

New Metrics for Green Investing

(and how to use and uncover them)

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Wall Street Green Summit

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OVERVIEW

Introduction

Metrics: Standardisation or divergence?

The role and potential of AI

Challenges and how to overcome them

Future outlook

INTRO

**Krista
Tukiainen**
CCO, Co-founder
ClimateAligned



- Climate & sustainable finance standard-setting, analysis and capacity building
- Industry thought leader and speaker (publications, media)
- Sold green finance data & research to asset managers and banks

- Research and consulting
- CSD, CISL, Cambridge Enterprise

2013



- Environmental Economics and Policy



- ESG & green finance advisory
- Financial modelling for green assets

- Consulting with a new impact venture fund



- Building green finance investment standards
- Data, analytics, research
- Technical assistance

- Entrepreneur-in-residence



2022 ->



- Co-founder

CLIMATEALIGNED IN BRIEF

Story

Founded by startup veterans, and industry experts.

- Experience in building AI product startups of 100+ staff with \$100M raised
- London-based team of 10 with deep sustainable finance and ML & AI experience

Backing

Backed by industry-leading VCs and climate specialists.

- 2023, Pale Blue Dot, Frontline, Climate.VC
- Advisory group including Sean Kidney (Climate Bonds) and David Carlin (UNEP FI)

Product

Making GenAI industry-grade and ready to use.

- Interact with climate data for finance like never before
- 100x speed on building, tracking and reporting on green products

Partners

Close links to customers and industry thought leaders.

- Customers: top 10 global AUM asset managers
- Partners: key standard-setters, e.g. TPI, TNFD, CBI, ICMA



