



WHITE PAPER

The science behind
the IQ ESG ratings
methodology



25 May 2024

welcome to IQ ESG

Congratulations! With IQ ESG you are embarking on the single most important topic of our lifetimes: how can you help to protect the planet and create a better society? IQ ESG is how you start!

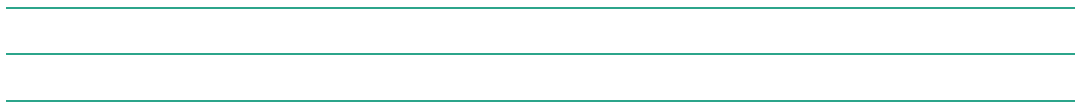


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People Planet Profit



CEO'S STATEMENT

I founded ESG Pro to make sustainability accessible to every organisation, wherever they operate, irrespective of whether commercial or not-for-profit. The barriers had to fall: a new paradigm was needed!

With IQ ESG, everyone has the power to drive change, even the smallest of SMEs.

This empowers the global supply chain. Everyone can benefit and make profits, just not at the expense of our beautiful planet. ESG is about honesty

and transparency ... plus some effort. Let's get started together and make a positive difference!

A handwritten signature in black ink, appearing to read 'Humperdinck Jackman'.

Humperdinck Jackman

executive

summary

Experience

As a leading provider of global ESG reporting solutions, we believe that sustainability reporting must be accessible to every organisation regardless of whether they are commercial enterprises or not-for-profit.

For too long, the market has differentiated against the SME and excluded non-commercial organisations, placing them at a huge competitive disadvantage. This has occurred because the methodologies have been biased towards the vested self-interest of large commercial software corporations.

After several years of painstaking research, ESG Pro partnered with Apex analytix, a pioneer in

the supply chain software, data, and analytics markets with data-powered software and services for supplier management, fraud prevention, and overpayment recovery. The company serves over 250 Fortune 500 and Forbes Global 2000 companies, protecting more than \$9 trillion of annual spending across the world's most complex supply chains.

250,000+ organisations assessed

By integrating with their award-winning SaaS application, we are able to offer ESG data analytics on more than 250,000 public, private, municipality, and non-profit organisations with these assessments conducted across more than 100 countries.

