LSEG D&A ESG Scores Methodology

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LSEG DATA & ANALYTICS

Contents

Model Change Log

Current Version	
Owner	SFI, Model Owner
Department	LSEG Data & Analytics, Sustainable Finance and Investment (SFI)
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Version Control Table:

Effective Date	Methodology Document Version Number	Model Version Number	Description of Key Changes from Previous Version
15/11/2025	1.1	1.1	No methodology changes. Refresh to key coverage statistics.
01/07/2026	2.0	1.1	Updates to support applicable regulatory disclosures.

Regulatory Information

For the purposes of Regulation (EU) 2024/3005 on the transparency and integrity of ESG rating activities, Refinitiv France SAS is the ESG Rating Provider responsible for the issuance of the relevant ESG ratings within the European Union.

This document describes the methodology used for the production of ESG ratings and related products distributed globally under the LSEG brand. References to LSEG products, methodologies, governance frameworks and related disclosures reflect the global operating framework supporting those products and services.

This methodology document forms part of the disclosure framework established to support compliance with the Regulation (EU) 2024/3005 and should be read together with the publicly available disclosure documents at: https://www.lseg.com/en/data-analytics/sustainable-finance/regulatory-disclosures.

The use of the LSEG brand in this document is for branding purposes only and does not affect, modify or supersede the identification of the ESG Rating Provider for the purposes of Regulation (EU) 2024/3005.

Executive Summary

LSEG D&A ESG Scores are designed to transparently and objectively measure a company's relative ESG performance, commitment and effectiveness, based on company-reported data. This covers 10 main themes including emissions, environmental product innovation, human rights, shareholders and others. We also provide an overall ESG combined (ESGC) score, which is discounted for significant ESG controversies impacting the corporations we cover.

ESG data is available for over 17,000 public and private companies globally, with time series data dating back to 2002. The percentile rank scores are comprehensible (available in both percentages and letter grades from D- to A+). They are benchmarked against The LSEG Business Classifications (TRBC – Industry Group) for all environmental and social categories, as well as the controversies score. The governance pillar is derived using underlying measures that are evaluated on a relative basis, comparing entities within their country of incorporation

The LSEG D&A ESG scores are data-driven, accounting for the most material industry metrics, with minimal company size and transparency biases. Estimated data or non-public information is not used in the assessment nor are the scores based on scientific evidence. No Artificial Intelligence (AI) capabilities are used as part of the assessment. If data is not publicly available/reported the rated entity will be negatively impacted on its final score calculation. The score methodology covers strategies or polices on transition risk. The model does not correlate with EU Taxonomy alignment or any other international agreements.

LSEG D&A ESG scores measure an item's relative performance on fundamental ESG attributes, commitment, and effectiveness across ESG factors. The scores are derived using a proprietary, rule-based methodology applied to publicly available information from sources believed by the London Stock Exchange Group (LSEG) to be reliable; however, the accuracy and completeness of such information cannot be guaranteed. The scores are provided for informational purposes only and do not constitute investment advice or a recommendation. They should not be relied upon as the sole basis for any decision. LSEG makes no representations or warranties and accepts no liability for any loss or damage arising from the use of, or reliance on, the scores.

1. Scores overview

LSEG D&A ESG scores reflect the underlying ESG data framework and are a transparent, data-driven assessment of companies' relative ESG performance and capacity, integrating and accounting for industry materiality and company size biases.

The scores are based on a company's relative performance against its peer group. Environmental and Social factors are benchmarked against companies operating in the same industry sector, while Governance factors are benchmarked against companies incorporated in the same country. The assessment is based on publicly available information collected from corporate disclosures, including annual reports, integrated reports, sustainability reports, press releases and corporate websites, capturing both current performance and forward-looking commitments.

LSEG does not presume to define what 'good' looks like; we let the data determine industry-based relative performance within the construct of our criteria and data model. LSEG D&A ESG scoring methodology has a number of key calculation principles set out below.

1. Unique ESG magnitude (materiality) weightings have been included – as the importance of ESG factors differs across industries, we have mapped each metric's materiality for each industry on a scale of 1 to 10.
2. Transparency stimulation – company disclosure is at the core of our methodology. With applied weighting, not reporting 'immaterial' data points doesn't greatly affect a company's score, whereas not reporting on 'highly material' data points will negatively affect a company's score.
3. ESG controversies overlay – we verify companies' actions against commitments, to magnify the impact of significant controversies on the overall ESG scoring. The scoring methodology aims to address the market cap bias from which large companies suffer by introducing severity weights, which ensure controversy scores are adjusted based on a company's size.
4. Industry and country benchmarks at the data point scoring level – to facilitate comparable analysis within peer groups.
5. Percentile rank scoring methodology – to eliminate hidden layers of calculations. This methodology enables LSEG to produce a score between 0 and 100, as well as easy-to-understand letter grades.

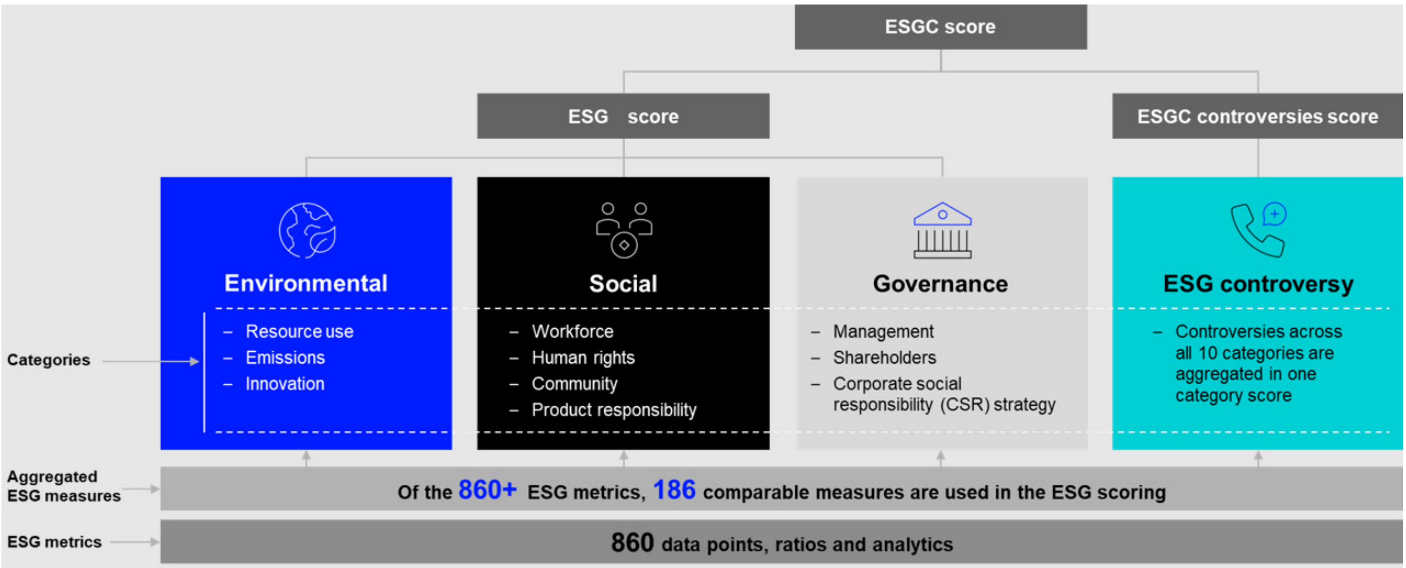

Figure 1 The components of LSEG D&A ESG Scores

Given the interdependencies between financial and impact materiality and the role of time horizons (dynamic materiality), the LSEG D&A ESG Scores are best interpreted within a double materiality framework. Where distinctions are required, the Scores apply the broader scope of double materiality, capturing both risks to enterprise value and wider environmental and social impacts.

LSEG D&A ESG scoring methodology follows several key calculation principles (set out below). An overall ESGC score is also calculated, which discounts the ESG score for media controversies that materially impact corporations. The underlying measures are granular enough to differentiate effectively between companies that have limited reporting and are not transparent, or deliver minimal implementation and execution, versus companies that 'walk the talk' and emerge as leaders in their respective industries or regions.

ESG scores are calculated and available for all companies and historical fiscal periods in the ESG global coverage, i.e., back to fiscal year 2002 for approximately 1,000 companies (mainly US and European).

The model comprises two overall ESG scores:

ESG score – measures the company's relative ESG performance based on traceable public reported data.

ESGC score – overlays the ESG score with ESG controversies to provide a more comprehensive evaluation of the companies' sustainability risks, impacts and conduct over time.

The availability of the two overall scores and underlying category assessments allows users to adopt and apply the scoring that meets their requirements, mandates or investment criteria.

2. Scores structure

The model is fully automated, data-driven and transparent, which makes it free from subjectivity and hidden calculations or inputs.

2.1 ESG score

LSEG captures and calculates over 860 company-level ESG measures, of which a subset of 186 (details in the ESG glossary, available on request) of the most comparable and material per industry, power the overall company assessment and scoring process.

These are grouped into 10 categories that reformulate the three pillar scores and the final ESG score, which reflects the company's ESG performance, commitment and effectiveness based on publicly reported information.

The category scores are rolled up into three pillar scores – environmental, social and corporate governance. The ESG pillar score is a relative sum of the category weights, which vary per industry for the environmental and social categories. For governance, the weights remain the same across all industries. The pillar weights are normalised to percentages ranging between 0 and 100 (for further details, refer to Appendix C).

Category definitions are available in

Appendix F.

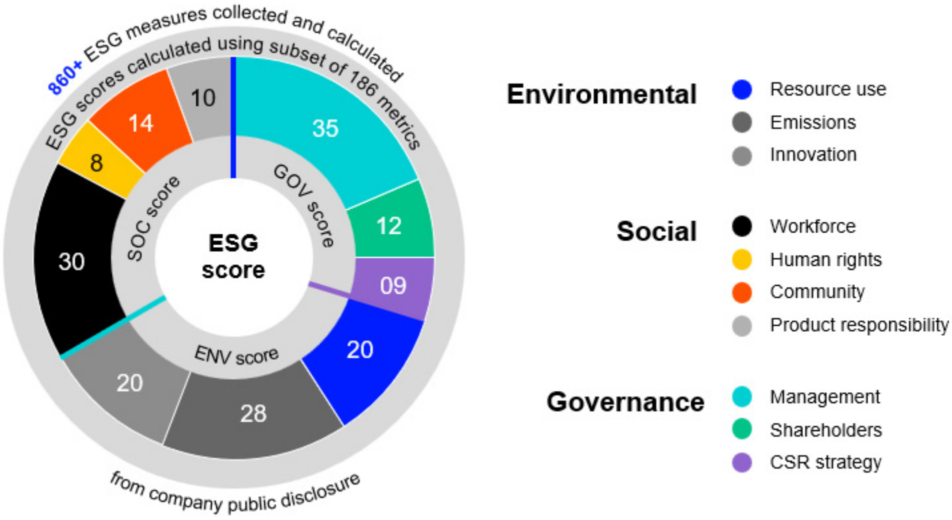

Figure 2 Number of ESG metrics used across 10 categories for LSEG D&A Scores

2.2 ESGC score

ESGC scores provide a rounded and comprehensive scoring of a company's ESG performance, based on the reported information pertaining to the ESG pillars, with the ESG controversies overlay captured from global media sources. The main objective of this score is to discount the ESG performance score based on negative media stories. It does this by incorporating the impact of significant, material ESG controversies in the overall ESGC score.

When companies are involved in ESG controversies, the ESGC score is calculated as the weighted average of the ESG scores and ESG controversies score per fiscal period, with recent controversies reflected in the latest completed period. When companies are not involved in ESG controversies, the ESGC score is equal to the ESG score.

2.3 ESG controversies category

The ESG controversies score is calculated based on 23 ESG controversy topics. During the year, if a scandal occurs, the company involved is penalised and this affects their overall ESGC score and grading. The impact of the event may still be seen in the following year if there are new developments related to the negative event, for example, lawsuits, ongoing legislation disputes or fines. All new media materials are captured as the controversy progresses. The controversies score also addresses the market cap bias from which large-cap companies suffer, as they attract more media attention than smaller-cap companies.

