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# Temperature Score\*

\* **Assessing corporates' climate impact**

**esg**book

# Sustainability is on the Rise

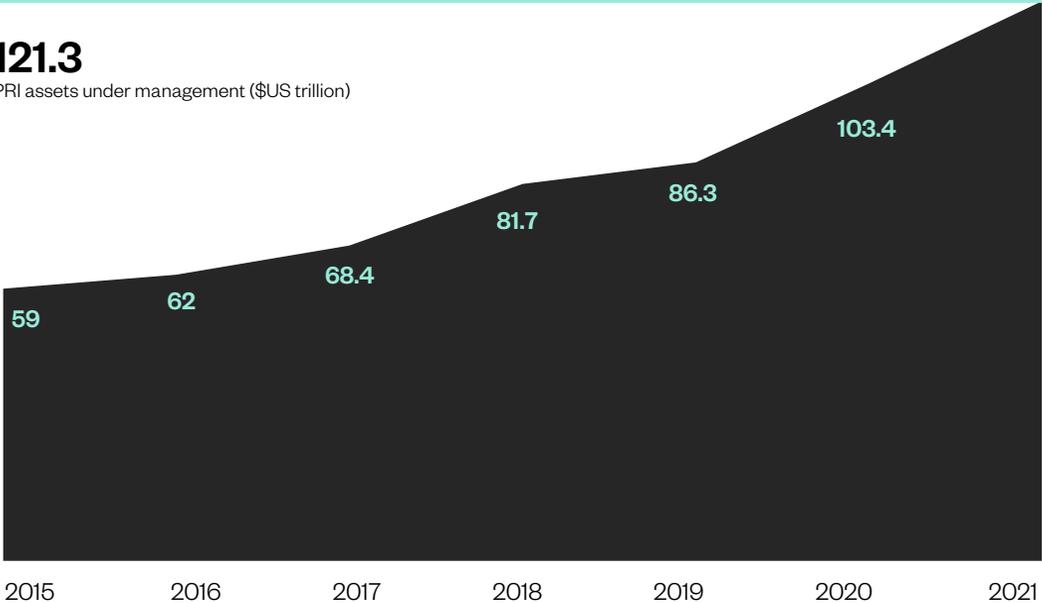
Driven by investor commitments, regulation, and real economy changes.

## 1. Investor push

The UN-backed Principles for Responsible Investment (PRI) have seen assets under management grow considerably<sup>1</sup>

**121.3**

PRI assets under management (\$US trillion)



**1,000+**

## 2. Regulatory and Policy Intervention

**730** policy revisions across the world's 50 largest economies<sup>2</sup>

## 3. Corporate Action

1,000+ companies are working with the SBTi to reduce emissions<sup>3</sup>.

1. The Economist 2021; 2. UNPRI, 2020; 3. Opimas; 4. UNPRI, 2019; 5. NewClimate Institute & Data-Driven EnviroLab 2020; 6. Net-zero Banking Alliance, 2021;

# But Markets Need Better ESG Data

To meet increasingly complex sustainability requirements.

Investors, companies, and all market participants are demanding better, technology-enabled solutions in order to direct capital towards more sustainable and higher-impact assets.



'Black box' ESG scores are intransparent and inconsistent, driven by human judgement.



ESG data is often outdated, loaded with mistakes, and expensive.



Single, opaque ESG scores are no longer fit for purpose as applications multiply.



Public and private corporate disclosures are incomplete and hard to compare.



Public and regulatory scrutiny of greenwashing is accelerating.

# Our Vision

**To transform finance through sustainability by making ESG data accessible, comparable, and transparent.**

# Our Solution

Connecting corporates and investors by building innovative solutions for better ESG data management, disclosure, and analytics.



## ESG Data

Gain access to ESG data for over 10,000 companies worldwide. Combining analyst research with AI, ESG Book covers over 250 data points per company, mapped against leading frameworks.