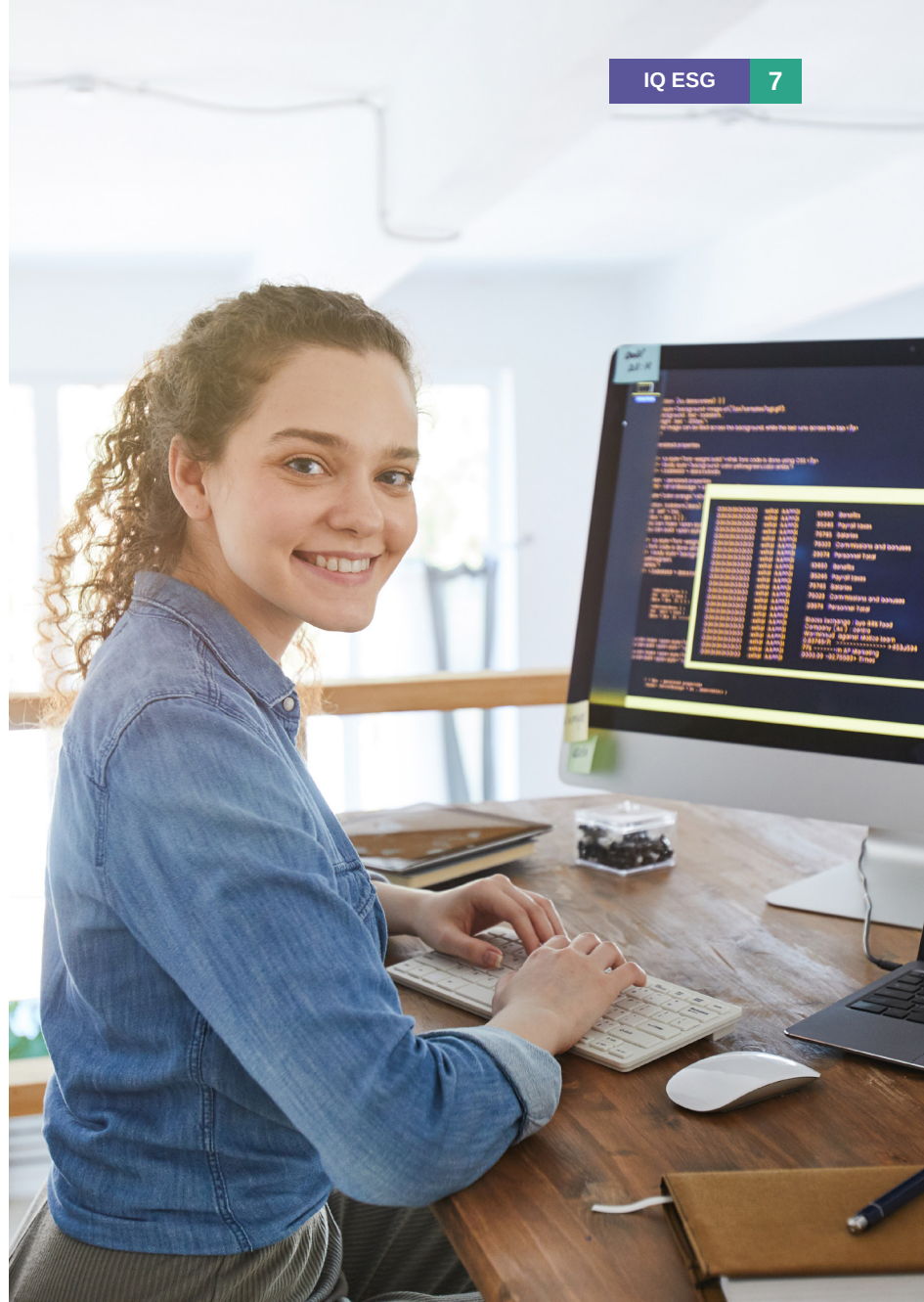
World-class data

ESG Pro's dedicated data scientists have gone deeper than ever before to demonstrate how an understanding of the crucial need for analytics and the significance of precise, error-free ESG (Environmental, Social, and Governance) data. As pioneers in the ESG data sector, we help transition our clients to a future of sustainability.

We provide the foundational basis needed, such as ESG solutions, analytics, and world-class data that can be used to make informed and accurate decisions regarding business performance and investing.

Our database spans across fifty distinct metrics. The unique ESG Pro integration enables screening and quantitative analysis, portfolio analysis, and equity research using various ESG factors.

We use innovative applications based on the latest technological advancements to collect and evaluate ESG data effectively, and it is through such methods that we progress to enabling ESG ratings to be provided.



scoring

ESG metrics

Ten primary KPIs

ESG scores are based on company stored data that aids in measuring the organisation's relative ESG performance, efficiency, and dedication, without bias.

Ten main KPIs can be measured: human rights, biodiversity, climate change, human capital and governance, and many more, to create an overall combined ESG score of organisations.

Letter grades

As of 2024, we have ESG ratings on more than 250,000 companies worldwide. The scores are available in both percentage and letter grades that start from D and peak at AAA. This type

of scoring is similar to credit ranking scoring, and it is easily understood. Their criterion is made in comparison by accommodating all environmental and social categories of U.N. SDG standards. The result is reflective and inclusive of all governance categories.

The ESG Enterprise ESG scores are cognisant of transparency bias and depend on derived data covering almost all material industry metrics.

The relative performance of the company's sector regarding the social and environment are compared with their home country. Therefore, the two factors that help determine the score are based on the specific industry and country to which scores are made.

ESG does not explain the idea of “good.” Instead, it uses the data to evaluate the relative performance of the respective company, whether they were able to meet the defined criteria and model. Our methodology takes a principled approach by using various calculations but also specific rules as outlined below. Our methodological approach allows for a degree of flexibility without any compromise on our high standards outlined below: Different weightings have been added for each ESG magnitude (materiality). We assigned values from 1 to 1000 for every industry as the impact of these factors varies according to the industry.

