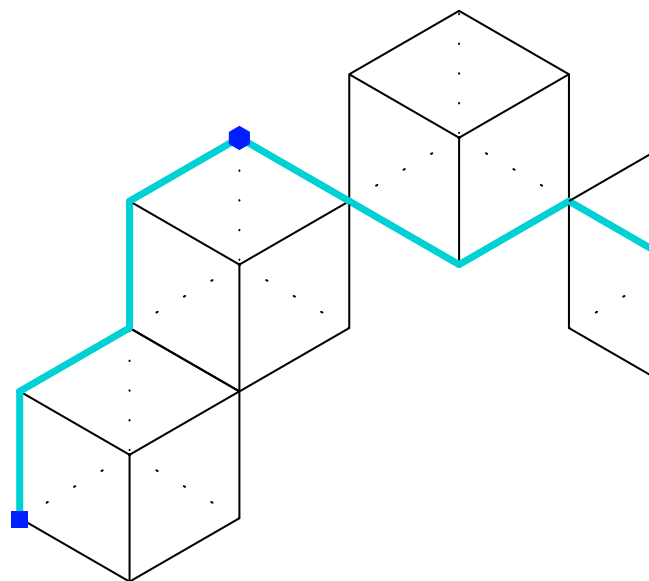


ESG SOLUTIONS DESIGNED FOR QUANTS AND DATA SCIENTISTS



Be confident you are building models on the best ESG data.

Refinitiv offers the most complete, transparent and in-depth ESG information in the industry. Our data and framework enable investors to make better investment decisions by looking beyond traditional financial metrics, to respond to global sustainability trends and mandates like climate change, resource depletion, business ethics and more.

Refinitiv offers the first truly point in time ESG data in the industry, allowing you to build your models knowing that you are using the most appropriate data.

Complementing Refinitiv's fundamentals-based ESG data set, media AI-based Refinitiv MarketPsych ESG Analytics capture a real-time external perspective on company and country ESG-related activities and controversies.

By pairing our ESG point in time data with Refinitiv MarketPsych ESG Analytics you will have the confidence to find, build and backtest with ease.

Refinitiv is uniquely positioned to provide ESG data designed and packaged to drive better quantitative analytics.

ESG point in time data	Refinitiv ESG data	Refinitiv MarketPsych ESG Analytics
	Refinitiv delivers a rich set of ESG data which is gathered and processed by the largest ESG operations team in the industry. Our ESG data is collected from publicly available sources and processed by man and machine to ensure the highest quality data.	Refinitiv MarketPsych ESG Analytics analyse corporate sustainability-related news and social media in near-real time. Powered by MarketPsych Data's AI-based natural language processing engine, the analytics are derived from millions of daily articles in thousands of global news and social media outlets. They provide numerical ESG insights on companies and countries to drive better investment decisions.
Data type	Primarily company disclosed	Sentiment data
Coverage	<ul style="list-style-type: none">– More than 11,000 companies covered– Over 500 metrics covered– Coverage across 76 countries	<ul style="list-style-type: none">– More than 100,000+ public and private companies (54,000+ public and 49,000+ private companies)– Over 250 metrics covered– Coverage across 252 countries and regions
Data frequency	Daily	Minutely, hourly and daily
Update frequency	Weekly	Near-real time
History	<ul style="list-style-type: none">– Fiscal history starts from 2002– Point in time history back to:<ul style="list-style-type: none">– Category and summary scores since 2017– Pillar scores since 2021– Data points since 2008– Indicators since 2013	Since 1998
Time stamp	yyy-mm ddthh:mm:ss.SSSZ	yyyy-mm-dd_hh.mm.ss

Benefits at a glance

- Avoid survivorship bias and look-ahead bias by using point in time data
- Combine company-reported data alongside sentiment data, to assess companies from inside out and outside in
- Refinitiv MarketPsych ESG Analytics are mapped to Refinitiv ESG data, allowing you to use the data straight away
- Both Refinitiv and MarketPsych ESG Analytics utilise Refinitiv's PermID and are mapped to third-party identifiers, SASB framework and UN Sustainable Development Goals
- Transparent ESG scores along with underlying measures and sources
- Refinitiv MarketPsych ESG Analytics are exclusive to Refinitiv
- Refinitiv ESG point in time data is the first company reported ESG point in time data set in the market

A focus on point in time data

Point-in-time is the only dataset that can overcome the challenges presented by reclassifications and restatements.