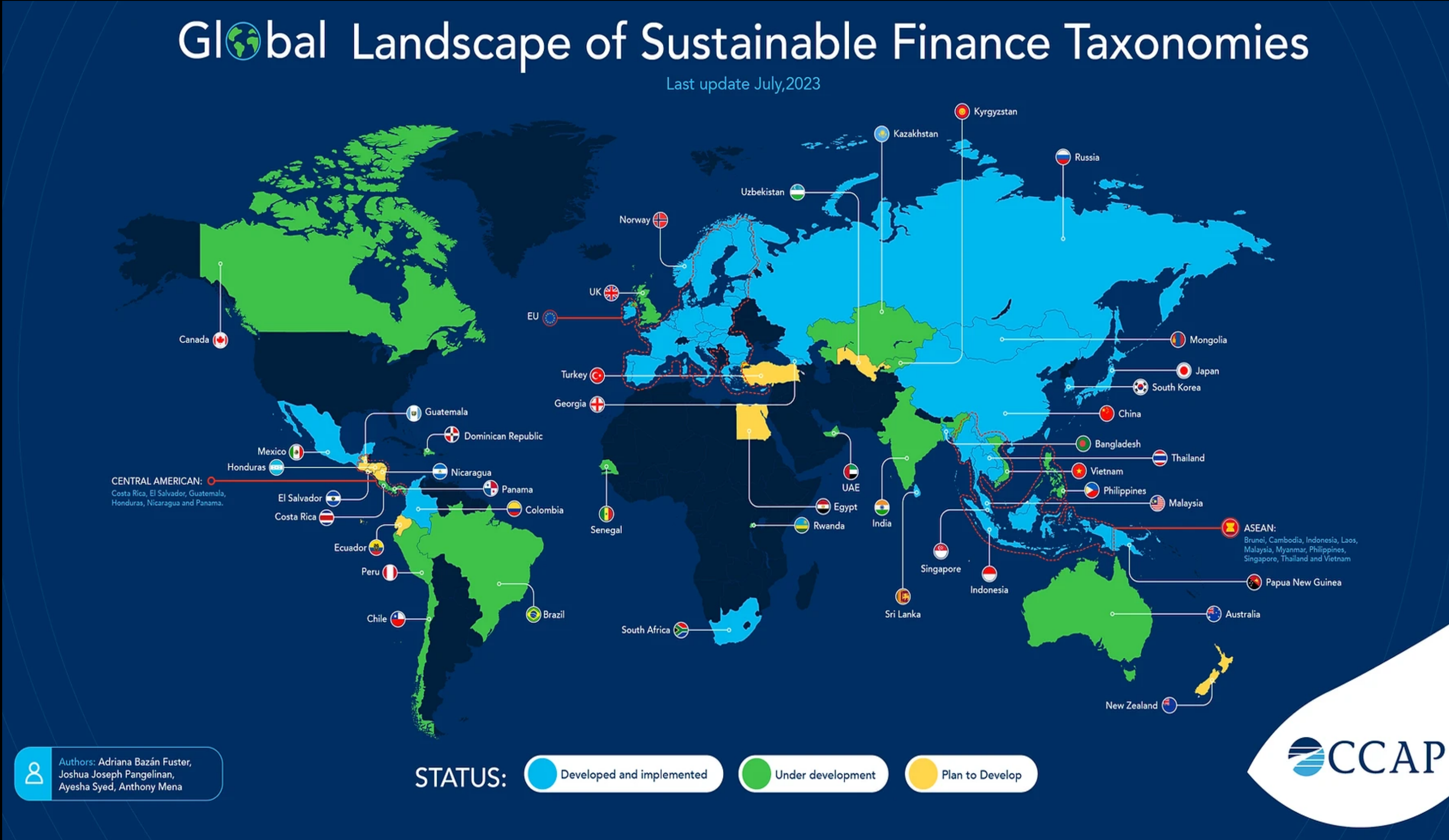
THE BIG PICTURE

**We need to invest \$10tn per year
to get to net zero by 2050**

- Climate targets being set by financial institutions, corporates and sovereigns
- Growing buy-side demand for credible financial products to fill investor mandates
- Evolution of methodologies and product types for different contexts

STANDARDISATION OR NOT?

More and more
metrics from
different types
of actors in the
financial system



Copyright: Center for Clean Air Policy (CCAP)

STANDARDISATION OR NOT?

More and more metrics from different types of actors in the financial system

Regional Progress of ESG Requirements: Americas

Jurisdiction	Corporate reporting	Fund disclosures	Taxonomy	Due diligence	Labeled bonds	ESG ratings	Sustainability risks/preferences	Central bank climate policy	Bio diversity disclosures
U.S.	⌚	⌚	✗	✓	✗	✗	⌚	⌚	✗
Canada	⌚	✓	⌚	⌚	✗	✗	✗	⌚	✗
Colombia	✗	✓	✓	✗	✓	✗	✓	✓	✗
Brazil	✓	✗	✓	✗	✗	✗	✗	⌚	✗

Key | ✓ Adopted (legislation published) | ⌚ In progress | ✗ No requirements

Regional Progress of ESG Requirements: Europe




Jurisdiction	Corporate reporting	Fund disclosures	Taxonomy	Due diligence	Labeled bonds	ESG ratings	Sustainability risks/preferences	Central bank climate policy	Bio diversity disclosures
EU	✓	✓	✓	⌚	✓	⌚	✓	✓	✓
France	✓	✓	✓	✓	✓	⌚	✓	✓	✓
Germany	✓	✓	✓	✓	✓	⌚	✓	✓	✓
Switzerland	✓	✓	✗	✗	✗	✗	✗	✗	✗
U.K.	✓	⌚	⌚	⌚	✗	⌚	⌚	✓	✗

Key | ✓ Adopted (legislation published) | ⌚ In progress | ✗ No requirements

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STANDARDISATION OR NOT?