2.4 Easily identify companies with strong ESG practices or exposure to ESG risks

ESG scores are available on LSEG Workspace for seamless integration into users' workflows. They are accessible via ESG company views, the Screener app, Workspace for Office and the Portfolio Analytics (PORTF) app. The ESG views show the scores letter grades to show at a glance how companies are performing relative to their peers, and where a company's ESG weaknesses and strengths lie.

ESG scores are available on LSEG DAAS, Data Platform, LSEG Datastream and via Datastream Data Loader (DDL). Plus, LSEG Quantitative Analytics offers automated processing and integration of all ESG data and scores into users' quant models and analytics tools. The scores, as well as all underlying ESG data and analytics, are also available via a cloud-based delivery solution on the LSEG Data Platform.

The conversion from a percentile score to a letter grade is based on the logic in the table below.

Score range	Grade	Description
0.0 <= score <= 0.083333	D -	'D' score indicates poor relative ESG performance and insufficient degree of transparency in reporting material ESG data publicly.
0.083333 < score <= 0.166666	D	
0.166666 < score <= 0.250000	D+	
0.250000 < score <= 0.333333	C -	

ESG laggards

ESG leaders

0.333333 < score <= 0.416666	C	‘C’ score indicates satisfactory relative ESG performance and moderate degree of transparency in reporting material ESG data publicly.
0.416666 < score <= 0.500000	C+	
0.500000 < score <= 0.583333	B -	‘B’ score indicates good relative ESG performance and above-average degree of transparency in reporting material ESG data publicly.
0.583333 < score <= 0.666666	B	
0.666666 < score <= 0.750000	B +	
0.750000 < score <= 0.833333	A -	‘A’ score indicates excellent relative ESG performance and high degree of transparency in reporting material ESG data publicly.
0.833333 < score <= 0.916666	A	
0.916666 < score <= 1	A +	

Table 1 Percentile score to letter grade conversion rules

3. Scores calculation methodology

ESG data is fundamentally relevant for informed investment decision making and as such, transparency is a key component of our customers' trust and confidence in the data we provide to them. This section describes the LSEG D&A ESG scoring methodology in detail.

The LSEG D&A ESG scoring methodology can be summarised and illustrated by means of a five-step process flow.

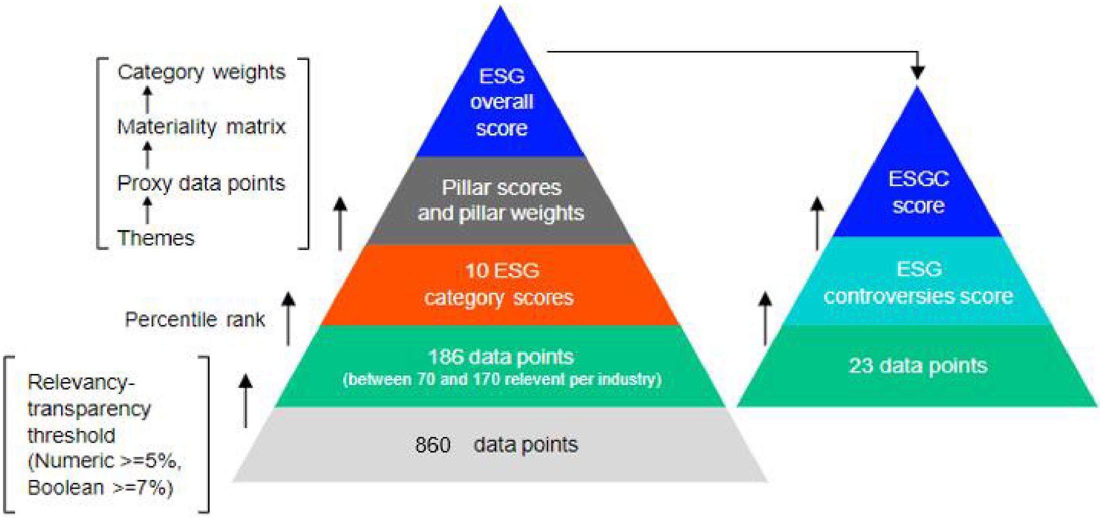

Figure 3 LSEG D&A ESG Scoring process flow

Step 1: ESG category scores

Treatment of underlying data points – Boolean and numeric

1. Boolean data

Boolean questions are typically answered with 'Yes' 'No' or 'Null'. For instance, the answer to 'Does the company have a water efficiency policy?' can be 'Yes' (which is equal to a value of 1) if the company has such publicly disclosed policy, or 'No' if the company does not have such a policy, or if it reports only partial information (which is equivalent to 'No'). In such cases, a default value of 0 is automatically assigned by the system. In other words, a default value of 0 is assigned for Boolean data points when no relevant data is found in the public disclosures of the company.

Each measure has a polarity indicating whether a higher value is positive or negative. For instance, having an emissions reduction policy is positive, but having environmental controversies is negative.

Based on the polarity of the data point (i.e., is having a higher value 'better' or 'worse'?), Boolean data points are converted to numeric values for the percentile score calculation. Details are available in the table below:

Default values		
Positive	Yes = 1	No/Null = 0
Negative	Yes/Null = 0	No = 1

Table 2 Boolean to numerical conversion based on indicator polarity

Note: only for TR.CriticalCountry is a default value of 1 assigned for 'Null', assuming those companies do not have operations in the listed critical countries.

2. Numeric data

A relative percentile ranking is only applied if a numeric data point is reported by a company, while all the companies in an industry group report that respective data point. Again, each measure has a polarity indicating whether a higher value is positive or negative. For instance, more water recycled is positive, but more emissions is negative.

3. Industry group relevancy

Some indicators are industry-specific and thus not relevant for all companies. If an indicator is irrelevant for a particular sector, then it is excluded from the calculation and its value will be deemed not relevant (N/R).

Example: the indicator Environmental Assets Under Management is relevant only for the financial sector.

Category scores calculation methodology

Percentile rank scoring methodology is adopted to calculate the 10 category scores and the ESG controversies score. It is based on three factors:

- How many companies perform worse than the current one?
- How many companies have the same value?
- How many companies have a value at all?

Percentile rank score is based on the rank, and therefore is not very sensitive to outliers.

$$score = \frac{no.\ of\ companies\ with\ a\ worse\ value + \frac{no.\ of\ companies\ with\ the\ same\ value\ included\ in\ the\ current\ one}{2}}{no.\ of\ companies\ with\ a\ value}$$

Equation 1 Category score formula

Peer group/category and benchmark

To calculate the environmental and social category scores, as well as the controversies score, the TRBC industry group is used as the benchmark, as these topics are more relevant and material to companies within the same industries.

To calculate the governance categories, the country of incorporation is used as the benchmark, as best governance practices are more consistent within countries.

Step 2: Materiality matrix

To apply an objective, impartial and trusted assessment of the importance of each ESG theme to different industries, the LSEG D&A ESG magnitude matrix was developed as a proprietary model and is applied at the category level. Importantly, the magnitude values are automatically and dynamically adjusted as ESG corporate disclosure evolves and matures.

Introduction to LSEG D&A ESG materiality matrix

Materiality for LSEG D&A ESG is defined in the form of category weights. Category weights are calculated based on an objective and data-driven approach to determine the relative importance of each theme to each individual industry group. Based on the themes covered in each category, data points with sufficient disclosure are used as a proxy for industry magnitude. Themes and data points have a one-to-one relationship; in other words, there is one data point identified per theme. For some themes, there are no data points that may be used as good proxies of relative importance, due primarily to insufficient disclosure. These themes are not included in the scoring methodology to derive the materiality matrix but are present in corporate ESG reporting and the LSEG D&A ESG database. Listing all the individual themes enables LSEG to identify critical data points across the themes where reporting is sufficient, to use as a proxy of materiality.

The table below provides a detailed view on the ESG themes covered in each category, with the respective data points evaluated as proxies of ESG magnitude per industry group.

Pillars	Categories	Themes	Data points	Weight method
Environmental	Emission	Emissions	TR.AnalyticCO2	Quant industry median
	Emission	Waste	TR.AnalyticTotalWaste	Quant industry median
	Emission	Biodiversity*		
	Emission	Environmental management systems*		
	Innovation	Product innovation	TR.EnvProducts	Transparency weights
	Innovation	Green revenues, research and development (R&D) and capital expenditures (CapEx)	TR.AnalyticEnvRD	Quant industry median
	Resource use	Water	TR.AnalyticWaterUse	Quant industry median
	Resource use	Energy	TR.AnalyticEnergyUse	Quant industry median
	Resource use	Sustainable packaging*		
	Resource use	Environmental supply chain*		
Social	Community	Equally important to all industry groups, hence a median weight of five is assigned to all		Equally important to all industry groups
	Human rights	Human rights	TR.PolicyHumanRights	Transparency weights
	Product responsibility	Responsible marketing	TR.PolicyResponsibleMarketing	Transparency weights
	Product responsibility	Product quality	TR.ProductQualityMonitoring	Transparency weights
	Product responsibility	Data privacy	TR.PolicyDataPrivacy	Transparency weights
	Workforce	Diversity and inclusion	TR.WomenEmployees	Quant industry median
	Workforce	Career development and training	TR.AvgTrainingHours	Transparency weights
	Workforce	Working conditions	TR.TradeUnionRep	Quant industry median
	Workforce	Health and safety	TR.AnalyticLostDays	Transparency weights
Governance	CSR strategy	CSR strategy	Data points in governance category and governance pillar	Count of data points in each governance category/all data points in governance pillar
	CSR strategy	ESG reporting and transparency	Data points in governance category and governance pillar	Count of data points in each governance category/all data points in governance pillar
	Management	Structure (independence, diversity, committees)	Data points in governance category and governance pillar	Count of data points in each governance category/all data points in governance pillar
	Management	Compensation	Data points in governance category and governance pillar	Count of data points in each governance category/all data points in governance pillar
	Shareholders	Shareholder rights	Data points in governance category and governance pillar	Count of data points in each governance category/all data points in governance pillar
	Shareholders	Takeover defenses	Data points in governance category and governance pillar	Count of data points in each governance category/all data points in governance pillar

Table 3 Magnitude proxy data points for each ESG theme

*No data points available that may be used as a proxy for ESG magnitude/materiality

Category weight highlights

Category weights are designed to reflect the relative importance of ESG themes across industries, ensuring that the scoring framework remains objective, data-driven and comparable across entities.

All category weights are normalised and expressed as percentages ranging between 0 and 100, such that the total contribution across categories is consistent and comparable.

The weighting framework is based on a standardised scale ranging from 1 to 10, where a central value of 5 represents the median level of importance. Category weights are initially anchored at this central value and are then adjusted within the defined range based on objective data-driven criteria.

Where a category comprises multiple themes and underlying data points, the category weight is calculated by taking the average of the respective data point contributions at the relevant industry group level, ensuring consistency in how multiple inputs are aggregated.

For environmental and social categories, category weights are determined using a combination of:

- industry-level median values of relevant data points; and
- data transparency levels (i.e. the availability of disclosed information)

These factors are used to derive relative importance across industries, ensuring that categories with greater relevance and disclosure are assigned proportionately higher weights.

Certain categories, such as community, are assigned equal weighting across all industry groups, reflecting their consistent relevance irrespective of sector.

For corporate governance, all underlying data points are treated as equally important. Category weights within the governance pillar are therefore calculated based on the proportion of data points within each category relative to the total number of governance data points. The total weighting for governance is fixed at 15 points (derived from three categories with a default central value of 5 each), and weights are allocated proportionally across categories based on data point counts.

Where data availability for specific indicators does not meet predefined transparency thresholds, default weights are applied. For example:

- in the innovation category, where environmental R&D data does not meet the minimum transparency threshold across a significant portion of industry groups, a default weight of 1 is assigned;
- similarly, in the product responsibility category, where responsible marketing data availability is limited across most industry groups, a default weight of 1 is applied.

These thresholds are designed to ensure that category weights are not disproportionately influenced by incomplete or non-representative data.

All weighting assumptions, thresholds and calculation rules are predefined, systematically applied and subject to periodic review, ensuring transparency, consistency and alignment with evolving disclosure practices.

Two methods for calculating the magnitude matrix

The magnitude matrix is calculated using the following two methods for numeric and Boolean data points, used as a proxy of magnitude for environmental and social pillars.