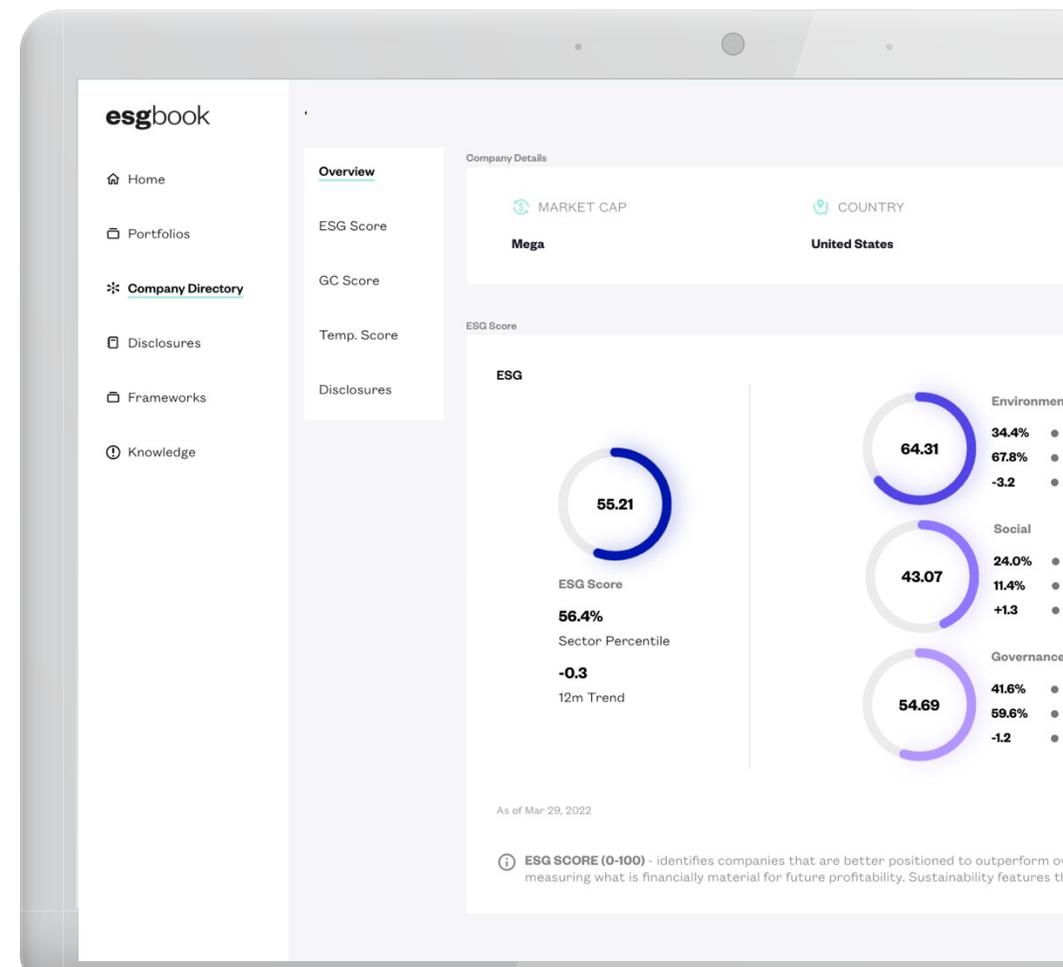
## ESG Analytics

ESG Book provides access to a suite of market-leading sustainability analytics that enable clients to gain deeper insights into ESG risks and opportunities, along with a range of products to meet regulatory requirements.



## ESG Technology

Through a SaaS data management platform, ESG Book enables access to 50,000+ corporate disclosures, delivered via API technology for seamless integration.



# Introducing Temperature Score

The Temperature Score measure how the climate impact of >6,000 public corporations

## Summary

The Temperature Score is a forward-looking assessment of corporates' climate impact based on publicly disclosed emissions data.