Copyright: David Carlin

	 ISSB IFRS S1 + S2	 EU CSRD/ESRS	 US SEC Rule
Region	Worldwide (adoption dependent on individual states)	EU	US
Developed by	International Financial Reporting Standards Foundation (IFRS)	European Financial Reporting Advisory Group (EFRAG)	United States Securities and Exchange Commission
Initial filing year	2024	2024	2025 for climate risks 2026 for emissions
Breadth	Environment, Social, and Governance, all Sustainability	Environment, Social, and Governance, all Sustainability	From 2024 in the draft (yet to be finalized / approved)
Treatment of specific topics	Broader sustainability covered in IFRS S1, climate-specific disclosures in IFRS S2	Two general sustainability reporting standards and ten issue specific reporting standards (5 environmental, 4 social, 1 governance)	Single climate standard
Relationship to TCFD	Closely aligned to TCFD in structure. IFRS S2 is the direct successor of TCFD. Builds on TCFD in terms of depth and guidance.	Broadly aligned to the elements and recommendations of TCFD, but recommendations are structured differently. Builds on TCFD in terms of depth and guidance.	Broadly aligned to the pillars of TCFD, but recommendations are structured differently. Not all TCFD recommendations required.

	 ISSB IFRS S1 + S2	 EU CSRD/ESRS	 US SEC Rule
For whom	For profit-oriented entities, including public sector business entities, dependent on local jurisdictional adoption	All entities subject to the EU CSRD- ultimately nearly all sizable EU entities and certain non-EU entities	Initially, only large accelerated listed entities
How many filers	TBD based on local jurisdictional adoption	Ultimately >50,000	Presently <10,000
Safe harbor provisions for SMEs	Yes, delayed phase-in	Yes, delayed phase-in	Yes, TBD on SME requirements
Disclosure	Single materiality (financial)	Double materiality (both financial and impact). Specific disclosures are required based on materiality	Single materiality (financial)
Emissions scopes required	Scopes 1, 2, and 3	Scopes 1, 2, and 3	Scopes 1 and 2 if deemed material
Scenario analysis	Required to assess the resiliency of the business strategy	Required to assess the resiliency of the business strategy	Not required, unless conducted and deemed material by the filer
Executive compensation	Requires disclosure of executive compensation linked to climate-related issues	Requires disclosure of executive compensation linked to climate-related issues	Does not require disclosure of executive compensation linked to climate-related issues