1. Industry median

Primarily used for numeric data points with environmental and social impact. Materiality weighting is to be based on the relative proportion that a particular sector contributes to the overall gross number in the full ESG universe.

- The question of materiality, or in other words, the relative weight, is determined by the relative median value for a company in that industry group. The relative median values for each industry group to which the data point is material are compared, and decile ranks are assigned. The decile rank determines the relative weight assigned to that data point in determining the industry weight – from 1 to 10.

2. Transparency weights

Primarily used for Boolean data points. Boolean data points are measures with a value of ‘Yes’ or ‘No’ (see page 9). Magnitude weights are based on the level of disclosure of each data point in a given industry group.

- The question of materiality, or in other words, the relative weight, is determined based on the disclosure of relative level in that industry group. The disclosure percentage for each industry group to which the data point is material is identified, and decile ranks are assigned. The decile rank determines the relative weight assigned to that data point in determining the industry weight – from 1 to 10.

Category weight calculation

The magnitude weights of all 10 categories are summed up for each respective industry group. Each category’s magnitude weight is divided by the sum of the magnitude weights of the respective industry group to derive the category weight.

$$Category\ weight\ of\ an\ industry\ group = \frac{Magnitude\ weight\ of\ a\ category\ Sum}{of\ magnitudes\ of\ all\ categories}$$

Equation 2 Industry group category weight formula

To summarise, below are the steps involved in the calculation of category weights for the environmental and social pillars:

- Data points that are a good proxy for assessing industry impact across environmental and social topics are used for the calculation of materiality (magnitude matrix)
- Industry medians per data point, per industry group, are calculated and a relative median is derived. The relative median is equal to the median value of an industry group, divided by the sum of the medians of all industry groups for the respective data point. Deciles are identified on relative median values and deciles’ weights are applied between 0 and 10 accordingly
- If a category has more than one data point, the average of decile weight is considered to derive the magnitude weight for that category
- The magnitude weights for corporate governance are calculated by a count of data points in each governance category/total data points in the governance pillar, multiplied by the default category weights of 15
- Category weights are then derived using the magnitude weights of all the categories for an industry group

Note: relevancy, category weights and pillar weights will be calculated against the latest data for all companies within LSEG D&A ESG coverage (FY0). Once defined, the analysis behind the weights will be run on an annual basis and the results benchmarked against preset thresholds to determine if an adjustment to the weights is required. The revisions will be applied only to active fiscal years (where data collection for fiscal years is still in process). Only large- and mid-cap companies are considered to identify relevancy and category weights, as small-cap companies tend to report less data, which might impact the relevancy percentage and weights.

For further details, refer to Appendix B – magnitude matrix and Appendix C – category weights matrix.

Step 3: Overall ESG score calculation and pillar score

To calculate the overall pillar and ESG scores, category weights per industry are applied using data-driven and objective logic.

Calculation of overall ESG score

ESG scores are aggregated based on the 10 category weights, which are calculated based on the LSEG magnitude matrix.

	Environmental			Social				Governance			
Industry group	Emission	Innovation	Resource use	Human rights	Product responsibility	Workforce	Community	Management	Shareholders	CSR strategy	ESG scores
Water and related utilities	0.15	0.13	0.15	0.05	0.04	0.13	0.09	0.17	0.05	0.03	
ABC	0.66	0.00	0.44	0.05	0.58	0.89	0.34	0.99	0.84	0.56	0.571146184
CBD	0.71	0.96	0.38	0.00	0.69	0.66	0.70	0.37	0.01	0.56	0.547913483
DEF	0.03	0.00	0.00	0.00	0.00	0.57	0.11	0.21	0.14	0.54	0.150536652
EFG	0.00	0.31	0.03	0.00	0.00	0.25	0.59	0.89	0.94	0.00	0.327824384
EMJ	0.87	0.31	0.68	0.20	0.86	0.84	0.98	0.33	0.87	0.68	0.639400132
EMQ	0.00	0.00	0.00	0.00	0.00	0.30	0.02	0.88	0.08	0.01	0.194782046
ENR	0.92	0.81	0.85	0.75	0.97	0.93	0.66	0.40	0.49	0.86	0.756319427
GPQ	0.24	0.31	0.00	0.00	0.17	0.02	0.16	0.56	0.56	0.00	0.223443757
HIJ	0.61	0.31	0.50	0.65	0.42	0.80	0.80	0.48	0.27	0.37	0.54145808
IBD	0.00	0.00	0.00	0.00	0.00	0.07	0.30	0.51	0.49	0.00	0.145398367
JKL	0.50	0.73	0.74	0.00	0.78	0.43	0.93	0.62	0.89	0.26	0.611504799
LMN	0.76	0.31	0.56	0.00	0.47	0.48	0.48	0.17	0.24	0.26	0.415151441
MNO	0.82	0.31	0.91	0.40	0.58	0.61	0.07	0.33	0.52	0.63	0.539888776
MSE	0.55	0.00	0.62	0.85	0.17	0.75	0.84	0.77	0.35	0.91	0.581805891
OPQ	0.29	0.00	0.32	0.00	0.17	0.16	0.48	0.15	0.42	0.08	0.212906948
PQR	0.45	0.65	0.79	0.55	0.78	0.52	0.75	0.76	0.76	0.16	0.640379494
PSF	0.97	0.88	0.97	0.95	0.92	0.98	0.89	0.15	0.73	0.34	0.776142465
RST	0.08	0.31	0.00	0.00	0.17	0.20	0.59	0.42	0.42	0.00	0.228111754
UVW	0.34	0.00	0.26	0.20	0.58	0.70	0.39	0.26	0.16	0.31	0.316400123
VPF	0.16	0.31	0.15	0.00	0.17	0.11	0.25	0.88	0.90	0.00	0.325828115
XYZ	0.39	0.00	0.21	0.40	0.17	0.39	0.48	0.95	0.73	0.51	0.429105164
YQM	0.16	0.00	0.09	0.00	0.36	0.34	0.20	0.69	0.34	0.00	0.25005416

Table 4 Magnitude matrix category weights

Calculation of pillar scores

ESG pillar scores are the relative sum of the category weights. Calculations to derive pillar scores are illustrated below:

Pillar	Category	Category scores*	Category weights	Sum of category weights	Formula: sum of category weights	New category weights*	Formula: new category weights	Pillar scores	Formula: pillar scores
Environmental	Emissions	0.98	0.15	0.44	(0.15+0.15+0.13)	0.35	(0.15/0.44)	0.94	(0.98*0.35) + (0.97*0.35) + (0.85*0.29)
Environmental	Resource use	0.97	0.15			0.35	(0.15/0.44)		
Environmental	Innovation	0.85	0.13			0.29	(0.13/0.44)		
Social	Community	0.89	0.09	0.31	(0.09+0.05+0.04+0.13)	0.28	(0.09/0.31)	094	(0.89*0.28) + (0.95*0.17) + (0.92*0.13) + (0.98*0.43)
Social	Human rights	0.95	0.05			0.17	(0.05/0.31)		
Social	Product responsibility	0.92	0.04			0.13	(0.04/0.31)		
Social	Workforce	0.98	0.13			0.43	(0.13/0.31)		
Corporate governance	Shareholders	0.73	0.05	0.26	(0.05+0.03+0.17)	0.20	(0.05/0.26)	0.32	(0.73*0.20) + (0.34* 0.13) + (0.19*0.67)
Corporate governance	CSR strategy	0.34	0.03			0.13	(0.03/0.26)		
Corporate governance	Management	0.19	0.17			0.67	(0.17/0.26)		

Table 5 Pillar score calculation based on magnitude matrix

*The table above presents the Category Scores with 2 decimal places for illustration purposes. See example in Appendix D.

Step 4: Controversy score calculation

ESG controversies score is calculated based on 23 ESG controversy topics, with recent controversies reflected in the latest complete period (for further details, refer to Appendix G of this document).

- Default value of all controversy measures is 0
- All recent controversies are counted in the latest closed fiscal year and no controversy is double-counted
- Controversies are benchmarked on industry group
- Companies with no controversies will get a score of 100
- Controversy score calculation addresses the market cap bias from which large-cap companies suffer, as they attract more media attention than smaller-cap companies
- Severity weights are applied to address market cap bias and are applicable for the calculation of current and historical periods. The calculation of controversy scores based on the market cap grouping is defined as follows:

Global benchmark	Cap class	Severity rate*
>=10 billion	Large	0.33
>=2 billion	Mid	0.67
<2 billion	Small	1

Table 6 Severity weights per cap class

*Logic to derive weights: large = 1/3 or 0.33, mid = 0.67, small = 0.33+0.67 = 1.

Recent controversies are accounted as follows:

- For instance, the last completed fiscal year for a company is 31 December 2019. If there is one controversy on 1 May 2020, and another on 1 March 2021, both are accounted under ‘recent controversies’ and included in the scoring for FY2019
- Once FY2020 is completed, the two recent controversies are moved to FY2020. The controversy related to 1 May 2020, is moved to the ‘normal’ controversy data point, while the controversy related to 1 March 2021 remains under ‘recent’ but is accounted for in FY2020
- When FY2021 is completed, the controversy related to 1 March 2021 will be removed from ‘recent’ controversy within FY2020 and added to the ‘normal’ controversy data point in FY2021

See Example in Appendix H.

Step 5: ESGC score

The ESGC score is calculated as the average of the ESG D&A score and ESG controversies score when there are controversies during the fiscal year. When the controversies score is greater than the ESG D&A score, then the ESG D&A score is equal to the ESGC score.

	Environmental			Social				Governance					
Industry group	Emission	Innovation	Resource use	Human rights	Product responsibility	Workforce	Community	Management	Shareholders	CSR strategy	ESG scores	Controversy scores	Combined scores
Water and related utilities	0.15	0.13	0.15	0.05	0.04	0.13	0.09	0.17	0.05	0.03			
ABC	0.66	0.00	0.44	0.05	0.58	0.89	0.34	0.99	0.84	0.56	0.571146184	1	0.571146184
CBD	0.71	0.96	0.38	0.00	0.69	0.66	0.70	0.37	0.01	0.56	0.547913483	1	0.547913483
DEF	0.03	0.00	0.00	0.00	0.00	0.57	0.11	0.21	0.14	0.54	0.150536652	1	0.150536652
EFG	0.00	0.31	0.03	0.00	0.00	0.25	0.59	0.89	0.94	0.00	0.327824384	1	0.327824384
EMJ	0.87	0.31	0.68	0.20	0.86	0.84	0.98	0.33	0.87	0.68	0.639400132	0.25	0.444700066
EMQ	0.00	0.00	0.00	0.00	0.00	0.30	0.02	0.88	0.08	0.01	0.194782046	1	0.194782046
ENR	0.92	0.81	0.85	0.75	0.97	0.93	0.66	0.40	0.49	0.86	0.756319427	1	0.756319427
GPQ	0.24	0.31	0.00	0.00	0.17	0.02	0.16	0.56	0.56	0.00	0.223443757	1	0.223443757
HIJ	0.61	0.31	0.50	0.65	0.42	0.80	0.80	0.48	0.27	0.37	0.54145808	1	0.54145808
IBD	0.00	0.00	0.00	0.00	0.00	0.07	0.30	0.51	0.49	0.00	0.145398367	1	0.145398367
JKL	0.50	0.73	0.74	0.00	0.78	0.43	0.93	0.62	0.89	0.26	0.611504799	1	0.611504799
LMN	0.76	0.31	0.56	0.00	0.47	0.48	0.48	0.17	0.24	0.26	0.415151441	0.75	0.415151441
MNO	0.82	0.31	0.91	0.40	0.58	0.61	0.07	0.33	0.52	0.63	0.539888776	1	0.539888776
MSE	0.55	0.00	0.62	0.85	0.17	0.75	0.84	0.77	0.35	0.91	0.581805891	1	0.581805891
OPQ	0.29	0.00	0.32	0.00	0.17	0.16	0.48	0.15	0.42	0.08	0.212906948	1	0.212906948
PQR	0.45	0.65	0.79	0.55	0.78	0.52	0.75	0.76	0.76	0.16	0.640379494	1	0.640379494
PSF	0.97	0.88	0.97	0.95	0.92	0.98	0.89	0.15	0.73	0.34	0.776142465	1	0.776142465
RST	0.08	0.31	0.00	0.00	0.17	0.20	0.59	0.42	0.42	0.00	0.228111754	1	0.228111754
UVW	0.34	0.00	0.26	0.20	0.58	0.70	0.39	0.26	0.16	0.31	0.316400123	1	0.316400123
VPF	0.16	0.31	0.15	0.00	0.17	0.11	0.25	0.88	0.90	0.00	0.325828115	1	0.325828115
XYZ	0.39	0.00	0.21	0.40	0.17	0.39	0.48	0.95	0.73	0.51	0.429105164	1	0.429105164
YQM	0.16	0.00	0.09	0.00	0.36	0.34	0.20	0.69	0.34	0.00	0.25005416	1	0.25005416

Table 7 ESGC Score per industry group

Refer to the below table for combined score logics:

Scenario	ESG controversies score	ESG score	ESGC score
If controversies score is >= ESG score, then ESG score = ESGC score	100	89	89
If controversies score is < ESG score, then ESGC score = average of ESG and controversies score	48	49	48.5

Table 8 ESGC scoring logic

4. Data Collection Process

4.1 Data collection and inputs for the ESG score

LSEG operates a global data collection framework designed to ensure that ESG data used in the calculation of the ESG scores is objective, consistent, comparable and traceable across all covered entities.