The Temperature Score assigns companies one of 5 categorical scores: 1.5°C, 2°C, 2.7°C, >2.7°C and 3°C depending on their climate pathway. The 3°C score indicates incomplete disclosure and incentivises companies to disclose their emissions to immediately improve their score.

## Key features:

### 2 Reference Timeframes

- Companies are assigned a near term and far term score which allows more granularity in assessing climate impact.

### 3 Additional Indicators

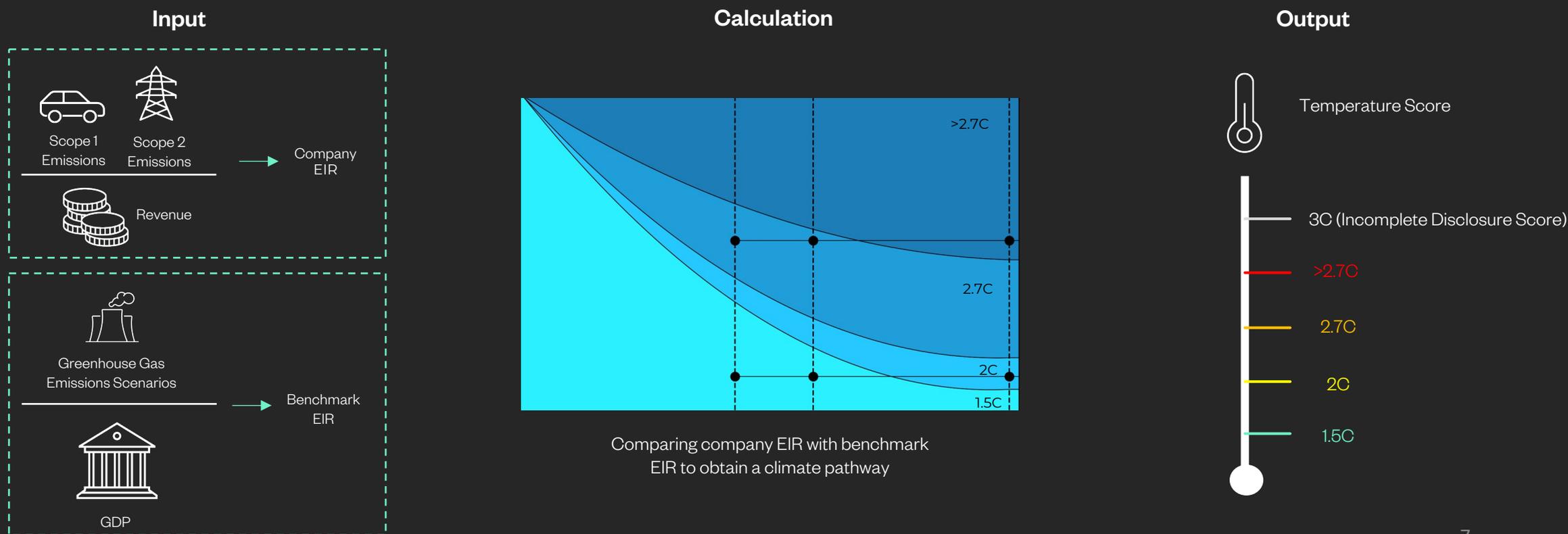
- A Target, Trend and Scope 3 indicators provide greater context of companies' climate performance.

### Science-based

- The Temperature Score is calculated using sector-specific benchmarks and using emissions pathways from the International Energy Agency.

# Methodology - Scores

The Temperature score methodology is built on our reported emissions dataset



# Methodology - Indicators

Three additional indicators provide greater context into companies' climate action



## Target

Has the company set a target with the Science Based Target Initiative to reduce GHG emissions to a level compatible with 2°C?



## Trend

Have recent emissions changes followed the pathways that are required to reach net zero emissions by mid-century and limit global temperature rise to 1.5°C?