PROBLEM

The climate transition is subjective and understanding it is expensive

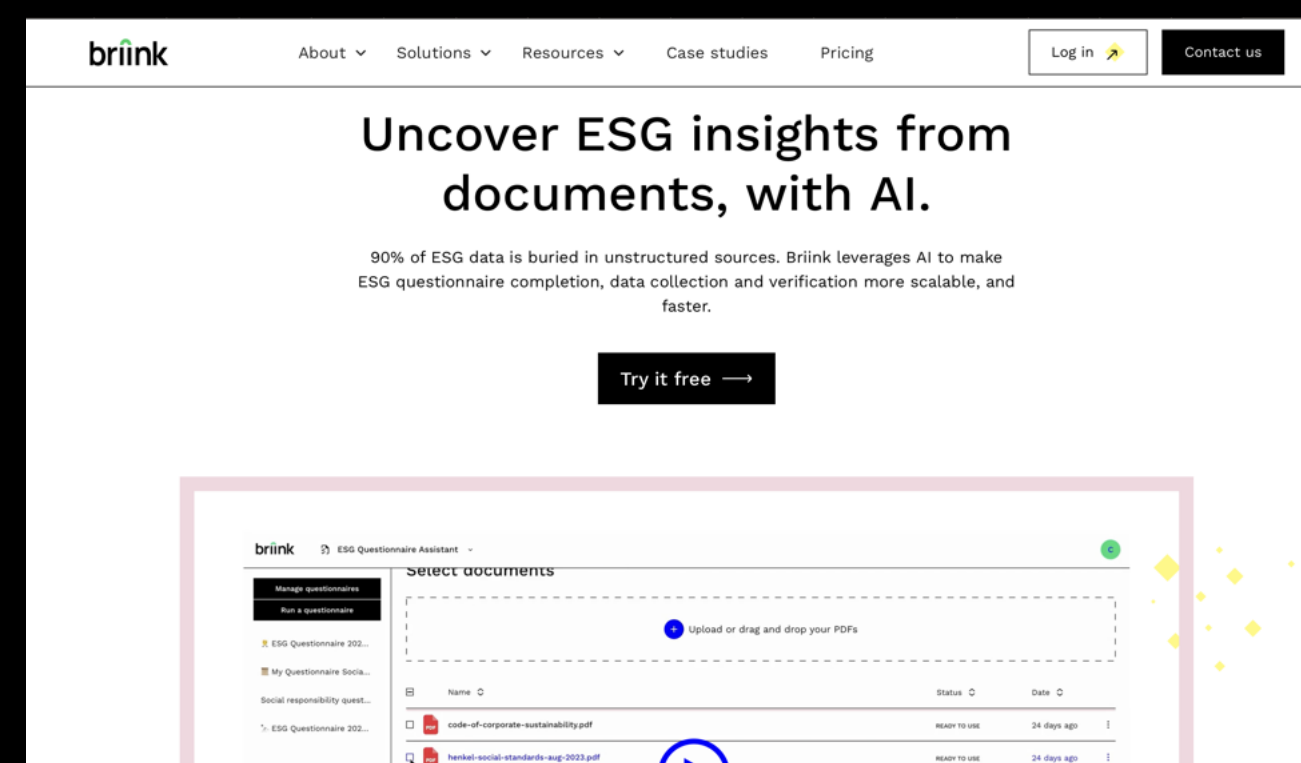
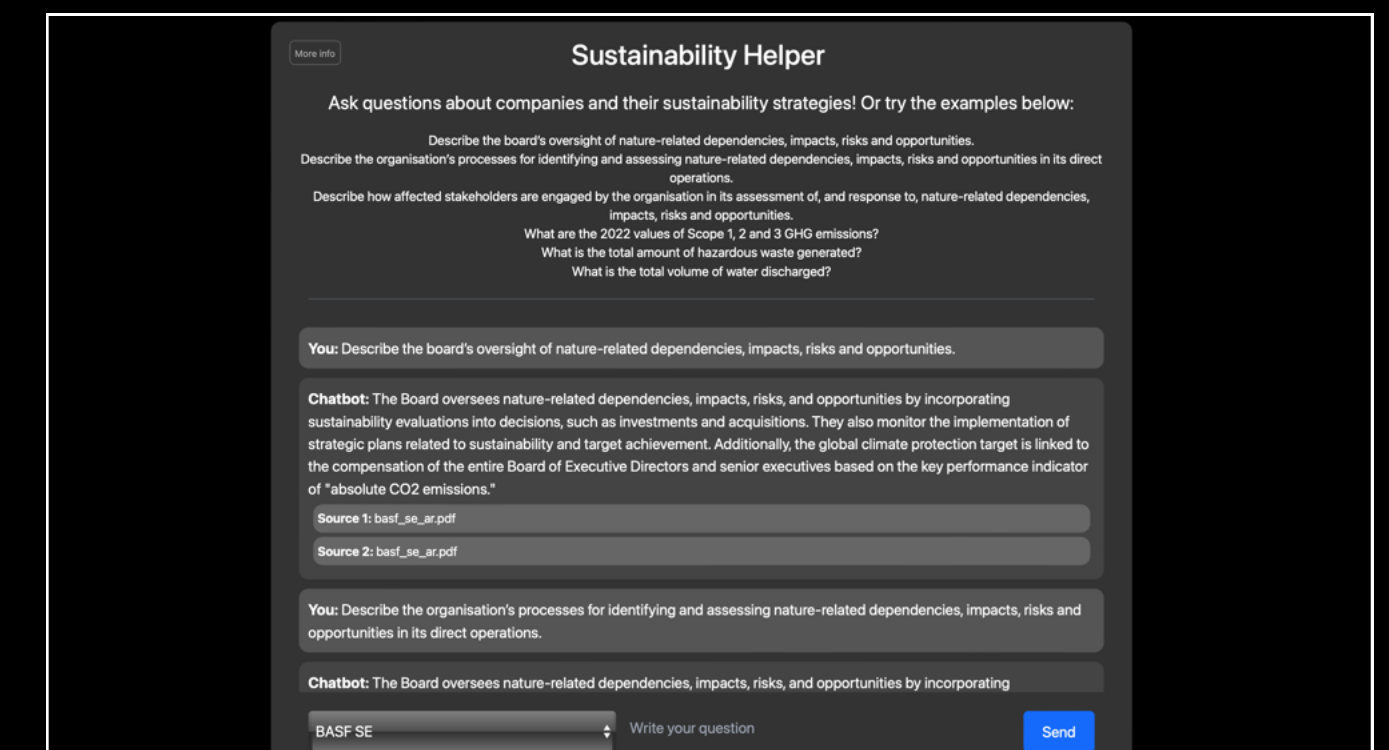
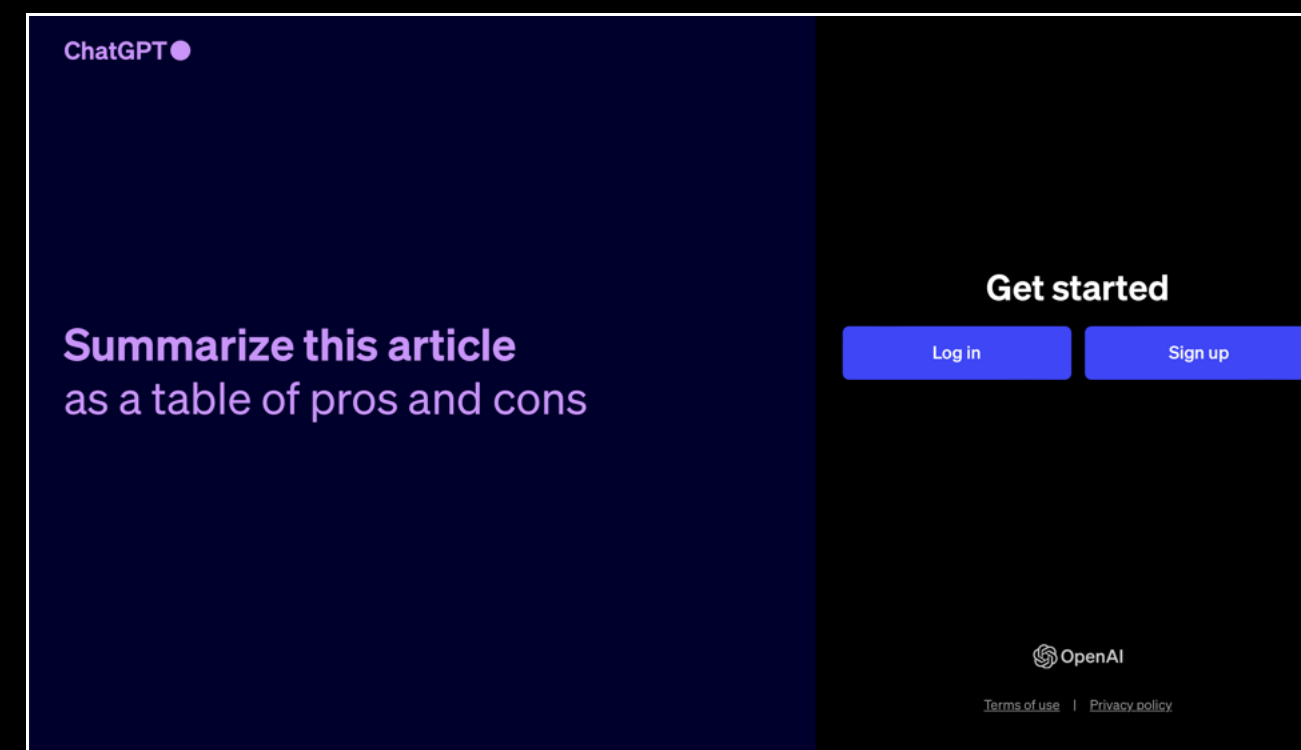
- With limited standardisation, investors have own preferences
- Reflect different views of how the climate transition will unfold
- Exist importantly for:
 - competitive advantage and revenue opportunities
 - to cater to different risk - return appetites
- Building products to match takes 100s of costly analyst hours