Transparency stimulation — We report relevant company data alongside an applied weighting score. Thereby we do not account for insignificant or “immaterial” data points, having no effect on the overall score, but rather focus on “high material” data points that can resolutely impact a

company’s score.

ESG controversies overlay – We identify company KPIs and run through their current progress to verify their statements and emphasise the effect of crucial controversies on scoring. We take into account that more prominent companies often benefit from greater market bias and we have initiated severity weights. These weights use the size of the company to tune the controversy scores accordingly.

Deriving the ESG score

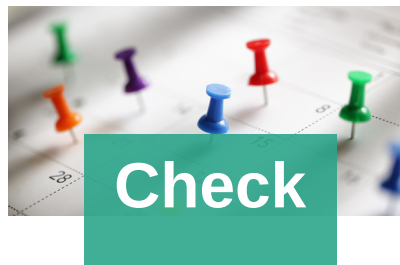
To allow for comparative interpretation with various groups of information, we use country and industry benchmarks at the data point scoring level.

We use the Percentile Rank Scoring approach to remove hidden layers of various calculate, allowing us to produce easily understandable letter grades and a scoring scale from 0 to 1000.

data processes



1. Over 100+ data sources from ESG disclosures, NGOs, local government databases, and specialised data sets.
2. Stage raw data for processing with daily updates.



1. Conduct >100 real-time checks for data quality and anomalies.
2. Use >100 industry group classifications, and compare against 250,000+ comparators.



1. Use big data to check for anomalies, apply variance reporting.
2. Use industry-by-industry quality checks and ensure a human review of questionable reports.



Multiple human checks are important, but “big data” reveals the anomalies



Globally, we have the most system extensive ESG operations to collect data with the help of professionally trained analysts and AI systems in place. We offer the most current exhaustive coverage of data in over twenty-two localised languages. We process every possible information data set from various sources and through our fifty ESG measures. Each measure is investigated deliberately to ensure accurate and standardised information comparable to a wide range of other companies.

The data set is modified and refreshed daily consistent with industry standard reporting patterns. ESG scores are also recalculated daily based on companies last process date. Each day, there may be a brand-new company

being added with updated controversy events. Based on the industry practices, most of the time, the ESG data is modified once a week. As soon as new controversy or news occurs, the databases are frequently and regularly updated.

Data quality is a vital part of the collection process; that is why we use both algorithmic and human processes to make sure we achieve as close to 100% data quality as humanly possible. Below is an overview of the various methods we use to accomplish this KPI.