## Scope 3

Does the company report some part of their scope 3 emissions?

# Emissions Data Sources

Our expertise in ensuring data quality



## Reported emissions data used in model training is collected from publicly available sources

- Data from our Temperature Emissions Module<sup>1</sup>, which includes Scope 1, 2 and 3 (total) emissions
- Sources include annual reports, sustainability, CSR or ESG reports, 10-K reports and the company website
- The reported emissions data is collected by 100+ ESG and climate analysts



## 100% of data undergoes automated data quality and validation checks

- **Completeness:** ensure values are populated where they are supposed to contain a value
- **Conformity:** ensure the values supplied conforms to the expected format
- **Validity:** ensure the value supplied is chosen from a designated list of possible values
- **Reasonableness:** ensure the values supplied are not unreasonable
- **Timeliness:** ensure the data collected is obtained from the most recent source



## ESG Book further exposes all data to the reporting company enabling direct, real time review by the disclosing company

<sup>1</sup>For more details on the Emissions Plus Raw Data Module, please refer to the user guide [here](#)

# Framework Alignment

Alignment to dominant frameworks and standards improves ease of use



Our emissions data collection methodology is aligned to the Greenhouse Gas Protocol (the international standard for emissions data), standardising and improving comparability of climate impact across companies

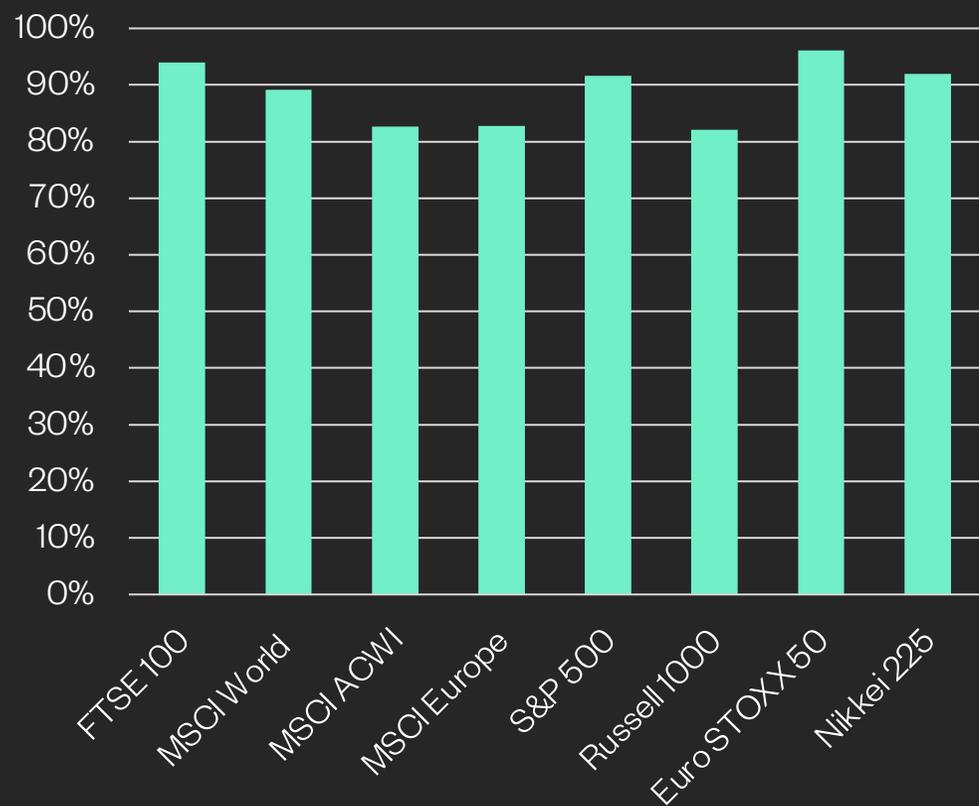


Alignment to GHG Protocol also ensures that our emissions raw data is aligned for use in regulatory reporting such as in the SFDR Mandatory PAIs, TCFD emissions reporting as well as portfolio aggregation alignment.