TECH

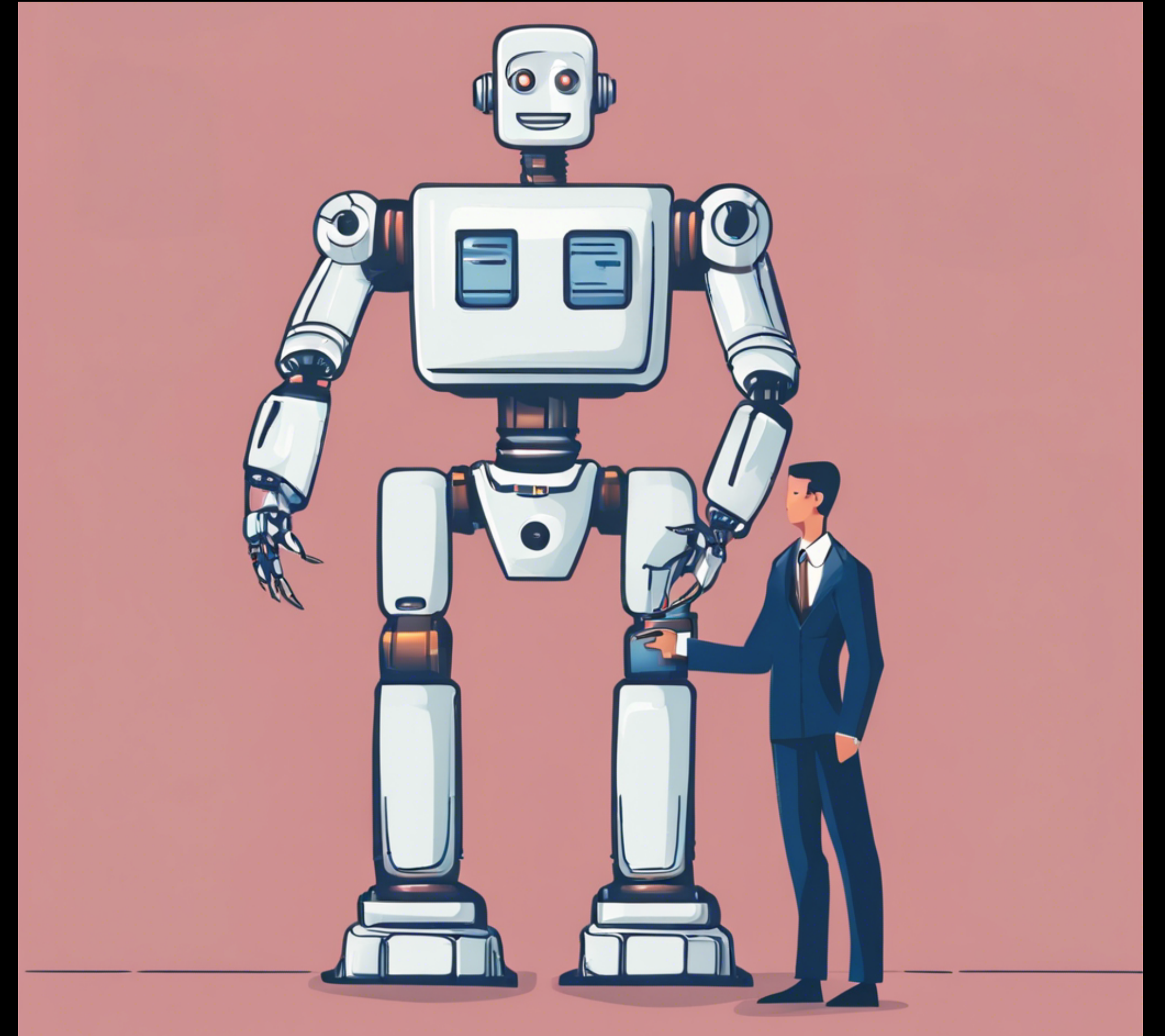
How can we use AI to help?