Data is collected by a global network of trained content specialists, supported by standardised data collection methodologies, internal controls and quality assurance processes. All data points are defined through a structured taxonomy and are subject to consistent application across companies to ensure comparability.

The ESG score is based exclusively on publicly available information. Primary data sources include, but are not limited to:

- Annual reports and integrated reports
- Corporate sustainability or ESG reports, including disclosures prepared under the Corporate Sustainability Reporting Directive (CSRD) where available
- Company websites and official publications
- Press releases and regulatory filings

While CSRD disclosures may be used as a source of underlying information, the methodology does not incorporate or rely on alignment with the EU Taxonomy Regulation or disclosures under the Sustainable Finance Disclosure Regulation (SFDR) as direct inputs to the scoring model.

The methodology does not incorporate non-public information, estimated data or proxy inputs. Where relevant data is not publicly disclosed by a company, the absence of disclosure is reflected in the scoring outcome in accordance with the predefined methodology.

AI (NLP/ML) is used in a semi-automated manner at the data collection stage, which provides recommendations. However, all outputs are subject to data specialist review and validation before data is entered into the collection system. There is no analyst discretion, all reviews are based on the policy and rules defined for collection of each data metric. There is no straight through processing (STP) for ESG data collection using AI.

The SFI tool provides recommended extract from public disclosures relevant to a given data metric, with a human reviewer making the final selection. The score calculation/rating process is algorithmic and does not use AI. The methodology is also not based on external scientific models or assumptions but relies on structured assessment of disclosed information.

LSEG maintains a broad ESG dataset comprising over 860 measures, of which a defined subset is used in the ESG scoring methodology. Each data point undergoes standardisation and validation to ensure consistency across companies, industries and reporting periods.

The availability and completeness of ESG data may vary across jurisdictions, sectors and company sizes due to differences in disclosure practices and regulatory environments. As a result, the dataset may be more representative of companies with higher levels of transparency and more mature reporting frameworks. These limitations are inherent to the use of publicly disclosed data and are reflected in the scoring outcomes.

Data is updated on a continuous basis, aligned with corporate disclosure cycles. In most cases, underlying ESG data is updated annually following company reporting. In addition, data is refreshed on a weekly basis, including the recalculation of the ESG scores, to ensure that outputs reflect the most recent available information.

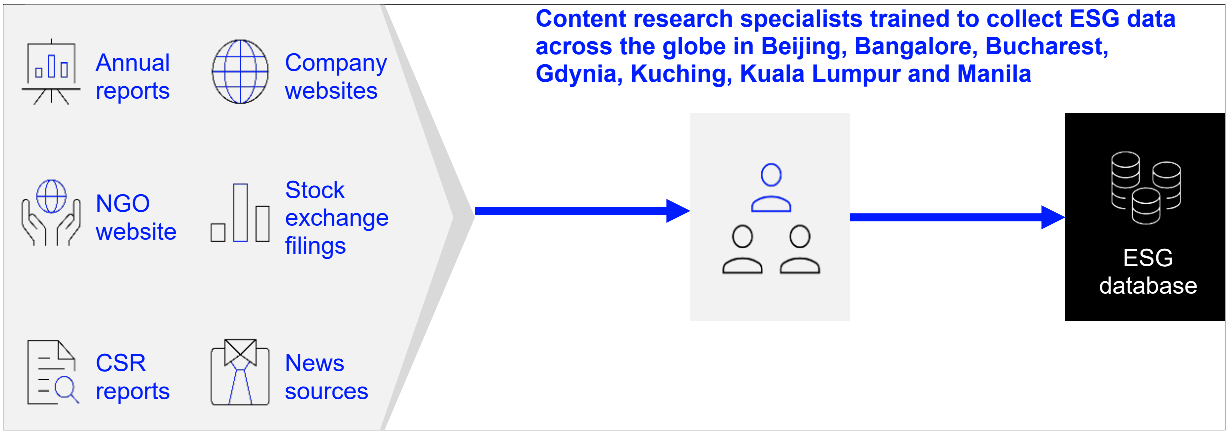

Figure 4 Data collection process

4.2 Data Coverage

ESG data is available for over 17,000 public and private companies. ESG scores and metrics are available for over 16,000 public entities with time series from 2002. ESG metrics are available for 1,300 private companies globally. With demand for ESG data growing across the financial markets, our coverage has evolved and is continuously expanding.

The timeline in the illustration below breaks down the various indices' which form part of our ESG universe and when coverage commenced for them. A regional breakdown of coverage is also provided in the illustration below.

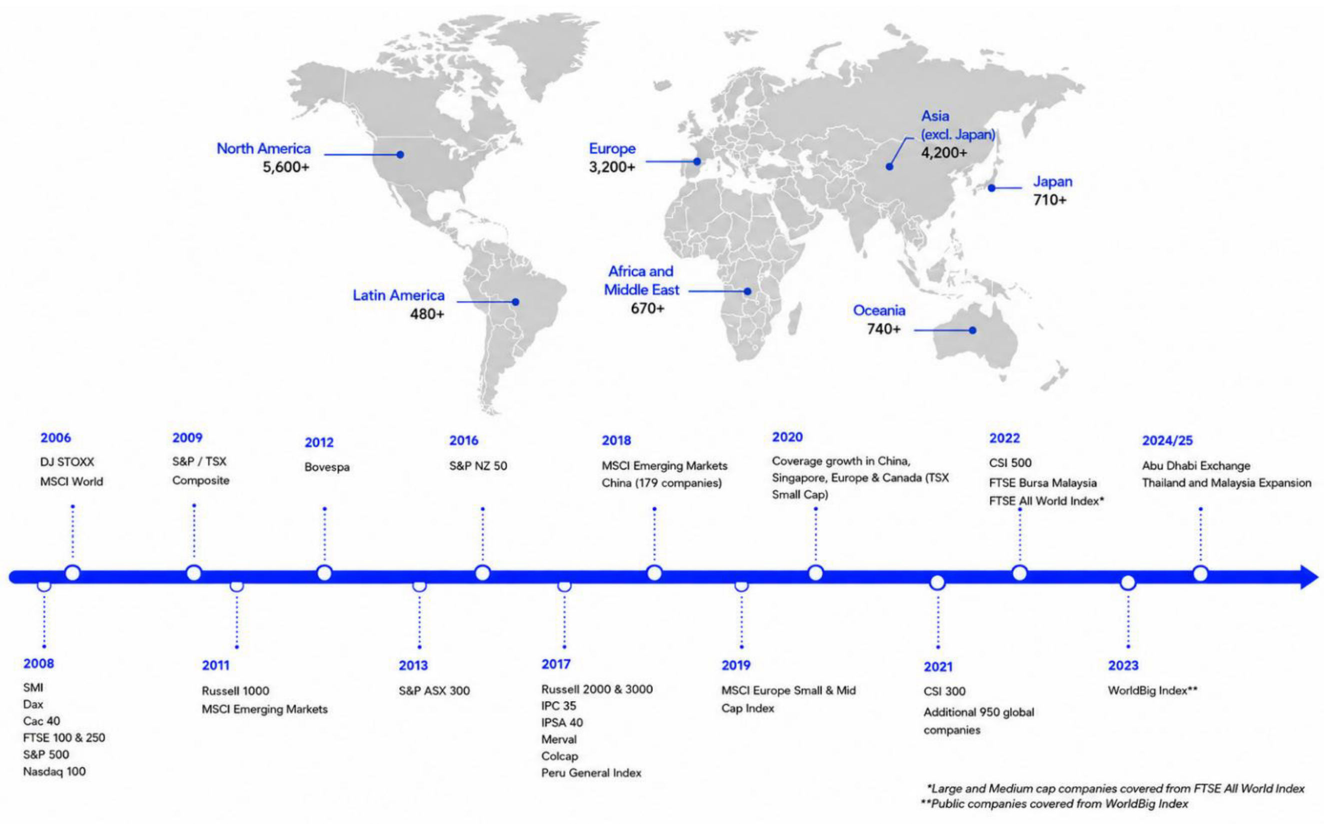

Figure 5 LSEG ESG coverage universe as of July 2026

4.3 Data revision process

ESG data used in the calculation of ESG scores is inherently dynamic, as companies may revise, restate or supplement their disclosures over time. LSEG maintains a structured data revision framework to ensure that all updates are captured, validated, and consistently reflected in the dataset and resulting scores.

The ESG database is updated on a continuous basis, aligned with corporate reporting cycles and the availability of new public disclosures. Updates may include:

- the addition of newly covered companies;
- incorporation of newly reported fiscal year data;
- updates resulting from revised or restated corporate disclosures;
- inclusion of newly identified ESG controversies or developments.

In addition to scheduled updates, ad hoc revisions may occur in response to material events, such as significant changes in a company's reporting, corporate structure, or newly available information that may impact underlying data points. ESG controversies are monitored and updated on a continuous basis, as relevant events are identified through global media and other public sources.

All data revisions are subject to validation and quality control processes to ensure accuracy, consistency and completeness prior to being reflected in the dataset. Where changes to underlying data are confirmed, these are systematically applied and propagated through all dependent calculations.

ESG scores are recalculated on a regular basis, including as part of scheduled data refresh cycles, to ensure that outputs reflect the most recent validated information. This ensures that scores remain current, consistent and aligned with the latest available disclosures.

The data revision process is designed to support traceability and auditability, with updates, changes and their underlying rationale recorded in accordance with LSEG's data governance and recordkeeping frameworks.

4.4 Definitive scores

Scores are marked as 'definitive' for all historical years excluding the five most recent fiscal years. For instance, if the most recent fiscal year is FY2024, then all historical scores prior to FY2020 will be considered definitive – but not those between FY2024 and FY2020. Definitive scores remain unchanged, even if there are changes to the underlying data due to company restatements or data corrections.

5. Model Management

5.1 Model Output Validation

Data quality is a cornerstone of effective model management, as it directly impacts both the accuracy and reliability of insights derived from models. High quality input data, whether qualitative or quantitative, ensures the model captures a true representation of the companies' performance and management quality, while clean and accurate output data facilitates better informed decision-making. The temporal dimension is equally critical – hence, data quality is assessed not only at the time of collection, but throughout the model lifecycle, accounting for changes in relevance, accuracy and consistency over time. By maintaining rigorous standards for data quality across these dimensions, we ensure that the models are both robust and adapted to evolving conditions. Quality controls are run daily, and all discrepancies are treated in a hierarchical manner. Daily communication occurs among internal teams throughout the quality assurance process to ensure a high level of data quality.

5.2 Data Limitations

5.2.1 Availability, consistency and completeness of data

The availability and consistency of ESG data may vary across companies, regions, and reporting periods due to differences in disclosure practices, reporting standards, and regulatory requirements. While LSEG seeks to ensure broad and consistent coverage, not all companies disclose information for all indicators in each fiscal year. Data gaps may therefore arise, particularly for smaller issuers, private companies, or companies operating in jurisdictions with less mature sustainability reporting frameworks. Additionally, the scope and depth of reported information may change over time as companies enhance or modify their disclosure practices.