frequency of updates

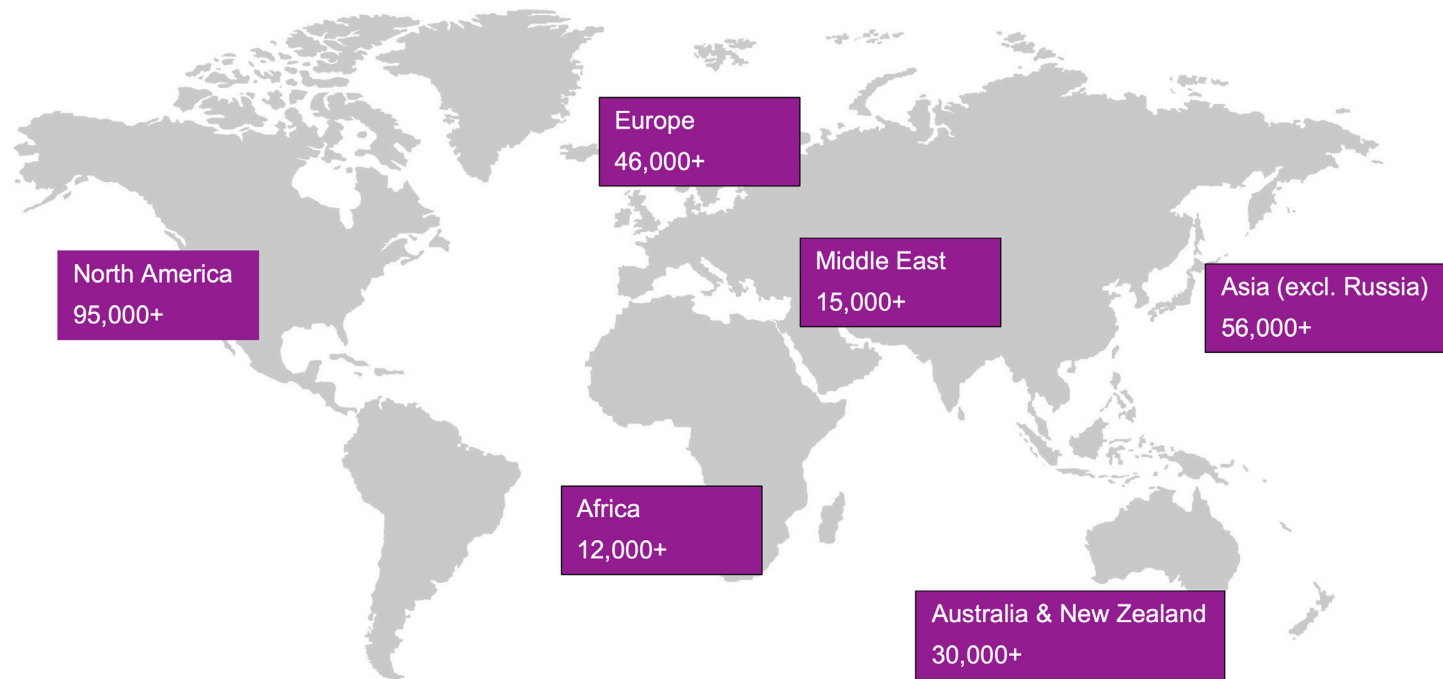
The data, updated daily, includes ESG scores and controversies scores. The score methodology is subject to change over time, and historical scores will not be retrospectively adjusted. On rare occasions, the ESG data team will amend scores from the past for correctness purposes.

With over 250,000 companies worldwide included in the ESG database. The regional breakdown is demonstrated in the diagram below. Over time, we are adapting globally to include several countries, thereby dramatically enhancing our coverage.

Two weeks after a company is included in our coverage, we thoroughly check the complete components and merit of the scores. Our extensive market indexes comprise OTC companies, private companies, non-profits, and government entities as well.

Via ESG Pro's UK and European centres of operations, IQ ESG brings the required scale of completeness to a previously fragmented market.

With over 100 industry group classifications, an IQ ESG rating is more meaningful than any other.



the ESG rating



To understand the accurate ESG score and potential of a company, many factors have to be intertwined and considered, two of which are industry and country materiality and company size biases. As previously noted, this is accomplished by strictly adhering to the calculation principles shown below.

Additionally, our exhaustive framework ensures transparency and a truly data-driven approach and methodology. An overall ESG is calculated to balance news controversies scores that materially impact both big and small companies. These underlying aspects are examined to determine the authenticity and materiality of the controversies.

Our global coverage dates back to 2019, with ESG scores starting from the United States and Europe and followed by other continents. There are two aspects of ESG scores:

1. It compares the ESG performance of a company with the factual data available in the public domain.
2. It shows the combined data of ESG scores by measures by industry and country and adds ESG controversies

with regards to time. The overall scores and categories allow users the flexibility to determine their best course of action based on their own requirements and situation, allowing them to adjust and adapt accordingly.

The model is entirely automated, based on data, and transparent. The final scores are then benchmarked and checked for anomalies. Human judgment is involved when the scores are in question or when a lack of supporting data is subjected to further reviews. Reviews take the form of interviews, questionnaires, and a combination of methods to get clarity on specific measures.

ESG Score are derived from calculations of over 50 company-level ESG measures that empower the ESG scoring process. These are further divided into 10 categories which establish the final score and three pillar scores. It reflects the company's ESG efficiency, commitment, and performance based on publicly available information. The three pillars are Environmental, Social, and Corporate Governance.

It is a relative sum of category weights that changes from industry to industry for all three categories. The weights of these pillars are normalized from a score of 0 to 1000 and assign letter grades from D to AAA based on the numeric scores.

ESG scores are a holistic account of a company's ESG performance. The ESG performance is based on two main factors: the ESG pillars and controversy overlay from media sources. Media sources are considered to undermine ESG performance score because of local negative press. On the other hand, significant material ESG controversies are included to balance and are included in the overall ESG score.