- Due to the recent advances in LLMs, we can now use AI to save time!
- First signs: the question-answering interface of ChatGPT
- Further evolution: PDF readers and document summarisation



TECH Challenges

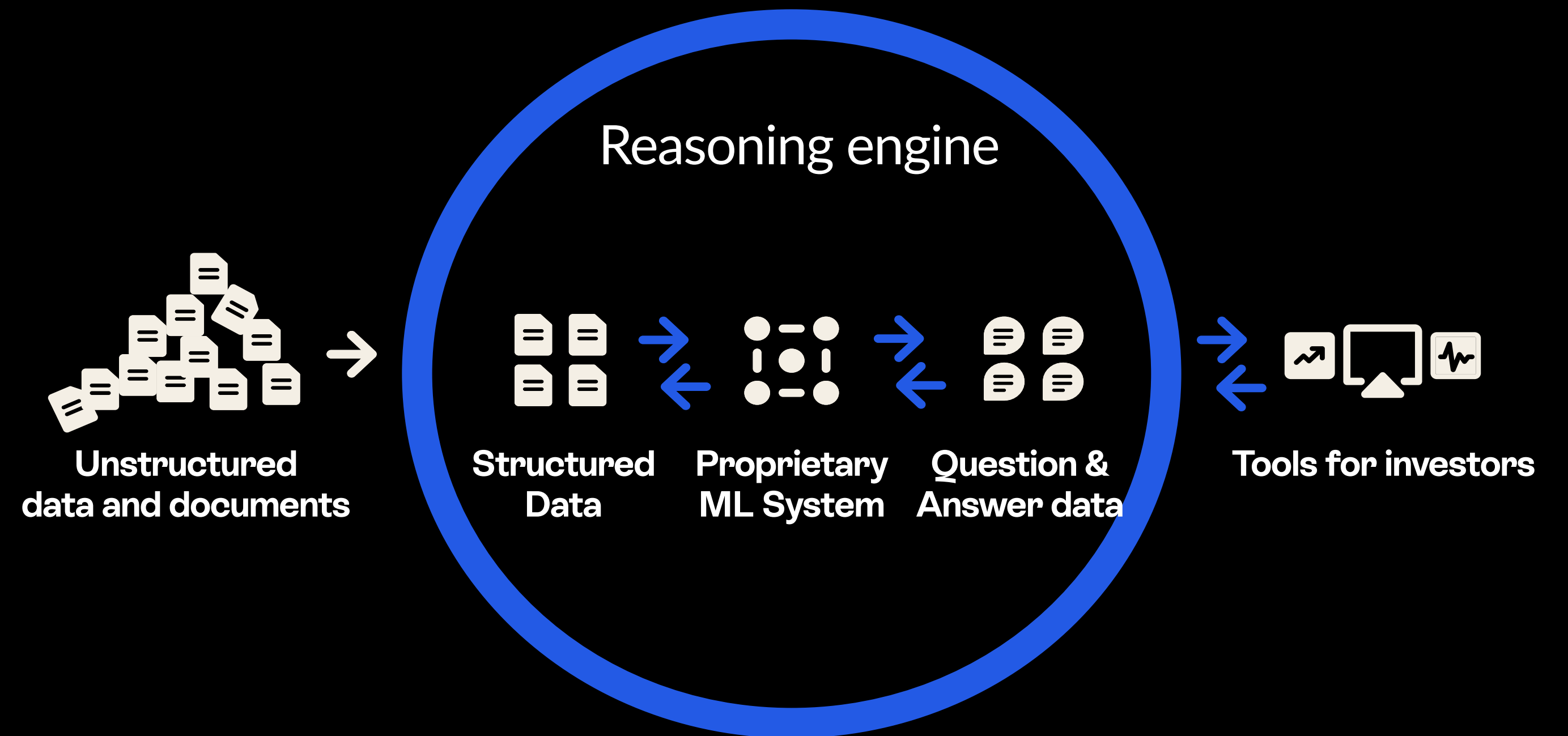
- Accuracy - how can I ensure the answers are correct?
- Auditability and transparency - where does the data come from? How do I know it's right?
- Customisation - how can capture my specific preferences (beyond summaries)?