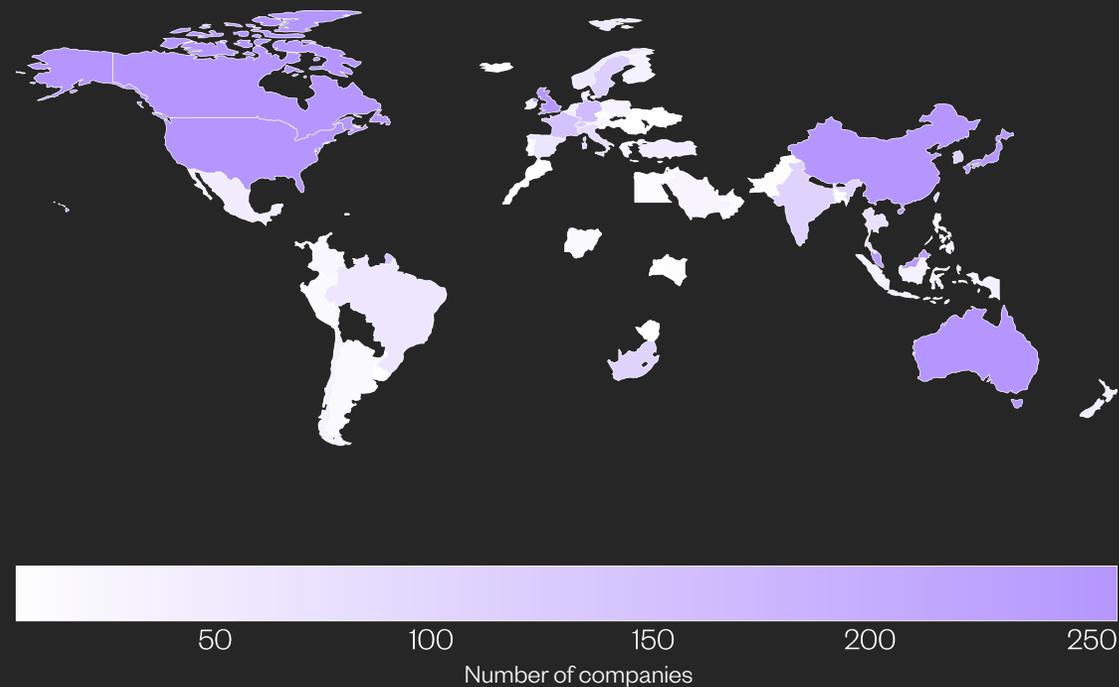
# Score Coverage

ESG Book provides scores for over 6,000 public companies.

## Major Indices Covered



## Geographic Coverage



# Distribution Methods

Data distribution channels to meet multiple integration requirements

Methods

## Direct data feed

Client system integration via direct data delivery to the following endpoints:

- **SFTP** – direct delivery of ESG Book data to a client’s SFTP server or an accessible folder on ESG Book’s SFTP server.
- **Cloud storage bucket** – direct delivery of ESG Book data into a client’s AWS S3 or GCS storage bucket.

## API

Comprehensive API functionality integrated with:

- **Google Cloud** – transform and manage ESG Book data through Google BigQuery API.
- **AWS** - load ESG Book data directly and analyse it with analytics and machine learning libraries.
- **Snowflake** – REST APIs that can be used to develop custom applications and integrations based off ESG Book data.

Partners

ESG Book data available via our distribution partners.

<b>Bloomberg</b>	 Google Cloud	 snowflake	 aws	 rimes
J.P.Morgan	<b>FACTSET</b>	<b>NIKKEI</b>	<b>xignite</b>	 Linedata

# Client Use Cases

Temperature Score and underlying raw emissions data provides clients with enhanced investment decision-making on climate opportunities and risks

## Portfolio Management

Allows portfolio managers to identify companies to include/exclude in their portfolio universe and evaluate climate performance of their portfolios and underlying holdings.

