenue breakdown by geography, headquarters, trading country of primary listing, and currency of filing.

### ESG Controversies Scores

ESG Controversies are captured from a range of news data and processed into scores 0 to 5 (where 0: no controversies/least risk and 5: largest number of controversies/highest risk). News article events are analyses which represent potential violations of the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct and the UNGC Principles. Scores are created over a 2-year look-back period, and a log-based transformation is applied. Controversy category scores are averaged and a size bias correction applied using a linear regression model, before a final scaling to fit the scores into the range 0 to 5.

### Green Revenues

This dataset represents exposure to companies involved in the Green Economy using the Green Revenues model,<sup>78</sup> giving a score boost for positive impact. It identifies companies providing green products and services and classifies associated revenues based on the Green Revenues Classification System (GRCS).<sup>79</sup> The score uses a simple 1/20 scaling to fit the 0-5 range. Companies with no green revenues will receive a 0, while a score of 5 indicates all revenue is derived from green sources.

### Green or Other ESG Issuance Scores

The Green Issuance Score attempts to add a view of how much of a company's debt is made up of sustainability-related

instruments, where companies with higher proportions will receive a bonus in the score. The sustainable types of debt instruments are grouped below:

**Table 13. Sustainable types of instruments, associated descriptions and classification in the LSEG ESG Score Plus. Green bonds data also include subsidiary level data**

Bond Type	Description	In 'Impact' Version?	In 'Complete' Version?
<b>'CBI Certified' Green Bonds</b>	Bonds that meet the Climate Bonds Standard (CBS), <sup>80</sup> the most stringent green bonds certifications, making these bonds the most reliably 'green'. The issuer is required to seek certification from the Climate Bond Initiative (CBI).	Y	Y
<b>'CBI Aligned' Green Bonds</b>	These bonds have Use-of-Proceeds that are considered aligned (via CBI screening) to the Climate Bonds Taxonomy. A bond labelled 'CBI Aligned' meets the alignment criteria but not the 'CBI Certified' criteria.	Y	Y
<b>Self-Labelled Green Bonds</b>	All other green Use-of-Proceeds bonds (e.g. can be aligned to ICMA standards, <sup>81</sup> or otherwise).	Y	Y
<b>Social bonds</b>	Capital raised for projects that will improve social issues or have positive outcomes socially. <sup>82</sup>	N	Y
<b>Sustainability Bonds</b>	Capital raised for projects that will be for a combination of green and social outcomes. <sup>83</sup>	N	Y
<b>Sustainability-Linked Bonds (SLBs)</b>	Capital raised is not use-of-proceeds based but linked to key performance indicators (KPIs) that the issuer aims to hit, which can be in any realm of ESG. Failure to hit these targets often results in a financial penalty. See the ICMA Sustainability-Linked Bond Principles. <sup>84</sup>	N	Y

<sup>75</sup> Available on the [LSEG website](#)

<sup>76</sup> [Sovereign Sustainable Risk Methodology](#)

<sup>77</sup> [StarMine Countries of Risk](#)

<sup>78</sup> [Green Revenues Data Model | LSEG](#)

<sup>79</sup> [Green Revenues Classification System](#)

<sup>80</sup> [Climate Bonds Initiative: Climate Bonds Standard](#)

<sup>81</sup> [ICMA: Green Bond Principles](#)

<sup>82</sup> [ICMA: Social Bond Principles](#)

<sup>83</sup> [ICMA: Sustainability Bond Guidelines](#)

<sup>84</sup> [ICMA: Sustainability-Linked Bond Principles](#)

# ESG Plus Score Calculation

## Score Calculation Equation

The below equation summarises the process for creating each of the Plus scores, using the core LSEG ESG Score, adding scaled adjustments from the Plus content sets, then capping the scores to the range of 0 to 5. The Risk, Impact and Complete scores differ in their application of  $\Delta S$ .

$$S_{Plus} = f_{cap} (S_{LSEG\ ESG\ Score} + f_{scale} (\Delta S, S_{LSEG\ ESG\ Score}))$$

Where:

- $f_{cap}$  = Function to set the minimum score as 0 and the maximum score as 5.
- $S_{LSEG\ ESG\ Score}$  = LSEG ESG Score.
- $\Delta S$  – Adjustments created by the Plus content sets. Specific to Impact, Risk and Complete versions.
- $f_{scale}$  = scaling factor function, taking the Plus adjustments and the core LSEG ESG Score and ensuring the adjustments are not too high or low. See below sections for details.

## Adjustments Combination

The adjustment relevant to each variant of the Plus Score (  $\Delta S$  ) changes according to which datasets are considered.

$$\Delta S = \alpha A_{GR} + \beta A_{GI} - \gamma A_{Con} + \delta A_{Sov}$$

The weightings ( $\alpha, \beta, \gamma, \delta$ ) are used to describe the relative importance of each dataset and are slightly different for each variant of the Plus Scores.

## Research Ethos

For all the scores, the weighting research considered the performance of companies across sectors, different market capitalisation categories, and developed vs. emerging markets. The aim was for any bias present in the ESG scores according to these views to either reduce or keep relatively consistent. We also considered correlations between datasets but found no significant effect.

For the impact scores, the weights result in companies with higher adjustments generally being bigger ‘improvers’ in terms of their LSEG ESG Score, implying their ESG score may be a proxy for their impact, though these methods are quite broad.

The main principles driving weight selection is that the Green Revenues and Controversies datasets have higher average adjustments than the Green Issuance and Sovereign Risk datasets. The theory of this is that Green Revenues shows direct participation in the green economy and that a company’s main business activities can be recognised for their sustainable contribution, while controversies show direct evidence of previous negative ESG-events; both closely related to a company’s business activities. Green Issuance on the other hand provides bonus points, but the finance raised from sustainable debt instruments is not necessarily a main business activity, and Sovereign Risk highlights the effect of external ESG risks on the company. These datasets therefore still provide value, but are placed with a lower weighting.

## Plus Adjustment Weights

The below weights show the distribution of adjustment weights for the  $\Delta S$  equation across the three variants of the Plus Score.

**Table 14. Table of parameter weights from the LSEG ESG Score Plus and sub-components**

Variant	Green Revenues Weight ( $\alpha$ )	Green Issuance Weight ( $\beta$ )	Controversies Weight ( $\gamma$ )	Sovereign Risk Weight ( $\delta$ )
<b>Risk</b>	0	0	0.476	0.337
<b>Impact</b>	0.4	0.1	0	0
<b>Complete</b>	0.4	0.1	0.476	0.337

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