When there are ESG controversies of any company, the score is calculated by taking the average overall ESG score and the company's score during the financial year. The ESG score remains the same when a company is not involved in any ESG controversies.

ESG controversy topics are based on key measures. The company's overall grading and score are negatively affected if the company is involved in a scandal. This adverse event may impact grading and scores for upcoming years as the scandal progresses. For example, fines, disputes, ongoing legislation, or lawsuits. As the scandal progresses, each media material is noted. As companies involved in such cases attract more media attention than smaller cap industries, the score is normalized based on the market cap bias from which large-cap companies suffer.

interpreting results



Environmental, Social, and Governance (ESG) metrics provide a framework for assessing a company's operational impacts and responsibilities. It is crucial to understand that ESG ratings do not inherently categorise entities into 'good' or 'bad.' Instead, these metrics furnish a factual, quantifiable assessment of how a corporation manages its environmental impact, engages with social challenges, and governs itself.


Misinterpreting these ratings as moral judgments can oversimplify the nuanced purposes they serve. ESG data should be seen as diagnostic tools that inform stakeholders about specific aspects of corporate conduct, rather than as definitive ethical evaluations.

Scoring the three pillars of ESG

E/S/G Score Range	Grade	Level	Description
0 <= score < 24	D	Low	"D" score indicates poor relative ESG performance and insufficient degree of transparency in reporting material ESG data publicly and privately.
25 <= score < 49	DD	Low	
50 <= score < 74	DDD	Low	
75 <= score < 99	C	Low	"C" score indicates satisfactory relative ESG performance and a moderate degree of transparency in reporting material ESG data publicly and privately.
100 <= score < 149	CC	Low	
150 <= score < 199	CCC	Low	
200 <= score < 299	B	Medium	"B" score indicates good relative ESG performance and an above-average degree of transparency in reporting material ESG data publicly and privately.
300 <= score < 399	BB	Medium	
400 <= score < 499	BBB	High	
500 <= score < 599	A	High	"A" score indicates excellent relative ESG performance and a high degree of transparency in reporting material ESG data publicly and privately.
600 <= score < 899	AA	Excellent	
900 <= score <= 1000	AAA	Excellent	

Interpreting a combined ESG score

ESG Total Score Range	Grade	Level	Description
0 <= score < 74	D	Low	"D" score indicates poor relative ESG performance and insufficient degree of transparency in reporting material ESG data publicly and privately.
75 <= score < 149	DD	Low	
150 <= score < 224	DDD	Low	
225 <= score < 299	C	Low	"C" score indicates satisfactory relative ESG performance and a moderate degree of transparency in reporting material ESG data publicly and privately.
300 <= score < 449	CC	Low	
450 <= score < 599	CCC	Low	
600 <= score < 749	B	Medium	"B" score indicates good relative ESG performance and an above-average degree of transparency in reporting material ESG data publicly and privately.
750 <= score < 899	BB	Medium	
900 <= score < 1199	BBB	High	
1200 <= score < 1799	A	High	"A" score indicates excellent relative ESG performance and a high degree of transparency in reporting material ESG data publicly and privately.
1800 <= score < 2699	AA	Excellent	
2700 <= score <= 3000	AAA	Excellent	

A photograph of a wooden desk with a silver pen, a green mug of coffee, and a crumpled napkin with a handwritten quote. The quote is written in black ink and is underlined with a wavy line.

A GOAL
WITHOUT
A PLAN
IS JUST
A WISH

calculation science



Scores Calculation Methodology

By ensuring transparency, the hallmark of our success is customer conviction and hope in our ESG data. Our customers are assured and convinced that the data we provide is accurate and pivotal to data-driven and informative investment decision-making. Our proprietary ESG scoring methodology is described in detail below, consisting of a comprehensive, easy-to-follow 5-step process.

Step 1: ESG Industry Scores

Data Points — Pre-Calculations

The data collection process occurs on a daily basis and is segmented by industry groups for quick processing. Each data point is sorted and grouped by industry identifier for optimal speed. The calculations start with industry group scores.