5.2.2 Timeliness and accuracy of information

Corporate-reported data is updated as and when new disclosures become available, including annual reports, sustainability reports, and other relevant publications. As disclosures are subject to companies' own reporting schedules, there may be a time lag between the end of a fiscal year and the availability of complete data. During this period, ESG scores may be provisional in nature. LSEG applies validation and review processes to enhance data accuracy; however, the methodology relies primarily on publicly disclosed information and, as such, cannot fully eliminate the risk of errors, omissions, or subsequent restatements by reporting entities.

5.2.3 Model limitations

In addition to data-related constraints, ESG assessments are subject to intrinsic methodological limitations, reflecting the inherent complexity and breadth of environmental, social, and governance dimensions. ESG performance encompasses a wide range of ESG-related management practices, risk exposures, and external impacts that cannot always be fully captured through structured indicators or scoring frameworks. While the methodology is designed to provide a systematic and consistent assessment, it may not fully reflect all qualitative aspects of corporate behaviour, emerging risks, or company-specific contextual factors.

The methodology has been developed with due care to established standards and the latest literature on ESG-related scoring and ongoing methodological reviews are conducted to address known limitations identified in empirical research and practitioner feedback. Nevertheless, ESG measurement remains an evolving field, and future developments – such as new data sources, enhanced disclosure practices, alternative modelling techniques, or improved estimation approaches – may enable further methodological refinements over time.

Furthermore, scores may be intrinsically constrained by missing, incomplete, or unevenly disclosed data, particularly for certain geographies, sectors, or company sizes. These limitations are addressed through transparent score flagging, regular recalculation, data quality controls, and continuous methodological enhancements, but they cannot be fully eliminated.

5.3 Quality controls

Data quality is a fundamental component of the data collection process. To ensure the highest possible level of accuracy, we apply a combination of automated controls and manual oversight, with the objective of approaching full data completeness and reliability. The following provides an overview of the methodologies employed to support this objective.

The framework is underpinned by the principle of "getting data right at the first point of capture." It incorporates embedded validation checks within the collection tool, complemented by structured manual reviews and the monitoring and reporting of quality metrics. These measures enhance transparency, support the identification of priority areas, and enable teams to improve accuracy at source.

This quality framework is applied consistently and is structured around four key pillars:

Figure 6 Quality Framework process

5.3.1 Input Data Quality

The table below sets out the thematic categories of data quality controls applied to LSEG D&A ESG scores, designed to ensure the levels of accuracy, completeness, and robustness required under the established quality management framework.

Control area	Description	Frequency
Boolean Consistency Checks	Consistency in year over year TRUE/FALSE values justifying that yearly variance is directly from corporate disclosure changes, not missed data.	Weekly
Raw data Missing	All relevant metadata is auditable and fully collected	Weekly
Quantitative Variance Checks	Consistency of quantitative data using a metric specific threshold (e.g. Not to exceed 30% change in value). This also includes year-over-year availability of reported quantitative data.	Weekly
Interrelated Checks	Consistency checks between likely related data (e.g. if corporate reports data measure X, data measure Y should also be reported).	Weekly
Other Checks	An all-inclusive category representing bespoke checks and controls (e.g. currency type collected consistently each year).	Weekly

Table 9 List of input data quality control checks

5.3.2 Output Scores Data Quality

Calculated scores are subject to ongoing quality assurance processes designed to assess the completeness, consistency, stability and plausibility of score outputs. These controls include monitoring for unexpected score movements, missing scores, unusual variations over time and statistical anomalies relative to peer groups.

Where potential anomalies or data quality concerns are identified, the underlying data may be subject to further review through the quality control process. Where necessary, underlying data is validated against publicly available sources and corrected, following which scores are recalculated through the standard methodology and automated processing framework.

Output quality controls are performed on a regular basis to support the integrity, consistency and reliability of ESG scores. Any statistical techniques used as part of the quality assurance process are solely intended to support anomaly detection and quality control activities and do not form part of the score determination methodology.

5.3.3 Remediation

LSEG operates a comprehensive quality management and remediation framework to ensure the accuracy, reliability, and integrity of the data and methodologies used in its scores. LSEG maintains documented systems and controls that govern the validation, verification, and supervision of input data used in the production of its scores. These controls ensure that all input data conforms to LSEG's established requirements and is subject to appropriate checks prior to use.

When data errors or inconsistencies are identified—whether through automated input checks, manual quality assurance or internal review processes—LSEG logs the issue, conducts thorough investigations, and performs a structured root cause analysis. Confirmed errors are corrected at source, and revised data is propagated across all dependent scoring calculations. This process includes validation procedures to ensure that corrected data meets the accuracy, consistency, and completeness standards applicable to all data sources.

5.3.4 Ownership and governance

LSEG maintains a governance framework designed to support the integrity, consistency and reliability of ESG scores throughout their lifecycle.

The collection, validation and maintenance of underlying ESG data is performed by dedicated Content Operations teams using publicly available information sources and documented collection policies. Content Operations is responsible for ensuring that underlying data is supported by appropriate source evidence and is maintained in accordance with established quality standards and controls.

ESG scores are generated through the automated application of approved methodologies to validated data inputs. The methodologies are rule-based and deterministic, meaning that scores are calculated consistently using predefined logic and do not rely on discretionary adjustments, qualitative overlays or manual score modifications.

Model Management teams operate a quality assurance function designed to support the integrity, consistency and reproducibility of ESG score outputs. Their responsibilities include operating output quality controls, identifying potential anomalies through established exception management processes and coordinating investigation of potential data quality issues. Model Management does not determine, modify, override or adjust ESG score outcomes and does not exercise judgement over the application of the methodology.

Where an investigation identifies an issue with underlying data, Content Operations validates the information against publicly disclosed sources and corrects the data where appropriate. Any resulting score changes are generated through the standard methodology and automated recalculation processes. Neither Content Operations nor Model Management have the ability to manually alter, override or adjust individual score outcomes.

This governance framework is designed to ensure that ESG scores remain transparent, consistent, reproducible and supported by robust data quality controls.

Further information on the ESG Model

Further information on the ESG methodology, data sources and results can be found on the official LSEG website under www.lseg.com

Appendix A

Category scoring example

This section illustrates how a category score is calculated, using the data available in the ESG database as of March 2020 for all water and related utilities industry companies (e.g., the emission category score for FY2017 across the 22 companies in this industry).

Step-by-step illustration

- There are 22 metrics that are considered in calculating emission category scores
- Values are extracted for all 22 metrics
- Numeric metrics are considered only if reported by the company
- Relevant numeric values are assigned and calculated for Boolean metrics
- Percentile score calculation formulas are applied for each measure

The following illustrates how the percentile formula is applied for a numeric data point 'TR.AnalyticCO2', which is a negative polarity data point (i.e., the lower the better).

Description	JKL	ABC
No. of companies with worse value	10	9
No. of companies with same value	1	1
No. of companies with value	11	11

Company name	Eikon code	DFO codes	Value	Score	Year
JKL	TR.AnalyticCo2	ENERO03V	0.000005	0.954545	(10+(1/2))/11
ABC	TR.AnalyticCo2	ENERO03V	0.000123	0.863636	(9+(1/2))/11
LMN	TR.AnalyticCo2	ENERO03V	0.000182	0.772727	(8+(1/2))/11
PQR	TR.AnalyticCo2	ENERO03V	0.000189	0.681818	(7+(1/2))/11
ENR	TR.AnalyticCo2	ENERO03V	0.00019	0.590909	(6+(1/2))/11
MSE	TR.AnalyticCo2	ENERO03V	0.000211	0.5	(5+(1/2))/11
MNO	TR.AnalyticCo2	ENERO03V	0.000218	0.409091	(4+(1/2))/11
EMJ	TR.AnalyticCo2	ENERO03V	0.000314	0.318182	(3+(1/2))/11
UVW	TR.AnalyticCo2	ENERO03V	0.000438	0.227273	(2+(1/2))/11
CBD	TR.AnalyticCo2	ENERO03V	0.001081	0.136364	(1+(1/2))/11
PSF	TR.AnalyticCo2	ENERO03V	0.001142	0.045455	(0+(1/2))/11

The following illustrates how the percentile formula is applied for a Boolean data point ‘TR.PolicyEmissions’, which is a positive polarity data point (i.e., the higher the better).

Company name	Eikon code	DFO codes	Value	Default value for Boolean	Percentile score	Percentile score formula applied
JKL	TR.PolicyEmissions	ENERDP0051	Yes	1	0.791666667	(7+(5/2))/12
ABC	TR.PolicyEmissions	ENERDP0051	Yes	1	0.791666667	(7+(5/2))/12
LMN	TR.PolicyEmissions	ENERDP0051	Yes	1	0.791666667	(7+(5/2))/12
PQR	TR.PolicyEmissions	ENERDP0051	Yes	1	0.791666667	(7+(5/2))/12
ENR	TR.PolicyEmissions	ENERDP0051	Yes	1	0.791666667	(7+(5/2))/12
MSE	TR.PolicyEmissions	ENERDP0051	No	0	0	0
MNO	TR.PolicyEmissions	ENERDP0051	No	0	0	0
EMJ	TR.PolicyEmissions	ENERDP0051	No	0	0	0
UVW	TR.PolicyEmissions	ENERDP0051	Null	0	0	0
CBD	TR.PolicyEmissions	ENERDP0051	Null	0	0	0
PSF	TR.PolicyEmissions	ENERDP0051	Null	0	0	0
XYZ	TR.PolicyEmissions	ENERDP0051	Null	0	0	0

– The same steps are applied to all other data points in the category
– After deriving percentile scores at a data point level, percentile scores are summed up at a company level as described in the table below

Company name	Eikon code	DFO codes	Values	Percentile scores
ABC	TR.AnalyticCO2	ENERO03V	0.000166844	0.833333333
ABC	TR.PolicyEmissions	ENERDP0051	1	0.7
ABC	TR.TargetsEmissions	ENERDP0161	1	0.9
ABC	TR.BiodiversityImpactReduction	ENERDP019	1	0.766666667
ABC	TR.WasteReductionInitiatives	ENERDP062	1	0.933333333
ABC	TR.EnvPartnerships	ENERDP070	1	0.766666667
ABC	TR.EnvRestorationInitiatives	ENERDP076	1	0.8
ABC	TR.ClimateChangeRisksOpp	ENERDP089	1	0.733333333
ABC	TR.PolicyWaterEfficiency	ENRRDP0121	0	0
ABC	TR.PolicyEnergyEfficiency	ENRRDP0122	0	0
ABC	TR.TargetsWaterEfficiency	ENRRDP0191	0	0
ABC	TR.NOxSOxEmissionsReduction	ENERDP033	0	0
ABC	TR.eWasteReduction	ENERDP063	0	0
Sum of all percentile scores				6.433333

– Percentile scores at company level are sorted from highest to lowest
– Apply percentile scores formula to derive emission category score

Appendix B

The table below provides an indicative ESG magnitude (materiality) matrix based on assessment of sample ESG data. It is not a definitive matrix to be used in the final scoring.