WHAT COMES NEXT

From models to reasoning engines for workflow tools

- Ensure ability to overcome challenges
- Build trust
- Capture investors' needs and preferences



WHAT COMES NEXT

Example: Green bond assessment

The screenshot displays the Climate Aligned Green Bond Assessment interface. On the left is a navigation sidebar with sections for Home, Methodologies (Standard, CBI Green Bond Methodology, Private, Sample Custom Methodology), Data Explorer (Issuances, Entities), and Saved Assessments (Started: 1, Completed: 9, New Assessment: %K). The main content area is titled 'Nordic Investment Bank (NIB) (XS2548946560)' and shows a 'Completed' status. A central panel lists assessment categories: Energy (Solar and Wind, Geothermal Energy, Bioenergy, Hydro, Marine renewables, Transmission, distribution and storage), Buildings (Buildings and built environment), Transport (Private, public and freight land transport), Water (Water storage and management, Defences and storm water management, Water treatment, Nature Based Solutions), and Waste (Circular economy activities, Waste to Energy Incineration). The right panel provides a detailed view of the 'Nordic Investment Bank (NIB)' assessment, showing 29 Eligible, 3 Make Decision, 2 Needs Info, and 0 Ineligible projects. A list of eligible projects includes: Onshore photovoltaic and concentrated solar heat & power generation, Onshore wind power generation, Dedicated infrastructure, manufacturing (supply chain), storage and transmission for solar and/or wind energy, Geothermal facilities (with conditions: Direct emissions less than 100g CO2/kWh, Geothermal projects located in Turkey, New Zealand, US or Canada?), Facilities producing biofuel, biomass, biogas (with condition: Feedstock to be from industry by-products, waste or sustainable feed stocks), Facilities producing biofuel, biomass, biogas from wood industry by-products, i.e. waste wood (from certified sources as above) or compliant with EU RED II regulation, Facilities producing fuels for heating, cogeneration, and transport (with condition: Emissions less than 80% of fossil fuel equivalents), and Biofuel-based power generation facilities (with conditions: Emissions either < 80% fossil fuel equivalents or < 100g CO2e/kWh). A summary indicates that 86% of this section's projects are eligible.

WHAT COMES NEXT

New metrics, bigger markets

- More data coverage
- Securities to issuers: Unlock fixed income and public equity markets, sell-side use cases
- Comparison, gaps and benchmarking
- Discover new metrics and their implications for institutions

The screenshot displays a dashboard titled "Climate Aligned Autos_Peer_Group_x_Custom_FW2a" with a "Download Content" button. The dashboard features a table comparing ten car manufacturers (Ford, Volks., Toy., Stella., MercB., GM, Honda, Tesla, Nissan, BYD) across various ESG metrics. The metrics are grouped into four categories: Emission Reduction Targets, Transition to Electric and Sustainable Vehicles, Supply Chain Sustainability, and Renewable Energy and Energy Efficiency. Each cell in the table contains a green checkmark (✓), a red X (✗), a grey minus sign (−), or a green arrow (↑) indicating performance relative to a benchmark.

AMSD ESG Framework	Ford	Volks.	Toy.	Stella.	MercB.	GM	Honda	Tesla	Nissan	BYD
Emission Reduction Targets										
Has the company set clear and ambitious emissions reduction targets?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗
Are these targets aligned with the goals of the Paris Agreement?	✓	✗	✓	✓	✓	✓	✓	✓	✗	✗
Transition to Electric and Sustainable Vehicles:										
Is the company investing in the development and production of electric and alternative fuel vehicles?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Are they promoting sustainable vehicle design and manufacturing processes?	−	✗	✓	✓	✓	−	✓	✗	✓	−
Supply Chain Sustainability										
Does the company collaborate with suppliers to reduce emissions in the supply chain?	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗
Do they implement responsible sourcing practices for materials used in vehicle production?	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓
Renewable Energy and Energy Efficiency:										
Has the company shifted manufacturing facilities and operations to rely on renewable energy sources?	↑	↓	✓	✓	−	↑	−	↑	→	↑
Have they implemented energy-efficient technologies and practices in manufacturing and office facilities?	↑	✗	✗	✗	✗	✓	✗	✗	−	↑



THANK YOU

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