Data Relevancy

Few indicators are not relevant for every company as they are industry-specific. The value will be irrelevant if the indicator is not applicable for a particular sector. For instance, Waste Water Management is not relevant to the software sector.

Numeric Data

All the companies in an industry group are calculated based on industry measures determined by materiality. The polarity of each measure indicates if a higher value is negative or positive. For example, more GHG emissions are considered negative, but more water saved in a water recycling process is positive.

The higher value can be either positive or negative. For example, if a policy responsible for reducing emissions is positive and if there are environmental controversies, it is considered negative.

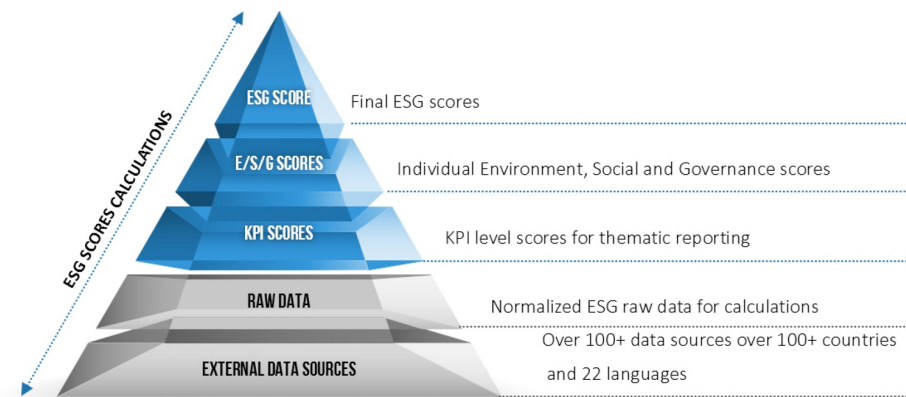
To calculate the percentage, the polarity of data points are converted into numbers and segmented into percentiles from 0% to 100%. Companies in the top quarter percentile are considered to have high value and companies in the bottom quarter percentile are considered as having low value.

Once all companies are assigned values, the below calculation is applied to derive the industry score:

$$\text{Industry score} = \frac{\text{sum of values of all companies}}{\text{No. of companies with a value}}$$

Step-by-Step:

- Start with the utilities industry for all countries.
- Get metrics for the utilities industry.
- Calculate the metric value for each company.
- Calculate the industry score.



Step 2: Materiality

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

Materiality for 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 KPI to each individual industry group. Based on the KPIs covered in each category, data points with sufficient disclosure are used as a proxy for industry magnitude. KPIs and data points have a one-to-one relationship; in other words, one data point is identified per KPI. There are no data points that may be used as good proxies of relative importance for some KPIs due primarily to insufficient disclosure. These KPIs are not included in the scoring methodology to derive the materiality matrix but incorporate ESG reporting and the ESG database. Listing all the individual KPIs enables ESG Enterprise to identify critical data points across the KPIs where reporting is sufficient to use as a proxy of materiality.



Step 3: ESG Materiality Matrix Scores

To calculate the overall pillar and ESG scores, category weights per industry are applied using data-driven and objective logic. Calculation of overall ESG material matrix scores are aggregated based 10 category weights, which are calculated based according to established formulae:

E/S/G Material Matrix Factor

ESG factor are the relative sum of the category weights and materiality average score. Calculations to derive scores are illustrated below:

Environment Material Matrix = (category material score / sum of materiality score) * category weight

Example.

Environment Material Maxtrix for Natural Capital = $(0.7/2.1) * 0.8 = 0.26$

Environment Material Maxtrix for Innovation = $(0.7/2.1) * 0.51 = 0.17$

Environment Material Maxtrix for Climate Change = $(0.7/2.1) * 0.7 = 0.23$

E factor is 0.66

Step 4: Controversies scores calculation

ESG controversies score is calculated based on 50ESG controversy topics and any recent material current events. Default value of all controversy measures is 1.

- Controversies are scored against an industry group
- Companies with no controversies will get a score of 100
- Controversy score calculation are adjusted by company sizes and news

Step 5: ESG score

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



IQ ESG