		Environmental			Social				Governance		
TRBC Industry Group Name	Industry Group code	Emission	Innovation	Resource use	Human rights	Product responsibility	Workforce	Community	Management	Shareholders	CSR strategy
Aerospace & Defense	521010	4	4	3	7	3	5	5	10	3	2
Automobiles & Auto Parts	531010	6	10	5	9	5	6	5	10	3	2
Banking Services	551010	1	4	1	4	4	8	5	10	3	2
Beverages	541010	8	3	8	9	7	6	5	10	3	2
Biotechnology & Medical Research	562020	4	1	6	1	5	3	5	10	3	2
Chemicals	511010	9	9	9	10	5	6	5	10	3	2
Coal	501010	10	1	10	3	1	5	5	10	3	2
Collective Investments	555010	1	1	1	1	2	3	5	10	3	2
Communications & Networking	571020	2	4	3	2	5	3	5	10	3	2
Computers, Phones & Household Electronics	571060	3	8	2	10	6	6	5	10	3	2
Construction & Engineering	522010	8	8	5	7	3	6	5	10	3	2
Construction Materials	512020	10	8	10	7	3	7	5	10	3	2
Consumer Goods Conglomerates	544010	7	9	7	9	5	6	5	10	3	2
Containers & Packaging	513020	9	6	9	10	5	6	5	10	3	2
Diversified Industrial Goods Wholesale	522020	3	7	4	9	1	6	5	10	3	2
Diversified Retail	534020	6	2	6	2	4	4	5	10	3	2
Electric Utilities & IPPs	591010	10	8	9	4	3	8	5	10	3	2
Electronic Equipment & Parts	571040	7	6	8	5	2	4	5	10	3	2
Financial Technology (Fintech) & Infrastructure	573010	1	1	1	1	4	3	5	10	3	2
Food & Drug Retailing	543010	6	3	4	5	8	6	5	10	3	2
Food & Tobacco	541020	8	2	8	7	8	6	5	10	3	2
Freight & Logistics Services	524050	7	6	6	4	4	7	5	10	3	2
Healthcare Equipment & Supplies	561010	3	3	2	5	6	4	5	10	3	2
Healthcare Providers & Services	561020	3	1	4	3	6	4	5	10	3	2
Homebuilding & Construction Supplies	532030	6	9	6	8	5	6	5	10	3	2
Hotels & Entertainment Services	533010	6	1	7	4	9	5	5	10	3	2
Household Goods	532040	6	10	5	7	5	5	5	10	3	2
Insurance	553010	1	3	1	3	4	6	5	10	3	2
Investment Banking & Investment Services	551020	1	3	1	1	3	4	5	10	3	2
Investment Holding Companies	556010	7	2	8	2	1	2	5	10	3	2
Leisure Products	532050	2	3	2	4	9	3	5	10	3	2
Machinery, Tools, Heavy Vehicles, Trains & Ships	521020	5	10	4	6	5	4	5	10	3	2
Media & Publishing	533020	2	2	2	4	6	5	5	10	3	2
Metals & Mining	512010	10	2	10	10	2	7	5	10	3	2
Miscellaneous Educational Service Providers	631010	6	1	6	1	3	4	5	10	3	2
Multiline Utilities	591040	10	9	9	6	4	7	5	10	3	2
Natural Gas Utilities	591020	7	7	8	5	5	8	5	10	3	2

		Environmental			Social				Governance		
TRBC Industry Group Name	Industry Group code	Emission	Innovation	Resource use	Human rights	Product responsibility	Workforce	Community	Management	Shareholders	CSR strategy
Office Equipment	571050	4	10	3	10	7	5	5	10	3	2
Oil & Gas	501020	7	7	9	10	4	8	5	10	3	2
Oil & Gas Related Equipment and Services	501030	8	3	7	8	2	6	5	10	3	2
Paper & Forest Products	513010	10	9	10	6	1	7	5	10	3	2
Passenger Transportation Services	524060	7	3	7	5	4	8	5	10	3	2
Personal & Household Products & Services	542010	6	4	6	8	10	7	5	10	3	2
Pharmaceuticals	562010	5	2	5	7	5	6	5	10	3	2
Professional & Business Education	631030	4	2	4	1	2	4	5	10	3	2
Professional & Commercial Services	522030	4	3	4	6	4	5	5	10	3	2
Real Estate Operations	601010	6	4	6	2	2	8	5	10	3	2
Renewable Energy	502010	6	6	6	1	3	3	5	10	3	2
Residential & Commercial REITs	601020	8	2	8	1	3	5	5	10	3	2
Semiconductors & Semiconductor Equipment	571010	6	7	6	9	5	6	5	10	3	2
Software & IT Services	572010	1	2	2	2	4	2	5	10	3	2
Specialty Retailers	534030	3	2	3	3	5	4	5	10	3	2
Telecommunications Services	574010	4	4	4	8	9	8	5	10	3	2

The table below provides an indicative ESG magnitude (materiality) matrix based on assessment of sample ESG data. It is not a definitive matrix to be used in the final scoring.

		Environmental			Social				Governance		
TRBC Industry Group Name	Industry Group code	Emission	Innovation	Resource use	Human rights	Product responsibility	Workforce	Community	Management	Shareholders	CSR strategy
Telecommunications Services	574010	4	4	4	8	9	8	5	10	3	2
Textiles & Apparel	532020	3	4	4	8	7	8	5	10	3	2
Transport Infrastructure	524070	7	2	7	6	3	9	5	10	3	2
Uranium	503010	10	1	10	1	3	3	5	10	3	2
Water & Related Utilities	591030	9	8	9	3	2	8	5	10	3	2

Note: Materiality matrix is not derived for the below four industry groups as currently there are no ESG companies forming part of these industry groups in our coverage. Once there are sufficient number of companies under these industry groups, materiality matrix would be derived according to the defined methodology.

Integrated Hardware & Software
Institutions, Associations & Organizations
Government Activity
School, College & University

Appendix C

The table below provides an indicative ESG category weights matrix based on assessment of sample ESG data. It is not a definitive matrix to be used in the final scoring.

		Environmental			Social				Governance		
TRBC Industry Group Name	Industry Group code	Emission	Innovation	Resource use	Human rights	Product responsibility	Workforce	Community	Management	Shareholders	CSR strategy
Aerospace & Defense	521010	0.09	0.09	0.06	0.15	0.07	0.11	0.11	0.22	0.06	0.04
Automobiles & Auto Parts	531010	0.10	0.16	0.08	0.15	0.09	0.10	0.08	0.16	0.05	0.03
Banking Services	551010	0.02	0.10	0.02	0.10	0.09	0.19	0.12	0.24	0.07	0.05
Beverages	541010	0.12	0.04	0.13	0.15	0.12	0.10	0.08	0.17	0.05	0.03
Biotechnology & Medical Research	562020	0.09	0.03	0.14	0.03	0.12	0.08	0.13	0.26	0.08	0.05
Chemicals	511010	0.13	0.13	0.13	0.15	0.07	0.09	0.07	0.15	0.04	0.03
Coal	501010	0.20	0.02	0.19	0.06	0.02	0.10	0.10	0.20	0.06	0.04
Collective Investments	555010	0.03	0.03	0.03	0.03	0.08	0.09	0.17	0.34	0.10	0.07
Communications & Networking	571020	0.05	0.10	0.07	0.05	0.14	0.07	0.13	0.26	0.08	0.05
Computers, Phones & Household Electronics	571060	0.06	0.14	0.04	0.18	0.11	0.11	0.09	0.18	0.06	0.04
Construction & Engineering	522010	0.14	0.14	0.09	0.12	0.05	0.11	0.09	0.18	0.05	0.04
Construction Materials	512020	0.15	0.12	0.15	0.11	0.04	0.11	0.08	0.16	0.05	0.03
Consumer Goods Conglomerates	544010	0.11	0.15	0.11	0.15	0.08	0.09	0.08	0.16	0.05	0.03
Containers & Packaging	513020	0.13	0.09	0.14	0.16	0.07	0.09	0.08	0.16	0.05	0.03
Diversified Industrial Goods Wholesale	522020	0.06	0.14	0.08	0.18	0.02	0.12	0.10	0.20	0.06	0.04
Diversified Retail	534020	0.13	0.03	0.14	0.05	0.10	0.09	0.12	0.23	0.07	0.05
Electric Utilities & IPPs	591010	0.16	0.13	0.14	0.07	0.05	0.13	0.08	0.17	0.05	0.03
Electronic Equipment & Parts	571040	0.13	0.11	0.15	0.10	0.04	0.08	0.10	0.20	0.06	0.04
Financial Technology (Fintech) & Infrastructure	573010	0.03	0.03	0.03	0.03	0.13	0.08	0.16	0.33	0.10	0.07
Food & Drug Retailing	543010	0.11	0.05	0.08	0.10	0.15	0.12	0.10	0.20	0.06	0.04
Food & Tobacco	541020	0.13	0.03	0.13	0.12	0.13	0.11	0.09	0.17	0.05	0.03
Freight & Logistics Services	524050	0.12	0.11	0.10	0.08	0.08	0.12	0.10	0.19	0.06	0.04
Government Activity**	621010	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Healthcare Equipment & Supplies	561010	0.06	0.06	0.05	0.12	0.14	0.09	0.12	0.24	0.07	0.05
Healthcare Providers & Services	561020	0.07	0.02	0.09	0.07	0.15	0.10	0.12	0.25	0.07	0.05
Homebuilding & Construction Supplies	532030	0.09	0.15	0.09	0.14	0.09	0.09	0.09	0.17	0.05	0.03
Hotels & Entertainment Services	533010	0.12	0.02	0.13	0.08	0.18	0.09	0.10	0.20	0.06	0.04
Household Goods	532040	0.10	0.16	0.08	0.12	0.09	0.09	0.09	0.17	0.05	0.03
Institutions, Associations & Organizations**	611010	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Insurance	553010	0.03	0.08	0.03	0.08	0.11	0.15	0.13	0.27	0.08	0.05
Integrated Hardware & Software*	571070	0.06	0.14	0.04	0.18	0.11	0.11	0.09	0.18	0.06	0.04
Investment Banking & Investment Services	551020	0.03	0.08	0.03	0.03	0.08	0.12	0.16	0.31	0.09	0.06
Investment Holding Companies	556010	0.16	0.04	0.19	0.05	0.02	0.05	0.12	0.24	0.07	0.05
Leisure Products	532050	0.04	0.06	0.04	0.10	0.22	0.07	0.12	0.24	0.07	0.05
Machinery, Tools, Heavy Vehicles, Trains & Ships	521020	0.09	0.18	0.08	0.11	0.09	0.08	0.09	0.19	0.06	0.04
Media & Publishing	533020	0.05	0.04	0.04	0.10	0.15	0.12	0.13	0.25	0.08	0.05
Metals & Mining	512010	0.16	0.03	0.16	0.16	0.04	0.12	0.08	0.16	0.05	0.03

		Environmental			Social				Governance		
TRBC Industry Group Name	Industry Group code	Emission	Innovation	Resource use	Human rights	Product responsibility	Workforce	Community	Management	Shareholders	CSR strategy
Miscellaneous Educational Service Providers	631010	0.13	0.02	0.15	0.02	0.08	0.10	0.12	0.24	0.07	0.05
Multiline Utilities	591040	0.15	0.13	0.14	0.09	0.06	0.10	0.08	0.16	0.05	0.03
Natural Gas Utilities	591020	0.12	0.12	0.13	0.08	0.08	0.13	0.08	0.17	0.05	0.03
Office Equipment	571050	0.06	0.16	0.05	0.17	0.12	0.09	0.09	0.17	0.05	0.03
Oil & Gas	501020	0.11	0.10	0.13	0.16	0.06	0.12	0.08	0.16	0.05	0.03
Oil & Gas Related Equipment and Services	501030	0.15	0.05	0.13	0.15	0.04	0.11	0.09	0.19	0.06	0.04
Paper & Forest Products	513010	0.15	0.14	0.16	0.10	0.02	0.11	0.08	0.16	0.05	0.03
Passenger Transportation Services	524060	0.12	0.06	0.13	0.09	0.08	0.14	0.09	0.19	0.06	0.04
Personal & Household Products & Services	542010	0.09	0.07	0.09	0.14	0.16	0.11	0.08	0.17	0.05	0.03
Pharmaceuticals	562010	0.09	0.03	0.10	0.14	0.10	0.12	0.10	0.21	0.06	0.04
Professional & Business Education	631030	0.11	0.06	0.11	0.03	0.05	0.10	0.14	0.28	0.08	0.06
Professional & Commercial Services	522030	0.08	0.07	0.09	0.13	0.08	0.10	0.11	0.22	0.07	0.04
Real Estate Operations	601010	0.12	0.08	0.12	0.04	0.04	0.16	0.11	0.22	0.07	0.04
Renewable Energy	502010	0.14	0.13	0.13	0.02	0.07	0.07	0.11	0.23	0.07	0.05
Residential & Commercial REITs	601020	0.16	0.04	0.17	0.02	0.07	0.10	0.11	0.21	0.06	0.04
School, College & University**	631020	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Semiconductors & Semiconductor Equipment	571010	0.10	0.12	0.10	0.16	0.09	0.10	0.09	0.17	0.05	0.03
Software & IT Services	572010	0.03	0.06	0.05	0.06	0.11	0.07	0.15	0.31	0.09	0.06
Specialty Retailers	534030	0.08	0.05	0.06	0.08	0.12	0.10	0.13	0.26	0.08	0.05
Telecommunications Services	574010	0.07	0.06	0.07	0.14	0.16	0.14	0.09	0.18	0.05	0.04
Textiles & Apparel	532020	0.05	0.07	0.07	0.15	0.13	0.15	0.10	0.19	0.06	0.04
Transport Infrastructure	524070	0.12	0.04	0.13	0.11	0.06	0.16	0.09	0.19	0.06	0.04
Uranium	503010	0.21	0.02	0.21	0.02	0.07	0.07	0.10	0.21	0.06	0.04
Water & Related Utilities	591030	0.15	0.13	0.15	0.05	0.04	0.13	0.09	0.17	0.05	0.03

* Currently there is no ESG coverage under Integrated Hardware & Software, default weights of Computers, Phones & Household Electronics are assigned until there is sufficient universe to derive category weights as per the defined methodology and both industry groups belong to technology.