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## Tracking Net Zero Commitments

Evaluate progress on net zero commitments on a company and portfolio level.

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## Business Strategy and Risk Management

Allows portfolio and asset managers to better quantify the climate risk of underlying holdings and investments for internal climate stress testing. For example, using PCAF's carbon accounting standard for financial institutions.

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## Implied Temperature Rise Scoring

Temperature Score provides an easy-to-use ITR score while underlying raw emissions data is used in custom ITR scoring methodologies.

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## Regulatory Compliance

Supports mandatory emissions reporting requirements. For example, in the SFDR product-level reporting.

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# Temperature Score Case Studies

## Portfolio Construction

**arabesque**  
asset management

**Arabesque Asset Management** utilizes Temperature Score as a negative screening tool in the climate fund universe construction process. Companies with a Temperature Score of greater than 2°C are excluded from the universe to create a Paris-aligned portfolio.

## Indices



**Citi Velocity Clarity** utilizes Temperature Score to visualize the climate contributions of clients' portfolios.

## Media Analysis



Temperature Score has been used in various media publications to assess if companies in a certain index, sector or country are on track to meet the Paris agreement of keeping global temperature rise to below 2°C.



REUTERS

The  
Guardian



South China Morning Post

ESG Book works with leading global financial institutions, corporates, and technology partners.

# What Makes Our Temperature scores Different?

A platform that enables next-generation ESG data management, disclosure and analytics.



## **Science-Based Approach**

The score uses science-based scenarios and our Implied Temperature Rise methodology is developed in line with leading academic and industry research.

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## **Absolute Scoring**

Companies are scored depending on their absolute climate impact, rather than relative to their peers. This is important as only absolute reduction in emissions, instead of best-in-class performance, will contribute towards meeting the Paris Agreement goals.

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## **Fully Transparent**

Only company reported emissions are used in our score, where companies not disclosing emissions are assigned an incomplete disclosure score of 3C. Our score assesses companies' actual climate impact instead of scoring based on estimations.

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## **Weekly Scoring**

Though the underlying emissions data is published annually, our scores are updated on a weekly basis to account for the different reporting cycles of companies globally.

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## **Scalable**

ESG Book's quantitative methodology allows for constant addition of companies to our coverage.

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# Use Cases Products & Solutions

Temperature score can be utilised to deliver growth, assess risks, and fulfil regulatory requirements

## Portfolio Analysis

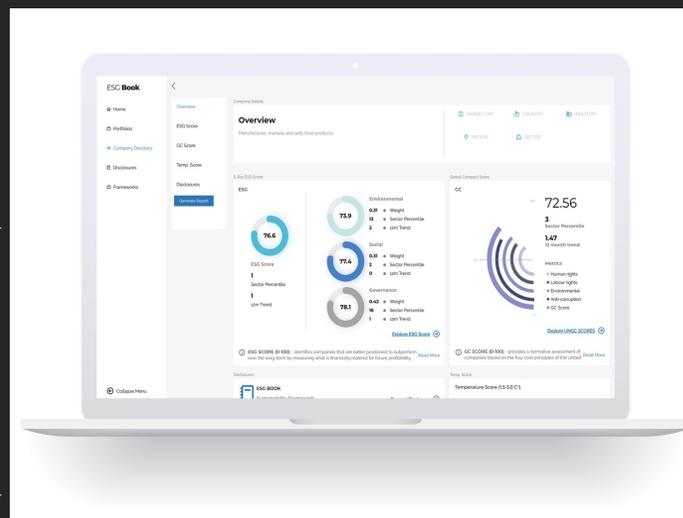
Implement ESG Book scores to your own universe to track momentum of firms' scores, identify laggards, and use the Temperature Score to assess alignment with the Paris Agreement.