It is unique in including all reported values in the order they were published, timestamped to the moment they were made available to the market. Consequently, the original values are not overwritten by reclassifications and restatements, and the data gives a more realistic view of history.

This allows tests and models to reference the values that were actually available at the time — not those that came later.

Standard datasets, on the other hand, include only the latest reported values, and overwrite original values with updates and adjustments.

Evaluating the success of strategies and models

When training specific machine-learning models and backtesting quantitative strategies, an old adage remains true: Garbage in, garbage out. That is to say, a foundation of clean data is vital to ensure that results are accurate and new strategies or models are effective.

When being used historically, standard datasets are far from clean.

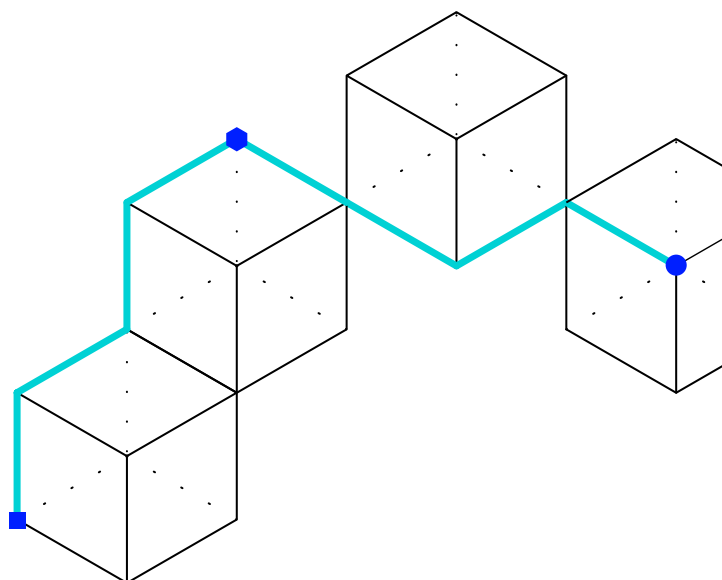
Uses cases

- **Backtest with confidence** – As the only data set to include all reported values, timestamped to the moment that they were made available to the market, point in time data is unique in showing you exactly what information was available and when
- **Find sources of alpha**
- **Risk assessment and mitigation** – Efficiently include ESG data in your models to assess risk
- **Generate investment ideas** – Combine Refinitiv ESG data and Refinitiv MarketPsych ESG Analytics with other factors such as Refinitiv StarMine® quant model scores, alternative or proprietary data within your analysis and investment decision-making process
- **Meet regulatory or voluntary reporting requirements**

How to access

Refinitiv ESG – ESG bulk API via Refinitiv Data Platform

MarketPsych ESG Analytics – FTP, Datastream Data Loader, Datastream Web Service



Visit refinitiv.com/esg |  @Refinitiv  Refinitiv

Refinitiv, an LSEG (London Stock Exchange Group) business, is one of the world's largest providers of financial markets data and infrastructure. With \$6.25 billion in revenue, over 40,000 customers and 400,000 end users across 190 countries, Refinitiv is powering participants across the global financial marketplace. We provide information, insights and technology that enable customers to execute critical investing, trading and risk decisions with confidence. By combining a unique open platform with best-in-class data and expertise, we connect people to choice and opportunity – driving performance, innovation and growth for our customers and partners.