**These are newly introduced industry groups and currently there are no ESG companies forming part of these industry groups, hence uniform weights are assigned across all industry groups. Once there are sufficient number of companies under these industry groups, category weights would be derived according

Appendix D

Pillar scoring example

An illustration of how pillar scores are calculated for the water and related utilities industry group, using the data available in the ESG database for FY2017.

Water and related utilities — Illustration of calculation of pillar scores

Industry group	Emission	Innovation	Resource use	Environmental pillar scores	Human rights	Product responsibility	Workforce	Community	Social pillar scores	Management	Shareholders	CSR strategy	Governance pillar scores
Pillar weights	0.35	0.29	0.35		0.17	0.13	0.43	0.28		0.67	0.20	0.13	
ABC	0.66	0.00	0.44	0.39	0.05	0.58	0.89	0.34	0.56	0.99	0.84	0.56	0.90
CBD	0.71	0.96	0.38	0.67	0.00	0.69	0.66	0.70	0.57	0.37	0.01	0.56	0.32
DEF	0.03	0.00	0.00	0.01	0.00	0.00	0.57	0.11	0.27	0.21	0.14	0.54	0.24
EFG	0.00	0.31	0.03	0.10	0.00	0.00	0.25	0.59	0.27	0.89	0.94	0.00	0.78
EMJ	0.87	0.31	0.68	0.64	0.20	0.86	0.84	0.98	0.77	0.33	0.87	0.68	0.48
EMQ	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.02	0.13	0.88	0.08	0.01	0.60
ENR	0.92	0.81	0.85	0.86	0.75	0.97	0.93	0.66	0.83	0.40	0.49	0.86	0.48
GPQ	0.24	0.31	0.00	0.17	0.00	0.17	0.02	0.16	0.08	0.56	0.56	0.00	0.49
HIJ	0.61	0.31	0.50	0.48	0.65	0.42	0.80	0.80	0.72	0.48	0.27	0.37	0.43
IBD	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.30	0.11	0.51	0.49	0.00	0.43
JKL	0.50	0.73	0.74	0.65	0.00	0.78	0.43	0.93	0.54	0.62	0.89	0.26	0.63
LMN	0.76	0.31	0.56	0.56	0.00	0.47	0.48	0.48	0.40	0.17	0.24	0.26	0.20
MNO	0.82	0.31	0.91	0.70	0.40	0.58	0.61	0.07	0.42	0.33	0.52	0.63	0.41
MSE	0.55	0.00	0.62	0.41	0.85	0.17	0.75	0.84	0.72	0.77	0.35	0.91	0.71
OPQ	0.29	0.00	0.32	0.22	0.00	0.17	0.16	0.48	0.22	0.15	0.42	0.08	0.20
PQR	0.45	0.65	0.79	0.63	0.55	0.78	0.52	0.75	0.62	0.76	0.76	0.16	0.68
PSF	0.97	0.88	0.97	0.95	0.95	0.92	0.98	0.89	0.94	0.15	0.73	0.34	0.29
RST	0.08	0.31	0.00	0.12	0.00	0.17	0.20	0.59	0.27	0.42	0.42	0.00	0.36
UVW	0.34	0.00	0.26	0.21	0.20	0.58	0.70	0.39	0.52	0.26	0.16	0.31	0.25
VPF	0.16	0.31	0.15	0.20	0.00	0.17	0.11	0.25	0.14	0.88	0.90	0.00	0.77
XYZ	0.39	0.00	0.21	0.21	0.40	0.17	0.39	0.48	0.39	0.95	0.73	0.51	0.85
YQM	0.16	0.00	0.09	0.09	0.00	0.36	0.34	0.20	0.25	0.69	0.34	0.00	0.53

Steps:

Sum of category weights: sum each category weight of respective pillars. The calculation to derive the sum of category weights is illustrated below:

- Environmental pillar categories = resource use (0.08) + emissions (0.10) + innovation (0.16) = 0.34
- Social pillar categories = workforce (0.10) + human rights (0.15) + community (0.08) + product responsibility (0.09) = 0.42
- Corporate governance categories = management (0.16) + shareholders (0.05) + CSR strategy (0.03) = 0.24

New category weights: new category weights are calculated based on the sum of the category weights calculated above. New category weights = category weights divided by the sum of the category weights of the respective pillar. The calculation of new category weights for environmental pillar is as below:

- New category weight for resource use = 0.08 divided by 0.34 = 0.24
- New category weight for emissions = 0.10 divided by 0.34 = 0.29
- New category weight for innovation = 0.16 divided by 0.34 = 0.48

(new category weights for social and corporate governance are similarly calculated)

Pillar score calculation: category scores multiplied by new category weights = pillar scores.

The calculation of the environmental pillar score is shown below:

(Resource use score*0.24) + (emission score*0.29) + (innovation score*0.48) = 0.91 (environmental pillar score). Social and corporate governance pillar scores are calculated similarly

Appendix E

The table below provides an indicative ESG pillar weights matrix, based on an assessment of sample ESG data. It is not a definitive matrix to be used in the final scoring.

		Environmental			Social				Governance		
TRBC Industry Group Name	Industry Group code	Emission	Innovation	Resource use	Human rights	Product responsibility	Workforce	Community	Management	Shareholders	CSR strategy
Aerospace & Defense	521010	0.36	0.36	0.27	0.34	0.16	0.25	0.25	0.67	0.20	0.13
Automobiles & Auto Parts	531010	0.29	0.48	0.24	0.35	0.21	0.24	0.20	0.67	0.20	0.13
Banking Services	551010	0.17	0.67	0.17	0.19	0.18	0.39	0.24	0.67	0.20	0.13
Beverages	541010	0.42	0.14	0.44	0.33	0.27	0.23	0.18	0.67	0.20	0.13
Biotechnology & Medical Research	562020	0.35	0.10	0.55	0.07	0.34	0.22	0.37	0.67	0.20	0.13
Chemicals	511010	0.32	0.34	0.34	0.39	0.18	0.23	0.20	0.67	0.20	0.13
Coal	501010	0.49	0.05	0.46	0.22	0.07	0.35	0.36	0.67	0.20	0.13
Collective Investments	555010	0.33	0.33	0.33	0.09	0.21	0.25	0.45	0.67	0.20	0.13
Communications & Networking	571020	0.24	0.47	0.29	0.13	0.36	0.17	0.34	0.67	0.20	0.13
Computers, Phones & Household Electronics	571060	0.24	0.60	0.16	0.37	0.22	0.21	0.19	0.67	0.20	0.13
Construction & Engineering	522010	0.38	0.38	0.24	0.34	0.13	0.29	0.24	0.67	0.20	0.13
Construction Materials	512020	0.36	0.28	0.36	0.33	0.12	0.32	0.23	0.67	0.20	0.13
Consumer Goods Conglomerates	544010	0.30	0.41	0.30	0.37	0.19	0.24	0.20	0.67	0.20	0.13
Containers & Packaging	513020	0.37	0.24	0.39	0.39	0.18	0.23	0.20	0.67	0.20	0.13
Diversified Industrial Goods Wholesale	522020	0.21	0.50	0.29	0.43	0.05	0.29	0.24	0.67	0.20	0.13
Diversified Retail	534020	0.42	0.12	0.46	0.13	0.28	0.26	0.33	0.67	0.20	0.13
Electric Utilities & IPPs	591010	0.37	0.29	0.33	0.21	0.15	0.38	0.26	0.67	0.20	0.13
Electronic Equipment & Parts	571040	0.33	0.28	0.38	0.31	0.12	0.26	0.31	0.67	0.20	0.13
Financial Technology (Fintech) & Infrastructure	573010	0.33	0.33	0.33	0.08	0.32	0.20	0.40	0.67	0.20	0.13
Food & Drug Retailing	543010	0.46	0.21	0.33	0.21	0.32	0.26	0.21	0.67	0.20	0.13
Food & Tobacco	541020	0.45	0.09	0.45	0.27	0.30	0.24	0.19	0.67	0.20	0.13
Freight & Logistics Services	524050	0.36	0.33	0.31	0.21	0.21	0.33	0.26	0.67	0.20	0.13
Government Activity**	621010	0.33	0.33	0.33	0.25	0.25	0.25	0.25	0.33	0.33	0.33
Healthcare Equipment & Supplies	561010	0.36	0.36	0.29	0.25	0.30	0.19	0.25	0.67	0.20	0.13
Healthcare Providers & Services	561020	0.40	0.13	0.47	0.17	0.33	0.22	0.28	0.67	0.20	0.13
Homebuilding & Construction Supplies	532030	0.28	0.44	0.28	0.34	0.21	0.23	0.21	0.67	0.20	0.13
Hotels & Entertainment Services	533010	0.44	0.07	0.48	0.18	0.40	0.20	0.22	0.67	0.20	0.13
Household Goods	532040	0.30	0.48	0.23	0.31	0.24	0.23	0.22	0.67	0.20	0.13
Institutions, Associations & Organizations**	611010	0.33	0.33	0.33	0.25	0.25	0.25	0.25	0.33	0.33	0.33
Insurance	553010	0.20	0.60	0.20	0.17	0.23	0.31	0.29	0.67	0.20	0.13
Integrated Hardware & Software*	571070	0.24	0.60	0.16	0.37	0.22	0.21	0.19	0.67	0.20	0.13
Investment Banking & Investment Services	551020	0.22	0.56	0.22	0.08	0.21	0.32	0.39	0.67	0.20	0.13
Investment Holding Companies	556010	0.41	0.09	0.50	0.20	0.10	0.22	0.49	0.67	0.20	0.13
Leisure Products	532050	0.27	0.45	0.27	0.19	0.43	0.13	0.24	0.67	0.20	0.13
Machinery, Tools, Heavy Vehicles, Trains & Ships	521020	0.25	0.53	0.22	0.31	0.24	0.20	0.25	0.67	0.20	0.13
Media & Publishing	533020	0.40	0.30	0.30	0.20	0.30	0.24	0.25	0.67	0.20	0.13
Metals & Mining	512010	0.44	0.09	0.47	0.41	0.09	0.29	0.20	0.67	0.20	0.13