## Indices

Utilise ESG Book scores to seamlessly power sustainability-based equity indices to meet investor demand.

## Company Reports

Identify strengths and weaknesses in a company's ESG profile, highlighting its material topics and benchmark against sector/industry/regional peers.



## Investment Management

Use ESG Book daily scores to flag companies performing poorly as these carry higher inherent long-term risks and are likely to be subject to higher share price volatility.

## Due Diligence

Enhance company due diligence assessments for any financing or investment decision with sustainability information using ESG Book company reports.

## Compliance & Reporting

ESG Book helps financial institutions to meet new requirements on ESG integration and disclosure. Our quantitative approach ensures clear and unbiased ESG reporting.

# Serving Leading Institutions

## Investment solutions



Developing ESG investment solutions for Citi.



Supplying a bespoke ESG product suite to the WSJ.



Providing ESG insights for retail investors

## ESG reporting and risk management



Delivering data sets for State Street's ESG XSM tool.



Providing scores to BNY Mellon to analyse equities.



Providing ESG risk management tools to GPIF to identify portfolio tail risks.

## Corporate ESG management



Delivering corporate advisory solutions to listed corporations.



Developed a risk mitigation tool to evaluate Human Rights risks.



Developed a cockpit prototype for Volkswagen to evaluate ESG performance.

## Strategic partnerships



Google Cloud

Collaboration enabling Google Cloud's user access to ESG Book solutions.



Data provider to leading proxy voting provider with direct access to ESG Book platform.



Partnership for ESG Book data to be integrated into Nikkei/Quick's data terminal.

ESG Book works with leading global financial institutions, corporates, and technology partners.

# Our Story

Launched in 2018, ESG Book’s wide range of cloud-based sustainability products and solutions are used by many of the world’s leading financial organisations.



A global team of over 150 ESG and technology professionals.



Offices in London, Frankfurt, Boston, New York, Singapore, Delhi and Tokyo.



Trusted by the world’s largest financial organisations and companies.



Supported by a world-class coalition of shareholders.



Signatory of the ‘UN Global Compact’; approved ‘science-based target SBTi’.

Establishment of ESG Book

**2018**

**2019**

Successful closure of Series A

Global expansion: new partnerships announced with leading financial institutions.

**2020**

**2021**

Launch of ESG platform with global alliance of leading institutions.

Successful closure of \$35 million Series B

**2022**

# Recognised **Globally**

ESG Book is a global leader in ESG intelligence, with our research featured across media worldwide.

**Forbes**

[How Green Is Tesla, Really?](#)

**CNN**

[Companies Are Crucial To Solving The Climate Crisis. 75% Are Falling Short](#)

**The Guardian**

[A Third Of Top UK Firms' CO2 Emissions Not In Line With Global Climate Goals](#)

**The Washington Post**

[Why Buying A Tesla With Bitcoin Would Be Environmentally Unfriendly](#)

**sky NEWS**

[Sky News interview with Dr Daniel Klier, on the Temperature Score](#)

**BBC**

[Georg Kell on BBC World News](#)

**WSJ**

[The 100 Most Sustainably Managed Companies in the World](#)

**REUTERS**

[Asia Overtakes US In Corporate Climate Disclosure, Arabesque Says](#)

**Quick**

[Ranking of companies based on the Temperature Score](#)

**AFP**

[Most Major Companies Failing Climate Targets: Study](#)

**abc NEWS**

[Citi Partner With ESG Book On ESG Scores](#)

**LE FIGARO**

[Most Major Companies Failing Climate Targets](#)

**FT FINANCIAL TIMES**

[AI Can Shine a Light on Company Greenwashing](#)

**BARRON'S**

[Sustainable Investing is Changing the World Faster Than You Think](#)

**CNBC**

[Few companies have a track record of GHG reduction](#)

**Powering financial markets for a sustainable future.**