		Environmental			Social				Governance		
TRBC Industry Group Name	Industry Group code	Emission	Innovation	Resource use	Human rights	Product responsibility	Workforce	Community	Management	Shareholders	CSR strategy
Miscellaneous Educational Service Providers	631010	0.44	0.08	0.48	0.07	0.25	0.31	0.37	0.67	0.20	0.13
Multiline Utilities	591040	0.35	0.31	0.33	0.28	0.19	0.30	0.23	0.67	0.20	0.13
Natural Gas Utilities	591020	0.33	0.33	0.35	0.22	0.22	0.35	0.22	0.67	0.20	0.13
Office Equipment	571050	0.22	0.59	0.19	0.37	0.26	0.19	0.18	0.67	0.20	0.13
Oil & Gas	501020	0.32	0.30	0.39	0.37	0.15	0.29	0.19	0.67	0.20	0.13
Oil & Gas Related Equipment and Services	501030	0.46	0.14	0.40	0.38	0.11	0.28	0.23	0.67	0.20	0.13
Paper & Forest Products	513010	0.33	0.32	0.35	0.32	0.05	0.37	0.26	0.67	0.20	0.13
Passenger Transportation Services	524060	0.39	0.18	0.42	0.23	0.20	0.35	0.23	0.67	0.20	0.13
Personal & Household Products & Services	542010	0.37	0.27	0.37	0.27	0.33	0.22	0.17	0.67	0.20	0.13
Pharmaceuticals	562010	0.41	0.14	0.45	0.31	0.21	0.26	0.22	0.67	0.20	0.13
Professional & Business Education	631030	0.40	0.20	0.40	0.09	0.15	0.31	0.45	0.67	0.20	0.13
Professional & Commercial Services	522030	0.33	0.29	0.38	0.31	0.19	0.23	0.26	0.67	0.20	0.13
Real Estate Operations	601010	0.38	0.24	0.38	0.12	0.12	0.45	0.30	0.67	0.20	0.13
Renewable Energy	502010	0.35	0.32	0.32	0.08	0.25	0.25	0.42	0.67	0.20	0.13
Residential & Commercial REITs	601020	0.43	0.11	0.46	0.07	0.24	0.34	0.36	0.67	0.20	0.13
School, College & University**	631020	0.33	0.33	0.33	0.25	0.25	0.25	0.25	0.33	0.33	0.33
Semiconductors & Semiconductor Equipment	571010	0.31	0.39	0.31	0.36	0.20	0.23	0.20	0.67	0.20	0.13
Software & IT Services	572010	0.22	0.44	0.33	0.15	0.28	0.17	0.39	0.67	0.20	0.13
Specialty Retailers	534030	0.40	0.27	0.33	0.18	0.28	0.24	0.30	0.67	0.20	0.13
Telecommunications Services	574010	0.35	0.30	0.35	0.27	0.31	0.26	0.17	0.67	0.20	0.13
Textiles & Apparel	532020	0.26	0.37	0.37	0.29	0.25	0.28	0.18	0.67	0.20	0.13
Transport Infrastructure	524070	0.42	0.13	0.45	0.26	0.13	0.38	0.22	0.67	0.20	0.13
Uranium	503010	0.48	0.05	0.48	0.08	0.26	0.26	0.40	0.67	0.20	0.13
Water & Related Utilities	591030	0.35	0.29	0.35	0.17	0.13	0.43	0.28	0.67	0.20	0.13

*Currently there is no ESG coverage under Integrated Hardware & Software, default weights of Computers, Phones & Household Electronics are assigned until there is sufficient universe to derive category weights as per the defined methodology and both industry groups belong to technology.

**These are newly introduced industry groups and currently there are no ESG companies forming part of these industry groups, hence uniform weights are assigned across all industry groups. Once there are sufficient number of companies under these industry groups, category weights would be derived according to the defined methodology.

Appendix F

Category scores

The table below lists the category scores and their definitions.

Score	Definition
LSEG ESG resource use score	The resource use score reflects a company's performance and capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.
LSEG ESG emissions reduction score	The emission reduction score measures a company's commitment and effectiveness towards reducing environmental emissions in its production and operational processes.
LSEG ESG innovation score	The innovation score reflects a company's capacity to reduce the environmental costs and burdens for its customers, thereby creating new market opportunities through new environmental technologies and processes, or eco-designed products.
LSEG ESG workforce score	The workforce score measures a company's effectiveness in terms of providing job satisfaction, a healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce.
LSEG ESG human rights score	The human rights score measures a company's effectiveness in terms of respecting fundamental human rights conventions.
LSEG ESG community score	The community score measures the company's commitment to being a good citizen, protecting public health and respecting business ethics.
LSEG ESG product responsibility score	The product responsibility score reflects a company's capacity to produce quality goods and services, integrating the customer's health and safety, integrity and data privacy.
LSEG ESG management score	The management score measures a company's commitment and effectiveness towards following best practice corporate governance principles.
LSEG ESG shareholders score	The shareholders score measures a company's effectiveness towards equal treatment of shareholders and the use of anti-takeover devices.
LSEG ESG CSR strategy score	The CSR strategy score reflects a company's practices to communicate that it integrates economic (financial), social and environmental dimensions into its day-to-day decision-making processes.

Appendix G

Controversy measures

List of all controversy measures that make up the ESG controversy category score.

Category	Name (N)	Label (L)	Description (D)
Community	TR.ControvAntiCompetition	Anti-competition controversy	Number of controversies published in the media linked to anticompetitive behaviour (e.g., anti-trust and monopoly), price-fixing or kickbacks.
Community	TR.ControvBusinessEthics	Business ethics controversies	Number of controversies published in the media linked to business ethics in general, political contributions or bribery and corruption.
Community	TR.ControvCopyrights	Intellectual property controversies	Number of controversies published in the media linked to patents and intellectual property infringements.
Community	TR.ControvCriticalCountries	Critical countries controversies	Number of controversies published in the media linked to activities in critical, undemocratic countries that do not respect fundamental human rights principles.
Community	TR.ControvPublicHealth	Public health controversies	Number of controversies published in the media linked to public health or industrial accidents harming the health and safety of third parties (non-employees and non-customers).
Community	TR.ControvTaxFraud	Tax fraud controversies	Number of controversies published in the media linked to tax fraud, parallel imports or money laundering.
Human rights	TR.ControvChildLabor	Child labour controversies	Number of controversies published in the media linked to use of child labour issues.
Human rights	TR.ControvHumanRights	Human rights controversies	Number of controversies published in the media linked to human rights issues.
Management	TR.ControvMgtComp	Management compensation controversies count	Number of controversies published in the media linked to high executive or board compensation.
Product responsibility	TR.ControvConsumer	Consumer controversies	Number of controversies published in the media linked to consumer complaints or dissatisfaction directly linked to the company’s products or services.
Product responsibility	TR.ControvCustomerHS	Customer health and safety controversies	Number of controversies published in the media linked to customer health and safety.
Product responsibility	TR.ControvPrivacy	Privacy controversies	Number of controversies published in the media linked to employee or customer privacy and integrity.
Product responsibility	TR.ControvProductAccess	Product access controversies	Number of controversies published in the media linked to product access.
Product responsibility	TR.ControvRespMarketing	Responsible marketing controversies	Number of controversies published in the media linked to the company’s marketing practices, such as over-marketing of unhealthy food to vulnerable consumers.
Product responsibility	TR.ControvResponsibleRD	Responsible R&D controversies	Number of controversies published in the media linked to responsible R&D.
Resource use	TR.ControvEnv	Environmental controversies	Number of controversies related to the environmental impact of the company’s operations on natural resources or local communities.
Shareholders	TR.ControvAccounting	Accounting controversies count	Number of controversies published in the media linked to aggressive or non- transparent accounting issues.
Shareholders	TR.ControvInsiderDealings	Insider dealings controversies	Number of controversies published in the media linked to insider dealings and other share price manipulations.
Shareholders	TR.ControvShareholders	Shareholder rights controversies	Number of controversies published in the media linked to shareholder rights infringements.
Workforce	TR.ControvDiversityOpportunity	Diversity and opportunity controversies	Number of controversies published in the media linked to workforce diversity and opportunity (e.g., wages, promotion, discrimination and harassment).
Workforce	TR.ControvEmployeesHS	Employee health and safety controversies	Number of controversies published in the media linked to workforce health and safety.

Category	Name (N)	Label (L)	Description (D)
Workforce	TR.ControvWorkingCondition	Wages or working conditions controversies	Number of controversies published in the media linked to the company’s relations with employees or relating to wages or wage disputes.
Workforce	TR.Strikes	Strikes	Has there has been a strike or an industrial dispute that led to lost working days?

Appendix H

Controversies scoring example

This section illustrates how a controversy score is calculated for a water and related utilities industry group, using the data available in the ESG database for FY2017.

Company name	Market cap class	TRBC industry group name	Count of controversies per company	Severity weight	Value after applying severity weight	Controversies score	Grade
PSF	Large	Water and related utilities	0	0.33	0	100%	A+
ENR	Mid	Water and related utilities	0	0.67	0	100%	A+
MNO	Mid	Water and related utilities	0	0.67	0	100%	A+
CBD	Small	Water and related utilities	0	1	0	100%	A+
ABC	Mid	Water and related utilities	0	0.67	0	100%	A+
HIJ	Mid	Water and related utilities	0	0.67	0	100%	A+
MSE	Mid	Water and related utilities	0	0.67	0	100%	A+
JKL	Mid	Water and related utilities	0	0.67	0	100%	A+
PQR	Large	Water and related utilities	0	0.33	0	100%	A+
XYZ	Mid	Water and related utilities	0	0.67	0	100%	A+
UVW	Small	Water and related utilities	0	1	0	100%	A+
OPQ	Small	Water and related utilities	0	1	0	100%	A+
GPQ	Small	Water and related utilities	0	1	0	100%	A+
VPF	Small	Water and related utilities	0	1	0	100%	A+
RST	Small	Water and related utilities	0	1	0	100%	A+
EMQ	Mid	Water and related utilities	0	0.67	0	100%	A+
IBD	Small	Water and related utilities	0	1	0	100%	A+
YQM	Small	Water and related utilities	0	1	0	100%	A+
DEF	Mid	Water and related utilities	0	0.67	0	100%	A+
EFG	Small	Water and related utilities	0	1	0	100%	A+
LMN	Mid	Water and related utilities	1	0.67	0.67	75%	B+
EMJ	Small	Water and related utilities	1	1	1	25%	D+

Steps:

- Extract values pertaining to controversies for all companies of FY2017 and get the count of controversies per company [37]
- Based on the market cap class, multiply the count of controversies by the severity weight
- Sort the companies from lowest to highest (lowest being better) considering the values after applying the severity weights
- Apply percentile rank formula to derive the ESG controversies scores

Company name	Market cap class	Count of controversies per company	Severity weight	Value after applying severity weight	Controversies score	Percentile formula applied only for companies with controversies	Grade
PSF	Large	0	0.33	0	100%	100%	A+
ENR	Mid	0	0.67	0	100%	100%	A+
YQM	Small	0	1	0	100%	100%	A+
DEF	Mid	0	0.67	0	100%	100%	A+
EFG	Small	0	1	0	100%	100%	A+
LMN	Mid	1	0.67	0.67	75%	(1+(1/2))/2	B+
EMJ	Small	1	1	1	25%	(0+(1/2))/2	D+

Appendix I – Primary ESG Data sources

The LSEG D&A ESG Scores are based primarily on publicly available information disclosed by rated entities. Depending on the availability of information, data may be sourced from one or more of the following categories.

Source Category	Typical Sources	Primary Use
Corporate Reporting	Annual Reports, Annual Reports (10-K), Integrated Reports, Registration Reports, SEC 20-F filings	Financial, governance and ESG-related disclosures
Sustainability Reporting	Corporate Sustainability Reports, ESG Reports, Corporate Social Responsibility (CSR) Reports, Global Reporting Initiative (GRI) Reports, CSRD Sustainability Statements (where available)	Environmental, social and governance performance measures
Corporate Governance Documentation	Proxy Statements (DEF 14A), Audit Committee Charters, Board Committee Terms of Reference, Notices of Annual General Meetings, Corporate Governance Reports	Governance-related measures
Regulatory Filings	Stock exchange announcements, regulatory filings and other mandatory corporate disclosures	Corporate disclosures and regulated information
Corporate Communications	Company websites, investor relations publications, official corporate policies, circulars and press releases	Supplementary publicly disclosed information
Specific ESG Disclosures	Gender Pay Gap Reports and other publicly available ESG-related disclosures required under applicable laws or regulations	Topic-specific ESG measures
Media and Public Sources	Publicly available news and media sources, including Reuters and other recognised global media outlets	Identification and assessment of ESG and Diversity & Inclusion-related controversies in accordance with the applicable controversies methodology

LSEG may also use information submitted by companies through the LSEG Contributions Channel or data provided by approved third-party organisations, where relevant to the methodology. Information submitted through the LSEG Contributions Channel must be supported by, and traceable to, publicly available disclosures made by the rated entity and is subject to the same validation and quality assurance processes as all other data sources before being incorporated into the ESG dataset. Media sources are used solely in connection with controversy assessments and are not used to determine company-reported ESG performance measures.

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